

*Bulletin of the*  
**UNIVERSITY OF MINNESOTA**



*College of Education 1956-1958*

## How to Use This Bulletin

This bulletin is divided into three major parts:

**Section I, General Information**—All students and prospective students should read this section carefully. It contains detailed information relating to the following topics:

- Courses of Study in the College of Education, page 4.
- Admission Requirements, page 5.
- Graduation Requirements, page 8.
- Procedures and Practices in the College of Education, page 10.
- Services Available to Students, page 12.
- College of Education Facilities and Services, page 13.
- Awards and Scholarships, page 14.
- Master of Education Degree Requirements, page 15.
- Graduate Study in Education, page 15.

**Section II, Curriculums** (pages 17-66)—This section contains the specific course requirements for the various fields of work offered in the College of Education. It also lists the major advisers for each field. Consult the Index on the last page of this bulletin for specific page references.

**Section III, Description of Courses** (pages 67-97)—This section lists the undergraduate and graduate courses offered in the College of Education. A summary description of each course is provided.

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All students and prospective students in the College of Education will need to refer to the *Bulletin of General Information*. Some students and prospective students will wish to refer also to the following bulletins:

- Bulletin of the College of Science, Literature, and the Arts*
- Bulletin of the College of Agriculture, Forestry, and Home Economics*
- Bulletin of the School of Nursing*
- Bulletin of the Graduate School*

All of these bulletins are available at the information booth in the Administration Building or may be obtained by writing to the Office of Admissions and Records, University of Minnesota, Minneapolis 14.

The days and hours when classes meet and the place of meeting are contained in the *Class Schedule* published just before the registration period each quarter.

**ROTC.** The attention of all new students is directed to the program of the Reserve Officers Training Corps. It is possible to earn a commission in one of the military services while completing the requirements for a degree in the College of Education. See the *Bulletin of the Army-Navy-Air Force ROTC*.

# UNIVERSITY OF MINNESOTA

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# College of Education

## Section I. General Information

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

### COURSES OF STUDY AND ADMISSION REQUIREMENTS\*\*

Students in certain fields enter the College of Education as freshmen. Others take 2 years of preprofessional work in another college and enter the College of Education as juniors. This bulletin contains entrance and graduation requirements for the various courses of study in the College of Education. Study these requirements carefully. Detailed information concerning general entrance requirements, as well as University admission procedures and estimated expenses, will be found in the *Bulletin of General Information*. This will be sent upon request to the dean of Admissions and Records, University of Minnesota.

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

- Elementary school teaching (including nursery school, kindergarten, and primary teaching)
- Art education
- Business and distributive education
- Industrial education
- Music education
- Physical education for men
- Physical education for women
- Recreation leadership and administration
- Rural education
- Teaching of exceptional children

**Two-year Programs in the College of Education Requiring 2 Years of College Preparation**—Students who wish

to prepare for teaching in high schools or other professional work in the following fields spend their freshman and sophomore years in the College of Science, Literature, and the Arts taking prescribed preparatory work and then enroll in the College of Education as juniors:

- The core curriculum
- English
- Geography
- German
- History
- Journalism (minor field only)
- Language arts
- Latin
- Library science (minor field only)
- Mathematics
- Natural science
- Physical science
- Political science
- Public health (minor field only)
- Romance languages
- Social studies (history, political science, geography, economics, sociology)

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\*\* Procedures to be followed in application for admission, as well as other procedures and practices in the College of Education, are described on pages 10-12.

Sociology  
Speech  
Speech pathology

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

**Program in Nursing Education**—The curriculum in nursing education is offered by the College of Education jointly with the School of Nursing. Nurses who have completed a basic professional nursing program in an accredited school of nursing may enter this program with advanced standing.

**Graduate Study in Education**—(see pages 15-16).

**Reserve Officers Training Corps**—Three reserve training programs are available to students in the College of Education as well as to students in other colleges of the University. The programs in military science and tactics, air science, and naval science lead to commissions in the reserve components of the Army, Air Force, and Navy, respectively. Credits earned in these programs may be applied as electives toward graduation. Interested students should arrange to enter the ROTC program at the beginning of the freshman year. See *Bulletin of the Army-Navy-Air Force ROTC*.

**General Admission Requirements in the College of Education** (see page 10) for a description of admission procedures.)

1. Admission to the College of Education is granted on the basis of academic standards and an appraisal of other factors related to teaching fitness. Continuation in teacher education is subject to a review of qualifications before entrance to the junior year, before entrance to practice teaching, and at other points in the training that may be necessary in individual cases.

2. At the time of entrance to the College, whether as a freshman or as a student with advanced standing, the stu-

dent must present a certificate from the Students' Health Service indicating that he has no physical defects or health conditions that would prevent successful pursuit of educational work.

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

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

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

4. Students who intend to enter the College of Education as juniors after 2 years of preprofessional study in the College of Science, Literature, and the Arts must meet the freshman entrance requirements of the latter college. (See *Bulletin of the College of Science, Literature, and the Arts*.)

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

**Admission Requirements for Specific Programs in Education**—Specific admission requirements have been established for certain courses of study in the College. The student who plans to enter the College should read carefully the requirements for the course of his choice. (See Section II of this bulletin, pages 17-66.)

**Admission to the 4-year Curricula**—Students ordinarily are admitted to the 4-year curriculums in education directly from high school although students who have completed some college work may seek to enter one of the 4-year curriculums. Some college credits earned before admission to the College of Education may be accepted toward completion of the required work if they have been in courses equivalent to those prescribed by the College; others may be counted as elective credits. (See 3b above.)

**Requirements for Students with 2 Years of Work at the University of Minnesota**—Students who have taken 2 years of work in the College of Science, Literature, and the Arts and are preparing to teach academic subjects (other than speech pathology) in high school may be admitted to the College of Education upon satisfaction of the following requirements:

1. A minimum of 90 quarter credits, carried with an average of 1 honor point per credit (C average), is necessary for admission to the College.

2. A minimum of 15 credits in a major field carried with an average of 1½ honor points per credit (C+ average), and at least 10 credits in a minor field are necessary for admission. In the case of those individuals taking broad field majors, the minors may be in subdivisions of the broad field major.

3. Students must have completed Psy. 1 and 2, General Psychology, 6 credits; Pub.H. 3A (or G.C. 10C), Personal Health, and Pub.H. 4, Health Problems of the Community, or both requirements may be met by taking Pub.H. 50, Public and Personal Health, 3 credits; physical education: 3 credits for men, 5 for women, selected from the nonprofessional physical education courses.

In addition, students must fulfill the requirements of one of the following plans:

#### Plan I

**a. English or Communication.** Engl. A-B-C (Freshman English, 15 credits) or Comp. 4-5-6 (Freshman Composition, 9 credits) or Comm. 1-2-3 (12 credits) or exemption from the requirement.

**b. Foreign Language.** From 0-20 credits, according to the following schedule:\*\*

Amount Presented from High School	Amount Required in College
4 yrs. of 1 language	None
3 yrs. of 1 language	5 cred. in same language
2 yrs. of 1 language	10 cred. in same language
1 yr. of 1 language	15 cred. in same language
Less than 1 yr. of 1 language	20 cred. in 1 language

**c. Social Science.** Ten credits\*\* in one of the social sciences: anthropology, economics,†† geography, history, political science, sociology; or 12 credits in S.Sci. 1-2-3, Introduction to Social Science.

**d. Natural Science.** Ten credits\*\* in one of the natural sciences: astronomy, botany (laboratory required), chemistry, geology (laboratory required), zoology, or the general studies course in General Biology (N.Sci. 7-8-9) or the Physical World (N.Sci. 4-5-6); or 15 credits in N.Sci. 1-2-3 (Orientation in the Natural Sciences).

#### Plan II

**a. English or Communication.** Engl. A-B-C (Freshman English, composition portion, 6 credits) or Comp. 4-5-6 (Freshman Composition, 9 credits) or Comm. 1-2-3 (12 credits) or exemption from the requirement.

**b. Social Science.** Eighteen credits selected from at least 2 of the following social science fields, with at least a sequence of 9 or 10 credits in an area other than psychology: anthropology, economics,†† geography, history, political science, psychology, sociology, or S.Sci. 1-2-3, Introduction to Social Science.

**c. Natural Science.** Eighteen credits selected from at least 2 of the following 5 fields, with at least 1 sequence of 9 or 10 credits of laboratory science other than psychology and mathematics:

- (1) Biological Science: botany, zoology, N.Sci. 7-8-9, General Biology
- (2) Mathematics: any course above Math. 1
- (3) Natural Science: N.Sci. 1-2-3, Orientation in the Natural Sciences
- (4) Physical Science: astronomy, chemistry, geology (laboratory required), N.Sci. 4-5-6, The Physical World
- (5) Psychology

\*\* Any year-course of 9 credits (6 semester credits) may be substituted for the corresponding 10-credit course here.

†† Econ. 24-25-26, 27, 32, 33, 34, 36, 37-38-39, 40-41, and 43 may not be used to satisfy the social science requirement.

**d. Humanities.** Eighteen credits selected from at least 2 of the following 8 fields:

- (1) Art, music
- (2) Foreign language and literature: any course in Classics, German, Japanese, Linguistics, Romance Languages, Russian, Scandinavian
- (3) History
- (4) Humanities: Hum. 1-2-3; Hum. 11-12-13; Hum. 21-22-23
- (5) Literature: Engl. A-B-C (Freshman English, literature portion, 9 credits); American literature; English literature
- (6) Mathematics: any course above Math. 1
- (7) Philosophy
- (8) Speech

Three departments—history, mathematics, and psychology—are listed in 2 groups; but work in 1 of these departments can be used in satisfying 1 group requirement.

4. Students with 2 years of college work who lack certain entrance requirements may be considered individually. If such a student is admitted, certain deficiencies may be made up after enrollment, and in other cases adjustments may be possible after consultation with the chairman of the Committee on Student Scholastic Standing.

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

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

Requirements which pertain to speech pathology are listed in the curricular description on page 64 of this bulletin.

**Students from Colleges Outside the University**—Students who transfer from other colleges with advanced standing but with less than 2 years of work and who are preparing for high school teaching will be expected to complete the freshman and sophomore requirements in the College of Science, Literature, and the Arts.

Students who have completed 2 full years of college work but lack the re-

quired number of credits or specific entrance requirements, such as language, science, or psychology, may register in the College of Education and make up deficiencies after admission. Such deficiencies, however, may delay graduation or necessitate extra summer work.

**Students with 3 or More Years of College Work**—Students may transfer a maximum of 141 credits to the College of Education. Those who have completed 3 or more years of college, including those who already hold the B.A. or B.S. degree, may enter the College of Education for work toward a degree and a teacher's certificate. Such students cannot complete the required work for a degree and secondary school certificate in 1 year. The necessary sequence of professional courses requires 5 quarters in this College, 3 of which must be taken in the senior year. These courses are not available in the Summer Session. Transfer students who enter at the beginning of the winter quarter can complete their work in the winter and spring quarters of the junior year and the 3 quarters of the senior year provided they meet other requirements in that time.

**Students from Schools of Nursing**—Students who specialize in nursing education or a combined program in nursing education and public health nursing register in the College of Education. For a detailed statement of the program see the curriculums in nursing education and public health nursing.

**Students from Teachers Colleges**—Individuals who graduated from a 2-year certificate course of the Minnesota state teachers colleges and other accredited teacher training institutions prior to March, 1952, are admitted to the College of Education with 90 "blanket credits." These credits are accepted in lieu of the Junior College requirements listed on pages 5 and 6, but a student in a specialized field will be held for all the work of his curriculum. Individuals who have completed work for the provisional elementary certificate since March, 1952, will have their previous work evaluated course by course rather than in blanket credits.

Students who transfer from the third or fourth year of the degree course offered in the Minnesota teachers colleges will receive credit for any part

of their work in so far as such work is equivalent to courses offered in the College of Education (see Residence Requirement).

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

they must be admitted as regular students.

Graduates of state teachers colleges will not be permitted to take for credit the courses in Freshman English (Comm. 1-2-3, Comp. 4-5-6, or Engl. A-B-C), or Psy. 1-2, General Psychology. Graduates of state teachers colleges should not take Ed. 75A-B without special permission.

## GRADUATION REQUIREMENTS

Students who complete the following requirements graduate from the College of Education with the bachelor of science degree and receive the appropriate Minnesota teaching certificate.

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

Students registered in 4-year programs must have an honor point average of 1.0 in all work of the freshman and sophomore years to be admitted to the work of the junior year, and an honor point average of 1.5 (C+) in the major.

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

**Professional Requirements for Students Entering the 4-Year Programs in the College of Education**—The requirements for these programs are outlined in the descriptions of the specific curriculums in Section II of this bulletin.

**Professional Requirements for Students Entering the College of Education in the Junior Year and Enrolling in the 2-Year Programs for Teachers of Secondary School Subjects**—The fol-

lowing requirements are for students with 2 years of college preparation who are enrolled in the 2-year College of Education curriculums for teachers of secondary school subjects.

University students who wish to qualify for the Minnesota state high school standard certificate in secondary school subjects must be graduates of the College of Education. To qualify for the degree and the certificate, students will meet the following requirements:††

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

2. One or more minors in academic or special fields except in the case of individuals choosing one of the broad fields of specialization, who need not complete a minor outside of their field. Majors and minors must be selected from the subjects commonly taught in high schools, except that a second minor may be presented in Military Science and Tactics, Naval Science, or Air Science. Students should select majors and minors early in their college course and with regard to the demands of high schools. By careful selection of courses students may complete two or more minors, thus qualifying them to teach in several different fields. Major and minor requirements in each

\*\* In some specialized curriculums the number of credits required is more than 186. The student should read carefully the credit requirements of the curriculum in which he is interested. (See Section II, pages 17-86 of this bulletin.)

†† 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.



field are described in Section II of this bulletin.

3. Professional courses (in the College of Education) totaling not less than 29 credits.

a. Required course—Ed. 55A-B, Introduction to Secondary School Teaching (10 cred.; prereq. Psy. 1-2).

b. Methods and student teaching. The student must complete a course in methods and teaching in his major field (11 cred.; prereq. Ed. 55A-B). This course includes general methods, special methods, and student teaching. (See page 11 for specific procedures.)

c. History and philosophy of education. Satisfactory completion of H.Ed. 180. The School and Society, is included in the professional requirements for graduation.

d. Education electives. To complete the professional requirements of at least 29 quarter credits for the degree and the teacher's certificate the candidate will elect additional credits in conference with a faculty adviser. The following courses count as electives in education for students preparing for high school teaching: any course listed under General Courses or Secondary Education in the Departments of Curriculum and Instruction, Educational Administration, Educational Psychology, and History and Philosophy of Education; a methods course in the minor. All of these courses are described in Section III, Description of Courses.

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

1. Pub.H. 3A, Personal Health, 2 credits; G.C. 10C, Human Biology, 3 credits; Pub.H. 50, Personal and Community Health, 3 credits—this course meets the requirements for both 1 and 2.

2. Pub.H. 4, Health Problems of the Community, 2 credits; Pub.H. 50, Personal and Community Health, 3 credits—this course meets the requirements for both 1 and 2; Pub.H. 51, Community Hygiene, 3 credits.

3. Pub.H. 59, Health of the School Child, 3 credits (Pub.H. 57, Health of the Infant and Preschool Child in certain curriculums).

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

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

The required courses in education are arranged in a *sequence* for the junior and senior years and cannot be completed in less time. As a rule, these courses are taught in only 1 quarter each year and must be taken in regular sequence, beginning in the fall quarter. Students who do not enter the College of Education in the fall of the junior year usually are not able to complete the requirements of their curriculums in 2 years.

**Degrees and Honors**—Students who graduate from the College of Education receive the degree of bachelor of science. Those with outstanding grade records, at least a B average in student teaching, and a minimum of 45 credits completed in residence before the final quarter of the senior year will be considered for graduation with distinction or high distinction. These honors are not automatic, but are conferred upon favorable recommendation by the faculty. Application by the student is not necessary. Anyone entering the College of Education with a previously earned Bachelor's degree is not eligible for graduation with honors since these awards apply only to students whose first 4-year degree will be received from this College.

Students graduating from one of the 5-year curriculums in the College of Education receive the master of education degree.

## PROCEDURES AND PRACTICES IN THE COLLEGE OF EDUCATION

Procedures for the most efficient use of college facilities are described generally in the following paragraphs; more detailed information and help on specific points may be secured at the information desk of the Personnel Office in 206 Burton Hall.

**Admission Procedures**—There is a different admission procedure for each of three principal groups of students entering the College of Education: (a) those without previous college training, (b) those transferring from another division of the University, and (c) those transferring from another collegiate institution.

1. Students without previous college training apply for admission as freshmen. They are referred to the *Bulletin of General Information* and are expected to follow the same procedure as applicants for other colleges in the University. New students are expected to attend the orientation-registration period, for which the University will send full instruction. This is the official time for the registration of new students.

2. Students applying for transfer to the College of Education from other divisions of the University should apply at Window 5 of the Office of Admissions and Records, where they will receive printed instructions.

3. Students applying for transfer from other collegiate institutions should write to the Office of Admissions and Records for application materials and have a transcript of previous college credits sent to the dean of Admissions and Records by the former college. Students will be notified of acceptance and receive further instructions by mail.

4. Persons of adult age and experience who desire to take specific courses in the College but are not candidates for a degree should apply at the Office of Admissions and Records for admission forms in the "adult special" status. An adult special student who wishes to become a candidate for a degree must complete the regular college admission procedure. This admission procedure should be completed as soon as the student decides to work for a degree and in no case later than the beginning of the senior year.

**Examinations for Advanced Standing Credit**—If you believe yourself suffi-

ciently prepared in some subjects to pass examinations in them upon entrance you may, with the approval of the Scholastic Committee, take such examinations without charge. Apply to the chairman in 206 Burton Hall within the first 6 weeks of residence.

**Registration Procedures**—Dates for registration in the College and the specific procedures to be followed are published each quarter in the *Official Daily Bulletin* contained in the *Minnesota Daily*. Students registering in the College of Education for the first time should present their admission certificates and obtain registration materials and instructions at the Office of Admissions and Records.

**Change of Registration**—The student who finds it necessary to change his program should obtain a change of registration form ("cancel-add slip") at the information desk in 206 Burton Hall. The student may add a course or change to a different course during the first week of the quarter. Prior to the end of the sixth week in a quarter the student may cancel registration in any course. After the sixth week, cancellation of a course in which the student is failing will result in a grade of F in the course. Cancel-add slips must be signed by the major adviser or a member of the Committee on Student Scholastic Standing.

**Change of Major**—The student who wishes to change his major should see a counselor in the Student Personnel Office, 206 Burton Hall.

**Clearance for Admission to the Junior Year**—Students who have been enrolled in the College of Education in the sophomore year obtain a clearance form at the information desk, 206 Burton Hall, during the spring quarter of the sophomore year and complete the required physical examination and psychological and speech tests according to printed instructions.

**Examination for Credit**—Credit for material mastered outside of class may

be obtained by special examination. A student who believes that he is as well informed in a particular subject as the students successfully completing the course should apply to the Scholastic Committee for a special examination. If the request is approved, the committee will appoint a special faculty committee to administer the examination. The fee for such examination is \$5.

**Application for a Degree**—The student should file an application for a degree at the information window, Office of Admissions and Records, during the spring quarter of the junior year, or 1 full year before he expects to graduate.

**Senior Balance Sheet**—The senior balance sheet is mailed to the student by the Office of Admissions and Records after application for a degree. It lists the required number of courses the student has completed, his total number of earned credits, his honor point ratio, and deficiencies that must be removed before the student may graduate. It is to be used by the student and his adviser in planning the remainder of his program.

**Senior Physical Examination**—It is the responsibility of the student to make an appointment at the University Students' Health Service and take the physical examination within 1 year of the date the degree is to be granted.

**Application and Registration for Student Teaching**—Students obtain applications for student teaching and instructions at the registration desk, 206 Burton Hall, during the first 3 weeks of spring quarter for beginning student teaching in the fall; and during advanced registration periods for winter and spring quarters; that is, in the quarter preceding that in which they expect to have a student teaching assignment. Applications must be filed with the director of laboratory experiences in 210 Burton promptly in accordance with the schedules posted.

Student teaching is required for 2 or 3 quarters depending upon the major field. Students should consult their major advisers to determine this program in their major field, and the time at which they should begin it. In some departments, students may enter student teaching without reference to a regular sequence, whereas in the academic fields it is necessary that the student enter student teaching and spe-

cial methods classes in the fall quarter and continue in sequence through winter and spring quarters.

Students in agricultural education, home economics education, and nursing education consult advisers in the major departments to arrange their student teaching.

Students not enrolled in the University during spring quarter who wish to begin student teaching in the fall should apply to the director of laboratory experiences before June 1. Only limited student teaching is offered in the first term of Summer Session, and *new* applicants must file for this before June 1.

Assignment to a classroom place for student teaching is subject to the approval of the director of laboratory experiences, and involves the following "clearances": (a) completion of a satisfactory pattern of courses in the major field, and the recommendation of the major adviser; (b) completion of Ed. 55A-B for secondary education or Ed. 75A-B for elementary education, and the recommendation of the laboratory instructor; (c) a C+ average (1.5 honor points per credit) in the major, except in elementary education, where a C average (1.0) in all work taken is required; (d) completion of the College of Education psychological test battery given at the junior-year level; (e) satisfactory report from the Students' Health Service on the physical examination required of all students for entrance to the junior year and of students who enter the College with advanced standing; (f) satisfactory rating on the Speech and Hearing Clinic tests included in the requirements for junior standing.

A student may be required to cancel his registration in student teaching if he fails to meet the requirements or if his work is unsatisfactory.

**Unsatisfactory Work**—Any student who is not making satisfactory progress in the curriculum in which he is registered may be placed on probation for 1 quarter by the Committee on Student Scholastic Standing. Unsatisfactory work in the College of Education is defined as follows:

1. Grades of D or F in 50 per cent of the work taken in any 1 quarter. (Grades of F, together with the number of credits represented by them, are included in the computation of the Honor Point Ratio.)

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

Students who fail to make satisfactory grades in their work after being on probation for 1 quarter are in danger of being dropped.

A student who is required to cancel his registration in student teaching during the second or third quarter may be allowed to graduate provided all other requirements have been met; however, he will not be eligible for a teacher's certificate which is issued by the Minnesota State Department of Education.

**Teacher Certification**—At the time of registration for the final quarter in the College of Education, the senior student is expected to apply for the teacher's certificate. He obtains the application form in 206 Burton Hall, attaches a check or money order for the \$1 certification fee (payable to Treasurer, State of Minnesota) and leaves the application and check at the Education window in the Administration Building. All other details are handled by the University and the qualified graduate receives the appropriate certificate to teach in the area of his preparation in the public schools of Minnesota. Students in nursing education do not apply for the teacher's certificate.

**Placement Records**—Seniors should obtain forms for placement credentials

at the Bureau of Recommendations, 102 Burton Hall, or at the placement meeting held for seniors in the fall quarter. These records should be completed and filed with the Bureau of Recommendations at least 2 quarters prior to graduation. Registration for the last quarter of the senior year will not be permitted unless the student has filed Bureau of Recommendations placement forms. For further information, go to 102 Burton Hall. Students in nursing education should file credentials with the American Nurses' Association Professional Counseling and Placement Service during the final quarter of the program. The School of Nursing will send recommendations and a transcript of the student record as soon as all requirements for graduation are met.

**Education Courses in the General Extension Division**—For evening and correspondence study courses in education see the *Bulletin of Evening and Special Classes* and the *Bulletin of Correspondence Study*. Teachers and others not regularly enrolled in the College of Education who take these courses may later apply the credits earned in certain of them toward a degree if they become regular students in the College. Students regularly enrolled in the College of Education must file a petition with the Committee on Student Scholastic Standing for permission to take, for credit, courses offered by the General Extension Division.

## SERVICES AVAILABLE TO STUDENTS

Preparation of teachers for professional service involves a broad range of student experiences, observation, guidance, certification, placement, and other factors. This section describes briefly the services in these areas available to students in the College of Education.

**Information**—The central information desk in 206 Burton Hall is a "first stop" for any student seeking direction or information.

**Student Personnel Office**—Students in the College who find that they need special information and experienced help in making a choice of professional goals, or in meeting more personal problems, have available to them trained counselors and special facilities of the Personnel Office. These services are available also to students not in the College of Education who are consider-

ing a career in teaching. Appointments may be made in 206 Burton Hall.

In addition to the personnel services available in this College, the student is invited to use the specialized services provided for all University students through the Office of the Dean of Students in Eddy Hall.

**Faculty Advisers**—Each student has as an adviser a member of the faculty who teaches in his major field. The adviser counsels the student concerning preparation in his major field, helps the student register each quarter, and

serves as a general adviser on academic problems. At the time of admission to the College, the student should learn who his major adviser is from the counselor in the Student Personnel Office.

**Committee on Student Scholastic Standing**—A student who encounters difficulties in adjusting his program to his individual needs or background should seek the assistance of the Committee on Student Scholastic Standing in 206 Burton Hall.

**Orientation - Registration Program**—An orientation program for all new students is offered by the University shortly before the opening of each quarter. Students are expected to attend to complete first registration and to explore opportunities available to University students. To find answers to preliminary questions the new student is urged to read *The Moccasin* (new students' handbook) before arriving on campus.

**Student Activities Office**—The several student organizations in the College of Education maintain a joint office in 102 Shevlin Hall. Students interested in joining any education organizations or desirous of information about them should call at this office.

**Teacher Placement Service**—The College of Education provides placement service for its qualified students and graduates, helping them to secure the kinds of positions they desire. All graduating seniors on the Minneapolis Campus register and file credentials with the Bureau of Recommendations, 102 Burton Hall, during the fall quarter of the senior year. Majors in home economics education and agricultural education register with their respective departments. The fee, \$5.50, entitles the student to placement service for the annual period ending October 1. (See Bureau of Recommendations below.)

## COLLEGE OF EDUCATION FACILITIES AND SERVICES

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

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

1. University High School is a 6-year secondary school maintained on the Minneapolis Campus to provide opportunity for observation, demonstration, experimentation, and research in secondary education.

2. The Child Welfare Institute and the University Elementary School provide similar facilities in nursery school, kindergarten, and the elementary grades.

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

**Bureau of Recommendations**—Providing the necessary link between graduates of the College of Education and employment opportunities in the

various teaching fields is the Bureau of Recommendations. This is the only place on the campus where complete descriptions of teaching ability and personal fitness of College of Education graduates can be assembled. These records are never destroyed and will be sent to prospective employers on request of the teacher or employer. Registration with the Bureau of Recommendations is required of all College of Education graduates except those in nursing education.

Frequent uses of the Bureau's records are: (a) for placement in teaching and other school positions; (b) for shifts of position by experienced teachers seeking promotion; (c) for securing summer employment; (d) in connection with applications for appointment as exchange teachers or for overseas teaching during leaves of absence; (e) for part- or full-time employment in subsequent years by those who do not at first expect to teach; (f) for replying to inquiries of employers in fields other than teaching; and (g) for placement of graduate students in college positions in all fields.

**Bureau of Educational Research**—Established by the College of Education as a central agency for investigating teaching and curriculum problems, the Bureau serves five major purposes: (a) to facilitate research and field studies by members of the college faculty; (b) to contribute to the profession as a whole through study of fundamental and persistent problems in education; (c) to provide Minnesota educators a central office to which significant educational problems may be referred; (d) to provide graduate students apprentice training in techniques and execution of research; and (e) to co-operate in the study of educational problems with other recognized state and national agencies. Bureau offices are in 211 Burton Hall.

**Curriculum Laboratory**—To facilitate research and developmental study in the area of school curriculum, the College of Education maintains the Curriculum Laboratory. With quarters and an extensive library on the seminar floor of the University Library, the facilities and staff of the Laboratory are available to students at the University and to all teachers and schools in the state.

**Psycho-Educational Clinic**—The Psycho-Educational Clinic, with offices and clinical quarters in Pattee Hall, serves three principal purposes: (a) to train teachers and school specialists in diagnosis and remediation of special problems of children; (b) to encourage and conduct research in child development; and (c) to provide special assistance for children who have educational problems due to academic, physical, mental, or emotional handicaps. Although the facilities of the Clinic are

used regularly for observation by teachers-in-service and students in various education classes, the main work of the center is clinical diagnosis of the problems of individual children and recommendation of remedial procedures. The Clinic is in large measure a self-sustaining service center, operated for the benefit of Minnesota parents, teachers, and children. Teachers and parents concerned with obtaining diagnostic and remedial help for particular children apply to the director of the center for appointments.

**Bureau of Field Studies and Surveys** The Bureau of Field Studies and Surveys is maintained by the College for research and service in school problems of instruction, administration, finance, and physical plant. Essentially a service division operated for the benefit of the schools of Minnesota, the technical staff of the Bureau co-operates with local school districts in solving numerous administrative and instructional problems. The offices of the director of the Bureau and of the technical staff are in 200-A Burton Hall.

**Publications**—In addition to the numerous publications issued privately by its faculty members, the College of Education sponsors two series of monograph publications. These series, entitled *Modern School Practices* and *Studies in Education*, distributed by the University of Minnesota Press, include research monographs on curriculum development, psychology of learning, methods of instruction, guidance, and studies in other areas of education. Several new titles representing part of the research effort of the college faculty are added to the series each year.

## AWARDS AND SCHOLARSHIPS

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

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

**Bertha Weiskopf Memorial Scholarship**—A scholarship of \$100 awarded annually to the student in the College

of education with the highest scholarship and competence in the field of intercultural education who is planning to teach or to do graduate work in that special field.

Students may secure information about these scholarships from the office of the dean of the College of Education, 204 Burton Hall. In addition many all-University scholarships and awards are open to students in the College of Education. Inquiry concerning them should be made at the Bureau of Student Loans and Scholarships, 201 Eddy Hall.

## MASTER OF EDUCATION DEGREE REQUIREMENTS

The professional degree, master of education (M.Ed.), is granted to students who satisfactorily complete prescribed 5-year programs. Although students ordinarily register in these curriculums at the beginning of the freshman year, students who have already earned a Bachelor's degree in one of these fields may qualify for the master of education degree by completing all the requirements of the fifth year, provided that their undergraduate training in the major is equivalent to that required in the College of Education.

The general requirements for this degree include: (a) 90 quarter credits in academic fields; (b) a teaching minor in an academic field; (c) a broad major field specialization, usually about 90 quarter credits; and (d) advanced professional training, including 1 quarter of internship under a master teacher. Forty-five credits be-

yond the Bachelor's degree must be earned, and the total number of credits earned in the College must include at least 45 earned in courses numbered above 100. In the course work of the fifth year a B average (2 honor points per credit) is required, as are final written and oral comprehensive examinations and demonstration of teaching competence. A health examination must be taken within 1 year of the date the degree is to be granted.

Because teacher-certification requirements are being raised, with many states and cities requiring a Master's degree for supervisory or special work and for high school teaching, students are urged to take advantage of the 5-year programs whenever possible.

For the requirements for the program in nursing education see pages 45-48.

## GRADUATE STUDY IN EDUCATION

Graduate study in education, leading to the master of arts and the doctor of philosophy degrees, may be pursued in the Graduate School. Application for admission for an M.A. or Ph.D. program must be made to the Graduate School office. Graduate courses may be taken during the regular academic year and during the Summer Session. Students holding the Bachelor's degree, attending summers only, may ordinarily complete the work for the Master's degree in 3 or 4 full Summer Sessions.

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

**Prerequisites for Graduate Work in Education**—Students who intend to pursue graduate study in education should make sure that their undergraduate programs include a minimum of 6 quarter credits in psychology, plus an additional total of not less than 18 quarter credits of undergraduate work in education, including Ed. 55A-B or Ed. 75A-B or the equivalent.

**Language Requirements**—Candidates for the Master's degree with a major in any field of education are exempt from the foreign language requirement. Candidates for the Doctor's degree in education may elect to (a) demonstrate reading proficiency in 2 foreign languages related to the professional literature in their fields, or (b) demonstrate reading proficiency in 1 foreign language and substitute for

the second language an approved program of study in a field outside of education that is related to their major interest. Consult the *Bulletin of the Graduate School* for specific requirements.

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

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

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

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

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

- Education
- Educational administration
- Educational psychology

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

**Graduate Courses and Curriculums in Education**—Certain curriculums in the College of Education, such as educational administration, are offered only at the graduate level. Education courses that carry graduate credit are to be found in the general list of course descriptions on pages 67-97. Graduate credit may be earned in courses with numbers above 99.

**Specialist in Education Certificate**—In addition to the degree programs in the Graduate School, a 2-year graduate program for school superintendents leads to the certificate, Specialist in Education. In the first year, the student follows the M.A. program in educational administration, designed for prospective school superintendents. The second year's study includes seminars, advanced courses, and field work. For further information see the *Bulletin of the Graduate School* and inquire at the office of the dean, College of Education.



## Section II. Curriculums

### AGRICULTURAL EDUCATION

Major adviser: Professor Peterson

This curriculum, offered jointly with the College of Agriculture, Forestry, and Home Economics, is designed for students who plan to teach agriculture in the secondary schools and communities of Minnesota. It is also adapted to the needs of agricultural extension workers and others preparing to work in rural areas. It provides broad training in technical agriculture and permits emphasis upon such fields as dairying, agronomy, agricultural economics, horticulture, animal husbandry, and mechanized farming. In addition, it offers the special training in education needed to qualify students for certification as agriculture instructors in public high schools.

#### General Requirements

During the first 2 years the student completes required work in the agricultural education curriculum or the equivalent in other agricultural curriculums. In his junior and senior years he completes a combined curriculum of the College of Education and the College of Agriculture, Forestry, and Home Economics, leading to a bachelor of science degree.

For all-college requirements of the College of Agriculture, Forestry, and Home Economics, students interested in agricultural education should see the *Bulletin of the College of Agriculture, Forestry, and Home Econom-*

#### Distribution of Courses for Students Majoring in Agricultural Education

Department	Minimum required credits	Specified courses	Courses recommended to complete requirements
Agricultural Biochemistry .....	.....	.....	1
Agricultural Economics .....	14	1, 2, 102, 103	40, 80
Agricultural Education .....	27	1, 54, 56, 81, 82, 91, 104, 106	
Agricultural Engineering .....	15	40, 41	7, 12, 13, 55, 60, 67
Agricultural Journalism .....	.....	.....	53
Agronomy and Plant Genetics ....	9	1,** 31	21, 23, 133
Animal Husbandry .....	10	1,** 56, 57 or Dy.Hu. 103	8, 9, 112, 113
Bacteriology .....	5	53	
Botany .....	6	1, 2	
Chemistry, Inorganic .....	8	1, 2 or 4, 5	
Dairy Husbandry .....	9	1,** 103 or An.Hu. 57	2, 9, 101
Education .....	5	55B	
Entomology and Economic Zool- ogy .....	.....	.....	5
Horticulture or Forestry .....	6	.....	1,** 6, 32 or For. 10
Mathematics .....	5	1 or Ag.En. 11††	
Orientation .....	1	1	
Plant Pathology and Botany ....	5	1	3
Preventive Medicine and Per- sonal Health .....	2	3	
Poultry Husbandry .....	7	1**	51, 52, 153, 154
Psychology .....	5	1, 2 or A	
Rhetoric .....	15	1, 2, 3, 51 or equiv.	22
Sociology .....	3	.....	14A
Soils .....	6	4	5, 103, 111
Veterinary Medicine .....	.....	.....	52
Zoology .....	6	14, 15	

\*\* Students who have had vocational agriculture in high school or who are graduates of the schools of agriculture may take exemption examinations or examinations for credit in these courses.

†† Students presenting equivalent high school credit are exempt from this requirement.

ics. Students wishing to major in agricultural education must:

1. Have lived on a farm until the age of 16 or have had 2 full years of farming experience after that age.
2. Devote a minimum of 6 weeks to observation and supervised teaching.
3. Have an honor point ratio of 1.5 or above in 18 courses selected from the following:
  - Ag.Ec. 80, 102, 103
  - Ag.En. 7, 12, 13, 40, 41, 55, 60, 67
  - Agro. 21, 23, 31
  - An.Hu. 56, 57, 112, 113
  - Dy.Hu. 1, 2, 9, 101, 103
  - Ent. 5
  - For. 10
  - Hort. 1, 6, 32
  - Pl.Pa. 1, 3
  - Po.Hu. 1, 51, 52, 153, 154
  - Soil. 4, 5, 103, 111
  - Vet. 52
4. Earn a minimum of 204 credits for graduation.

### *Fifth Year Leading to the Master of Education Degree*

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. In addition to the general requirements for the M.Ed. degree, the specific requirements as applied to agricultural education are as follows:

1. A total of 249 credits or 45 credits beyond the requirements for a Bachelor's degree in agricultural education.
2. In addition to the period of observation and practice teaching required for graduates in the 4-year curriculum,

a period of internship will be required for which a maximum of 8 credits will be given.

3. The distribution of credits for the fifth year will include:
  - a. Agricultural education: 12-15 credits, of which not more than 6 credits may be in problems courses.
  - b. Education other than agricultural education: 11-15 credits.
  - c. Technical agriculture and areas other than those listed above: 15-22 credits.

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

### *Minor in Agriculture for Elementary School Teachers*

A minor in agriculture is open to students in the elementary education field. It may be taken by any student following Curriculum IA, IB, IIA, or IIB in elementary education (pages 26-30). The following courses are recommended, but others may be chosen with the consent of the adviser.

A minimum of 18 credits selected from the following:

- Ag.Ed. 54—Rural Education and Community Leadership (3)
- Ag.Ed. 56—Rural Education Through Extension Methods (3)
- Agro. 1—General Farm Crops (3)
- An.Hu. 1—Livestock Production (4)
- Hort. 1—General Horticulture (3)
- (or) Hort. 36—Plant Propagation (3)
- (or) Hort. 32—Vegetable Growing (3)
- Dy.Hu. 1—Elements of Dairying (3)
- For. 1A—Conservation of Natural Resources (3)
- For. 10—Farm Forestry (3)

## ART EDUCATION

Major advisers: Professor Gayne; Associate Professor Hastie; Instructors Bratlee, Cherry, Wold

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

1. A balanced general education.

2. A comprehensive basic training in art.

3. An opportunity to specialize in the area of art most interesting to the candidate. (A choice of subjects is available for meeting requirements and for electives.)

4. On the successful completion of the 4-year curriculum the bachelor of science degree is granted, and the teaching certificate is awarded by the State Department of Education for teaching art in elementary and high schools and for the variety of educational positions for which graduates are in demand.

5. On successful completion of the 5-year curriculum, the master of education degree is granted.

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

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

### Requirements for the Major in Art Education

**Important:** As art education offers 4- and 5-year curriculums, candidates should consult art education advisers immediately on entering the University to avoid loss of time in meeting all requirements.

#### 1. Art education courses:

Ar.Ed. 14—Introduction to Art Education (freshmen) (2)

Ar.Ed. 56, 57, 58—Basic Principles and Experiences in Art Education (juniors) (15)  
 Ar.Ed. 86, 87, 88—Student Teaching and Supervision of Art (seniors) (6)  
 Ar.Ed. 86A, 87A, 88A—The Teaching and Supervision of Art (seniors) (6)  
 Total—29 credits

**2. Art and related courses** to include the following or equivalents approved by major adviser:

A. Art History and Theory (6 credits required)

Art 1—Principles of Art (4)  
 Elective (2)

B. Design and Its Application (24-28 credits required)

Art 10—Photography (3)  
 Art 23-24—Drawing and Design I (6)  
 Art 33—Textile Design: Weaving (3)  
 Art 45—Ceramic Processes (3)  
 Art 51—Principles of Pictorial Design (3)  
 Art 73—Presentation Techniques (3)  
 Spch. 34—Stagecraft: Construction and Painting (3)  
 Elective (2)

C. Drawing, Painting, Sculpture, and Printmaking (12-16 credits required)

Art 40—Sculpture I (3)  
 Art 60, 70—Drawing and Painting II and III (6)  
 Art 90—Printmaking (3)  
 Total—46 credits

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

#### 4. Professional education courses:

Ed. 55A-55B—Introduction to Secondary School Teaching (10)  
 H.Ed. 180—The School and Society (3)  
 Methods in the minor (3)  
 Education electives (2)  
 Total—18 credits

#### 5. General education courses:

Comm. 1-2-3—Communication (or Comp. 4-5-6, or Engl. A-B-C, or exemption) (9-15)  
 Additional credits in language arts (to total 18)  
 Hum. 1-2-3—Humanities in the Modern World, (15)  
 (or) Hist. 1-2-3—Civilization of the Modern World (9)  
 Soc. 1—Introduction to Sociology (3)  
 Psy. 1-2—General Psychology (take before junior year) (6)  
 Physical education (3 or 5)  
 Pub.H. 59—Health of the School Child (and prerequisite courses, see page 9) (6 or 7)

**6. Electives** to complete a total of 186 credits, selected from the sciences, languages, English, speech, general studies, social studies, etc. Recommended: continuation of a language begun in high school; speech arts for use in teaching and in play production; courses in philosophy, history, so-

ciology, and psychology; courses in sports and the dance; courses for the appreciation of music, literary classics, and the stage. Attendance at concerts, exhibitions, and plays is urged as a part of art education. Available electives may be gained profitably in the various art courses beyond the minimal requirement in a minor or in an academic field.

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

### Requirements for the Minor in Art Education

Plan 1. For elementary school teachers, 27 credits:

- Ar.Ed. 17—Pictorial Expression for Elementary Education (3)
- Ar.Ed. 18—Design Activities for Elementary Education (3)
- Ar.Ed. 19—Functional Arts and Crafts in Elementary Education (3)
- Ar.Ed. 84—Teaching of Art in the Elementary School (3)
- Drawing and design courses (6)
- Electives (9)

Plan 2. For secondary school teachers, 28 credits:

- Ar.Ed. 14—Introduction to Art Education (2)
- Ar.Ed. 56, 57—Basic Principles and Experiences in Art Education (10)
- Ar.Ed. 87A—The Teaching and Supervision of Art (2)
- Art 1—Principles of Art (4)
- Art 23-24—Drawing and Design I (6)
- Electives (4)

### Fifth Year Leading to the Master of Education Degree

A written application for admission to the fifth-year program must be pre-

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

The student must meet all the general requirements for the M.Ed. degree as described on page 15. In addition he must meet the following special requirements:

1. Art education major, including advanced courses in art (24)
2. Education courses (9)
3. Academic electives (12)
4. Satisfactory demonstration of competency in teaching
5. Comprehensive examinations in art education and education

**For Graduates of Other Institutions**—The program for the fifth year leading to the M.Ed. degree is open to students from other institutions who have had an undergraduate major in art or in art education representing training equivalent to that offered at the University of Minnesota. In some cases it may be necessary for the student to take prerequisite courses at the undergraduate level. Undergraduate work in education must be equivalent to that required in the 4-year program. The special requirements are as follows:

1. Art education major, including advanced courses in art (24)
2. Education courses (12)
3. Academic electives (9)
4. Satisfactory demonstration of competency in teaching
5. Comprehensive examinations in art education and education

## BUSINESS AND DISTRIBUTIVE EDUCATION

Major advisers: Professor Price; Associate Professor Meyer

The following curriculums are designed to prepare teachers of business subjects in secondary schools.

Completion of one of these curriculums leads to the bachelor of science degree. While no minor is required, it is possible by a careful selection of electives to secure also 1 or 2 minors in academic subjects. Students should

confer with major advisers as early as possible in order to plan their programs effectively.

Students will normally spend 4 years in the College of Education; however, students in the College of Science, Literature, and the Arts and other colleges may transfer to the College of Education at any time provided that they

satisfy the admission requirements as approved by the major adviser.

Students who have had high school courses or experience in bookkeeping may be exempt from Econ. 24 and be admitted to Econ. 25 by passing a placement test. Students who have had 1 year of high school typewriting are admitted to Econ. 33; those who have had 2 years of high school typewriting are admitted to Econ. 34. Students who have had 2 years of high school shorthand are admitted to Econ. 39.

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

### Basic Course Requirements

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

Comm. 1-2-3—Communication (or Comp. 4-5-6, or Engl. A-B-C, or exemption) (9-15)  
 S.Sci. 1-2-3—Introduction to Social Science (12)  
 Psy. 1-2—General Psychology (6)  
 Geog. 41—Geography of Commercial Production (5)  
 Pub.H. 3A—Personal Health, and Pub.H. 4, Health Problems of the Community (4\*\*)  
 Econ. 3—Elements of Money and Banking (5)  
 (or) B.A. 57—Money and Banking (3)  
 Econ. 5A—Elements of Statistics (4)  
 (or) Econ. 5B—Elements of Statistics (3)  
 Econ. 6-7—Principles of Economics (10)  
 Econ. 24-25-26—Principles of Accounting (9)  
 Econ. 32—Beginning Typewriting (1)  
 Physical education (3-5)  
 Ed. 55A-B—Introduction to Secondary Education (10)  
 Ed.C.I. 45—Introduction to Business and Distributive Education (2)  
 B.A. 51 and 53—Business Law (6)  
 (or) Econ. 28—Business Law (3)  
 B.A. 77—Survey in Marketing (3)  
 Econ. 73—Manpower Economics and Labor Problems (3)  
 H.Ed. 180—The School and Society (3)

Ind. 110—Vocational Guidance (3)  
 (or) E. Psy. 133—Basic Procedures in Student Personnel Work (3)  
 Pub.H. 59—Health of the School Child (3)

### Major Sequences

#### 1. Office and basic business education:

Basic course requirements (97-104)  
 Econ. 33—Intermediate Typewriting (1)  
 Econ. 34—Typewriting Procedures (2)  
 Econ. 37-38-39—Shorthand (9)  
 Econ. 40-41—Secretarial Procedures (6)  
 Econ. 43—Shorthand Theory (2)  
 B.A. 86—Survey of Office Management (3)  
 B.A. 93—Accounting Laboratory (1)  
 B.A. 96—Business Equipment Laboratory (1)  
 Ed.T. 73A-B-C—Student Teaching of Business Subjects (6)  
 Ed.T. 80—The Teaching of Typewriting and Bookkeeping (2)  
 Ed.T. 81—The Teaching of Shorthand (2)  
 Ed.T. 82—The Teaching of Basic Business Subjects (2)  
 Econ. 178—Economics of Consumption (3)  
 B.A. 180-181E—Senior Topics: Office Management (6)  
 Electives (24-41)

For the purpose of computing the C+ average (1.5 honor points per credit) the following are considered major courses: Econ. 3, 24-25-26, 34, 40-41, 43; B.A. 77, 86, 96, 180-181E.

#### 2. Clerical and basic business education:

The same requirements as under number 1 with the exception of Econ. 37-38-39, 40-41, 43, and Ed.T. 81. In place of these courses the student will take 19 credits of approved elective courses.

The C+ average (1.5 honor points per credit) is based on the following courses: Econ. 3, 24-25-26, 34; B.A. 77, 86, 96, 180-181E.

#### 3. Distributive and basic business education:

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

Basic course requirements (97-104)  
 G.C. 49DX—Salesmanship (3)  
 Ind. 40 and 42—Analysis and Course Organization (4)  
 (or) Ind. 135—Industrial Course Construction (3)

\*\* This requirement may be met by taking Pub.H. 50, Personal and Community Health, in Senior College.

Ar.Ed. 85—Art for Integration in Secondary Education (3)  
 B.A. 114—Retail Store Management (3)  
 B.A. 182C—Senior Topics: Retailing (3)  
 B.A. 183J—Practice Course (supervised work experience) (9)  
 Econ. 178—Economics of Consumption (3)  
 Psy. 156—Psychology of Advertising (3)  
 Ed.C.I. 136—Organization and Administration of Distributive Education (3)  
 Ed.C.I. 139—Co-ordination Techniques (3)  
 Ed.T. 72A-B-C—Student Teaching of Distributive Education Subjects (6)  
 Ed.T. 90A-B-C—The Teaching of Distributive Education Subjects (6)  
 Electives (28-32)

For the purpose of computing the C+ average (1.5 honor points per credit) the following are considered major courses: Econ. 3, 24-25-26, 73, 178; B.A. 77, 114, 182C; Ed.C.I. 136, 139; Ind. 40-42 or 135.

#### 4. Combination of clerical and distributive education:

Those desiring to qualify for certification in clerical and distributive education under the Federal Vocational Acts are required to take the courses in clerical and distributive programs. Eight quarter hours of student teaching are required. (See sequence 1 and 2)

For the purpose of computing the C+ average (1.5 honor points per credit) the following are considered major courses: Econ. 3, 24-25-26, 34;

B.A. 77, 86, 114, 180E, 182C; Ed.C.I. 136, 139; Ind. 40-42 or 135.

#### 5. Requirements for the minor in basic business:

Econ. 6-7—Principles of Economics (10)  
 Ed.C.I. 45—Introduction to Business and Distributive Education (2)  
 B.A. 51-53—Business Law (6)  
 B.A. 77—Survey in Marketing (3)  
 Geog. 41—Geography of Commercial Production (5)  
 F.L. 20—Consumer Education (3)  
 Ed.T. 82—Teaching Basic Business (2)  
 Ed.T. 73A—Student Teaching of Business Subjects (2)  
 Electives (Econ. and B.A. courses) (12)

### Recommended Electives

In the first 2 years the following are courses or areas especially recommended: consumer education, science, speech, social science, the home and its furnishings, geography, journalism, English, philosophy, logic, humanities.

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

## THE CORE CURRICULUM

Major adviser: Professor Bossing

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

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

Each student should plan with his adviser a tentative program covering his 4 years of work. Students who enter the curriculum as juniors will have difficulty completing the requirements in 2 years unless their junior college courses have been carefully selected. Students will meet with their advisers once a week for a 2-hour period (in Ed.C.I. 58) to discuss their common problems and to exchange ideas and experiences.

Students register for the first 2 years in the College of Science, Literature, and the Arts and meet the group requirements of that college. Starred courses are especially recommended in each area. An average grade of C+ (1.5 honor points) is required in both the major and minor fields of concentration and in the education courses.

## Requirements for a Major in the Core Curriculum

### 1. Required of all students:

Comm. 1-2-3\*\*—Communication (or Comp. 4-5-6 or Engl. A-B-C) (9-15)  
 Psy. 1-2—General Psychology (6)  
 Physical education (3 or 5)  
 Public health—Pub.H. 3A, 4 and 59, or 50 and 59 (6 or 7)

### 2. Humanities area, 24 credits:

Hum. 1-2-3\*\*—Humanities in the Modern World (15)  
 (or) Hum. 51-52-53\*\*—Humanities in the Modern World (15)  
 Hum. 11-12-13—The European Heritage (15)  
 (or) Hum. 61-62-63—The European Heritage (15)  
 Hum. 21-22-23\*\*—American Life (9)  
 (or) Hum. 71-72-73\*\*—Humanities in the United States (9)  
 Engl. 21-22-23—Introduction to Literature (15)  
 Engl. 37-38-39—Modern Literature (9)  
 Engl. 73-74—American Literature (6)  
 Phil. 1—Problems of Philosophy (5)

### 3. Social science area, 18 credits:

S.Sci. 1-2-3\*\*—Introduction to Social Science (12)  
 S.Sci. 11-12-13\*\*—International Relations (9)  
 Anth. 1A\*\*—Introduction to Anthropology: Prehistoric Man and Culture (5)  
 (or) Anth. 2A\*\*—Introduction to Anthropology: Cultural Anthropology (5)  
 Geog. 1—Geography of Natural Resources (5)  
 (or) Geog. 4—Human Geography (5)  
 Hist. 1-2-3—Civilization of the Modern World (9)  
 Hist. 20-21-22—American History (12)  
 Pol. A-B-C—The State in the Modern World (9)  
 Soc. 1—Introduction to Sociology (3)

### 4. Science area, 19 credits:

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

### 5. Family life area, 9 credits:

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

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

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

### 7. Minor field of concentration, 18-36 credits.

8. Education courses, 35 credits including professional requirements (pages 8-10), Ed.C.I. 58, and some work in guidance or other education courses.

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

## CURRICULUM AND INSTRUCTION

Major advisers: Professors Archer, Bond, Bossing, Eckert, Grim, P. O. Johnson, McCune, Price, D. V. Smith; Associate Professors Birkmaier, Boeck, Goossen, D. Johnson, Meyer, West; Assistant Professors Clymer, Curtin, Ruddell

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

### For English Teachers

Major adviser, Professor D. V. Smith

**Note**—See also 5-year program in English education.

English teachers may secure a master of arts degree in the Graduate School with a major in education or curriculum and instruction and a supporting minor in English under Plan A or Plan

\*\* Course especially recommended.

B. Courses applicable to the teaching of English from which the student may profitably choose are as follows:

- Ed.C.I. 113—High School Curriculum (3)  
 Ed.C.I. 122—Literature for Adolescents (2)  
 E.Psy. 133—Basic Procedures in Student Personnel Work (3)  
 Ed.C.I. 169—Extracurricular Activities (4)  
 Ed.C.I. 294—Advanced Course in Curriculum and Methods in Secondary School English (2)  
 H.Ed. 141—Critical Issues in Contemporary Education (3)  
 Ed.C.I. 296—Special Problems in Teaching English (Ar.)  
 E.Psy. 117—Basic Principles of Measurement (3)  
 E.Psy. 158—Psychology of Adolescence (3)  
 E.Psy. 293—Psychology of Learning (3)

The seminar, Ed.C.I. 222, is required with or without credit for all students with a major under Plan A or Plan B. Programs should be arranged in consultation with the major adviser.

### For Teachers of Social Studies

Major advisers, Professor McCune, Morse;  
 Associate Professor West

**Note**—See also the 5-year program in social studies.

Social studies teachers may secure a master of arts degree in the Graduate School with a major in education or in curriculum and instruction and a minor or related courses in history, economics, political science, geography, or sociology. Courses which are recommended as fitting into this plan are:

- Ed.C.I. 155—Materials Laboratory for Social Studies Teachers (3)  
 Ed.C.I. 168—Current Developments in the Social Studies (2)  
 Ed.C.I. 201—Problems in Teaching the Social Studies (3)  
 Ed.C.I. 204—Social Studies Curriculum (3)  
 H.Ed. 241—Problems in the History and Philosophy of Education (Ar.)  
 E.Psy. 208—Methods in Educational Research (3)

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

Programs should be arranged in consultation with the major adviser.

### For Science Teachers

Major advisers, Professor P. O. Johnson;  
 Associate Professor Boeck

**Note**—See also the 5-year program in natural science.

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

Programs should be arranged in consultation with the major adviser.

## EDUCATIONAL ADMINISTRATION

Major advisers: *Educational Administration*—Professor Domian; Assistant Professors Lane, Prentis, Wakefield; *Secondary School Administration and Supervision*—Professors Bossing, R. Keller; *Elementary School Administration and Supervision*—Professor Archer; Associate Professor Goossen; Assistant Professors Curtin, Ruddell

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

The candidate for the master of arts degree in administration or administration and supervision should have completed, in his undergraduate years, one of the curriculums preparing for sec-

ondary school teaching or the 4-year curriculum in elementary education.

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

For school superintendents, a second year of graduate study beyond the M.A. in educational administration may lead to the certificate, Specialist in



Education. Included in this program are advanced courses, seminars, and field work.

For statement of the general program

and requirements for the M.A. and Ph.D. degrees and for the Specialist in Education certificate, see the *Bulletin of the Graduate School*.

## EDUCATIONAL PSYCHOLOGY

Major advisers: Professors Bond, Cook, Dugan, Edwards, P. Johnson, Wrenn; Associate Professors Edson, Flanders, Hoyt, Mork, Reynolds; Assistant Professors Clymer, Hagenah, Stecklein

This department provides professional training in several specialized areas of school and college work as well as basic techniques for educational and psychological functions in closely related fields. These include counselors in school and college; specialists in related student personnel functions; counseling psychologists; school psychologists and clinicians; statistical and research workers; and specialists in educational measurement, psychology of learning, and group dynamics.

Students who plan to assume such duties in the area of educational psychology 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. It is not the purpose of the courses for the master of arts degree to produce a person with highly specialized training, but to supply a basis for later professional growth as well as some immediate background for handling the problems involved in the several positions indicated.

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

## ELEMENTARY, PRIMARY, KINDERGARTEN, AND NURSERY SCHOOL EDUCATION

Major advisers: *Elementary Education* (supervision or teaching) Professors Archer, Bond, Grim; Associate Professor Goossen; Assistant Professors Clymer, Curtin, Ruddell; *Nursery School-Kindergarten-Primary Education*—Professors Anderson, Fuller

The basic curriculums outlined in this section prepare for all types of elementary school teaching from nursery school and kindergarten through the 8 years of the elementary school. Upon graduation the student, depending on his choice of curriculum, is eligible for 1 of 2 certificates: (a) the *general elementary* certificate for teaching in the elementary school (grades 1 through 8); or (b) the *special nursery school-kindergarten-primary* certificate for teaching in nursery school, kindergarten, and grades 1 through 3.

By taking additional courses in the junior and senior years, a student in elementary curriculums IA, IIA, and IIIA may also qualify for junior high school teaching. Advanced training for an elementary school principalship or supervisorship may be taken when the student has secured the necessary teaching experience.

The following curriculums are for persons of different backgrounds of education, training, and experience. Curriculums IA and IB are for regular

college students who take 4 years of work; curriculums IIA and IIB are for teachers and others who have completed 2 years of training in a teachers college and already have a certificate for elementary school teaching; curriculums IIIA and IIIB are for students who already hold a B.A. or B.S. degree. A student should identify his curriculum and consult an adviser in his field. Information about curriculums and assistance in making a choice may be secured at the Student Personnel Office, 206 Burton Hall.

The regular 4-year student will follow curriculum IA for elementary school teaching or curriculum IB for nursery school-kindergarten-primary teaching.

Equivalent courses offered in the General College or equivalent courses taken elsewhere may be substituted for required courses in the various fields with the approval of the adviser and of the Committee on Student Scholastic Standing of the College of Education.

Deficiencies due to transfer from other schools can be made up after en-

tering the College of Education. The aim is broad functional contacts with cultural fields of knowledge essential for the general education of the teacher and as marginal resources for teaching the common and special subjects of the elementary school.

### Curriculum IA and IB—Elementary Education and Nursery School—Kindergarten—Primary Education

#### FRESHMAN AND SOPHOMORE YEARS

Comm. 1-2-3—Communication (or Comp. 4-5-6, or Engl. A-B-C, or exemption) (9-15)  
 Geog. 1—Physical Geography (5)  
 (or) Geog. 4—Human Geography (5)  
 (or) G. C. 38—General Geography (5)  
 N.Sci. 7-8-9—General Biology (or Bot. 1-2-3—General Botany; or Zool. 1-2-3—General Zoology; or both) (10)  
 (or) N.Sci. 1-2-3, Orientation in the Natural Sciences (15)  
 Spch. 1-2 or 5—Fundamentals of Speech (5 or 6)  
 (or) G.C. 32A-B—Speech Laboratory (6)  
 Soc. 1—Introduction to Sociology (3)  
 (and) Soc. 3—Social Problems (3)  
 (or) S.Sci. 1-2-3—Introduction to Social Science (12)  
 Social studies; history or political science; or both (9)  
 Ar.Ed. 17-18-19—Survey of Art in Life and Education (6) (any 2 of the 3 quarters are required)  
 Mus. 31 or 32 or 33—Music Literature (2) (required of N.K.P. majors)  
 Mu.Ed. 51,\*\* 52††—Teaching of Music (3 or 6) (prereq. Mus. 1, unless excused)  
 Psy. 1-2—General Psychology (6)  
 P.E.W.—General course in physical education (and/or) P.E.W. 45—Introduction to the Physical Education Program (5-7) (4 quarters) (or) P.E.M. 1-2-3—Sports Education (3)  
 P.E.W. 70—Introduction to the Elementary Education Program (3) (required for elementary majors)  
 P.E.W. 25\*\*—First Aid (2)  
 Pub.H. 3A††—Personal Health (2)  
 Pub.H. 4††—Health Problems of the Community (2)  
 Electives to complete total of 96 credits (9-23)

Although P.E.W. 70 is open to both men and women, men in elementary education may substitute for it P.E.M. 56, Nature and Function of Play. All

elementary education women students are strongly urged to take Ind. 11, Shopwork for Nonmajors, 3 credits, and P.E.W. 45, Introduction to the Elementary Physical Education Program, 2 credits, either as a part of the general physical education or in addition to it. All N.K.P. majors are urged to take Ind. 11, Shopwork for Nonmajors, 3 credits. Men are urged to take Ind. 1, Basic Woodwork, 3 credits, and Ind. 5, Basic Drawing, 3 credits.

#### JUNIOR AND SENIOR YEARS

#### CURRICULUM IA (Elementary Education)

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

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

#### Elementary education major:

Ed. 75A-B—Introduction to Elementary School Teaching (75A, Educational Psychology; 75B, Curriculum, Measurement, and Organization) (10)  
 Ar.Ed. 84—Teaching of Art in the Elementary School (3)  
 Ed.C.I. 60—The Teaching of Reading in the Elementary Grades (3)  
 Ed.C.I. 61—The Teaching of the Social Studies in the Elementary Schools (3)  
 Ed.C.I. 62B—The Teaching of Arithmetic in the Intermediate Grades (3)  
 Ed.C.I. 63—Children's Literature (2)  
 Ed.C.I. 64—The Teaching of English in the Elementary School (3)

\*\* Mu.Ed. 51, P.E.W. 25, and P.E.W. 91 (junior and senior years) are required for nursery school, kindergarten, and primary majors. The Red Cross First Aid certificate may be substituted for P.E.W. 25.

†† Elementary education majors must take both Mu.Ed. 51 and 52.

‡‡ Pub.H. 50, Public and Personal Health, 3 credits, may be taken in Senior College instead of Pub.H. 3A and 4.

Ed.C.I. 65—The Teaching of Science in the Elementary School (3)  
 Ed.C.I. 66—Treatment of Learning Difficulties (3)  
 Ed.T. 54A-B—Student Teaching in the Elementary School (10)  
 P.E.W. 91—Principles of Play (3)  
 H.Ed. 180—The School and Society (3)  
 Elective in general or elementary education (7 or 8)

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

**Junior High School Endorsement**—Students pursuing curriculum IA may secure endorsement for junior high school teaching on the certificate for the elementary school by meeting the following requirements:

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

## JUNIOR AND SENIOR YEARS

### CURRICULUM IB (Nursery School-Kindergarten- Primary Education)

Students of sophomore standing or above are urged whenever possible to enter the nursery school-kindergarten-primary curriculum IB at the beginning of the academic year (fall quarter). Courses are offered in 2- and 3-quarter sequences. Difficulties are encountered in program planning where initial entry is made in the middle of the school year.

Ed. 75A-B—Introduction to Elementary School Teaching (75A, Educational Psychology; 75B, Curriculum, Measurement, and Organization) (10)  
 C.W. 80—Child Psychology (3)  
 Ed.T. 55—Principles of Early Childhood Education (3)  
 Ed.T. 56—Methods and Observation in the Kindergarten (2)

Ed.T. 57—Nursery School-Kindergarten Laboratory in Art, Literature, and Social Studies (5)  
 Ed.T. 58—Nursery School-Kindergarten Laboratory in Play Materials, Music, and Science (5)  
 Ed.T. 59—Methods and Observation in the Nursery School (3)  
 Ed.T. 76—The Teacher and the Parent (3)  
 Pub.H. 57—Health of Infant and Preschool Child (2)  
 (or) Pub.H. 59—Health of the School Child (3)  
 Ed.C.I. 60—The Teaching of Reading in the Elementary School (3)  
 Ed.C.I. 61—The Teaching of the Social Studies in the Elementary School (3)  
 Ed.C.I. 62A—The Teaching of Arithmetic in the Primary Grades (2)  
 Ed.C.I. 63—Children's Literature (2)  
 Ed.C.I. 64—The Teaching of English in the Elementary School (3)  
 Ed.C.I. 65—The Teaching of Science in the Elementary School (3)  
 Ed.C.I. 105—Audio-Visual Materials in Education (3)  
 Ed.T. 77—Student Teaching in the Nursery School (5)  
 Ed.T. 78—Student Teaching in the Kindergarten (5)  
 Ed.T. 79—Student Teaching in the Primary Grades (5)  
 H.Ed. 180—The School and Society (3)  
 Electives to complete total of 186 credits (16-18)

A grade average of C is required in the following courses: C.W. 80; Ed.T. 55, 56, 57, 58, 59, 76, 77-78-79; Ed.C.I. 60, 61, 62A, 63, 64, 65.

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

### Curriculum IIA—Elementary Education for Teachers

## JUNIOR AND SENIOR YEARS

This curriculum is for teachers and other students who have completed a 2-year course of professional training and *already hold* an elementary school certificate. (Those who hold the provisional elementary certificate based upon completion of a prescribed program since March, 1952, should follow plan IA on page 26.)

The College of Education allows a minimum of 90 credits for the 2-year diploma course in elementary education taken in an accredited teacher training institution. These credits are listed as "blanket credits" and are not assigned to particular courses. They are accepted in lieu of the general course requirements for the freshman

and sophomore years and the following program represents the work of the last 2 years. (Those who have completed work for the provisional elementary certificate since March, 1952, will have their previous work evaluated course by course rather than in blanket credits. They will then follow plan IA, page 26.) The curriculum leads to the elementary teaching certificate. By a careful selection of courses or by taking additional courses before or after graduation, the student may also qualify for the Minnesota state principal's or supervisor's certificate as well. By substituting certain courses in the secondary field the certificate is made legal also for junior high school teaching.

**Major in elementary education, 30 credits:**

1. Required of all—14 or 15 credits.

E.Psy. 60—Introduction to Measurement and Statistics (2 or 3)

Ed.C.I. 119—Elementary School Curriculum (3)

Ed.C.I. 150—Supervision and Improvement of Instruction (3)

H.Ed. 180—The School and Society (3)

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

Ed.C.I. 65—The Teaching of Science in the Elementary School (3)

(or) Ed.C.I. 103—The Teaching of Science in the Elementary School (3)

Ed.C.I. 63—Children's Literature (2)

Ed.C.I. 102—The Teaching of the Social Studies in the Elementary School (3)

Ed.C.I. 143—The Teaching and Supervision of Reading in the Elementary School (3)

Ed.C.I. 145—Reading Difficulties (3)

Ed.C.I. 149—The Teaching and Supervision of Arithmetic in the Elementary School (3)

Ed.C.I. 151—Diagnosis and Treatment of Learning Difficulties (3)

Ed.C.I. 153—Supervision and Teaching of English in the Elementary School (3)

Other courses in methods by petition

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

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

**Note**—Students may be required to take Ed.T. 54A-B, Student Teaching, unless evidence of satisfactory experience is presented. The decision is made by the major adviser or the director of student teaching. Students are urged to plan their programs early so as not

to exceed the 30 credits allowed in education.

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

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

2. A *regular* minor. Requirements for minors vary from 23 to 36 credits. Minors in the various fields are described in this section of the bulletin.

3. Eighteen credits in at least one of the following or such other fields as may be approved by the adviser. In each case all 18 credits are to be taken during the third and fourth years and are as a rule to be selected from courses offered in the College of Science, Literature, and the Arts. Students must aim to supplement and not to duplicate courses taken elsewhere. Credit cannot be allowed for courses that are largely duplication. Child welfare and psychology are not areas of concentration but general electives may be chosen from those fields. The fields are:

English

A foreign language

A social science or general social sciences (other than history or geography)

Speech

Language arts

Humanities

Geography

History

A science or general science

Mathematics

Art

Music

Library science

Physical education

Others by special permission

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

**Courses in General Extension**—Elementary teachers taking extension and late afternoon and Saturday morning

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

#### Junior High School Endorsement—

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

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

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

#### JUNIOR AND SENIOR YEARS

This curriculum is for teachers and other students who have completed a 2-year course of professional training and already hold a certificate for teaching in kindergarten and primary school, or in elementary school, or in high school.

Individuals who have completed work for the provisional certificate at a Minnesota teacher training institution since March, 1952, will follow curriculum IB after having their previous work evaluated course by course.

The College of Education allows a minimum of 90 credits for the 2-year diploma course taken in an accredited teacher training institution. These cred-

its are listed as "blanket credits" and are not assigned to particular courses. They are accepted in lieu of the general course requirements of the freshman and sophomore years. The following program represents the additional work necessary to earn the standard nursery school-kindergarten-primary teaching certificate. An average grade of C+ is required in this major. This average is based on the approximately 40 credits of courses included in the listings numbered 1-3 under the next paragraph.

**Major in Nursery School-Kindergarten-Primary Education**—Approximately 40 credits in the College of Education and the Institute of Child Welfare as follows:

1. Required of all: 19 to 22 credits
  - Ed.T. 55—Principles of Childhood Education (3)
  - (or) C.W. 150—Childhood Education (2)
  - Ed.T. 56—Methods and Observation in Kindergarten (2)
  - (or) Ed.T. 59—Methods and Observation in Nursery School (3)
  - Ed.T. 76—The Teacher and the Parent (3)
  - (or) C.W. 170—Parent Education (3)
  - C.W. 140—Behavior Problems (2)
  - Ed.T. 77—Student Teaching in Nursery School (5)
  - (and/or) Ed.T. 78—Student Teaching in Kindergarten (5)
  - (and/or) Ed.T. 79—Student Teaching in Primary Grades (5) (choose two of these three courses)
2. Eight or 9 credits chosen from the following:
  - C.W. 80\*\*—Child Psychology (3)
  - C.W. 130—Development of Skill, Language, and Thought (3)
  - C.W. 131—Development of Personality and Social Behavior (3)
  - C.W. 142—Psychology of Atypical Children (2)
  - C.W. 185—Children in a Changing World (3)
3. Twelve credits chosen from the following:
  - Ed.T. 57—Nursery School-Kindergarten Laboratory in Art, Literature, Social Studies (5)
  - (or) Ed.T. 58—Nursery School-Kindergarten Laboratory in Play Materials, Music, Science (5)
  - Ed.C.I. 66—Treatment of Learning Difficulties (3)
  - Ed.C.I. 60—Teaching of Reading in the Elementary School (3)
  - (or) Ed.C.I. 143—Teaching and Supervision of Reading in the Elementary School (3)
  - (or) Ed.C.I. 145—Reading Difficulties (3)

\*\* For students who lack an adequate background in child psychology.

- Ed.C.I. 61—Teaching of Social Studies in the Elementary School (3)  
 (or) Ed.C.I. 102—Teaching the Social Studies in the Elementary School (3)  
 Ed.C.I. 107—Radio and Television in Education (3)  
 Ed.C.I. 62A—Teaching of Arithmetic in the Elementary School (3)  
 (or) Ed.C.I. 149—Teaching and Supervision of Arithmetic in the Elementary School (3)  
 Ed.C.I. 64—Teaching of English in the Elementary School (3)  
 (or) Ed.C.I. 153—Teaching and Supervision of English in the Elementary School (3)  
 Ed.C.I. 150—Supervision and Improvement of Instruction (3)  
 (or) Ed.C.I. 151—Diagnosis and Treatment of Learning Difficulties (3)  
 Ed.Ad. 115—Administration of the Elementary School (3)  
 H.Ed. 156—History of Ideas in American Education (3)  
 H.Ed. 180—The School and Society (3)

4. Academic courses and minor: 43 to 48 credits, selected as follows:

- a. Any regular minor listed in the *Bulletin of the College of Science, Literature, and the Arts*. Minors in special fields will be allowed only with the consent of the adviser.
- b. Pub.H. 50—Personal and Community Health (3)  
 Pub.H. 59—Health of the School Child (3)
- c. Twelve credits in at least one of the academic fields, such as English, foreign language, library science, social science, fine arts, mathematics, music, or in special fields approved by adviser.
- d. Academic electives to complete the total of 186 credits. The exact amount of credit in academic courses will depend upon the number of transferred credits. At least 18 of the credits must be in *academic fields in courses numbered 50 or above*.

### Curriculum IIIA—Elementary Education

#### SENIOR YEAR

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

Students must enter the program in the fall, and complete the courses of the fall, winter, and spring quarters in sequence. They may, however, make

up any deficiencies or lighten their programs by taking work in the Summer Session.

A minimum of 47 or 48 credits and a C+ average (1.5 honor points per credit) on the total is required.

- Ed. 75A-B—Introduction to Elementary School Teaching (75A, Educational Psychology; 75B, Curriculum, Measurement, and Organization) (10)  
 Ed.C.I. 145—Reading Difficulties (3)  
 (or) Ed.C.I. 151—Diagnosis and Treatment of Learning Difficulties (3)  
 (or) Ed.C.I. 66—Treatment of Learning Difficulties (3)  
 Ed.C.I. 60—The Teaching of Reading in the Elementary School (3)  
 (or) Ed.C.I. 143—Teaching and Supervision of Reading in the Elementary School (3)  
 Ed.C.I. 61—The Teaching of the Social Studies in the Elementary School (3)  
 (or) Ed.C.I. 102—The Teaching of the Social Studies in the Elementary School (3)  
 Ed.C.I. 62B—The Teaching of Arithmetic in Intermediate Grades (3)  
 (or) Ed.C.I. 149—The Teaching and Supervision of Arithmetic in the Elementary School (3)  
 Ed.C.I. 63—Children's Literature (2)  
 (or) Ed.C.I. 122—Literature for Adolescents (2)  
 Ed.C.I. 64—The Teaching of English in the Elementary School (3)  
 (or) Ed.C.I. 153—Supervision and Teaching of English in the Elementary School (3)  
 Ed.C.I. 65—The Teaching of Science in the Elementary School (3)  
 (or) Ed.C.I. 103—The Teaching of Science in the Elementary School (3)  
 Ed.T. 54A-B—Student Teaching in the Elementary School (10)  
 Mu.Ed. 51—Teaching of Music (3)  
 (or) Mu.Ed. 52—Teaching of Music (3) (with consent of instructor)  
 Ar.Ed. 84—Teaching of Art in the Elementary School (3)  
 Total—47 credits

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

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

Completion of Psy. 1-2, General Psychology, is required for admission to the curriculum if it has not been in-

cluded in the student's previous Bachelor's degree program. If the student has not had equivalent work in public health he must add Pub.H. 59, Health of the School Child, 3 credits, to the above program.

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

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

### Curriculum IIIB—Nursery School—Kindergarten—Primary Education

#### SENIOR YEAR

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

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

- Ed. 75A-B—Introduction to Elementary School Teaching (75A, Educational Psychology; 75B, Curriculum, Measurement, and Organization) (10)
- Ed.C.I. 60—The Teaching of Reading in the Elementary School (3)
- Ed.C.I. 61—The Teaching of the Social Studies in the Elementary School (3)
- Ed.C.I. 62A—The Teaching of Arithmetic in the Primary Grades (2)
- Ed.C.I. 63—Children's Literature (2)
- Ed.C.I. 64—The Teaching of English in the Elementary School (3)
- Ed.C.I. 65—The Teaching of Science in the Elementary School (3)
- C.W. 80—Child Psychology (3)
- Ed.T. 55—Principles of Early Childhood Education (3)
- Ed.T. 56—Methods and Observation in the Kindergarten (2)
- Ed.T. 57—Nursery School-Kindergarten Laboratory in Art, Literature, and Social Studies (5)
- Ed.T. 58—Nursery School-Kindergarten Laboratory in Play Materials, Music, and Science (5)
- Ed.T. 59—Methods and Observation in the Nursery School (3)
- Ed.T. 76—The Teacher and the Parent (3)
- Ed.T. 77—Student Teaching in the Nursery School (5)
- Ed.T. 78—Student Teaching in the Kindergarten (5)

Ed.T. 79—Student Teaching in the Primary Grades (5)

Mu.Ed. 51—Teaching of Music (3)

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

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

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

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

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

The College of Education, in co-operation with the Institute of Child Welfare, has outlined a 5-year program leading to the master of education degree in early childhood education for students who satisfactorily complete a fifth year of work in education and child welfare courses at the graduate level and who meet all the regulations for the professional degree. Undergraduate students in the nursery school-kindergarten-primary school curriculum who expect to qualify for the M.Ed. degree should confer with their advisers by the beginning of the junior year in order that the work of the junior, senior, and fifth years may be co-ordinated to the best advantage.

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

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

The College of Education has outlined a 5-year program leading to the master of education degree in elementary education upon the satisfactory completion of a fifth year of work at the graduate level. The work of the fifth year is based on the 4-year curriculum in elementary education, IA, and conforms to the general requirements set up for the M.Ed. degree. For information in regard to the program consult the major adviser or the dean of the college.

### *Fifth Year in the Graduate School*

Graduates of the elementary and nursery school-kindergarten-primary education curriculums may take

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

Graduate programs in childhood education are offered by the Institute of Child Welfare and by the College of Education. Graduate advisers are Professors Anderson and Fuller.

Graduate students in elementary education will pursue work in accordance with their specialization, interests, and needs. Graduate advisers in elementary education are Professors Archer, Bond, Grim; Associate Professor Goossen; Assistant Professors Clymer, Curtin, Ruddell.

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

## ENGLISH

Major advisers: Professor D. V. Smith; Associate Professor Allen

Students who wish to major in English for high school teaching are strongly urged to consider the language arts curriculum described on pages 38-40. Students who major in English take the first 2 years in the College of Science, Literature, and the Arts and meet the group requirements of that college. They should include in their programs the Junior College courses listed below. The general and professional requirements of the College of Education are described on pages 8-9.

### **English as a major subject:**

Engl. 22-23—Introduction to Literature (10)  
 Engl. 55-56—Shakespeare (6)  
 Engl. 73-74—American Literature (6)  
 Engl. 165—Introduction to Modern English (3)  
 Comp. 27-28—Advanced Writing (6)  
 Spch. 1-2—Fundamentals of Speech (6)  
 Electives in courses numbered 100 or above (3)

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

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

### *Five-Year Program Leading to the Master of Education Degree*

The College of Education has outlined a 5-year curriculum leading to the professional degree of master of education for teachers of English. The curriculum includes specific recommendations for Junior College work. Students should confer with an adviser early in their college course. The work of the fifth year, representing 45 credits beyond the requirements for the Bachelor's degree with a major in English or language arts, conforms to the general requirements of the M.Ed. degree, and is made up of graduate courses in English and in education, including the internship and courses in curriculum and instruction, educational psychology, and the history and philosophy of education. For further information consult one of the major advisers. See also the statement on page 15, regarding work in the Graduate School.



## GEOGRAPHY

Major Adviser: Associate Professor Borchert

Because of the many demands made upon the teachers of the social studies, the necessity of teaching more than one subject or general courses in the field, and the difficulties of placement, students are strongly urged to follow the social studies curriculum, pages 62-63.

The first 2 years of this curriculum are taken in the College of Science, Literature, and the Arts and the student meets the group requirements of that college. Professional and general requirements of the College of Education are described on pages 8-9.

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

- Geog. 1—Geography of Natural Resources (5)
- Geog. 4—Human Geography (5)
- (and/or) Geog. 41—Geography of Commercial Production (5)
- Geog. 112—Western Anglo-America (3)
- Geog. 113—Eastern Anglo-America (3)
- Geog. 143 and/or 144—Political Geography (3-6)
- Geol. 8—Earth Features and Their Meaning (5)
- Elective courses in geography (6-9)

**Geography as a minor subject: 23 credits including Geog. 1 and 4.**

## GERMAN

Major adviser: Professor Downs

The student registers during the first 2 years in the College of Science, Literature, and the Arts and meets the group requirements of that college, as well as the prerequisites for Senior College courses in German. The general and professional requirements for the College of Education are described on pages 8-9.

**German as a major subject for high school teaching:**

- Ger. 57-58-59—Composition (6)
- Ger. 61-62-63—Conversation (6)
- Ger. 68—German Pronunciation (2)
- Ger. 64-65-66—Advanced Conversation and Essay Writing (6)
- (or) Ger. 91-92—German Civilization and Culture (6)
- Courses numbered 56 or above (15) (at least 9 credits should be in literary courses)

**German as a minor subject: Ger. 57, 58, 59, 68, and 8 additional credits in courses numbered 56 or above.**

## HIGHER EDUCATION

Major advisers: Professors Eckert, Grim, R. J. Keller, Wrenn

Qualified graduate students may select courses preparing them for service in colleges and universities. Some students will be majoring in education; others will be specializing in some other academic or professional discipline. Unusual facilities are provided for

laboratory work in higher education through the co-operation of the University's instructional, research, and service departments. See the *Bulletin of the Graduate School* for a statement of courses and requirements.

## HISTORY

Major Advisers: Associate Professors Bowditch, Loehr

The first 2 years of this curriculum are taken in the College of Science, Literature, and the Arts and students meet the group requirements of that college. They should include in their programs not less than 21 credits in Junior College history courses. No major recommendation to teach history will be given unless the students has

taken at least the general course Hist. 20-21-22, American History, or equivalent. The general and professional requirements of the College of Education are described on pages 8-9.

Because the secondary teacher of social studies is seldom given an opportunity to teach a single subject, students wishing to major in history

should take work in at least three other social science areas. See the social studies program, pages 62-63.

**History as a major subject for high school teaching:**

A total of 45 credits of which at least

18 must be in Senior College courses.

**History as a minor subject:**

A minimum of 27 credits of which no fewer than 9 are in Senior College courses.

## HISTORY AND PHILOSOPHY OF EDUCATION

Major advisers: Professor Beck; Associate Professor Ellis

Work in the history and philosophy of education is available at the graduate level leading to the M.A. and Ph.D. degrees. Students should arrange a program in consultation with an adviser

in accordance with their special fields of interest. For courses and requirements see the *Bulletin of the Graduate School*.

## HOME ECONOMICS EDUCATION

Major advisers: Professors Rose, Ford; Assistant Professors Kafka, Koivisto

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 following curriculums will lead to the B.S. degree and will provide the necessary training for qualification for a certificate for teaching home economics in secondary schools in Minnesota. Completion of this curriculum qualifies for teaching in federally aided home economics departments.

During the first 2 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 1 honor point per credit (junior classification) and has indicated her specialization as the teachers' or the extension curriculum, she becomes a registrant also in the College of Education. At the beginning of the junior year, the student is required to take the examinations given in the College of Education.

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

1. The College of Education examinations.
2. Home experience in those areas of home economics in which the student feels a need for additional experience.
3. Certain home economics courses with a grade of at least C.\*\*

4. Home economics courses required in the teaching curriculum with an honor point ratio of 1.5.

In order to be recommended for graduation from the teaching specialization, the student must have (a) 1.5 honor points per credit in 40 credits of home economics work in the curriculum for general home economics teaching, (b) an average of 1 honor point per credit in all other courses pursued during the junior and senior years.

By 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 some beginning teachers in public schools are expected to teach another subject in addition to home economics.

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

**Teaching Home Economics**—The following courses are required for those preparing for teaching general home economics:

### FRESHMAN COURSES

- Orie. 1—College Orientation Lectures (1)  
H.E. 1—Choice and Care of Clothing (4)  
H.E. 3—Clothing Construction A (3)

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

H.E. 10—Introduction to Home Economics (1)  
 H.E. 17—Personal and Family Living (3)  
 H.E. 20—Introduction to Related Art (4)  
 H.E. 21, 22—Color and Design I and II (6)  
 H.E. 31—Introduction to Nutrition (3)  
 H.E. 40—Food Preparation (5)  
 Comm. 1-2-3—Communication (9)  
 Zool. 14-15—General Zoology (6)  
 (and) Phsl. 4—Human Physiology (4)  
 (or) G.C. 10A-B—Human Biology (6)  
 Dy.Hu. 20—Household Microbiology (or Bact. 53) (4)  
 In.Ch. 1-2, or 4-5, or 6-7, or 9-10—General Inorganic Chemistry (8-10)  
 (or) G.C. 7C—Physical Science: Elements of Chemistry (5)  
 Pub.H. 3A—Personal and Public Health (2)  
 (or) Pub.H. 50—Personal and Community Health (3)  
 G.C. 7A—Physical Science: Elements of Physics (5)  
 (or) Ag.En. 35—Household Physics (5)  
 Soc. 1 or Soc. 1A—Introduction to Sociology (3)  
 P.E.W.††—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 76 or 170, 171) (4-6)  
 H.E. 41—Food Management and Marketing (5)  
 H.E. 49—Household Equipment (3)  
 Psy. 1-2—General Psychology (6)  
 H.E.Ed. 90—Child Training (3)  
 Rhet. 22—Public Speaking (3)  
 Rhet. 31—Poetry and Drama (5)  
 (or) Rhet 32—Novel and Short Story (3)  
 (or) Rhet. 33—American Life in American Literature (3)  
 (or) Rhet. 60—Contemporary Literature (3)  
 Bact. 53—General Bacteriology (5)  
 (or) Dy.Hu. 20—Household Microbiology (4)  
 Ag.Bi. 1—Introduction to Organic Chemistry (5)  
 Ag.Ec. 3—Principles of Economics (5)  
 (or) Econ. 6-7—Principles of Economics (10)

### JUNIOR AND SENIOR COURSES

H.E. 50—Textiles (3)  
 H.E. 53—Advanced Clothing (3)  
 H.E. 76—Nutrition (4)  
 (or) H.E. 170, 171—Nutrition of Family, Child Nutrition (or H.E. 34 or 76) (6)  
 H.E. 85—Home Management: Principles (3)  
 H.E. 86—Home Management: Laboratory (4)  
 H.E. 180—Home Planning and Furnishing (5)  
 Pub.H. 52—Health Care of the Family (1)  
 Pub.H. 59—Health of the School Child (3)

Rhet. 51—Exposition (exemption by examination) (3)  
 Rhet. 60—Contemporary Literature (or Rhet. 31 or 32 or 33) (3)  
 Ed. 55A-B—Introduction to Secondary School Teaching (10)  
 Ag.Ec. 126 or Econ. 178—Economics of Consumption (3)  
 H.Ed. 180—The School and Society (3)  
 H.E.Ed. 91††—Observation, Materials, Teaching in Home Economics (5)  
 H.E.Ed. 92—Teaching Problems in Home Economics (2)  
 H.E.Ed. 93, 94††—Supervised Teaching in Home Economics (9)  
 H.E.Ed. 192—Evaluation in Home Economics (2)  
 H.E.Ed. 194A—Adult Education in Home Economics (3)

Additional social science to total 18 credits. 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:

H.E. 54—Problems in Clothing Construction (3)  
 H.E. 102—Advanced Textiles (3)  
 H.E. 115—Economic and Social Aspects of Clothing (3)  
 H.E. 120—Art History (3)  
 Bot. 1—General Botany (4)

**Teaching foods**—To the requirements in general teaching add:

H.E. 63—Quantity Cookery (6)  
 H.E. 70—Advanced Food Preparation (3)  
 H.E. 142—Experimental Cookery (3)  
 Ag.Bi. 2—Quantitative Methods (5)

**Teaching nutrition**—Omit from the requirements in general teaching the following courses: H.E. 3, 4, 21, 22, 27, 34, 53, 76, 180; G.C. 10A-B, 7A-C; and Ag.Ec. 126 or Econ. 178.

To the requirements in general teaching add:

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

†† This requirement may be completed any time during the 4 years of residence. Courses for home economics extension students are to be chosen from the dance (country, folk, modern, or social) and recreational games.

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

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

1. Select the minimum credit requirement in science when there is an option.

2. Omit Ag.Ec. 126 or Econ. 178.

3. Add the following:

H.E. 23—Advanced Design (3)

H.E. 25—Design Applied to Crafts (3)

H.E. 120—Art History (3)

H.E. 122—Advanced Interior Design (3)

(or) H.E. 125—Advanced Costume Design (3)

H.E.Ed. 197—Organization and Methods of Related Art Teaching (1-3)

4. Add 6 credits in art from the following:

Art 1—Introduction to Art (4)

Art 20—Drawing (2)

(or) Art 23—Drawing and Design I (3); Art 24—Drawing and Design II (3)

**Home Economics Extension**—A combined curriculum with the College of Agriculture, Forestry, and Home Economics. See all-college requirements for students in the *Bulletin of the College of Agriculture, Forestry, and Home Economics*.

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

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

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

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

Those in this curriculum should:

Omit from the requirements in general home economics teaching the following courses: H.E. 53; Ag.Bi. 1; Rhet. 51; H.E.Ed. 92, 94, 192; Ag.Ec. 126 or Econ. 178.

Add to the requirements in general home economics teaching:

Ag.Jo. 53—Publicity (3)

One of the following:

Soc. 2—Intermediate Sociology (3)

Soc. 14—Rural Sociology (3)

Soc. 91—Case Method Applied to the Study of Human Problems (3)

Soc. 95—Introduction to Public Welfare (3)

Soc. 140—Social Organization (3)

H.E.Ed. 95—Field Experience for Home

Agents (6)

H.E.Ed. 194A—Adult Education in Home Economics (3)

Ag.Ec. 8—Rural Economics (3)

(or) Ag.Ec. 126 or Econ. 178—Economics of Consumption (3)

### *Five-Year Curriculum Leading to the Master of Education Degree*

A 5-year program in home economics education, leading to the master of education degree is provided for those who wish to make additional preparation prior to their entrance to teaching and for those who wish to continue their professional work following the completion of the requirements for a Bachelor's degree. The 5-year curriculum qualifies a person for high school teaching and for some college positions. The attainment of added training should facilitate professional promotion.

The best results may be anticipated when plans for the extended training are made during the student's junior year in residence so that the fifth year may be integrated with the 4-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 1 quarter in a home economics department in a secondary school off the campus. The intern will work under the supervision of her adviser at the University and will return to the campus regularly for Saturday morning conferences which will deal with classroom, extracurricular, and community problems met during the internship.

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

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

Students with a Bachelor's degree with a major in home economics education from other accredited institutions, upon fulfilling the requirements or their equivalents of the 5-year curriculum, will receive the master of education degree with a major in home economics education.

## INDUSTRIAL EDUCATION

Major advisers: Professor Micheels; Associate Professor Nelson; Instructor Kavanaugh

The following curriculum has been designed for persons who desire to prepare for teaching positions in the fields of industrial education and to gain background for later courses of an administrative and supervisory nature. The satisfactory completion of the 4 years of work here specified entitles the student to the bachelor of science degree and provides the training necessary for the Minnesota high school standard special certificate.

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

The Department of Industrial Education offers many courses not shown in the following curriculum. For descriptions of all departmental offerings see pages 83-85.

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

trial groups, such as foremen and personnel officers who have instructional responsibilities, and to public school authorities. The Department provides courses for other divisions of the College and the University.

### FRESHMAN YEAR

- Comm. 1-2-3—Communication (or Comp. 4-5-6 or G.C. 31A-B-C) (9-12)
- S.Sci. 1-2-3—Introduction to Social Science (12)
- Ind. 1—Basic Woodwork (3)
- Ind. 2—Machine Woodwork (3)
- Ind. 5—Basic Drawing (3)
- Ind. 10—Basic Electricity (3)
- Ind. 15—Basic Graphic Arts (3)
- Ind. 20—Craft Work-A (3)
- Ag.En. 40—Mechanical Training (3)
- P.E.M. 1-2-3—Sports Education (3)

### SOPHOMORE YEAR

- G.C. 8—Fundamentals of Mathematics (5) (or) Math. 1—Higher Algebra (5)
- Psy. 1-2—General Psychology (6)
- Geog. 1—Natural Resources (5)
- N.Sci. 1-2-3—Orientation in Natural Sciences (15)
- Ind. 3—Shop Finishing (3)
- Ind. 6—Applied General Drawing (3)
- Ag.En. 41—Metal Work (3)
- Ind. 60—Philosophy of Vocational Education (2)
- Ind. 61—Practices in Vocational Education (2)
- Ind. 80—Introduction to Industrial Arts (2) Carpentry (3)

### JUNIOR YEAR

- Hum. 1-2-3—Humanities in the Modern World (15)
- Ed. 55A-B—Introduction to Secondary School Teaching (10)
- Ind. 40—Analysis (2)
- Ind. 42—Course Organization (3)
- Ind. 44—Equipment and Management (3)
- Ind. 70—Teaching of Industrial Subjects (3)

Ind. 50A\*\*—Student Teaching (3)  
 Machine shop (3)  
 Foundry practice (3)  
 Electives in shopwork or drawing (3)

### SENIOR YEAR

H.Ed. 180—The School and Society (3)  
 Pub.H. 50—Public and Personal Health (3);  
 (or) Pub.H. 3A—Personal Health (2)  
 (and) Pub.H. 4—Health Problems of the Community (2)  
 Pub.H. 59—Health of the School Child (3)  
 Ind. 50B-C—Student Teaching (6)  
 Ind. 101—Tests in Industrial Subjects (3)  
 Ind. 110—Vocational Guidance (3)  
 Electives in academic courses (18)  
 Electives in shopwork or drawing (6)

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

Many of the required and elective courses may be pursued through extension and correspondence study arrangements. All required courses are

brought into the summer programs by rotation.

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

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

### Masters' Degrees

The College of Education awards the master of education degree (M.Ed.) to students who satisfactorily complete a fifth year of work under Plan X or Plan Y in industrial education and who meet all the requirements of the College for the professional degree.

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

## JOURNALISM

Minor adviser: Associate Professor Kildow

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

### Journalism as a minor subject:

Jour. 11—Introduction to Reporting (3)  
 Jour. 41—Publications Editing (3)  
 Jour. 73—Magazine Writing (3)  
 Jour. 82—Supervision of School Publications (3)  
 Ed.T. 74—The Teaching of Journalism (3)

Nine additional credits chosen from Jour. 55, 90, 103, 110, 111, 120, 121, and 130.

## THE LANGUAGE ARTS

Major advisers: *English*—Professor D. V. Smith; Associate Professor Allen; *Speech*—Professor Gilkinson; Associate Professors Graham, D. K. Smith

The new course of study in the language arts for the secondary schools of Minnesota requires a teacher proficient in the broad area of the language arts, including both speech and English. It assumes ability to teach the principles

of effective speech and writing and intelligent understanding of currently acceptable levels of usage. It necessitates knowledge of current books as well as the literary heritage. It demands acquaintance with and intelligent use of

\*\* Prerequisites are advanced junior or full senior status, taking of psychological examinations, courses Ind. 70 and 80, and a C+ average (1.5 honor points per credit) in the major. The C+ average is based on all courses in industrial education, shop and drawing courses included. It is assumed that 30 of the 48 shop and drawing credits will have been completed.

the mass media of communication, such as radio, newspaper and magazine, motion picture, and television.

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

The following program permits the prospective teacher to prepare for such diversified assignment.

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

The student registers in the College of Science, Literature, and the Arts for the first 2 years and should include in his program the required Junior College courses of the curriculum. Comm. 1-2-3, Communication, is recommended in place of Engl. A-B-C, Freshman English, or Comp. 4-5-6, Freshman Composition, but not required. The student will be held for all the general requirements of the College of Education including public health, and for the required professional courses for secondary school teaching. In addition he must take Ed.C.I. 122, Literature for Adolescents, 2 credits, which will count in the professional requirement. Participation in extracurricular speech activities is important.

### A Major in the Language Arts

The requirements of the curriculum are as follows:

1. The student selects 1 of the 2 fields, English or speech, and completes the course requirements listed for his *core subject*. A student may not offer more than 42 credits in this field.

2. The student must also complete 23 or 24 credits in the second field. Not more than 30 credits will be accepted in this field.

3. In addition 12 or 13 credits are required in journalism or library science. This requirement is listed under Journalism and Library Science.

#### English

**English as the core subject, 34 credits:**

- Engl. 22-23—Introduction to Literature (10)
- Engl. 55-56—Shakespeare (6)
- Engl. 73-74—American Literature (6)

Engl. 165—Introduction to Modern English (3)

Comp. 27-28—Advanced Writing (6)

Elective in a course numbered 100 or above (3)

**English as the second field with speech as the core subject, 23 credits:**  
Engl. 23, 73-74, and 165; Comp. 27-28; and Engl. 55 or 56.

#### Speech

**Speech as the core subject, 35 or 36 credits:**

Spch. 1-2 or 5—Fundamentals of Speech (5-6)

Spch. 31—Introduction to the Theater (3)

Spch. 67—Phonetics (3)

(or) Spch. 119—Introduction to Speech Correction (3)

Electives (2)

Electives may be selected from the following courses with not less than 9 credits in each of the 2 speech areas. For descriptions of these courses and the ones listed under Journalism and Library Science, consult the *Bulletin of the College of Science, Literature, and the Arts*.

1. Public Address and Speech Science: Spch. 51, 55, 56, 57, 61, 67, 81, 97, 101, 102, 103, 106, 119, 143, 169.

2. Theater and Interpretation: Spch. 32, 33, 66, 71, 72, 73, 81, 82, 131.

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

#### Journalism and Library Science

All language arts majors will take Jour. 90, Mass Communications and the News, 3 credits. In addition they will take 8 to 12 credits in library science chosen from the following courses: Lib. 50, 62, 163, 70, or 74; or 9 credits in journalism selected from Jour. 11, 41, 82, 103, 109-110, 111, 120, 121, and 130-131.

### A Minor in the Language Arts

Students wishing a minor in the language arts should select the following courses: Engl. 23, 27, and 74—11 credits; Spch. 5 and 31 and 3 more credits chosen from Spch. 101, 106, and 119—11 credits. In addition they should take 9 credits in journalism or 8 to 12 credits in library science. Required courses in journalism are Jour. 11 and 90 plus 3 credits chosen from Jour. 82, 103, 110

or 130. The credits in library science should be selected from the following:

Lib. 50, 60, 70, 74, or 163. Total—30-31 credits.

## LATIN

Major adviser: Professor DeWitt

### Latin as a major subject for high school teaching:

Lat. 73—Prose Composition (3)  
 Lat. 51-52-53—Survey of Latin Literature (9)  
 Latin courses numbered above 100 (6)  
 Greek and Roman history (10)

### Latin as a minor subject:

Lat. 73—Prose Composition (3)  
 Lat. 51-52-53—Survey of Latin Literature (9)  
 Greek and Roman history (10)

**Sequence of Courses in Latin**—Students who have had no Latin in high school will take Lat. 1, 2, 3 leading to the Lat. 51-52-53 sequence. Students entering the University with one year of high school Latin may, with the permission of the department, take Lat.

1 and 2 for credit, or they may enter Lat. 3. Students entering with two years of Latin may, with permission of the department, take Lat. 1, 2, and 3 for credit, or they may enter Lat. 21, followed by Lat. 51-52-53. Students entering with three years or four years of Latin may enter Lat. 51-52-53 directly.

The first two years are taken in the College of Science, Literature, and the Arts and students meet the group requirements of that college. They should include in their programs the Junior College courses in Latin prerequisite to registration in Lat. 51-52-53. The general and professional requirements of the College of Education are described on pages 8-9.

## LIBRARY SCIENCE

Minor adviser: Assistant Professor Carstens

Anyone intending to do library work in elementary or secondary schools should consult an adviser in the Library School, if possible, before beginning the junior year. To fully qualify for professional librarianship, a librarian today is expected to earn a 4-year Bachelor's degree and a Master's degree in library science. The Library School offers two programs for school librarians:

1. A minor of 23 credits in library science for students desiring positions as teacher-librarians.

2. A fifth-year program leading to the Master's degree. For this program 15 prerequisite undergraduate credits in library science are required for admission. For further information on

courses and requirements see the *Bulletin of the Graduate School*.

**Courses Advised**—For a minor in library science, students should take Lib. 50, 53, 62, 70, 74, 171, 172 and additional elective courses to total 23 credits as required for certification by the Minnesota State Department of Education. Electives include Lib. 55, 83, and 163. Many people with minors will later wish to seek a Master's degree. Lib. 55 and 83 should be elected if possible, since Lib. 50, 55, 62, 70, and 83 are prerequisites for the Master's degree.

Students who cannot take the whole 23 credits are encouraged to take 53, 74, and 171 and 172 as useful preparation for assignment to responsibility for school library supervision.

## MATHEMATICS

Major adviser: Professor Hart

Students take the first 2 years in the College of Science, Literature, and the Arts and meet the Junior College requirements of that College. They should include in their programs the

Junior College courses, and perhaps the courses in calculus, listed under the major. The general and professional requirements of the College of Education are described on pages 8-9.



**Mathematics as a major subject:**

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

- 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)

Math. 60—Synthetic Metric Geometry (3)  
Additional credits in courses numbered over 51 (5)

**Mathematics as a minor subject:**

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

- Math. 6—Trigonometry (5)
- Math. 7—College Algebra (5)
- Math. 30—Analytic Geometry (5)
- Math. 50—Calculus I—Differential Calculus (5)
- Math. 60—Synthetic Metric Geometry (3)

**MUSIC EDUCATION**

Major advisers: Professor Oberg; Associate Professor Ivory; Assistant Professor Caswell

The 4-year curriculum in music education leads to the bachelor of science degree. Theoretical and practical courses in music are combined with a general education and professional training for music teaching.

For graduation, students must earn 186 credits with an over-all average of C. They must earn 24 credits in Applied Music (Mus. 11-27), including a minimum of 18 in the major subject and 6 in a second field other than the major. Students not majoring in piano must take 1 year of Piano (Mus. 11 or 11C), 2 credits per quarter. Students not majoring in voice must take 1 year of Voice (Mus. 12 or 12C), 2 credits per quarter. It is recommended that the applied 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.

In addition to the practical and theoretical studies in music, this curriculum includes courses in English, psychology, sociology, history as well as professional courses prescribed by the College of Education. The music studies are distributed between the instrumental and vocal courses so that the

graduate is prepared to be an instrumental music instructor, vocal music instructor, or general supervisor of school music.

Observation and student teaching are arranged in the Minneapolis, St. Paul, and the University elementary and high schools.

A major average of C+ is required, based on the following courses:

- Mu.Ed. 4-5-6, 50A, 50B, 53, 59, 67, 68
- Mus. 1T through 6T, 34-35-36
- Applied Music Major: Mus. 11-27, up to 18 credits
- Applied Music Minor: Mus. 11-27, up to 6 credits

Admission to student teaching requires a C+ average in all of these courses taken prior to the senior year and the successful completion of Mu.Ed. 50A, 50B, 53, and Ed. 55A-B.

**Courses in Applied Music**

A student may not register for a course in Applied Music (Mus. 11-27, Mu.Ed. 225E) for credit†† until he has passed the required entrance examination.

\*\* Those who did not present solid geometry for entrance may meet this requirement in one of the following ways: (a) by taking the subject in the General Extension Division in night school or by correspondence study; (b) by passing an examination given free by the Department of Mathematics; (c) by taking Draw. 10, Solid Geometry, no cred., in the Institute of Technology. The student should satisfy this requirement at least 2 quarters before graduation.

†† Students may not take special examinations in Applied Music for work done elsewhere while in residence at the University.

Courses numbered from 11 through 27 carry either 2 credits (minimum of 10 private half-hour lessons) or 4 credits (minimum of 10 private hour lessons) per quarter.

All students taking Applied Music for credit are required to attend Music Hour, held weekly in Scott Hall Auditorium.

### Applied Music Entrance Requirements

#### Music and Music Education Majors and Minors.

**Piano:** A student should be able to play (1) major and minor scales in a moderate tempo; (2) three pieces in different styles, such as (a) a Bach invention or dance from one of the suites, (b) one of the less difficult sonatas by Haydn, Mozart, or Beethoven, and (c) one of the shorter pieces by a 19th- or 20th-century composer.

**Organ:** Same as for piano; sight reading of hymns.

**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. A knowledge of piano is also recommended.

**Violin:** Major and minor scales, arpeggios; the simpler Kreutzer Etudes; a sonata by Handel, Haydn, Mozart, Schubert; a more modern work displaying special technique peculiar to the violin. A knowledge of piano is also recommended.

**Other orchestral instruments:** A student should be able to play, with good tone, phrasing, and style, two solo numbers of good musical quality. He will be examined in sight reading as well as in the playing of scales. A knowledge of piano is also recommended.

### Four-Year Curriculum in Music Education

#### FRESHMAN AND SOPHOMORE YEARS

Mus. 1T through 6T—Music Theory (21)  
 Mus. 11-27—Applied Music (12-18)  
 Mus. 34-35-36—History of Music (6)  
 Mu.Ed. 4-5-6—Applied Instrumental Technique (6)  
 Mu.Ed. 59—Choral Literature and Conducting (1)  
 Comp. 4-5-6—Freshman Composition (9)

Hist. 11-12-13—Medieval History (9)  
 (or) Hist. 1-2-3—Civilization of Modern World (9)  
 (or) Soc.Sci. 1-2-3—Introduction to Social Science (12)  
 Physical education (3-5)  
 Pub.H. 3A—Personal Health (2) (and) Pub.H. 4—Health Problems of the Community (2)  
 (or) Pub.H. 50—Personal and Community Health (3)  
 Psy. 1-2—General Psychology (6)  
 Soc. 1—Introduction to Sociology (3)  
 Academic electives (minor) (6-11)

All music education majors must take at least 1 year each of piano and voice.

### JUNIOR AND SENIOR YEARS

Mus. 11-27—Applied Music (6-12)  
 Mus. 40-41-42—Orchestra (3)  
 (or) Mus. 43—University Chorus (3)  
 (or) Mus. 46-47-48—Concert Band (3)  
 Mus. 60 or 61 or 62—Instrumental Ensemble (2)  
 (or) Mus. 63 or 64 or 65—Music Literature (2)  
 Mus. 76—Form and Analysis (3)  
 Mu.Ed. 50A—Teaching Music in Primary Grades (2)  
 Mu.Ed. 50B—Teaching Music in Intermediate Grades (2)  
 Mu.Ed. 53—Teaching Music in Secondary Schools (3)  
 Mu.Ed. 59—Choral Literature and Conducting (3) (jr. 1 cred., sr. 2 cred.)  
 Mu.Ed. 60-61-62—Music Supervision and Student Teaching (9)  
 Mu.Ed. 65—Instrumentation (3)  
 Mu.Ed. 67—Teaching of Instrumental Music in Elementary Schools (2)  
 Mu.Ed. 68—Teaching of Instrumental Music in Secondary Schools (2)  
 Ed. 55A-55B—Introduction to Secondary School Teaching (10)  
 H.Ed. 180—The School and Society (3)  
 Pub.H. 59—Health of the School Child (3)  
 Academic electives (minor) (21-30)  
 Electives in education (3)  
 Special methods (academic minor) (3)

### Minor in Music Education

Examination in Applied Music and approval of the department is required before the student begins course work in the minor.

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

Mus. 1T-2T—Music Theory (6)  
 Mus. 11-27—Applied Music (2-6)  
 Mus. 31 or 32 or 33—Music Literature (2)  
 (or) Mus. 35—History of Music (2)  
 Music education methods, 2-4 credits, selected from:  
 Mu.Ed. 50B—Teaching Music in Intermediate Grades (2)  
 Mu.Ed. 51—Teaching of Music (kindergarten-primary grades) (3)  
 Mu.Ed. 52—Teaching of Music (intermediate grades) (3)

Mu.Ed. 53—Teaching Music in Secondary Schools (3)

Mu.Ed. 67-68—Teaching Instrumental Music in Elementary-Secondary Schools (4)

The remaining credits to be selected from:

Mu.Ed. 4-5-6—Applied Instrumental Technique (2-4)

Mu.Ed. 59—Choral Literature and Conducting (2)

Mus. 40-41-42—Orchestra (3-6)

Mus. 43—University Chorus (3-6)

Mus. 46-47-48—Concert Band (3-6)

Mus. 49—Men's Glee Club (3)

Mus. 60-61-62—Instrumental Ensemble (2)

Mus. 63-64-65—Music Literature (2-4)

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

The 5-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 education than does the 4-year curriculum. It includes about 2 years of general education, a minor in a teaching field other than music, extensive training in Applied Music, advanced phases of musical theory or musicology at the graduate level, work in music education covering both vocal and instrumental music, basic courses in psychology, educational psychology, and education, and supervised student teaching, plus 1 quarter of internship.

The work of the fifth year is integrated with that of the first 4 years described above. The fifth year will

provide opportunity for concentration, if desired, in either vocal or instrumental music.

Students with a Bachelor's degree with a major in music education from other accredited institutions, upon fulfilling the requirements of the 5-year curriculum or their equivalent, will receive the master of education degree with a major in music education.

In addition to the honor point requirements for the 4-year curriculum, an honor point ratio of 2 (B average) must be attained in all fifth-year work. The work of the fifth year is described below.

**Electives in academic major or minor** (or closely related field), 9-17 credits in courses numbered 100 or over.

**Music**, 12 credits in courses numbered 100 or over.

**Music Education**, 10 credits in courses numbered 100 or over, including:

Ed.C.I. 199E—Internship (4-8)

**Education**, 6 credits selected from:

E.Psy. 193—Psychology of Human Learning (3)

Ed.C.I. 113—High School Curriculum (3)

(or) Ed.C.I. 119—Elementary School Curriculum (3)

Ed.C.I. 150—Supervision and Improvement of Instruction (3)

(or) Ed.C.I. 266—High School Supervision (3)

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

## NATURAL SCIENCE

General advisers: Professor P. O. Johnson; Associate Professor Boeck;

Departmental representatives: *Botany*—Professor Abbe; *Chemistry*—Associate Professor O'Connor; *Geology*—Professor Thiel; *Physics*—Professor Buchta; *Zoology*—Professor Minnich

Students preparing to teach science in Minnesota high schools must qualify to give instruction in 2 or more sciences, since almost all positions open to graduates require teaching in at least 2 fields. As a matter of fact, most Minnesota schools now require instruction in general science and biology and an increasing number of schools offer generalized physical and biological science courses in the senior high school for which the teacher must be trained in both biological and physical sciences. The following special curricu-

lum in natural science is for those persons preparing for the teaching of junior and senior high school science.

Students register for the first 2 years in the College of Science, Literature, and the Arts and complete the group requirements of that college. They should also include in their program the Junior College courses of this curriculum in so far as possible. For the general and professional requirements of the College of Education see pages 8-9.

### Requirements for the Major in Natural Science

1. Completion of a sequence of at least 30 hours in 1 of the 4 natural sciences: chemistry, physics, botany, or zoology. This is referred to as the core subject.\*\*

2. Completion of at least 15 hours in another science (excepting the one chosen under requirement 1) selected from the following: physics, geology, botany, zoology, chemistry.

3. Completion of at least 10 credits in each of the fields of physics, botany, chemistry, and zoology, when these subjects are not used to satisfy requirements 1 and 2. In addition a minimum of 5 credits in geology and 5 credits in astronomy are required.

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

#### Group A, Botany:

1. Bot. 1-2-3—General Botany (10)  
(or) Bot. 4-5—General Botany (10)  
Bot. 12—Plants Useful to Man (3)  
Bot. 50—General Plant Ecology (3)  
Bot. 51—General Plant Physiology (4)  
Bot. 52—Elementary Taxonomy (3)  
Bot. 53—Plant Anatomy (5)  
Bot. 54—Survey of the Plant Kingdom (5)
2. Bot. 1-2-3, or Bot. 4-5, and 6 additional credits chosen from Bot. 12, 50, 51, 52

#### Group B, Chemistry:

1. In.Ch. 9-10††—General Inorganic Chemistry (10)  
(or) In.Ch. 4, 5—General Inorganic Chemistry (8)  
In.Ch. 12—Semimicro Qualitative Analysis (5)  
An.Ch. 7—Quantitative Analysis (4)  
Or.Ch. 61-62-63—Elementary Organic Chemistry (11)
2. In.Ch. 4, 5—General Inorganic Chemistry (8)  
Or.Ch. 16—Carbon Compounds (4)

#### Group C, Physics:

1. Phys. 7-8-9—General Physics (15)  
Phys. 50 and 51—Intermediate Physics  
(and) Phys. 50a or 51a—Intermediate Physics Laboratory (9)

Electives (6)

2. Phys. 7-8-9—General Physics (15)

#### Group D, Zoology:

1. Zool. 1-2-3—General Zoology (10)  
Zool. 52—Introductory Entomology (5)  
Zool. 53—Fauna of the Central United States (5)  
Zool. 83—Introduction to Genetics and Eugenics (3)  
Phsl. 60—Human Physiology (6)  
Electives (3)
2. Zool. 1-2-3—General Zoology (10)  
Zool. 53—Fauna of the Central United States (5)

**Group E, Geology** (15 hour requirement only):

Geol. 1 or 8, 2, A, B, 10-12 credits, and 3-5 credits chosen from Geol. 23, 24, 25, 107, 114, 118, 120, and 155.

### Requirements for the Minor in Natural Science

1. Completion of at least 15 quarter hours selected from courses under 2 of Group A, Group B, Group C, Group D, or Group E as listed under the major.

2. Completion of at least 10 quarter hours in each of the sciences (botany, chemistry, physics, zoology) other than that science selected to meet requirement 1 for the minor. In addition 5 credits in geology and 5 credits in astronomy are required.

3. Completion of Ed.T. 68M, The Teaching of Secondary School Science, 3 credits.

### Five-Year Program Leading to the Master of Education Degree

The College of Education offers a 5-year program leading to the professional degree of master of education for teachers of natural sciences in high schools. For specific information confer or correspond with the major adviser.

\*\* C+ is required in the core subject and a C average in all science outside of the core.

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

## NURSING EDUCATION

Major advisers: Professors Densford, Harrington; Assistant Professor Norris; Instructor Dunning

### Bachelor of Science Program in Nursing Education

This program is designed to prepare professional nurses for head nurse, clinical supervisory, and teaching positions in hospitals, clinics, health services, schools of professional and practical nursing, and for other positions in which an understanding of educational principles and practices is needed. It is open to those who meet entrance requirements of the College of Education for the nursing education programs. Applicants for admission to the nursing education curriculums must submit evidence of graduation from an accredited high school and school of nursing. Application blanks on which the high school and nursing records should be submitted may be obtained from the Dean of Admissions and Records, University of Minnesota, Minneapolis 14. Applicants are required to take a college aptitude test before they can be considered for admission. If the applicant has attended an accredited college or university, an official transcript of work taken should also be submitted. Applications and transcript should be sent directly to the Dean of Admissions and Records, University of Minnesota, Minneapolis 14.

Credit toward the bachelor of science degree for professional nursing courses will be determined by the admissions committee which will indicate the number of credits allowed and any additional clinical services to be completed before credit is granted. Such clinical experiences should be completed in the summer following the sophomore year if the student elects a clinical minor. *They must be completed before the beginning of the senior year.* Forty-five credits represent approximately the average advanced standing granted for a satisfactory course of study in a hospital school of nursing; 53 credits for a course in a hospital school having its pre-nursing sciences taught in the University of Minnesota; 55 credits for graduates of a 3-year program of other university schools; and 60 credits for graduates of the University of Minnesota School of Nursing.

In order to assist the school in evalu-

ating the basic nursing knowledge of students in the advanced professional curriculums, all students will be asked to take, as a part of their admission procedure, the Graduate Nurse Qualifying Examination of the National League for Nursing. This examination may be taken at the University of Minnesota Student Counseling Bureau or through the National League for Nursing, 2 Park Avenue, New York 16, N.Y. The fee for this examination is six dollars (\$6) payable to the National League for Nursing. Students whose scores show inadequate knowledge in the clinical area they have chosen (e.g., medical nursing, pediatric nursing, etc.), may be asked to do supplementary work in that area.

Students register in the College of Education and conform to the College of Education regulation relative to total credits and honor points. Candidates must also meet the graduation requirements of the College of Education (see pages 8-10). They are, however, exempt from Pub.H. 4 and 59 of the health education requirement.

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

Advanced standing granted to graduate nurses for basic nursing courses usually places the beginning graduate nurse student in the sophomore class. Courses of a general cultural nature and courses prerequisite to education courses and to other Senior College courses should be taken in the sophomore and junior years. Courses in clinical nursing should be elected in the junior year. Students who have included in the advanced standing blanket credits for college or university courses in the basic biological sciences of anatomy, bacteriology, chemistry and physiology; English or communications; psychology; and sociology are exempt from the comparable course requirements listed below. Such exemption does not reduce the total number of 186 credits required for graduation.

### General Requirements

Comm. 1-2-3—Communication (or Engl. A-B-C, or Comp. 4-5-6, or exemption) (9-15)  
 Sociology or social science (6-8)  
 Psy. 1-2—General Psychology (6)  
 C.W. 40—Child Training (3)  
 (or) C.W. 80—Child Psychology (3)  
 Sciences—General inorganic chemistry (4-6) (In.Ch. 1-2, 4-5, or 6-7) and general zoology (Zool. 1-2-3, or 14-15) are highly recommended and are prerequisite to many courses in biological science and to the science teaching minor. A minimum of 4 credits in biological science is required, to be selected from the following fields: anatomy, bacteriology, physiology, physiological chemistry, and zoology (other than Zool. 1-2-3 or 14-15)  
 Physical education (5)

### Course Requirements for the Nursing Education Major

Of the following courses, Ed. 55N, Nu.Ed. 69, and clinical nursing courses may be taken in the junior year. In the case of students entering the program with senior standing these courses should be taken in the first 2 quarters of the senior year. All other courses here listed should be taken in the senior year.

Ed. 55N—Introduction to Teaching Nursing (5)  
 Ed.T. 51A, B\*\*—The Teaching of Nursing (10)  
 Nu.Ad. 160—Ward Administration (5)  
 Nu.Ed. 69—Survey of Conditions and Trends in Nursing (3)  
 Nu.Ed. 171—The Curriculum of the School of Nursing (3)  
 H.Ed. 180—The School and Society (3)  
 Clinical nursing (12)  
 Elective in nursing, nursing education, or nursing administration (3)  
 Total—44 credits

The graduate nurse has usually from 50 to 60 elective credits available in the bachelor of science curriculum. These electives may be chosen from any course offerings in the University for which the student meets the prerequisites. It is appropriate to elect courses in natural sciences, social sciences, humanities, arts, anthropology, philosophy, and other fields of special interest to the student. The graduate

nurse will also wish to review the elective offerings of the nursing education department and other related professional fields such as education, nursing, and child welfare. In addition to elective course offerings which meet her need for general studies and studies in fields related to nursing she may elect a minor in clinical nursing, ward administration, or child development. A description of the available minors follows.

### Course Requirements for the Child Development Minor

Minor advisers: Professor Fuller;  
 Instructor Salem

The child development minor is designed to provide background for the nurse and the nurse teacher in the normal development and care of children.

C.W. 40—Child Training (3)  
 C.W. 80—Child Psychology (3)  
 Choice of either C.W. 130-131-132 (8)  
 C.W. 130—Development of Skill, Language, and Thought  
 C.W. 131—Development of Personality and Social Behavior  
 C.W. 132—Adolescent Development  
 Ed.T. 59—Methods and Observation in the Nursery School (3)  
 Ed.T. 77—Student Teaching in the Nursery School (5)  
 One of the following:  
 Ar.Ed. 17—Pictorial Expression for Elementary Education (3)  
 Ar.Ed. 18—Design Activities for Elementary Education (3)  
 Ed.T. 57—Nursery School-Kindergarten Laboratory in Art, Literature, and Social Studies (5)  
 Total—24-28 credits

### Course Requirements for the Ward Administration Minor

Minor adviser: Assistant Professor Grainger

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

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

1. A passing grade in Ed. 55N.
2. Taking the College of Education test battery.
3. Attainment of a scholastic average of 1.5 in completed courses in the nursing education major including the field in which practice teaching is to be done. A major portion of the work in the teaching field should be completed.
4. A satisfactory rating on the required speech test.
5. Completion of required clinical experience.

Nurs. 165—Analysis of Nursing Care (4)  
 Nu.Ad. 67—Field Practice in Ward Administration (6)  
 (or) Nu.Ad. 167—Studies and Experience in Ward Administration (8)  
 Total—10-12 credits

### Course Requirements for the Clinical Nursing Minor

Minor advisers: Assistant Professors Coe,  
 Lediger; Instructors Low, Salem

The clinical nursing minor is designed for those students who plan to take positions in a specific clinical area. Students electing this minor will study in one of the following clinical fields: medical nursing, nursing of children, obstetric nursing, operating room nursing, psychiatric nursing, rural hospital nursing, surgical nursing, or tuberculosis nursing.

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

Although the student's program is modified in consideration of the interests and needs of the individual student, certain required courses are included in the minor unless they have been completed prior to the time of enrollment in the minor. The minor course requirements should be taken in the junior year. A minimum of 5 quarters is needed to arrange the sequence of required courses in the nursing education major and a clinical minor. A student who elects a clinical minor at a point in her program with less than 5 quarters remaining to complete the total credit requirements for the bachelor of science degree in nursing education should expect to spend 1 or more additional quarters to complete the total course requirements.

The following courses are required of all students electing this minor:

Nurs. 150—Foundations of Clinical Nursing Specialties (3)  
 Pub.H. 100—Elements of Preventive Medicine and Public Health (5)

In addition to these courses each student is required to select one of the following clinical areas and to complete all courses designated in that area:

#### Medical Nursing:

Nurs. 151A-B-C—Medical Nursing (15)  
 C.W. 166—Maturity and Aging (2)

#### Nursing of Children:

Nurs. 154A-B-C—Pediatric Nursing (15)  
 C.W. 40—Child Training (3)  
 C.W. 80—Child Psychology (3)  
 (or) C.W. 140—Behavior Problems (2)  
 C.W. 132—Adolescent Development (3)

#### Obstetric Nursing:

Nurs. 152A-B-C—Operating Room Nursing (15)  
 Pub.H. 58—Maternal and Child Health (3)

#### Operating Room Nursing:

Nurs. 153A-B-C—Operating Room Nursing (15)

#### Psychiatric Nursing:

Psy. 144-145—Abnormal Psychology (6)  
 Nurs. 155A-B-C—Psychiatric Nursing (15)

#### Rural Hospital Nursing:

Soc. 14—Rural Sociology (3)  
 Nurs. 156A-B—Rural Nursing (24)

#### Surgical Nursing:

Nurs. 157A-B-C—Surgical Nursing (15)

#### Tuberculosis Nursing:

Pub.H. 60—Tuberculosis and Its Control (2)  
 Nurs. 158—Tuberculosis Nursing (15)

### Master of Education Program in Nursing Education

Major advisers: Professors Densford, Harrington; Assistant Professor Norris

The purpose of the program is to prepare professional nurses for positions in educational programs in nursing—basic professional schools, graduate nurse clinical programs, and practical nursing programs—through a broad program of study and experience based upon undergraduate study and experience in nursing education.

The candidates for this program will have completed before admission a major in nursing education leading to a Bachelor's degree or will include the equivalent within the master of educa-

tion program. Bachelor of science or bachelor of arts credits submitted as part of the admission requirements for this program will be reviewed, and recommendations regarding the student's program made on the basis of the general and professional education included in the Bachelor's program. In general, transfer credit for post-Bachelor's courses carried in other universities will not be granted toward the requirements for this degree. All records of courses taken by the applicant will, however, be considered in evaluating her qualifications for admission to the program.

In addition to the faculty and facilities of the School of Nursing the program utilizes other divisions of the University, as well as schools of nursing and educational programs in nursing within Minnesota.

The course of study is so organized as to provide a central group of courses in nursing education with an opportunity for study in related subjects. Emphasis is placed on the development of an understanding of human behavior, skill in guidance of learning, and effective functioning as nurse educator in schools of nursing and in educational and service agencies.

The program requires a minimum of 45 quarter credits distributed as follows:

- Nursing (5-10) (minimum of 5)
- Nursing education (12)

- Education (9)
- Field experience in teaching (8)
- Electives (6-11)
- Total—45 credits

Variation in the distribution of credits requires approval of the major adviser and the School of Nursing Committee on Graduate Students.

The following courses are required of all candidates:

- Nurs. 190—Foundations of Nursing (5)
- Nu.Ed. 197E-198E—Advanced Teaching of Nursing (6)
- Ed.C.I. 199E—Internship (8)

Other courses are to be selected by the student in consultation with a major adviser from course offerings numbered 100 and above. At least 6 of the elective credits must be selected from fields other than nursing and education.

Candidates who did not complete the following courses or equivalent degree in an accredited university will be required to include them in the master of education program.

- Nu.Ed. 171—The Curriculum of the School of Nursing (3)
- Ed. 55N—Introduction to Teaching Nursing (5)
- Ed.T. 51A-B—The Teaching of Nursing (10)
- Introductory statistics (3)

Candidates must meet the general requirements for the master of education degree as described on page 15, with the exception of a teaching minor in an academic field.

## PHYSICAL EDUCATION FOR MEN

Major advisers: Professors Keller, Piper; Associate Professor Donnelly

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

### Four-Year Curriculum in Physical Education for Men\*\*

#### FRESHMAN YEAR

- Comm. 1-2-3—Communication (or Comp. 4-5-6 or Engl. A-B-C) (9-15)

- Soc. 1—Introduction to Sociology (or S.Sci. 1-2-3) (3)
- G.C. 10A-B-C—Human Biology (or Zool. 1-2-3 and Pub.H. 3A) (9)
- P.E.M. 4A-B-C—Fundamentals of Sports (3)
- P.E.M. 5A-B-C—Physical Education Activities (3)
- P.E.M. 32—Introduction to Physical Education (3)
- P.E.W. 25—First Aid (or P.E.M. 59) (2)
- General electives (14)

#### SOPHOMORE YEAR

- In.Ch. 1-2 or 4-5—General Inorganic Chemistry (or In.Ch. 6-7 or 9-10 or G.C. 7A-C) (8)
- Spch. 5—Fundamentals of Speech (or Spch. 1-2, or G.C. 32A) (5)

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



Psy. 1-2—General Psychology (6)  
 P.E.M. 6A-B-C—Intramural Sports (3)  
 P.E.M. 7A-B-C—Recreational Games and Sports (3)  
 Anat. 57—Human Anatomy (or P.E.M. 50) (4)  
 F.E.M. 8—Tennis and Golf (1)  
 Pub.H. 4—Health Problems of the Community (or Pub.H. 51) (3)  
 General electives (16)

### JUNIOR YEAR

Pub.H. 91, 92—Principles of Human Function (8)  
 Pub.H. 59—Health of the School Child (3)  
 P.E.M. 9A—Fundamental Rhythms (1)  
 P.E.M. 9B—Square and Ballroom Dancing (1)  
 P.E.M. 51—Mechanics of Movement (3)  
 P.E.M. 55—Methods and Materials in Physical Education (4)  
 P.E.M. 56—The Nature and Function of Play (3)  
 P.E.M. 60A—Prevention and Care of Injuries (3)  
 Ed. 55A-B—Introduction to Secondary School Teaching (10)  
 General electives (11)

### SENIOR YEAR

P.E.M. 60B—Athletic Training Laboratory (1)  
 P.E.M. 63—Organization and Administration of Physical Education (3)  
 P.E.M. 65—Adapted Physical Education (3)  
 P.E.M. 66—Officiating Football and Basketball (3)  
 P.E.M. 67—Football Coaching (2)  
 P.E.M. 68††—Basketball Coaching (3)  
 P.E.M. 69—Track Coaching (2)  
 P.E.M. 72††—Baseball Coaching (2)  
 P.E.M. 73-74-75—Directed Teaching (6)  
 P.E. 101—Principles of Physical Education (3)  
 P.E.W. 83—Methods and Materials in School Health Education (3)  
 H.Ed. 180—The School and Society (3)  
 One additional education course and general electives to complete total of 186 credits.

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

Students who plan to complete the work for the bachelor of science degree and the special teacher's certificate must meet the following requirements: (a) the required courses in physical education as listed above; (b) a total of 29 credits in education including student teaching in physical education, methods in the minor, Ed. 55A-B, and H.Ed. 180; (c) at least one teaching minor which may be partially fulfilled in the required curriculum;

(d) a total of 186 credits, at least 90 of which must be in academic courses; (e) an average of C+ (1.5 honor points per credit) in all courses counted toward the major, and a C average in the minor and in all other courses taken outside the major during the junior and senior years.

### Minor in Physical Education for Men

A total of 30 credits is required as follows:

#### Group A, all required:

P.E.M. 5C—Physical Education Activities (1)  
 P.E.M. 7A-B-C—Recreational Games and Sports (3)  
 P.E.M. 55—Methods and Materials in Physical Education (4)  
 P.E.M. 56—The Nature and Function of Play (3)  
 P.E.M. 60A—Prevention and Care of Injuries (3)  
 P.E.M. 63—Organization and Administration of Physical Education (3)  
 P.E. 101—Principles of Physical Education (3)

#### Group B, 4 credits required:

P.E.M. 67—Football Coaching (2)  
 P.E.M. 68—Basketball Coaching (2)  
 P.E.M. 69—Track Coaching (2)  
 P.E.M. 72—Baseball Coaching (2)

#### Group C, 6 credits required:

P.E.M. 5A-B—Physical Education Activities (2)  
 P.E.M. 6A-B-C—Intramural Sports (3)  
 P.E.M. 8—Tennis and Golf (1)  
 P.E.M. 9A—Fundamental Rhythms (1)  
 P.E.M. 9B—Square and Ballroom Dancing (1)

### Graduate Study in Physical Education

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

For descriptions of courses available at the graduate level, see pages 95-97.

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

### Five-Year Curriculum Leading to the Master of Education Degree

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

1. Twenty-one additional credits in courses numbered above 100 in physical education.

2. Additional courses to complete 231 credits, 90 of which must be in academic (other than education or physical education) courses. A maximum of 41 credits is allowed in education, excluding all courses in physical education.

3. During the last 2 years a minimum of 45 credits with an average grade of B in courses numbered 100 and above.

4. Each candidate is required to pass:
- A written comprehensive examination covering the major in physical education.
  - A written comprehensive examination in education.
  - A health examination within 1 year prior to graduation.

5. A candidate may be required to pass an oral examination unless exempted on the basis of the results of his written examinations.

6. Internship experience for inexperienced teachers to include:

- Teaching under the supervision of a master teacher.
- Supervision by the principal and/or superintendent as well as the master teacher.
- Participation in school and community activities other than teaching.
- Conferences with the major adviser of the M.Ed. program.
- Group conferences of all interns and all advisers in charge of the M.Ed. program.

7. Substitute internship or equivalent of a practicum nature for experienced teachers when exempted from the internship requirement by the major adviser. The substitution or equivalent consists of one or more of the following:

- A concentrated experience

b. A combination of experiences to add more meaning to theoretical courses

c. A systematic service or field study

d. Observation of teaching, supervision, facilities, etc.

B. Students with a Bachelor's degree with a major in physical education from other accredited institutions may receive the master of education degree with a major in physical education when the following requirements have been fulfilled (students with a Bachelor's degree from institutions other than the University of Minnesota will not be held for the academic minor):

1. P.E. 101, Principles of Physical Education, 3

2. Twenty-one additional credits in physical education courses numbered above 100

3. Ed. 55A-B, Introduction to Secondary School Teaching, or equivalent

4. Forty-five credits in courses numbered 100 and above with an average grade of B

5. Items 4, 5, 6, and 7 listed under section A

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

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

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

### Advanced Work in the Graduate School

Graduate courses are offered leading to the following degrees:

1. The master of arts degree with a major in physical education granted by the Graduate School.

2. The degree of doctor of philosophy with a major in education, emphasizing physical education, granted by the Graduate School.

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

## PHYSICAL EDUCATION FOR WOMEN

Major advisers: Professor Baker; Associate Professors Jaeger, Wilson;  
Assistant Professor Slocum

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

1. Four-year curriculum leading to the bachelor of science degree with a major in physical education.
2. Advanced offerings leading to:
  - a. M.Ed. degree based upon either a 5-year or fifth-year curriculum in the College of Education.
  - b. M.A. degree with a major in physical education in the Graduate School.
  - c. Ph.D. degree with a major in education and an emphasis in physical education in the Graduate School.
3. Curriculum for teaching minor in physical education.
4. Curriculum for a teaching minor in school health education (see page 61 for a description of this curriculum).

The curriculums 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 preceding curriculums should consult with the major advisers. Inquire at 101 Norris Gymnasium for assignment to a particular adviser.

### Four-Year Curriculum in Physical Education for Women

Students who plan to complete the work for the bachelor of science degree and the special teacher's certificate must meet the following requirements: (a) the required courses in physical education as listed below; (b) a total of 28 credits in education includ-

ing student teaching in physical education, methods in the minor, Ed. 55A-B, E.Psy. 158, and H.Ed. 180; (c) at least 1 teaching minor which may be partially fulfilled in the required curriculum; (d) a total of 186 credits, at least 90 of which must be in academic courses; (e) an average of C+ (1.5 honor points per credit) in all courses counted toward the major, and a C average in the minor and in all other courses taken outside the major during the junior and senior years.

### FRESHMAN YEAR

- Hist. 1-2—Civilization of the Modern World (6)  
Comm. 1-2-3—Communication (or Engl. A-B-C; or Comp. 4-5-6; or G.C. 31A-B-C; or exemption) (9-15)  
Zool. 1-2-3—General Zoology (10)  
(or) G.C. 10A-B—Human Biology (6)  
Soc. 1—Introduction to Sociology (3)  
P.E.W. 20, 21, 22—Physical Education Activities (9)  
P.E.W. 25—American Red Cross First Aid (2)  
Pub.H. 3A—Personal Health (2)  
General electives (4-6)

### SOPHOMORE YEAR

- Pub.H. 4—Health Problems of the Community (2)  
In.Ch. 1-2—General Inorganic Chemistry (8);  
(or) G.C. 7A—Elements of Physics (5)  
(and) G.C. 7C—Elements of Chemistry (5)  
Spch. 1-2—Fundamentals of Speech (6)  
Psy. 1-2—General Psychology (6)  
P.E.W. 40-41-42—Physical Education Activities (6)  
Anat. 57—Elementary Anatomy (4)  
P.E.W. 47-48-49—The Teaching of Dance and Rhythmic Activities, Individual and Dual Sports, and Team Sports (8)  
General electives (9-11)

### JUNIOR YEAR

- P.E.W. 51—Mechanics of Movement (3)  
Ed. 55A-B—Introduction to Secondary School Teaching (10)  
P.E.W. 53—The Role of Physical Education in Recreation (3)  
P.E.W. 77A-B—The Teaching of Aquatics (2)  
P.E.W. 86—Advanced Physical Education (1)

Pub.H. 59—Health of the School Child (3)  
 P.E.M. 61—History of Physical Education (3)  
 P.E.W. 83—Methods and Materials of School Health Education (3)  
 P.E.W. 85—Remedial Activities in Physical Education (3)  
 P.E.W. 90A—Student Teaching in Physical Education (2)  
 General electives (6)

### SENIOR YEAR

E.Psy. 158—Psychology of Adolescence (3)  
 P.E.W. 82—Principles of Physical Education (3)  
 P.E.W. 84—The Physical Education Program for the Elementary and Secondary School (3)  
 P.E.W. 95—Administration of Physical Education (3)  
 P.E.W. 90B-C—Student Teaching in Physical Education (6)  
 P.E. 135—Tests and Measurements in Physical Education (3)  
 H.Ed. 180—The School and Society (3)  
 Education electives (4)  
 General electives to complete total of 186 credits

### Minor in Physical Education for Women

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

**Note**—Recognition of up to 3 credits will be given for credits earned in fulfilling the regular physical education requirement in college classes. The remaining 4 credits must be earned in professional courses, P.E.W. 20, 21, 22, 40, 41, or 42. Choice of courses should lead to a distribution of experience in the following areas: team sports, individual sports, body building, rhythm, and aquatics.

#### II. Required Health and Physical Education Theory courses, 15 credits.

P.E.W. 62—The Teaching of Physical Education Activities (3)  
 P.E.W. 82\*\*—Principles of Physical Education (3)  
 P.E.W. 83\*\*—Methods and Materials of School Health Education (3)  
 P.E.W. 84\*\*—Physical Education Program for the Elementary and Secondary Schools (3)  
 P.E.W. 95\*\*—Administration of Physical Education (3)

#### III. Student Teaching (required).

P.E.W. 93—Student Teaching (2)

#### IV. Electives selected from the following list, 3 credits:

P.E.W. 25—First Aid (2)  
 P.E.W. 53—The Role of the Physical Educator in Recreation (3)  
 P.E.W. 54—Camp Leadership (3)  
 P.E.W. 70—Introduction to Physical Education in the Elementary School (3)  
 P.E.W. 85—Remedial Activities (3)  
 P.E. 113—Physical Education in the Elementary School (3)  
 P.E. 114—The School Health Program (3)

### Dance Concentration

The following sequence of advanced courses in dance is open to all students in the College of Education who are particularly interested in dance and who wish to concentrate in this field.

Consultation should be held with the rhythm activity adviser as early as possible in order to plan for individual needs.

#### I. Required courses:

P.E.W. 76—Advanced Folk Dance (2)  
 P.E.W. 80—History and Trends in Dance (3)  
 P.E.W. 87—Advanced Dance Composition (2)  
 P.E.W. 88—Problems in Dance Composition (2)

#### II. Electives to be chosen from the following: (6 to 7 credits)

P.E.W. 47—The Teaching of Rhythmic Activities and Dance (3)  
 P.E.W. 89—Dance Production (3)  
 Ar.Ed. 85—Art for Integration in Secondary Education (3)  
 Mus. 10—Introduction to Music (4)  
 Spch. 31—Introduction to the Theater (3)  
 Spch. 32—Beginning Acting (3)

### Fifth Year Leading to the Master of Education Degree

**Five-Year Program**—Students who plan to obtain the master of education degree with a major in physical education should make this decision upon the completion of their second year as majors in physical education in order that the work of their next 3 years may be properly integrated and directed.

**Fifth-Year Program**—Students who already hold a degree and wish to qualify as candidates for the master of education degree may do so by (a) having a completed major in physical education from an accredited teacher education institution; or (b) meeting the

\*\* May be taken by correspondence study (see *Bulletin of the Correspondence Study Courses*).

equivalent of a physical education major while completing the fifth-year degree requirements. Candidates are expected to demonstrate average or above-average motor skill in basic activities as attested by Motor Ability Tests and demonstration of performance level.

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

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

1. A total of 45 credits in graduate courses, distributed as follows: general academic fields, 12; education, 9; physical education,†† 24.

2. Average performance skill in at least 2 activity areas (sports, aquat-

ics, rhythms, etc.) or outstanding skill in any 1 area.

3. A written comprehensive examination administered by the Department of Physical Education for Women.

4. The general requirements and standards of the College of Education for the completion of the work for the master of education degree (see page 15).

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

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

## PHYSICAL SCIENCE

General advisers: Professor P. O. Johnson; Associate Professor Boeck; departmental representatives, *Chemistry*—Associate Professor O'Connor; *Mathematics*—Professor Hart; *Physics*—Professor Buchta

The programs for majors or minors in physical science are designed for students who wish to prepare to teach physical science and mathematics in the high school. Preparation to teach in the physical sciences involves preparation in mathematics in that mathematics is required for courses in physics and chemistry. In this way preparation for teaching physical science involves preparation for teaching mathematics as well. Hence the following outline of the programs lists a required minor in mathematics in the case of a major in physical science, and also specifies that any minor in physical science must have a major in mathematics. Thus, a student who satisfies the requirements for a major or minor in physical science is qualified to teach any of the courses in mathematics taught in grades 7 through 12, general

physical science, a course in physics alone, or a course in chemistry alone.

### General Requirements for a Major in Physical Science

**Option A.** Major concentration in chemistry: 33 credits in chemistry, 20 credits in physics.

**Option B.** Major concentration in physics: 33 credits in physics, 20 credits in chemistry.

Minor requirement in mathematics under either options A or B: 23 credits in mathematics beyond \*\*Math. 6.

### General Requirements for a Minor in Physical Science

The student must offer a major in mathematics (which consists of 28 credits beyond Math. 6, Trigonometry).

\*\* Students are encouraged to study a *substantial* course in trigonometry in high school, and then take a placement test at college given by the Department of Mathematics in order to obtain permission to omit Math. 6.

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

**Option A:** 25 credits in chemistry and 20 credits in physics.

**Option B:** 25 credits in physics and 20 credits in chemistry.

## Specific Course Requirements

### Chemistry

#### Major Concentration (33 credits)

In.Ch. 9-10—General Inorganic Chemistry (10)  
In.Ch. 12—Semimicro Qualitative Analysis (5)  
An.Ch. 7—Quantitative Analysis (4)  
Or.Ch. 61-62—Elementary Organic Chemistry (8)

#### Minor Concentration

(Option of 25 credits)

In.Ch. 9-10—General Inorganic Chemistry (10)  
In.Ch. 12—Semimicro Qualitative Analysis (5)  
Or.Ch. 61-62—Elementary Organic Chemistry (8)  
Electives (2)

(Option of 20 credits)

A. In.Ch. 9-10—General Inorganic Chemistry (10)  
Or.Ch. 61, 62—Elementary Organic Chemistry (8)  
Electives (2)  
(or)  
B. In.Ch. 4, 5—General Inorganic Chemistry (and) In.Ch. 11—Semimicro Qualitative Analysis (12)  
Or.Ch. 61-62—Elementary Organic Chemistry (8)

### Physics

#### Major Concentration (33 credits)

Phys. 7-8-9—General Physics (15)  
Phys. 50—Intermediate General Physics (4)  
Phys. 50A—Intermediate General Physics Laboratory (1)  
Phys. 51—Intermediate General Physics (4)

Phys. 51A—Intermediate General Physics Laboratory (1)

Phys. 133—Physical Optics (3)  
Electives, selected with consent of adviser (5)

#### Minor Concentration

(Option of 25 credits)

Phys. 7-8-9—General Physics (15)  
Phys. 50-51—Intermediate General Physics (8)  
Electives (2)

(Option of 20 credits)

Phys. 7-8-9—General Physics (15)  
Electives (5)

## Requirements for a Major in Mathematics with a Minor in Physical Science

#### Major Requirements (33 credits)

Courses through Math. 51  
Math. 60—Synthetic Metric Geometry (3)  
Electives from courses numbered over 51 (5)

## Requirements for Special Methods and Practice Teaching

#### For majors in physical science, with minor in mathematics

Ed.T. 68A-B-C—The Teaching of Secondary School Science (5)  
Ed.T. 67M—The Teaching of Secondary School Mathematics (3)

#### For major in mathematics, with minor in physical science

Ed.T. 67A-B-C—The Teaching of Secondary School Mathematics (5)  
Ed.T. 68M—The Teaching of Secondary School Science (3)

#### Student Teaching:

2 quarters in *major*, 1 quarter in *minor*

## POLITICAL SCIENCE

Major advisers: Professor Christensen; Associate Professor Warp

Because of the many demands made upon teachers of the social studies, the necessity of teaching more than one subject or general courses, and the difficulty of placement, students are strongly urged to follow the social studies curriculum, pages 62-63.

Students with a political science major take the first 2 years in the College of Science, Literature, and the Arts and meet the Junior College requirements of that College. They should include in their programs at least 15 credits in political science courses. For the general and professional require-

ments of the College of Education, see pages 8-9.

#### Political science as a major subject—

A minimum of 36 credits including Pol. 1-2-3, American Government and Politics, 9 credits; Pol. A-B, The State in the Modern World, 6 credits; and Pol. 25, World Politics, 3 credits; and not less than 18 credits in Senior College courses.

#### Political science as a minor subject—

A minimum of 23 credits including Pol. 1-2-3 or Pol. A-B-C, and Pol. 25 and not less than 11 credits in Senior College courses.

## PUBLIC HEALTH

Minor advisers: Professors Grout, Thomson

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

**Public health as a minor subject:**

- Pub.H. 50—Personal and Community Health (3)
- (or) Pub.H. 51—Community Hygiene (3)

- Pub.H. 57—Health of the Infant and Pre-school Child (2)
- Pub.H. 59—Health of the School Child (3)
- Pub.H. 75—Introduction to Environmental Sanitation (3)
- Bact. 53—General Bacteriology (5)
- Phsl. 2—Elements of Physiology (4)
- (or) Phsl. 4—Human Physiology (4)
- (or) Pub.H. 91-92—Physiological Hygiene (8)

## RECREATION LEADERSHIP

Major advisers: Lecturer Fitzgerald; Associate Professor Giles; Assistant Professor Chapman

Two types of training, represented by two different programs, are offered in recreation leadership. These programs are listed as Plan I and Plan II. Both involve 4 years of work, lead to the B.S. degree, and are open to men and women.

### Plan I. Recreation Leadership and Administration

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

#### FRESHMAN AND SOPHOMORE YEARS

Students register in the College of Education. Lower division courses are selected from offerings in the College of Science, Literature, and the Arts, the General College, and from the 4-year curriculums in physical education, music education, art education, industrial education, home economics education, and agricultural education.

**Group A: Natural Science, 15 credits:**

- N.Sci. 1-2-3—Orientation in the Natural Sciences (15)
- (or) Natural science (15)

**Group B: Psychology and Health, 8 credits:**

- Psy. 1-2—General Psychology (6)
- Pub.H. 3A\*\*—Personal Health (2)

**Group C: Social Science, 21 to 24 credits:**

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

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

- Comm. 1-2-3—Communication (or Comp. 4-5-6, or Engl. A-B-C, or G.C. 31A-B-C, or exemption) (9-15)
- Spch. 1-2-3 or 5-6—Fundamentals of Speech (6-10)

**Group E: Skill Techniques, 22 credits:**

- Music, 4 credits
- Mus. 1—Fundamentals of Music (2)
- G.C. 24A-B-C—Music Today (2)
- Arts and Crafts, 9 credits
- Ar.Ed. 18—Design Activities for Elementary Education (3)
- Ar.Ed. 81—Puppetry (3)
- Art 10—Photography (3)
- Art 44—General Crafts (3)
- P.E.M. 45—Camp Craft (2)

**Dramatics, 3 credits**

- Spch. 31—Introduction to the Theater (3)

**Games, Rhythms, and Sports (men), 6 credits**

- P.E.M. 4A-B-C—Fundamentals of Athletic Sports (2)
- P.E.M. 6A-B-C—Intramural Sports (2)
- P.E.M. 8—Tennis and Golf (1)
- P.E.M. 9A-B—Rhythms (2)
- P.E.W. 25—First Aid (2)
- P.E.M. 43—Camp Aquatics (2)

\*\* Requirement may not be met by exemption examination.

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

- P.E.W. 1-2-3—College Program in Physical Education—selected from Aquatics, Individual Sports, and Rhythms (4)  
P.E.W. 25—First Aid (2)

**Group F: Recreation, 9 credits:**

- P.E.M. 11A-B-C—Survey of Recreation Activities (3)  
P.E.M. 23A-B-C—Introduction to Recreation Leadership (3)  
P.E.M. 49—Social Aspects of Leisure (3)  
(or) G.C. 27—Leisure Time Activities (3)

**Group G: General electives to total 96 credits**

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

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

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

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

**JUNIOR AND SENIOR YEARS**

**Education, 18 credits required:**

- Ed. 55A-B—Introduction to Secondary School Teaching (10)

- Ed.C.I. 104—Adult Education (2)  
Ed.C.I. 105—Audio-Visual Materials in Education (3)  
(or) P.E. 155—Instructional Aids in Health, Physical Education, and Recreation (3)  
H.Ed. 180—The School and Society (3)

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

- Soc. 3—Social Problems (3)  
P.E.M. 52—Leadership of Social Activities (3)  
P.E.W. 54 or P.E.M. 46—Camp Leadership (2)  
P.E.M. 57—The Organization and Conduct of Recreation Centers (3)  
P.E.M. 58—Leadership in Community Recreation (3)  
P.E.M. 78—Scout Leadership (2)  
P.E. 105—Conservation of Natural Resources (2)  
P.E. 107—Camp Administration (3)  
P.E. 110—Recreation Surveys (3)  
P.E. 111—Recreation Areas and Facilities (3)  
P.E. 112—Programming in Recreation (3)  
P.E. 116—Community Recreation Resources and Organization (3)  
P.E. 121—Principles of Recreation Method (3)  
P.E. 141—Introduction to Hospital Recreation (3)  
P.E. 142—Leadership in Hospital Recreation (3)  
P.E. 143—Programming in Hospital Recreation (3)

**Skill Techniques, 20 credits required, to be chosen from the following courses:**

**Music, 3 credits**

- Mu.Ed. 51—Teaching of Music (3)

**Art, 3 credits**

- Ind. 11—Shopwork for Nonmajors (3)  
Art 45—Ceramic Processes (3)

**Dramatics, 6 credits**

- Spch. 32—Beginning Acting (3)  
Spch. 106—Discussion (3)  
Spch. 131—Creative Dramatics (3)  
Spch. 132—Children's Theater (3)

**Nature, 4 credits**

- P.E.M. 64A-B—Leadership in Nature Recreation (4)

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

- P.E.M. 5A-B-C—Physical Education Activities (3)  
P.E.M. 7A-B-C—Recreational Games and Sports (3)

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

- P.E.W. 62—Teaching of Physical Education Activities (3)  
P.E.W. 20C—Recreational Activities (1)  
P.E.M. 9A—Fundamental Rhythms (1)  
P.E.M. 9B—Square and Ballroom Dancing (1)



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

Ed.T. 84A-B-C—Practice and Field Work in Recreation (6)

Ed.T. 85A-B-C—Practice and Field Work in Recreation (6)

Special methods and directed teaching in minor (if teaching certificate is desired) (11)

Public health (6 required):

Pub.H. 51††—Community Hygiene (3)

Pub.H. 59—Health of the School Child (3)

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

The C+ average is based on the following courses: P.E.W. 54 or P.E.M. 46, P.E.M. 57, 58, 78, P.E. 110, 111, 112, 116, 121; and 16 credits in skill techniques spread over at least 3 different fields using no more than 6 credits in any 1 skill.

### Minor in Recreation Leadership

P.E.W. 25—First Aid (2)

Ed.T. 85A-B-C—Practice and Field Work in Recreation (3)

Recreation leadership (courses to be chosen in consultation with recreation leadership adviser) (12)

Skill techniques (to be chosen in consultation with major adviser) (12)

Elective—one course to be selected from the following:

Psy. 140—Social Psychology (3)

Ed.C.I. 104—Adult Education (2)

Ed.C.I. 169—Extracurricular Activities (4)

E.Psy. 158—Psychology of Adolescence (3)

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

### Fifth Year Leading to the Master of Education Degree

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

1. A total of 231 credits, including 45 credits in courses numbered above 100 beyond the requirements for the Bach-

elor's degree in recreation leadership and administration.

2. In addition to the practice and field work required for graduation in the undergraduate curriculum, a period of satisfactory internship will be required for which a maximum of 8 credits will be given, if the student does not have qualifying experience in the recreation field.

3. Students with Bachelor's degrees with majors in physical education, recreation, social work, or other allied fields from other accredited institutions, may receive the master of education degree with a major in recreation when the following requirements *other than herein listed* have been fulfilled at the undergraduate level:

a. Ed. 55A-B, Introduction to Secondary School Teaching, or equivalent.

b. Twenty-six quarter hours of skill techniques spread over the fields of music, art, dramatics, nature recreation, games, sports, and rhythms. Demonstrated proficiency may be substituted for the requirement on advice and consent of the major adviser.

c. Qualifying interest and experience in the field of recreation.

4. Satisfactory completion of final written and oral examinations.

5. A satisfactory report on health examination within 1 year prior to obtaining the M.Ed. degree.

6. Distribution of credits for the fifth year as follows: education, 6-9; recreation, 24-28; electives, 8-15.

Courses are selected in consultation with major adviser. For graduate courses in recreation see pages 95-97.

The College of Education will award the master of education degree with a major in hospital recreation to those who qualify for and successfully complete the program herein described.

The curriculum is intended as a specialized professional program with internship. A grade average of B is required for 45 credits in courses numbered above 100. The examination regularly required for the M.Ed. degree will apply for this curriculum with the comprehensive written examination covering the three areas of the curriculum—professional specialization in hospital recreation, related profes-

†† Requirement may not be met by exemption examination.

sional fields, and medical information. A satisfactory health examination is required on admission to the University and also within 1 year prior to date of receiving degree.

Admission to the curriculum is based on:

1. A Bachelor's degree from an accredited institution in recreation, music, art, speech, physical education, psychology, or sociology, with a level of academic performance indicating probable success in the professional program.

2. Completion of undergraduate introductory courses in psychology, sociology, and science.

3. Twenty-six quarter hours of skill techniques spread over the fields of music, art, dramatics, nature recreation, physical education, and social recreation. Demonstrated proficiency may be substituted for this requirement or for parts of it on advice and consent of the major adviser. Those who do not meet this requirement will be held for undergraduate skill courses on advice of the major adviser.

4. Qualifying interest and experience in the field of recreation.

5. Ninety academic credits included in the undergraduate course work. This total must be reached before the degree will be granted if the student is admitted with less than this amount.

Course requirements: Internship is required in the amount of 6 to 9 credits and extends from 3 to 6 months depending on the previous experience of the individual student. The assignment may or may not be carried on a paid basis.

Distribution of credits is as follows: internship, 6-9; professional specialization in hospital recreation, 12-18; related professional fields and medical information, 11-19; electives, 6-9.

### *Plan II. Recreation Activity Leaders Training Course*

The recreation activity leaders training course is a 4-year program set up by the College of Education to prepare qualified individuals for recreation activity positions in recreation and other agencies as distinct from preparation for teaching and from Plan I, which is directed toward positions of recreation leadership and administration. Satisfactory completion of the program leads to the B.S. degree but does not qualify

for a teaching certificate. Enrollment in the curriculum is limited and the first 2 years are taken in the General College.

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

### FRESHMAN AND SOPHOMORE YEARS

Courses taken while enrolled in the General College:

**Group A: Natural science, 18 credits required:**

G.C. 7A-B-C-D—Physical Sciences (15)  
(or) N.Sci. 1-2-3—Orientation in Natural Sciences (15)

G.C. 10A-B—Human Biology (6)  
G.C. 10C—Human Biology (3)  
(or) Pub.H. 3A—Personal Health (2)

**Group B: Composition, literature, speech, 18 credits required (9 must be in some form of writing):**

G.C. 31A-B-C-D—Writing Laboratory (9)  
(or) Comm. 1-2-3—Communication (12)  
(or) Comp. 4-5-6—Freshman Composition (9)  
G.C. 32A-B-C-D—Oral Communication Speech Laboratory (6)  
(or) Spch. 1-2—Fundamentals of Speech (6)  
(or) Spch. 5—Fundamentals of Speech (5)  
G.C. 30A-B-C-D-E—Literature Today (3)

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

G.C. 4—Problems of Contemporary Society (5)  
G.C. 37—Social Trends and Problems (5)  
G.C. 38—General Geography (5)  
G.C. 39—General Anthropology (5)  
G.C. 43A—Background of the Modern World (5)  
G.C. 43B—Historical Biography (3)  
G.C. 44B—Current History (2-4)  
G.C. 45A—The Growth of American Democracy (5)  
G.C. 45C—Minnesota and the Upper Midwest (5)  
G.C. 45D—Community Problems (3)  
G.C. 46A-B—Government Studies (3-6)  
Pol. 1-2—American Government and Politics (6)  
S.Sci. 1-2-3—Introduction to Social Science (4-12)

Hist. 1-2-3—Civilization of the Modern World, (3-9)

Hist. 20-21-22—American History (4-12)

**Group D: Psychology, 5 credits required:**

G.C. 41A—Psychology in Modern Society (5)  
(or) Psy. A—Elementary Psychology (5)

**Group E: Recreation theory, 9 credits required:**

P.E.M. 11A, B, C—Survey of Recreation Activities (3)

P.E.M. 23A, B, C—Introduction to Recreation Leadership (3)

P.E.M. 49—Social Aspects of Leisure (3)  
(or) G.C. 27—Leisure Time Activities (3)

**Group F: Recreation skills, 19 credits required:**

G.C. 22A, B—Art Today (3-6)

G.C. 23A—Art Laboratory (3)

G.C. 24A, B, C—Music Today, or G.C. 25A, B, C—Music Today (2-9)

(or) Mus. 1—Fundamentals of Music (2)

G.C. 25D—Music Laboratory (2-3)

P.E.M. 4A, B, C—Fundamentals of Sports (1-3)

(or) P.E.W. 1, 2, 3—College Program in Physical Education (1-3)

P.E.W. 25—First Aid (2)

P.E.M. 6C—Aquatics (1)

P.E.M. 45—Camp Craft (2)

P.E.M. 43—Camp Aquatics (2)

### JUNIOR AND SENIOR YEARS

Courses taken while enrolled in the College of Education:

**Group A: Recreation theory, 35 credits required:**

P.E.M. 57—Organization and Conduct of Recreation Centers (3)

P.E.M. 58—Leadership in Community Recreation (3)

P.E.M. 52—Leadership of Social Activities (3)

P.E.M. 78—Scout Leadership (2)

P.E.W. 54 or P.E.M. 46—Camp Leadership (2)

P.E. 105—Conservation of Natural Resources (2)

P.E. 107—Camp Administration (3)

P.E. 110—Recreation Surveys (3)

P.E. 111—Recreation Areas and Facilities (3)

P.E. 112—Programming in Recreation (3)

P.E. 116—Community Recreation Resources and Organization (3)

Ed.T. 84A-B-C—Field Practice in Recreation, Junior Year (6)

Ed.T. 85A-B-C—Field Practice in Recreation, Senior Year (6)

P.E. 121—Principles of Recreation Methods (3)

P.E. 141—Introduction to Hospital Recreation (3)

P.E. 142—Leadership in Hospital Recreation (3)

P.E. 143—Programming in Hospital Recreation (3)

**Group B: Recreational skills, 22 credits required:**

Ind. 1—Basic Woodwork (3)

Ind. 20 or 21—Craft Work (3)

(or) Ind. 11—Shopwork for Nonmajors (3)

P.E.M. 64A-B—Leadership in Nature Recreation (4)

Spch. 31—Introduction to Theater (3)

Spch. 131—Creative Dramatics (3)

Spch. 132—Children's Theater (3)

Mu.Ed. 51—Teaching of Music (3)

Mu.Ed. 52—Teaching of Music (3)

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

P.E.M. 5C—Stunts, Contests, Softball, Baseball (1)

P.E.M. 7A—Games and Relays (1)

P.E.M. 7C—Recreational Games (1)

P.E.M. 8—Tennis and Golf (1)

P.E. 9A-B—Rhythms (2)

P.E.M. 66—Officiating Football and Basketball (3)

P.E.M. 68—Basketball Coaching (2)

P.E.M. 69—Track Coaching (2)

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

P.E.W. 62—Teaching of Physical Education Activities (3)

P.E.W. 20C—Physical Education Activities (1)

P.E.M. 9A—Fundamental Rhythms (1)

College program in physical education (4)

P.E.M. 9B—Square and Ballroom Dancing (1)

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

P.E. 155—Instructional Aids in Health, Physical Education, and Recreation (3)

Pub.H. 4—Health Problems of the Community (2)

(or) Pub.H. 51—Community Hygiene (3)

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

### Minor in Camping and Outdoor Education

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

P.E.M. 46—Camp Leadership (2)

P.E.M. 45—Camp Craft (2)

P.E. 107—Camp Administration (3)

P.E. 105—Conservation of Natural Resources (2)

P.E.M. 43—Camp Aquatics (2)

E.Psy. 158—Psychology of Adolescence (3)  
 P.E.M. 64A-B—Leadership in Nature Recreation (4)  
 P.E.M. 52—Leadership in Social Activities (2)  
 P.E. 121—Principles of Recreation Methods (3)  
 Recreational music (3)

Recreational dramatics (3)  
 Handcrafts (3)  
 Recreational games and sports (3)  
 P.E.M. 43 or 6—Aquatics (1)  
 P.E.W. 25—First Aid (1)  
 Field work in camping (one summer's experience)

## ROMANCE LANGUAGES

Major advisers: *French*—Associate Professor Falk; *Spanish*—Associate Professor Floripe

Students wishing to major in French or Spanish take the first 2 years in the College of Science, Literature, and the Arts and meet the Junior College requirements of that College. Their programs should include the prerequisite courses and the following Senior College courses. For general and professional requirements of the College of Education, see pages 8-9.

**French as a major subject:** Fren. 20, and 36 Senior College credits including:

Fren. 54—French Conversation (3)  
 Fren. 56—History of Language (3)  
 Fren. 60-61-62—Civilization, Culture (12)  
 Fren. 65-66-67—Survey of Literature (9)  
 Fren. 100—Advanced Phonetics (3)  
 Fren. 103-104-105—Syntax, Composition (6)  
 In addition, Clas. 56 is required (3)

**French as a minor subject:** 23 college credits of which 18 credits will be in courses numbered above 4, including:

Fren. 54—French Conversation (3)  
 Fren. 56—History of Language (3)  
 Fren. 60-61-62—Civilization, Culture (12)

**Spanish as a major subject:** 35 credits in courses numbered above 21, including:

Span. 65-66-67—Literature of Spain (9)  
 (or) Span. 68-69—Literature of Spain (10)  
 (or) Span. 74-75-76—Literature of Spanish America (9)  
 Span. 53-54-55—Composition (9)  
 Span. 60—Advanced Composition (3)  
 And 8 credits chosen from the following:  
 Span. 56—Spanish Phonetics and Diction (3)  
 Span. 70-71-72—Latin American Civilization, Culture (9)  
 Span. 103, 104, 105—Syntax, Composition (3)  
 Span. 171-172-173—History of the Spanish Language (3)

In addition, Clas. 56 is required (3)

**Spanish as a minor subject:** 23 college credits of which 17 credits will be in courses numbered above 20, including:

Span. 65-66-67—Literature of Spain (9)  
 (or) Span. 68-69—Literature of Spain (10)  
 (or) Span. 74-75-76—Literature of Spanish America (9)

## RURAL EDUCATION

Major adviser: Professor Archer

The College of Education offers a 4-year and a 5-year program for students who wish to specialize in rural education and administration and supervision of rural schools. The first 2 years of the curriculum are the same as for elementary education, page 25. However, modifications may be made in individual cases in conference with the major adviser, and many of the courses under requirement 1 should be taken in the freshman and sophomore years. Students register in the College of Education beginning with the freshman year and should consult the major adviser at the time of their first registration.

### *Requirements for a Major in Rural Education*

1. **Specialization in rural life.** 40 to 45 credits required:

Ag.Ec. 3—Principles of Economics (5)  
 Ag.Ec. 8—Rural Economics (3)  
 Soc. 14—Rural Sociology (3)  
 Ag.Ed. 54—Rural Education and Community Leadership (3)  
 Agro. 1—General Farm Crops (3)  
 An.Hu. 1—Livestock Production (4)  
 Hort. 6—Fruit Growing (3)  
 (or) Hort. 32—Vegetable Growing (3)  
 (or) Hort. 56—Plant Propagation (3)  
 Dy.Hu. 1—Elements of Dairying (3)

A minimum of 14 credits from the following:

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

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

**2. General and elementary education:**

- Ed. 75A-B—Introduction to Elementary School Teaching (10)
- Ar.Ed. 84—Teaching of Art in the Elementary School (3)
- Mu.Ed. 52—Teaching of Music (3)
- Ed.T. 54A-B—Student Teaching in the Elementary School (10)
- Ed.C.I. 60—The Teaching of Reading in the Elementary School (3)
- Ed.C.I. 61—The Teaching of the Social Studies in the Elementary School (3)
- Ed.C.I. 62B—The Teaching of Arithmetic in Intermediate Grades (3)
- Ed.C.I. 63—Children's Literature (2)
- Ed.C.I. 64—The Teaching of English in the Elementary School (3)
- Ed.C.I. 65—The Teaching of Science in the Elementary School (3)
- H.Ed. 180—The School and Society (3)

**3. Additional courses to complete the total of 186 credits, including:**

- Pub.H. 59—Health of the School Child (pre-req. 3A and 4, or 50) (3)

Recommended courses are:

- Soc. 160—Rural Community Organization (3)
- Soc. 162—Rural Social Institutions (3)
- For. 10—Farm Forestry (3)
- Additional courses in home economics

Additional courses in curriculum and instruction and in educational psychology  
 Ed.Ad. 117—Schools in Rural Areas (3)  
 Ed.Ad. 118—The Community School (3)

**Fifth Year in Rural Education**

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

**1. Sociology**—6 credits (unless these courses were taken in the 4-year curriculum):

- Soc. 160—Rural Community Organization (3)
- Soc. 162—Rural Social Institutions (3)

**2. Education**—27 credits:

- Ed.Ad. 117—Schools in Rural Areas (3)
  - Ed.C.I. 150—Supervision and Improvement of Instruction (3)
  - Ed.C.I. 151—Diagnosis and Treatment of Learning Difficulties (3)
  - E.Psy. 110—Educational Measurement in the Classroom (3)
  - E.Psy. 193—Psychology of Human Learning (3)
  - Ed.Ad. 118—The Community School (3)
- Six credits to be selected from courses in school administration, organization, and supervision and problems in rural education.

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

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

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

**SCHOOL HEALTH EDUCATION**

Minor adviser: Assistant Professor Slocum

The minor in school health education requires 25-28 credits in addition to the basic background courses.

**Basic background courses, 15-21 credits required:**

- Zool. 14, 15—General Zoology (6)
- (or) G.C. 10A-B—Human Biology (6)
- (or) Zool. 1, 2, 3—General Zoology (10)
- (or) N.Sci. 1, 2—Orientation in Natural Sciences (10)

- G.C. 10C\*\*—Human Biology (3)
- (or) Pub.H. 3A—Personal Health (2) and Pub.H. 4—Health Problems of the Community (2)
- (or) Pub.H. 4—Health Problems of the Community (2)
- (or) Pub.H. 50—Personal and Community Health (3)
- (or) Pub.H. 51—Community Hygiene (3)
- Pub.H. 59—Health of the School Child (3)
- P.E.W. 25—American Red Cross First Aid (2)

\*\* For selection of courses consult advisers; see also the statement of prerequisites.

### Minor in School Health Education, 25-28 credits required:\*\*

- Pub.H. 133—Mental Hygiene (3)  
 (or) E.Psy. 159—Personality Development  
 and Mental Hygiene (3)  
 P.E.M. 59—Instructor's Course in First Aid  
 (3)  
 Pub.H. 75—Environmental Sanitation (3)  
 Pub.H. 100—Preventative Medicine and Pub-  
 lic Health (5)  
 H.E. 30—Nutrition (2)  
 (or) H.E. 31—Nutrition (3)

- P.E.W. 83—Methods and Materials of School  
 Health Education (3)  
 (or) P.E. 117—Advanced Course in School  
 Health Instruction (3)  
 P.E. 114—Administration of the School Health  
 Education Program (3)  
 F.L. 1A—Preparation for Marriage (3)  
 P.E.W. 94—Student Teaching in School  
 Health Education (2)  
 (or) Equivalent included in P.E.W. 90A-B-C  
 or P.E.M. 73, 74, 75

## SOCIAL STUDIES

Major adviser: Associate Professor West

The secondary teacher of social studies is seldom given an opportunity to devote his entire schedule to one subject. Consequently, prospective teachers should prepare themselves in each of the social studies fields. In addition, work in anthropology and social psychology would strengthen the candidate's background for teaching social studies. The candidate must take at least 23 credits in history in order to teach history in Minnesota high schools. Students are urged to consult an adviser in building their college course.

### Requirements for a Major in the Social Studies

The course requirements for a major in the social studies are prescribed under 1-3:

1. The student must select 1 of the 5 fields listed and must complete the course requirement indicated. This is referred to as the *core subject*.
  - a. Economics—30 credits including courses 6-7 and 20 additional credits of which 12 must be in courses numbered above 100.
  - b. Geography—30 credits, of which 12 must be in courses numbered above 100.
  - c. History—36 credits, of which 18 must be in the Senior College. The student must include a year's survey course in American history and a survey course in general European or world history.
  - d. Political science—30 credits, of which 12 must be in courses numbered above 100.

e. Sociology—30 credits, of which 12 must be in courses numbered above 100.

2. In addition to the requirements set forth under 1, the student must complete courses in other subjects as follows:

- a. With economics, geography, political science, or sociology as the core subject: the student must secure 23 credits in history, including a year's survey course in American history and a survey course in general European or world history. He must also secure 18 credits divided among the other subjects listed under 1.
- b. With history as the core subject: the student must secure 30 credits divided among the 4 other subjects listed under requirement 1.

3. The student must include in this program at least 1 course on the Far East and 1 on Russia. These courses may be taken in any of the social science departments.

4. The C+ average is based on all courses taken in the five fields. For professional and public health requirements, see pages 8-10.

### Requirements for a Minor in the Social Studies

Those who major in some subject or field other than the ones listed under requirement 1 of the major may secure a minor in the social studies. The course requirements for a minor in the social studies are 46 credits: 23 in history and 23 divided among at least 2 other subjects selected from the 5 listed under requirement 1 of the major. No fewer than 5 credits in any 1 subject

\*\* For selection of courses consult advisers; see also the statement of prerequisites.

will be counted toward the requirements of 23 credits in other subjects. The credits in history must include a year's survey course in American history and a survey course in general European or world history.

**Five-Year Program Leading to the Master of Education Degree**

The College of Education offers a 5-year program leading to the pro-

fessional degree of master of education for teachers of the social studies. For general requirements for the M.Ed. degree, see page 15. For specific requirements for this curriculum confer or correspond with the major adviser.

Teachers of the social studies who are interested in further study may secure an M.A. degree in the Graduate School. Such students will usually major in curriculum and instruction or in education. See statement on page 24.

**SOCIOLOGY**

Major adviser: Assistant Professor Johnson

Because of the many demands made upon teachers of the social studies, the necessity of teaching more than one subject or general courses, and the difficulty of placement, students are strongly urged to follow the social studies curriculum; see pages 62-63.

Students with a major in sociology take the first 2 years in the College of Science, Literature, and the Arts and meet the Junior College requirements of that college. For general and professional requirements of the College of Education, see pages 8-9.

**Sociology as a major subject:**

- Soc. 1—Introduction to Sociology (3)
- Soc. 14—Rural Sociology (3)
- Soc. 3—Social Problems (3)
- Additional credits (27)

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

**Sociology as a minor subject:**

A minimum of 23 credits including Soc. 1, 14, and 3 is required.

**SPEECH AND THEATER ARTS**

Major advisers: Professors Gilkinson, Whiting; Associate Professors Graham, D. K. Smith; Assistant Professor Ballet

Students interested in speech should consider the language arts curriculum described on pages 38-40. For curriculum in speech pathology, see page 64.

Students majoring in speech register for the first 2 years in the College of Science, Literature, and the Arts and meet the Junior College requirements. For general and professional requirements of the College of Education, see pages 8-9.

**Speech and Theater Arts as a Major Subject**

1. All students must complete the following core of 17 or 18 credits:

- Spch. 1 and 2, or 5—Fundamentals of Speech (6 or 5)
- Spch. 31—Introduction to the Theater (3)
- Spch. 32—Beginning Acting (3)
- Spch. 67—Phonetics (3)
- Spch. 81—Interpretative Reading (3)

2. Students select one of the following curricula with the aid of a major adviser:

**Curriculum I, 27 credits**

- Spch. 61—Personal Development Through Speech (3)
- Spch. 106—Discussion (3)
- Spch. 119—Introduction to Speech Correction (3)

Plus 9 credits selected from the following:

- Spch. 71, 72, 73—Play Production (9)
- Spch. 66—Radio and Television Drama (3)
- Spch. 82, 83—Interpretative Reading (6)

Plus 9 credits selected from the following:

- Spch. 51—Advanced Public Speaking (3)
- Spch. 55, 56—Speech Writing and Platform Speaking (6)
- Spch. 65—Radio and Television Speech (3)
- Spch. 97—Intercollegiate Debate and Oratory (1-3)

Spch. 101, 102, 103—Argumentation and Persuasion (9)

#### Curriculum II, 27 credits

Spch. 34—Stagecraft (3)  
 Spch. 65—Radio and Television Speech (3)  
 (or) Spch. 66—Radio and Television Drama (3)  
 Spch. 73—Play Production (3)  
 Spch. 78—Advanced Acting (3)  
 (or) Spch. 83—Oral Interpretation (3)  
 Spch. 91—Stage Design (3)  
 (or) Spch. 93—Stage Costuming (3)  
 Spch. 92—Stage Lighting (3)  
 Spch. 111, 112—Stage Direction (6)  
 Spch. 131—Creative Dramatics (3)  
 (or) Spch. 132—Children's Theater (3)

Students electing Curriculum II must pass a comprehensive theater examination prior to graduation.

### Speech as a Minor Subject

Students minoring in speech are required to complete 27 credits in speech courses, including Spch. 1-2, or 5. These

courses are to be selected with the aid of an adviser according to the needs of the student.

All students majoring or minoring in speech are expected to participate in one or more co-curricular activities such as debating, dramatics, radio, public reading, and public speaking.

Because of the close relation between English and speech in the high schools of Minnesota, students majoring in speech must have a minor in English. Modification of the minor requirement may be made on the recommendation of the departmental adviser with the approval of the Committee on Student Scholastic Standing.

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

## SPEECH PATHOLOGY

Major adviser: Professor Bryngelson

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

The program is arranged for 4 or more years of study. At the end of 4 years a certificate in special education and a B.S. degree are granted. Advanced study for the M.S. and Ph.D. degrees is possible. (See *Bulletin of the Graduate School*.) The required courses are listed below. Students interested in this field should consult the major adviser before registering. All electives selected to complete the work for a degree should have the approval of the adviser.

Students register for the first 2 years in the College of Science, Literature, and the Arts and complete the Junior College courses listed below.

### FRESHMAN AND SOPHOMORE YEARS

Comm. 1-2-3—Communication (or Comp. 4-5-6, or Engl. A-B-C, or exemption) (9-15)  
 Zool. 1-2-3—General Zoology (10)  
 (or) N.Sci. 7-8-9—General Biology (10)  
 Psy. 1-2—General Psychology (6)  
 Spch. 1-2 or 5—Fundamentals of Speech (5-6)

Psy. 4-5—Introductory Laboratory Psychology (4)  
 Phys. 4—Elements of Physiology (4)  
 Anat. 3 or 4—Elementary Anatomy (4-5)  
 Physical education (3-5)  
 Electives to complete total of 96 credits

### JUNIOR YEAR

Spch. 61—Personal Development Through Speech (3)  
 Spch. 67—Phonetics (3)  
 Spch. 119—Introduction to Speech Correction (3)  
 Spch. 162-163—Speech Pathology (6)  
 Psy. 144-145—Abnormal Psychology (6)  
 Ed. 75A-B—Introduction to Elementary School Teaching (10)  
 (or) Ed. 55A-B—Introduction to Secondary School Teaching (10)  
 C.W. 80—Child Psychology (3)  
 C.W. 132—Adolescent Development (3)  
 E.Psy. 117—Basic Principles of Measurement (3)

### SENIOR YEAR

Spch. 141—Anatomy and Physiology of the Voice Mechanism (3)  
 Spch. 152—Hearing Disorders (3)  
 Spch. 153—Audiometry and Hearing Aids (3)  
 Spch. 155—Lipreading and Lipreading Methods (3)  
 E.Psy. 142—Individual Mental Testing (3)  
 Ed.C.I. 174-175-176—Clinical Methods and Practice in Speech Pathology (9)  
 H.Ed. 180—The School and Society (3)



Electives to complete total of 186 credits.

Suggested electives are:

- Ed.C.I. 145—Reading Difficulties (3)
- Soc. 91—Case Method Applied to the Study of Human Problems (3)
- Spch. 140—Introduction to Voice Science (3)

Courses in the fields of humanities, philosophy, anthropology, etc.

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

## STUDENT PERSONNEL WORK

Major advisers: Professors Dugan, Wrenn

Work leading to the M.A. or Ph.D. degrees can be taken with a concentration in this field. Preparation is possible for technical or administrative positions at either the secondary school or college level. A major in educational psychology is most frequently advised with a minor in psychology, education, or sociology. Preparation of counseling psychologists is closely related to this field with a heavier concentration in various aspects of psychology.

Stress is laid upon training that leads to an adequate understanding of the individual student and group behavior. Emphasis is also placed upon clinical practice or supervised experience in active school, university, or social

agency guidance programs, provided for under E.Psy. 281 and 282, or under internship in counseling psychology.

Some basic courses most frequently included in the preparation for various fields of personnel work are: Ed.C.I. 125 and 135, E.Psy. 116, 117, 125, 126, 133, 134, 140, 159, 216-218, 225-226, 233, 250, 251, 290, and 293. In addition, students are advised to become familiar with curriculum and administrative problems at either the public school or higher education level, to take certain courses in psychology and sociology, and, if doctoral candidates, to take advanced courses in statistics and measurement, and to probe research problems in the student personnel field.

## TEACHING OF EXCEPTIONAL CHILDREN

Major adviser: Associate Professor Reynolds

The State Department of Education requires special certificates for teachers of the various classes for exceptional children, such as classes for the deaf and hard-of-hearing, the crippled, the mentally retarded, the visually handicapped, and those with speech defects. The speech pathology curriculum (page 64) trains special teachers in speech correction. Students interested in teaching visually handicapped children arrange their programs individually with the adviser.

Students wishing endorsement for a special certificate to teach the mentally retarded, the crippled, or the deaf and hard-of-hearing complete a regular curriculum leading to certification for kindergarten-primary, elementary, or secondary school teaching. In addition, they take a minor in the special field. Students can often complete their education major and the special work within a 4-year program. Students planning to register in one of these programs (mentally retarded, crippled, or deaf and hard-of-hearing) should consult the adviser as early as possible and not later than the beginning of the junior year.

### *The Minor in Teaching Mentally Retarded Children*

Adviser: Reynolds

A minimum of 28 credits selected from the following courses is required for a minor in the field of teaching mentally retarded children. Ed.T. 53A is required in this curriculum. It may sometimes be substituted for the student teaching requirement in certain other curriculums. Other education courses listed for the minor may be used as "education electives" in the IA and IIA elementary curriculums.

- E.Psy. 182—Education of Exceptional Children (3)
- E.Psy. 184—Education of the Slow-Learning Child (3)
- E.Psy. 142—Individual Mental Testing (3)
- E.Psy. 110—Measurement in the Classroom (3)
- Ed.C.I. 145—Reading Difficulties (3)
- Ind. 11—Shopwork for Nonmajors (3)
- (or) Ind. 20—Craft Work A (3)
- (or) Ar.Ed. 19—Functional Arts and Crafts in Elementary Education (3)
- Spch. 119—Introduction to Speech Correction (3)
- C.W. 143—Problems of Mental Deficiency (3)

C.W. 130—Development of Skill, Language, and Thought (3)  
 C.W. 131—Development of Personality and Social Behavior (3)  
 Ed.T. 53A††—The Teaching of Handicapped Children (in a class of mentally retarded children) (5)

P.Med. 1—Orientation to Occupational Therapy (2)  
 P.Med. 2—Orientation to Physical Therapy (1)  
 Ed.T. 53A††—The Teaching of Handicapped Children (in a class for crippled children) (5)

### *The Minor in Teaching Crippled Children*

Adviser: Reynolds

Students wishing to minor in teaching crippled children take a minimum of 28 credits selected from the courses listed below or their equivalents. A course in elementary human anatomy (Anat. 3 or 4 or 57) should be taken at the sophomore level if possible in order to meet admissions requirements for other courses in this sequence before the junior year.

E.Psy. 182\*\*—Education of Exceptional Children (3)  
 E.Psy. 184—Education of the Slow-Learning Child (3)  
 E.Psy. 187—Education of Crippled Children (3)  
 Spch. 119—Introduction of Speech Correction (3)  
 Anat. 57—Elementary Anatomy (or equivalent course in human anatomy) (4)  
 P.E.W. or P.E.M. 51\*\*—Mechanics of Movement (kinesiology) or equivalent course in kinesiology (3)  
 P.E.M. 65\*\*—Adapted Physical Education (3) (or) P.E.W. 85—Remedial Activities in Physical Education (3)  
 P.Med. 61—Theory, Technique of Physical Medicine Applied to Medical Sciences (5)

### *The Minor in Teaching Deaf and Hard-of-Hearing Children*

Adviser: Lassman

The following courses are required for the minor in the field of teaching deaf and hard-of-hearing children. It should be noted that student teaching in a special class (Ed.T. 53A and B) may sometimes be substituted for other student teaching requirements. E.Psy. 182 may be used as an "education elective" in the IA and IIA elementary curriculums.

E.Psy. 182—Education of Exceptional Children (3)  
 Spch. 67—Phonetics (3)  
 Spch. 119—Introduction to Speech Correction (3)  
 Spch. 152—Hearing Disorders (3)  
 Spch. 153—Audiometry and Hearing Aids (3)  
 Spch. 155—Lipreading and Lipreading Methods (3)  
 Spch. 127—Language Training for the Deaf (3)  
 Spch. 157—Clinical Practice in Audiology (3) (and/or) Spch. 156—Auditory Training (3)  
 Ed.T. 53A-B††—The Teaching of Handicapped Children (in a class for the deaf and hard-of-hearing) (10)

## VISITING TEACHERS

Training to be a visiting teacher (or school social worker) is offered at the graduate level in the School of Social Work. The trend is to require the M.A. degree in social work for this field of service. Under certain conditions it is possible for students with undergraduate majors in education, sociology, so-

cial work or psychology to earn a certificate to be a visiting teacher, by taking a limited amount of course work beyond the Bachelor's degree.

Students interested in this field should consult an adviser in the School of Social Work, Ford Hall, or Professor Maynard Reynolds, Pattee Hall.

\*\* May be used as education electives in the IA and IIA elementary curriculums.

†† May be substituted for the second quarter of student teaching (Ed.T. 54B) in the case of students enrolled in the IA elementary curriculum. May be used as an education elective in the IIA elementary curriculum. May be substituted for Ed.T. 78 or 79 by NKP majors.

‡‡ Substitutes for Ed.T. 54A-B in the IA curriculum.

## Section III. Description of Courses

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

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

Courses are numbered as follows: 1-49 for freshmen and sophomores; 50-99 for juniors and seniors; 100-199 for juniors, seniors, and graduate students; 200 and over for graduate students only. The prerequisite will indicate when there is an exception to this. 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.

When no departmental designation precedes the number of a course listed as a prerequisite, that course is in the same department as the course being offered. A prerequisite reading "5 cred." means 5 credits received in courses offered by the same department as that offering the course being described.

**Symbols**—The following symbols are used throughout the course descriptions and will not carry any page footnotes:

- \* An asterisk after a course number indicates those courses through which it is possible for graduate students to prepare required Plan B papers.
- † A dagger after a course number indicates that all quarters of the course preceding the dagger must be completed before credit will be granted for any quarter of the course.
- ‡ A double dagger following a sequence course number indicates that the course may be taken out of sequence.
- § A section mark in the parenthetical statement means that credit will not be given if the equivalent course listed after the section mark has been taken for credit.
- ¶ A paragraph mark preceding a course number in the parenthetical statement means "concurrent registration," i.e., the course so indicated may be taken simultaneously.
- # A sharp mark in the parenthetical statement means that students must obtain the consent of the *instructor* before attempting to register for the course.

### AGRICULTURAL EDUCATION (Ag.Ed.)

**1f. Introduction to Agricultural Education.** Review of employment and service in agricultural education; qualifications of teachers, survey of preparatory offerings, program in Minnesota. (1 cred.)

- 54w. Rural Education and Community Leadership.** An appraisal of community educational agencies; community leadership; school in the rural community; co-ordination of school with nonschool educational agencies. (3 cred.; prereq. soph.)
- 56s. Rural Education Through Extension Methods.** Role of the Extension Service in rural education; methods and techniques of instruction in nonschool educational programs. (3 cred.; prereq. soph.)
- 81w-82s. Teaching Agriculture in the Secondary School.** Teaching high school students; use of the home, farm, and community in structuring courses of study; the Future Farmers of America, the Vo-Ag Planning and Record Book; building and utilizing teaching units. (4 cred. per qtr.; prereq. Ed. 55B)
- 91f.w.s. Supervised Teaching Experience.** Supervised experience in work of agriculture instructor. (6 cred.; prereq. sr., 82, C+ average in major, and #)
- 104f.w.s. Planning Program.** Developing a program of agricultural education in a community school. Integration with total school program. Administrative relationships and professional improvement. (2 cred.; prereq. last qtr. undergrad. registration or #)
- 106w. Young Farmer and Adult Education in Agriculture.** Organization, objectives, and techniques for conducting continuing programs for out-of-school farm youth and adult farm people. (4 cred.; prereq. 81)
- 121. Enterprise Analysis.** Analyzing the farm business as a basis for identifying problems. Planning learning experiences to improve farm management at the high school, young farmer, and adult levels. (3 cred.; prereq. sr. or #)
- 141f. Supervised Farm Practice in Vocational Agriculture.** Selection, planning, supervising, and summarizing of individual farming programs. Adaptation to meet needs of high school F.F.A. students, young farmers, and adults. (3 cred. per qtr., total 9 cred.; prereq. grad. or #, and 10 cred. in education)
- 145w. The Integrated Course of Study in Agriculture.** Philosophy, organization, and administration of instruction in agriculture departments in the secondary schools. (3 cred.; prereq. sr., 10 cred. in education)
- 154w.\* Rural Education and Community Leadership.** Same as Ag.Ed. 54, but with additional reading and special problem required. (3 cred.; prereq. grad. or #)
- 156s.\* Rural Education Through Extension Methods.** Same as Ag.Ed. 56, but with additional reading and special problem required. (3 cred.; prereq. grad. or #)
- 199E. Internship.** (Cred. ar.)
- 221f.w.s. Field Problems.** Making investigations, gathering data, and formulating plans regarding agricultural education. (3 cred.)
- 232f.w.s.\* Research in Agricultural Education.** Investigational work in teaching of agriculture in high schools. Selecting problems, preparation of bibliographies, analyzing and interpreting data, and preparing manuscripts. (Cred. ar.; prereq. 15 cred. in education)
- 250f.w.s. Supervision of Vocational Agriculture.** Objectives, functions, responsibilities of state and local supervision at the secondary level; role in the teaching-learning process; organizing supervisory activities; aids to effective supervision. (1-3 cred.; prereq. #)
- 283f.w.s. Organization and Administration of Educational Programs in Agriculture.** Philosophy, purposes, and objectives at the national, state, and local levels. (3 cred. per qtr., maximum 9; prereq. grad. student in field of agriculture other than agricultural education)
- 286w. Current Issues in Agricultural Education.** Problems related to local school programs. (Cred. ar.; prereq. #)
- 291f.w.s. Seminar in Agricultural Education.** (Cred. ar.)

## ART EDUCATION (Ar.Ed.)

- 14f.s. Introduction to Art Education.** For art education majors previewing career opportunities, basic problems of teachers, professional qualifications, and guidance in making efficient use of University educational resources. (2 cred.)
- 17f.w.s. Pictorial Expression for Elementary Education.** Survey of art in life and education. Materials, techniques, and ideas important to children's art expression, relationship to adult expression, and significance in educational growth. (3 cred.)
- 18f.w.s. Design Activities for Elementary Education.** (See Ar.Ed. 17) Relationships between art and nature. Problems in invention, arrangement and decoration, color, lettering, posters, bulletin board displays, etc. (3 cred.)
- 19s. Functional Arts and Crafts in Elementary Education.** (See Ar.Ed. 17) Influence of art on modern life. Typical opportunities for integrated experiences. Clothing, architecture and interior design, community planning, commercial and industrial design, puppetry, dramatics, intercultural relations, holiday projects, etc. (3 cred.)
- 56f, 57w, 58s. Basic Principles and Experiences in Art Education.** Sequence for art educational majors. Basic types of art expression as a foundation for teaching methods adjusted to age and ability groups. Experiences in planning group activities in art. (5 cred. per qtr.; prereq. 14) *Hastie*
- 81w.s. Puppetry in Education.** Use of simple puppetry as a teaching technique and problems of motivation and correlation with school subjects. Construction, manipulation, and stage techniques related to typical school situations. (3 cred.)
- 84f.w.s. Teaching Art in the Elementary School.** Place and content of art in elementary school curriculum. Methods for securing optimum educational outcomes from art activities. (3 cred.; prereq. 6 cred. from 17, 18, and 19)
- 85w. Art for Integration in Secondary Education.** Prepares teachers with no previous training in art to appreciate and use art for furthering the objectives of their own fields. (3 cred.) *Bratlee*
- 86f, 87w, 88s.† Student Teaching and Supervision of Art.** Observations, participation, practice teaching, and supervisory experiences with various types and levels of art classes. (2 cred. per qtr., 6 cred. required; prereq. sr. art education, 56-57, Ed. 55A-55B, ¶86Af or ¶87Aw or ¶88As) *Hastie*, others
- 86Af, 87Aw, 88As.† The Teaching and Supervision of Art.** Assignments, class work, discussions, and evaluation of specific experiences and problems illustrating art education as it is and as it might become. (2 cred. per qtr., 6 cred. required; prereq. sr. art education, 56-57, Ed. 55A-55B, ¶86f or ¶87w or ¶88s) *Gayne*, *Hastie*, others
- 151w-152s-153. Curriculum Building in Art Education.** Functions of art in society. Selection, evaluation, and organization of material for teaching units and projects. (3 cred. per qtr.; 153 offered 1957-58 and alternate years) *Gayne*, *Hastie*
- 156s. Intercultural Education Through Art.** Approaches to international understanding and co-operation through recognition of aesthetic contributions of diverse peoples to American life. (3 cred.) *Gayne*
- 158s. Art Education in Europe.** Current practices, problems, and achievements in art education in Western Europe as compared with practices in American art education. (3 cred.) *Gayne*
- 184f. Improving Art Programs in the Elementary School.** Evaluation and utilization of research findings and introduction of new materials. Development of closer co-operation between classroom teachers and art education specialists. (3 cred.; prereq. teaching experience or §) *Gayne*
- 185s. Improving Art Programs in the Secondary School.** For experienced teachers of art and advanced students; general research and critical examination of art programs. (3 cred.; prereq. teaching experience or §) *Hastie*

- 189f. Application of Aesthetic Theory in Education.** Contemporary theories of art, their psychological and philosophical foundations. Open to teachers, supervisors, and administrators concerned with art in general education at all levels. (3 cred.) Hastie
- 284w. Research in Art Education.** Research techniques; locating, defining, and studying basic problems. (3 cred.) Gayne
- 295f.w.s. Problems in Art Education.** Independent projects under staff guidance; may include advanced studio practice or technical problems requiring experimental or library research. (Cred. ar.; registration by special permission of major adviser) Gayne, staff
- 296f.w.s. Seminar in Art Education.** Reports, evaluation of problems, recent literature. (0-1 cred.; open to advanced students in education) Art education staff and guest specialists from related departments and from off campus.

### CHILD WELFARE (C.W.)

- 10s. Introduction to Child Study.** Orientation in child development; survey of preschool, parent education, and mental health approaches. (2 cred.; prereq. 3rd qtr. fr., soph.) Cummings
- 40f.w.s. Child Training.** Development and training of young children. Observations in the demonstration schools. (3 cred.; not open to home ec. students who should take H.E.Ed. 90; prereq. soph., Psy. 1-2) Fuller, Helgerson
- 80f.w.s. Child Psychology.** Science of child development and its applications. (3 cred.; prereq. Psy. 1-2) Harris (f,w), Gollin (s)
- 83f. Development and Guidance of Children's Activities.** The development of interests and activities. (3 cred.; prereq. 80) Templin
- 90s. The Psychology of Parent-Child Relationships.** Relation of adults and children within the family; family problems such as finance, discipline, recreation, marital adjustment, etc., as related to children. (2 cred.; prereq. 80) Templin

**Note**—For child welfare courses at the graduate level please consult the *Bulletin of the Graduate School*.

### CURRICULUM AND INSTRUCTION (Ed.C.I.)

#### General Courses

- 104s. Adult Education.** Agencies, programs, philosophies, history, and trends. Each student will devote some time to a field of special interest. (3 cred.) Nolte
- 105f.w.s. Audio-Visual Materials in Education.** Characteristics, advantages, limitations, and practical schoolroom use of audio-visual materials of nonprojection and projection types. Practice in operation of audio-visual equipment. (3 cred.; prereq. sr., grad.) Pearson
- 106w. Co-ordinating an Audio-Visual Education Program.** For persons having part-time or full-time responsibility for an audio-visual program. Criteria of equipment, facilities and materials; in-service training of teachers; and special problems encountered in small and large systems. (3 cred.; prereq. 105 or \*) Pearson
- 107f.w.s. Radio and Television in Education.** Production, techniques of classroom use, selection of equipment, teaching appreciation, and the administration of radio and television in the schools. (3 cred., [or 2 cred. when offered with 108 in alternate yrs.]; prereq. 9 cred. in education) Tyler
- 108w.† Radio and Television in Education.** Same content as 107, but expanded. (2 cred. per qtr.; prereq. 107; offered 1957-58 and alternate years) Tyler

- 109f.w.s. Audio-Visual Materials and Equipment Laboratory.** Planning and making materials for audio-visual education; use of machines and equipment. (3 cred.; prereq. 105 or ¶105 or #) Pearson
- 133f. Consumer Education in the Schools.** Organizing a program in the school. Contribution of various fields at secondary and elementary levels. (3 cred.) Price
- 145f.s. Reading Difficulties.** Causes, prevention, and correction. Remedial practices useful to the classroom teacher, school counselor, and reading specialist. (3 cred.; prereq. 143 or 144 or equiv.) Bond, Clymer
- 151w. Diagnosis and Treatment of Learning Difficulties.** Evaluation of results of teaching; diagnosis of pupil difficulty; development and prevention; tests as aids to teaching; following up a testing program. (3 cred.) Clymer
- 171f.w.s. Curriculum Laboratory Practice.** Analysis and construction of units, courses of study, and curriculums according to needs, interests, level, and specialization. (0-3 cred. per qtr.; prereq. 170A or B, #) Bossing, Goossen
- 174f.w.s.-175f.w.s.-176f.w.s. 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. (3 cred. per qtr.; prereq. Spch. 61, 67, 119, 162, and 163) Bryngelson
- 205f.w.s.\* Problems in Audio-Visual Education.** (Cred. ar.; prereq. #) Pearson
- 207f.w.s.\* Problems in Radio-Television Education.** For students whose work in 107 or 108 has indicated an aptitude and interest in the field. (1-3 cred. per qtr.; prereq. 107 or 108) Tyler
- 215f.w.s.\* Problems in the School Health Education Program.** Independent study and experimentation in school health education. (Cred. ar.; prereq. #) Grout
- 217w. Seminar in the School Health Education Program.** Discussion and reports on current problems in school health education. (Cred. ar.; prereq. #) Grout
- 227f.w.s.\* Problems in Rural Education.** (Cred. ar.; prereq. Ed.Ad. 117) Archer
- 243s. Recent Research in Reading.** Critical analysis of methodology and findings of current research. Appraising research methods, population limitations, and educational implications. (3 cred.; prereq. #) Bond, Clymer
- 271f.w.s.\* Problems in Curriculum Construction.** Individual research. (3-6 cred. per qtr.; prereq. #) Archer, Birkmaier, Boeck, Bossing, Curtin, Goossen, D. Johnson, Ruddell
- 273f.w.s.\* Problems in Reading.** Recent issues, studies, and findings. For those with previous training in reading who have a special problem, or who wish to survey the most recent literature. (Cred. ar.; prereq. 143 or 144 or #) Bond, Clymer, Reynolds

### *Elementary Education*

- 60f.s. The Teaching of Reading in the Elementary School.** Emphasis on intermediate and upper elementary grades. Includes reading readiness, word recognition techniques, development of basic study skills, development of word meanings, comprehension abilities, and interests and tastes in reading. (3 cred.; prereq. Ed. 75A) Bond
- 61f.s. The Teaching of the Social Studies in the Elementary School.** (3 cred.; prereq. Ed. 75B) Chase
- 62Af. The Teaching of Arithmetic in the Primary Grades.** The modern arithmetic program, the arithmetic curriculum, methods, evaluation of outcomes, diagnosis, instructional materials for young children. (2 cred.; prereq. Ed. 75A) Ruddell
- 62Bf.w.s. The Teaching of Arithmetic in the Intermediate Grades.** The modern arithmetic program, the arithmetic curriculum, methods, evaluation of outcomes, diagnosis, instructional materials. (3 cred.; prereq. Ed. 75A) Ruddell

- 63f.w.s. Children's Literature.** Extensive survey of old and new materials for children's reading in the elementary school program. (2 cred.) D. V. Smith
- 64w.s. The Teaching of English in the Elementary School.** Development of language power in the elementary school in relation to all activities of the school day. (3 cred.; prereq. Ed. 75A) D. V. Smith (w), ar. (s)
- 65f.w.s. The Teaching of Science in the Elementary School.** Objectives, content, materials, philosophy, and methods of instruction and evaluation; practical applications. (3 cred.; prereq. Ed. 75A, 10 cred. in natural science) Boeck, Goossen
- 66f.w.s. Treatment of Learning Difficulties.** Classroom procedures in diagnosis and treatment of learning difficulties at the elementary school level. Special consideration given to arithmetic, reading, and other language arts. Requires application of procedures of diagnosis in the elementary school. (3 cred.; prereq. 60, 62A, [student teaching] Clymer
- 102f. Teaching the Social Studies in the Elementary School.** Primarily for teachers in service. (3 cred.; prereq. Ed. 75B or equiv.)
- 119w. Elementary School Curriculum.** Selection and organization of subject matter for courses; methods, problems, and findings of research by subjects. (3 cred.; prereq. Ed. 75B or equiv.) Goossen
- 143f. Teaching and Supervision of Reading in the Elementary School.** Objectives, materials, and teaching procedures in lower and intermediate grades; current practices and curriculums; class and individual projects; observation of reading techniques and materials in the demonstration school. (3 cred.; prereq. 9 cred. in education) Bond
- 146. Current Developments in Language Expression in the Elementary School.** Materials, methods, and current philosophies of language instruction. (2 cred.; prereq. Ed. 75B or equiv.) Archer
- 149w. Teaching and Supervision of Arithmetic in the Elementary School.** Function of arithmetic instruction; curriculum studies; development of socialized units; measurement and diagnosis; experimental research on methods of arithmetic instruction; literature on arithmetic. (3 cred.; prereq. 9 cred. in education) Ruddell
- 150f. Supervision and Improvement of Instruction.** Functions and duties of a supervisor in the improvement of instruction; specific supervisory technique; objective analysis of classroom activity; applications to present-day problems. (3 cred.; prereq. 9 cred. in education) Goossen, Curtin
- 153f.s. Supervision and Teaching of English in Elementary Schools.** Improvement of instruction in language, spelling, and handwriting. (3 cred.; prereq. Ed. 75A-B or equiv.) Archer
- 170A. Curriculum and Course of Study Construction.** Principles and methods for selection and organization of units, courses of study, and curriculums at the elementary school level. (3 cred.; prereq. 119 or #) Goossen
- 173As. Organizing Units of Instruction in the Elementary School.** Principles and procedures involved in organizing units; utilizing natural science and social studies in the development of skills in reading and study, oral and written composition, arithmetic, and the arts. (3 cred.; prereq. 119 or teaching experience) Goossen
- 181w. Foundations of Elementary School Methods.** Psychology and philosophy related to improvement of elementary school instruction. Utilization of research findings. (3 cred.; prereq. 9 cred. in education) Archer
- 226f.w.s. Seminar in Elementary School Problems.** (2 cred.) Archer, Bond, Goossen, Clymer, Curtin, Ruddell
- 261f.w.s.\* Special Problems in the Improvement of Instruction.** Primarily for students qualified to make intensive studies of problems related to school supervision. (Cred. ar.; prereq. #) Archer, Goossen, Curtin, Ruddell



- 263w. Research in Arithmetic Instruction.** Recent research in curriculum, graduation of subject matter, methods, materials, and supervision of arithmetic. (3 cred.) Ruddell
- 264s. Research in Educational Diagnosis.** Recent research in methods of diagnosis in education, and techniques of preventive and remedial teaching. (3 cred.) Bond, Clymer

### Secondary Education

- 45w. Introduction to Business and Distributive Education.** Survey course of the field of business and distributive education at the secondary, junior college, and adult levels. (2 cred.) Price, Meyer
- 58f.w.s. Core Curriculum Foundations.** Consideration of the philosophy, nature, scope, organization, and problems of the core curriculum. (1 cred.; prereq. #) Bossing
- 113f.w. High School Curriculum.** Viewpoints and curriculum issues, reorganization trends, typical research findings by subjects, and analysis of state and local curriculums. (3 cred.; prereq. Ed. 55A-B or equiv.) Bossing
- 114. Development of the Core Curriculum.** Planning and administering the core curriculum; its philosophical, psychological, and educational bases; preparation of the core teacher. (3 cred.) Bossing
- 122s. Literature for Adolescents.** Background for pupil guidance in extensive reading in junior and senior high schools. (2 cred.; prereq. Ed. 55B or junior-senior high school teaching experience) D. V. Smith
- 125w. Occupational Information Laboratory.** Using, reviewing, and evaluating occupational information. Sources and types of material, occupational filing plans, and practical techniques at the secondary school level. (3 cred.; prereq. #) Dugan
- 131f. Advanced Course in Teaching the Technical Business Subjects.** Recent research and trends. (3 cred.) Price
- 132s. Teaching the Basic Business Subjects.** Recent trends and developments in teaching junior business training, economic geography, marketing, business law, and consumer education. (3 cred.) Price
- 134w. Materials and Methods in Consumer Education.** Development of teaching units; teaching methods; recent aids and materials. (3 cred.; prereq. #) Price
- 135s. Group Procedures in Guidance.** Content and materials for home room groups, occupations units, and other guidance courses in junior and senior high school. (3 cred.; prereq. 9 cred. in education, E.Psy. 133 or #) Dugan
- 136f. Organization and Administration of Distributive Education.** Principles, practices, and legislation followed in developing co-operative part-time, extension part-time, and evening school programs under Smith-Hughes and George-Barden Acts. Basic course for teacher-coordinators and vocational administrators. (3 cred.) Meyer
- 137A. Materials and Methods in Co-operative Part-Time Classes.** For co-operative part-time distributive, office, miscellaneous trades, and diversified occupations classes. (3 cred.) Meyer
- 137B. Advanced Materials and Methods in Co-operative Part-time Classes.** Individual and group work on related vocational materials. New methods of teaching co-operative part-time distributive, office, miscellaneous trades, and diversified occupations classes. (3 cred.; prereq. #) Meyer
- 138s. Training Store and Office Supervisors.** Conducting short unit courses for store and office supervisors and improving on-the-job training in co-operative part-time programs. (3 cred.) Meyer
- 139w. Co-ordination Techniques.** Problems of co-ordinators in the co-operative part-time program. Guidance and selection; placing students in work stations; assisting job adjustments; developing the training program. (3 cred.) Meyer

- 141s. Co-operative Part-Time Work Experience Programs.** Planning, organizing, curriculum building, plant and equipment, promoting and evaluating co-operative part-time distributive, office, miscellaneous trades, and diversified occupations programs. (3 cred.) Meyer
- 142. Business and Distributive Programs for Adults.** Selection and training of evening school instructors; planning and promoting evening school distributive and business education classes. (3 cred.) Meyer
- 144w. Teaching of Reading in Secondary Schools.** Procedures, objectives, and materials, with special consideration for teaching reading in subject-matter fields. (3 cred.; prereq. 9 cred. in education) Bond, Clymer
- 155s. Materials Laboratory for Social Studies Teachers.** Printed and audio-visual materials useful in social studies classes. (3 cred.; prereq. #) McCune, West
- 156s. Trends in Business Education.** Historical development of business education; trends in philosophy, curriculum, and teaching procedures. (3 cred.) Price
- 161s. Curriculum Construction in Business Education.** Curriculum problems; organization and preparation of teaching units. (3 cred.; prereq. 113) Price
- 168w. Current Developments in the Social Studies.** Contemporary literature, curricular trends, and developments in methods. (3 cred.; prereq. grad.) McCune
- 169w. Extracurricular Activities.** Aims and values; practices in organizing, administering, and supervising; methods of evaluation. (4 cred.; prereq. Ed. 55A-B or equiv.) Bossing
- 170B. Curriculum and Course of Study Construction.** Principles and methods for selection and organization of units, courses of study, and curriculums. (3 cred.; prereq. 113 or 119 or #) Bossing
- 173B. Organizing Units of Instruction in the Secondary School.** Development of principles and procedures for constructing units of instruction. (3 cred.; prereq. 113 or #) Bossing
- 191s. Advanced Course in the Teaching and Supervision of Secondary Mathematics.** Present practices in methods, materials, and curriculum development; principles of learning applied to mathematics; review of research; preparation and evaluation of units, tests, and materials of instruction. (3 cred.) D. Johnson
- 199Ef.w.s. Internship.** Advanced supervised teaching and practice work for candidates for the master of education degree. (Cred. ar.) Grim
- 201f.w.s.\* Problems in Teaching the Social Studies.** Individual research. (3 cred. per qtr.; prereq. 155 or 168, 204, or #) Morse, McCune, West
- 204f. Social Studies Curriculum.** History, techniques, and practices at all grade levels. (3 cred.) West
- 222f.w.s. Seminar: Current Problems in the Techniques of High School Instruction.** Required for candidates for M.A. or Ph.D. in the secondary field. (Cred. ar. or no cred.; prereq. Ed. 55A-B and senior methods) Bossing, Keller, Smith
- 225f.w.s.\* Special Problems in Secondary School Supervision.** Individual problems course on improvement of instruction. (Cred. ar.; prereq. #) Keller
- 237. Seminar in Business and Distributive Education.** Primarily for Master's degree candidates. Planning and evaluation of research and individual projects. (No cred.; prereq. #) Price, Meyer
- 238f.w.s.\* Problems in Distributive Education.** Individual research. (Cred. ar.; prereq. #) Meyer
- 239f.w.s.\* Problems in Business Education.** Investigations in field of student's interest. (Cred. ar.; prereq. #) Price

- 266s. Supervision of High School Instruction.** Present status, proper scope and function, principles, application to improvement of instruction. (3 cred.; prereq. E.Psy. 193 or 293 or †) Keller
- 287f.\* Advanced Course in the Teaching of Science.** Recent developments; evaluation of investigations dealing with science teaching. (3 cred.) Johnson
- 294f.w.\* Advanced Course in Curriculum and Methods in Secondary School English.** Evaluates present content and method in the light of research and recent trends in teaching. (2 cred. per qtr.; prereq. Ed.T. 75A-B-C or equiv.) Smith
- 296f.w.s.\* Special Problems in Teaching English.** Primarily for those qualified to undertake individual research. (Cred. ar.) Smith

*Higher Education*

- 184f. Supervision of Student Teaching.** For persons planning to supervise or administer student teaching and other professional laboratory experiences in elementary and secondary education. (3 cred.; prereq. 15 cred. in education or †) Grim
- 228f.w.s.\* Problems of Higher Education and Teacher Education.** College curriculums and instruction, organization and administration. Offered as an individual problems course each quarter. (Cred. ar.; prereq. †) Eckert, Grim
- 250f.w. Higher Education in the United States.** Development, present status, and outlook for American colleges. Purposes of higher education; types of program provided; trends in curriculum, instruction, and administration; evaluation of outcomes. (3 cred.; prereq. year grad. study in any field or 18 cred. in education) Eckert
- 251w. Curriculum Trends in American Colleges.** Principles in the development of college programs. Examination of curriculums, with special study of recurrent problems in designing general education courses and sequences. (3 cred.; prereq. year grad. study in any field or 18 cred. in education) Eckert
- 252s. Effective College Teaching.** Philosophical and psychological bases of instruction, coupled with study of methods employed to encourage, guide, and appraise students' learning. (3 cred.; prereq. year grad. study in any field or 18 cred. in education) Eckert
- 253f.w.s. Seminar on the Improvement of College Instruction.** For instructors, teaching assistants, and advanced graduate students from various departments of the University and from other institutions. Current problems, research, and trends. Offered with co-operating staff of various teaching departments. Emphasis determined by immediate and future needs of the students enrolled. (Cred. ar. or noncred.; prereq. †) Eckert, Wrenn, others
- 254f.w.s. Directed Experience in College Instruction.** An individualized program under guidance of an instructor or department. Provides understandings, procedures, and skills related to application of instructional theory, curriculum development, observation, and evaluation practices. Offered with co-operating staff of various teaching departments. (Cred. ar.; prereq. †) Eckert, Wrenn, others
- 284f.w.s.\* Problems in Student Teaching.** Research in supervision, organization, and administration of student teaching and laboratory experiences on the elementary and secondary levels. (3-9 cred.; prereq. †) Grim
- 285w-286s. The Professional Education of Teachers.** For instructors, administrators, and personnel workers in teacher education institutions. First quarter is general and can be taken independently; second quarter is for persons planning to work in the professional curriculum of teacher education. Status of teacher education, selection, curriculum, certification, graduate programs, trends, and research. (3 cred. per qtr.; prereq. for 285, 15 cred. in education including 184 and 250 or H.Ed. 182 or E.Psy. 250, or †; prereq. for 286, 285 or †) Grim

## EDUCATION (Ed.)

### General Courses

- 55Af.w. Introduction to Secondary School Teaching.** The pupil: development, individual differences, guidance; public secondary school: purposes, status, history; teaching profession: evolution, organizations, ethics, problems. (5 cred.; prereq. Psy. 1-2) Mork, staff
- 55Bw.s. Introduction to Secondary School Teaching.** Measurement and evaluation, teacher-made and standardized tests and interpretation, statistics, marking and promotion; psychology of learning; curriculum, general methods, extra-curricular activities. 55A and 55B must be completed before student teaching. (5 cred.; prereq. 55A or \*) Mork, staff
- 55Nf.s. Introduction to Teaching Nursing.** Basic educational psychology for nursing education majors. Principles of measurement and test usage, psychology of learning, group processes. (5 cred.; prereq. Psy. 1-2)
- 75Af-Bw. Introduction to Elementary School Teaching.** Students should enter the course in the fall, but in special cases students who have not had 75A may be admitted to 75B on recommendation of adviser.
- 75Af. Educational Psychology.** Child growth and development during elementary school years; principles of learning; adjustment. (5 cred.; prereq. Psy. 2) Clymer
- 75Bw. Curriculum, Measurement, and Organization.** Individual and trait differences in relationship to educational practices; principles of measurement, descriptive statistics, curriculum and school organization. (5 cred.; prereq. 75A) Goossen
- 81f.w.s. Introduction to Education for Public Health Nurses.** Principles, methods, and materials in education as applied to public health nursing situations. Group work emphasized. (3 cred.; not open to candidates for degree in College of Education; prereq. Pub.H. 62, 100, and 133) Grout

## EDUCATIONAL ADMINISTRATION (Ed.Ad.)

### General Courses

- 117w. Schools in Rural Areas.** Administrative and curricular problems peculiar to rural areas; sociological changes in small towns and farm life. Building a school program suited to the culture and needs of people in small towns and villages. (3 cred.) Archer
- 118. The Community School.** Philosophy, purposes, organization, and functioning of the community school, including a study of its relationships with the area it serves. (3 cred.; prereq. sr., grad.) Archer
- 124f. Public School Administration.** Organization, administration, and general support of public schools in state and local school districts. (3 cred.; prereq. sr., 9 cred. in education) Lane
- 210s. Financial Aspects of Public School Business Administration.** Financial program planning, budgeting, accounting, cost finding, income and expenditure control, preparation and analysis of financial reports. (3 cred.; prereq. 227) Prentis
- 225f. Pupil Personnel Administration.** Child accounting records and reports, attendance department, school census, pupil adjustment and progress, pupil health and safety, and legal aspects. (3 cred.) Lane
- 226s. School Plant Planning and Management.** Plant program planning and financing, including operation and maintenance of public school buildings. (3 cred.; prereq. 227) Prentis
- 227w. Teacher and Employee Administration.** Selection and placement of school employees, salary schedules, conditions of service, records and reports, and

legal aspects of teacher and employee personnel administration. (3 cred.; prereq. 225) Wakefield

- 228f.w.s.\* Special Problems in Educational Administration.** For superintendents and principals qualified to make intensive studies of the administration of a school system. (1-3 cred. per qtr.; prereq. 225) Lane, Prentis, Wakefield
- 230w. Public Relations for Schools.** Theory and practice of educational interpretation. Principles involved; techniques of working with groups; the teacher's contacts with the community; the role of the pupil; professional and lay organization. (3 cred.; prereq. 225) Wakefield
- 235f.w.s. Seminar in Educational Administration.** For Plan A Master's degree and Ph.D. degree candidates in educational administration. (No cred.) Domian
- 236f.w.s. Field Study in Educational Administration.** Part of the requirements for the certificate Specialist in Education. Credits will be based on a written report covering an approved field of study. (0-10 cred.; students may register for the general planning and organization of their study without credit; prereq. #) Domian, Lane, Prentis, Wakefield

### Elementary Education

- 115w. Administration of the Elementary School.** Examination of current practices for instruction and classification of pupils. (3 cred.; prereq. 9 cred. in education) Curtin, Goossen
- 200f. Seminar in Elementary School Administration.** For elementary school principals. Problems of administration and organization of instruction. (3 cred. per qtr.) Archer, Curtin, Goossen, Ruddell

### Secondary Education

- 167f. Junior High School.** Sources of the movement; purposes, functions, and limitations; types of reorganization; fundamental problems of reorganization; curriculum. (3 cred.; prereq. sr., grad., 9 cred. in education) Bossing
- 218f.w.s. Recent Literature in Secondary Education.** Seminar on current problems and literature. (Cred. ar.) Bossing, Keller
- 263f. Organization of the Secondary School.** Units, internal organization for administration and supervision. (3 cred.) Keller
- 264w. Administration of Instructional Activities in the Secondary School.** Curriculum, schedule making, co-curriculum, guidance, pupil control. (3 cred.) Keller
- 265s. Administration of Noninstructional Activities in the Secondary School.** Housing, records, marks, finance, reports, community relationships. (3 cred.) Keller
- 270f.w.s.\* Problems in Secondary Education.** For those qualified to undertake individual research. (Cred. ar., maximum 9; prereq. #) Bossing, Keller

### Higher Education

- 253. Administration in Higher Education.** Control, faculty and employee personnel administration, budget making and administration, financial accounting and reporting, protection of college funds, public relations. (3 cred.; offered when feasible) Darley, Morse
- 274w. The Junior College.** Present status, development, functions, organization, curriculum, and trends. (3 cred.) Keller
- 290. Financing Higher Education.** (3 cred.; prereq. #; offered when feasible) Ar.
- 291. Public Relations for Colleges and Universities.** (3 cred.; prereq. #; offered when feasible) Ar.

## EDUCATIONAL PSYCHOLOGY (E.Psy.)

### General Courses

- 60. Introduction to Measurement and Statistics.** Measures of central tendency, variability, and correlation; principles of test construction. (2 or 3 cred.; prereq. 6 cred. in psychology; offered when feasible)
- 100f. Individual Appraisal for Counseling.** Analysis of appraisal techniques; use in guidance and counseling. (3 cred.; prereq. 9 cred. in education) White
- 110f.s. Educational Measurement in the Classroom.** Principles and methods for construction, evaluation, and improvement of educational measurements in classroom instruction. (3 cred.) Ar. (f), Stecklein (s)
- 116f.w. Introduction to Statistical Methods.** (Not equivalent to E.Psy. 216, 216a) Simpler statistical techniques in educational work. Comprehension of literature using elementary statistical concepts and methods. (3 cred.; not open to Master's or Ph.D. degree candidates who will take more than 1 qtr. of statistics; prereq. ¶116a or \*) Collier
- 116af.w. Introduction to Statistical Methods—Laboratory.** (See E.Psy. 116) (2 cred.) Collier
- 117w.s. Basic Principles of Measurement.** Role of measurement in educational work; principles underlying construction of achievement examinations; developments in educational and psychological measurement; measurement theory and practice as related to appropriate statistical methods; types and uses of derived scores, and factors influencing reliability and validity of educational measurements. (3 cred.; prereq. 116 or 216 or Psy. 70 or equiv.) Corcoran (w) Collier (s)
- 125f.w. Group Dynamics in Education.** Review selected literature; practical application of social-psychological concepts to the analysis of group behavior. (3 cred.) Flanders
- 126s. Analysis of Behavior in Groups.** Analysis of group behavior by laboratory experimentation; individual projects with class help. (3 cred.; prereq. 125) Flanders
- 133f. Basic Procedures in Student Personnel Work.** Principles and current practices in development and operation of a student personnel program; guidance services and related techniques. (3 cred.; prereq. 9 cred. in education) Dugan
- 140w. Instruments and Techniques of Measurement.** Measuring intelligence, achievement, interests, attitudes, and personality traits; using measurement in educational guidance, personnel work, administration, and supervision. (3 cred.; prereq. sr., 110 or 117) Edson
- 142f.w. Individual Mental Testing.** Revised Stanford-Binet and Wechsler Adult Intelligence Scale or Wechsler Intelligence Scale for Children. Student supplies materials for at least one test. Full day or 2 mornings per week required for practice administration of tests. (3 cred.; prereq. sr., 110 or 117 or ¶117 with \*) Reynolds
- 143s. Advanced Individual Mental Testing.** Development of proficiency in administering and interpreting 3 or 4 selected individual mental tests. (3 cred.; prereq. 142 and \*) Reynolds
- 148w.s. Clinical Diagnosis of Reading Difficulties.** Psychology of reading difficulties, clinical diagnosis of reading problems, their relationship to psychological factors, and their clinical remedial correction. (3 cred.; prereq. Ed.C.I. 145) Bond, Clymer, Reynolds
- 150f.w.s. Clinical Practice in Remedial Teaching.** Remedial tutoring of individual children who have difficulty in school learning. (3 cred.; prereq. Ed.C.I. 145 or 151, and \*) Bond, Clymer, Reynolds

- 151f.w.s. Clinical Practice in Educational Diagnosis.** Diagnosis of school learning problems. Measurement, interview technique, preparation of case reports. Work with children referred to the Psycho-Educational Clinic. (3 cred.; prereq. 142, Ed.C.I. 145, and #) Bond, Reynolds
- 159f.s. Personality Development and Mental Hygiene.** Understanding of personality development and mental hygiene for self and others. 159f for seniors and first-year graduate students only: elementary and secondary classroom conditions. 159s for graduate students only: basic theory, group and individual procedures in treatment. (3 cred.) Wrenn
- 182f. Education of Exceptional Children.** Overview of the field of special education. For classroom teachers, counselors, supervisors, and administrators; also the initial course for students working for special class certificates. (3 cred.; prereq. Ed. 55B or 75B or equiv.) Reynolds
- 183s. Education of Gifted Children.** Abilities, characteristics, and education of intellectually gifted children and adults. (3 cred.; prereq. Ed. 55B or 75B or equiv.) Bond
- 184s. Education of the Slow-Learning Child.** (3 cred.; prereq. 182) Reynolds
- Note**—Courses 185 and 186, pertaining to the education of the auditorially handicapped child and the visually handicapped child, are offered periodically in Summer Sessions. Course 187, pertaining to the crippled child, and 189, Survey of Problems in Special Education, are offered through the Extension Division.
- 193f. Principles of Psychology of Human Learning.** Application to school situations; motivation; rate of learning and forgetting; teaching of skills, meanings, attitudes; reasoning and problem solving; transfer of learning. (3 cred.; prereq. sr., grad.) Mork
- 208w.\* Methods in Educational Research.** Methods and techniques employed in the investigation and report of educational problems. Suggested for all candidates for graduate degrees. (3 cred.) Johnson
- 216f-217w-218s. Statistical Methods in Education.** Lays the foundations of statistical theory and gives practice in applying theories to solution of educational and psychological problems. (3 cred. per qtr.) Johnson
- 216af-217aw-218as. Statistical Methods in Education—Laboratory.** For students who wish more experience in solution of problems and use of machines than is obtained in 216-217-218. (2 cred. per qtr.) Collier
- 219s. Design and Analysis of Statistical Investigations.** Functional approach to principles of efficient design of experiments and other types of observational programs; improved sampling techniques and appropriate methods of analyzing observational results. (3 cred.; prereq. 218, #) Johnson
- 219as. Design and Analysis of Statistical Investigations—Laboratory.** Application extension of 219. (2 cred.; recommended for all students taking 219; sections limited to 16 students; prereq. 218, #) Collier
- 220w-221s. Advanced Theory of Measurement.** Principles underlying construction and use of psychological and educational measuring instruments and the limitations of tests for purposes of measurement in experimentation and evaluation of students' work. (2 cred. per qtr.; prereq. 117 and 217 or equiv., or #) Hoyt
- 225w. Diagnosis as a Phase of Counseling.** Personality concepts involved in diagnosis, principles of diagnosis, and practice in essential diagnostic skills and in recognition of common diagnostic errors. (3 cred.; prereq. 140 or #140, and one of following: 133, 250, or Psy. 130) Wrenn
- 226s.\* Interviewing Procedures in Counseling.** Various approaches in counseling, practice in interviewing skills, concepts of therapy, analysis of student and counselor attitudes in counseling. (3 cred.; prereq. 225 or equiv.) Wrenn
- 233f.w.s.\* Problems in Guidance and Personnel Work.** Independent study. No class meetings. (1-9 cred.) Dugan, Wrenn

- 240f,w.s.\* Problems in Measurement.** Intensive study and individual research. (3 cred. per qtr.) Johnson
- 243f,w.s.\* Problems in Statistics for Students in Education and Psychology.** Recent developments in statistical science; their application to educational and psychological problems. (3 cred. per qtr.) Johnson
- 253f,w.s.\* Research Problems.** (Cred. ar.; prereq. #) Staff
- 260f,w.s. Educational Psychology Seminar.** For all Ph.D. majors in educational psychology. Purposes include: integrating course work in all areas of educational psychology and related fields, analyzing new developments, and presenting Ph.D. dissertation outlines. (No cred.) Staff
- 280f,w.s. Practicum in Group Leadership.** Supervised practice in leading a discussion or activity group. (3 cred.; prereq. #) Flanders
- 290s. Individual Differences.** Group and individual differences and their relations to educational practice. (3 cred.) Flanders
- 293w.\* Psychology of Learning.** Principles and research in human learning and implications for curriculum and instruction. (3 cred.; prereq. 12 cred. in psychology and educational psychology) Mork
- 294s.\* Recent Theory and Research in Human Learning.** (3 cred.; prereq. #) Mork

### Secondary Education

- 134w. School Counseling Procedures.** Basic principles and practices related to the work of counselors in the public schools. Lectures, discussion, audio-visual aids, practice in case study analysis and interviewing. (3 cred.; prereq. 110 or 117, 133, and #) Dugan
- 158s. Psychology of Adolescence.** (3 cred.; prereq. Ed. 55B or equiv.) Ar.
- 282f,w.s. Practice in High School Personnel Work.** Experience in counseling, testing, and related personnel work procedures. (3 cred.; prereq. #) Dugan

### Higher Education

- 250f. College Student Personnel Work—Development and Administration.** For potential personnel workers, teachers, or administrators in college or university. Scope, administration, co-ordination, and evaluation of program. (3 cred.; prereq. one course in higher education or ¶ or #) Wrenn
- 251f,w.s. College Student Personnel Work.** Weekly seminar discussions of college student and noneducational personnel work. *Fall:* Student activities. *Winter:* Specific personnel services. *Spring:* Co-ordination with nonacademic personnel procedures. (1-3 cred. per qtr.; prereq. 250 or other course in higher education) Wrenn
- 254s.\* Measurement and Evaluation in Higher Education.** The examination program in American institutions of higher learning; principles of examination construction; design and critical evaluation of investigations in higher education. (3 cred.) Johnson
- 281f,w.s. Practice in Personnel Work.** Supervised experience in counseling at college and adult levels. Student Counseling Bureau section, 3 consecutive quarters beginning fall; other assignments any quarter. (3 cred. per qtr.; prereq. 225-226 or #) Wrenn, Hagenah, Snoke

### HISTORY AND PHILOSOPHY OF EDUCATION (H.Ed.)

"Philosophy of education" is a deliberate effort to think as critically and adequately as possible regarding the work and purposes of the schools. "History of education" is concerned primarily with the development of ideas in American culture against which public education will be studied.



- 101f. Historical Foundations of Modern Education.** Historical analysis and interpretation of important elements in modern education derived from the Greeks, Romans, Middle Ages, and Renaissance. (3 cred.; offered when demand warrants) Ellis
- 110w.s. Intercultural Education.** Racial, religious, and nationality problems; their importance for schools. (3 cred.; offered when feasible)
- 131w. Comparative Education.** Compares European, Asiatic, and American systems and philosophies of education. Explores possibilities of international education. (3 cred.) Beck
- 141f. Critical Issues in Contemporary Education.** Introduces graduate students to ideas involved in current theory and practice. (3 cred.) Beck
- 156f. History of Ideas in American Education.** Readings in American political, economic, and social development; special reference to the emerging system of public education. (3 cred.) Ellis
- 178w. Education and the Problems of American Democracy.** Analysis of democracy; exploration of the possibilities of building a democratic discipline in the schools and in society. (3 cred.) Ellis
- 179s. Critical Thinking for Teachers.** Examination of typical education materials to increase the ability of teachers to think more logically, to read and listen more critically, and to convey these abilities to students. (3 cred.) Ellis
- 180f.w.s. The School and Society.** Readings in social science and philosophy give the student opportunity to integrate points of view in thinking about the role of the school in present-day society. (3 cred.; prereq. sr.) Beck, Ellis
- 182s. Comparative Philosophies of Education.** Examination of competing philosophies of education. (3 cred.; prereq. 141) Beck
- 241f.w.s.\* Problems in the History and Philosophy of Education.** For students interested in research and original work in these areas. (Cred. ar.; prereq. #) Beck, Ellis
- 242s. Seminar in Educational Philosophy.** For advanced students; critical study and discussion of special problems. (3 cred.; prereq. #) Beck, Ellis

### HOME ECONOMICS EDUCATION (H.E.Ed.)

- 90f.s. Child Training.** Growth and development of children and problems in training. Emphasis on the preschool child. Observations of children. (3 cred.; prereq. soph., Psy. 1-2) Helgerson
- 91f.w.s. Observation. Materials. Teaching in Home Economics.** Philosophy of the home economics program; students' needs and interests; teaching materials; curriculum guides and unit construction; development of home economics in the school program. (5 cred.; prereq. H.E. 4, 21, 22, 41, Ed. 55A-B, home experience, and ¶H.E.Ed. 93) Rose, Kafka
- 92f.w.s. Teaching Problems in Home Economics.** Teaching procedures; management of homemaking department, space and equipment, relationship of teacher to school, community, and profession. (2 cred.; prereq. sr., 91, 93, and ¶94, ¶192, and ¶194A) Rose
- 93f.w.s-94f.w.s. Supervised Teaching in Home Economics.** Observation, participation, and actual teaching experience under supervision in different home economics situations and on different age levels. In the second quarter the student spends a month in a selected school in the state. (9 cred.; prereq. H.E. 4, 21, 22, 41, Ed. 55A-B, completion of home experience in home economics) Kafka, others
- 95f.w.s. Field Experience for Home Agents.** Observation, participation, and actual experience under supervision in the agricultural extension program. Study of the program on the St. Paul Campus and participation in a selected county program with a home agent. A written report summarizing the experience

- will be required. (6 cred.; prereq. 91, 93, and consent of head of Home Economics Education and the director of Agricultural Extension) Ford, others
- 192f. Evaluation in Home Economics.** Measuring progress toward important goals in different areas of home economics; available tests and evaluation materials; construction and refinement of various evaluation instruments. Elementary statistical techniques useful to home economics teachers. (2 or 3 cred.; prereq. sr., grad., 91, 93, Ed. 55A-B) Koivisto
- 193A.w.s. Home Economics Curriculum.** (Secondary level) Contributions of home economics at elementary and secondary levels; techniques employed in curriculum planning and reconstruction. (3 cred.; prereq. 94 or #) Rose, Koivisto
- 193Bs. Home Economics Curriculum.** (College level) Place and problems of home economics in higher education; curriculum offerings; teaching schedules and load. (3 cred.; prereq. #) Rose
- 194Af.w.s. Adult Education in Home Economics.** Objectives; problems of community and family life; methods of helping adults and out-of-school youth to solve problems in home living. (3 cred.; prereq. 91, 93 or equiv.) Ford
- 194Bs. Adult Education in Home Economics.** Planning a community program; teaching procedures; special problems. For teachers and supervisors of adult education. (3 cred.; prereq. sr., grad., #) Ford
- 195s. Space, Equipment, Furnishings, and Materials for Home Economics Departments.** Study of remodeling old and planning new departments; equipping and furnishing them. Review of research; investigation of problems. (3 cred.; for graduate and adult special students; open to srs. by #; prereq. 91, 93, H.E. 49) Rose, Kafka, Ford
- 196s. Home Experience and the Extended Program.** Place of home experiences in the high school program; procedures in directing home experiences; effective use of the period of extended employment of homemaking teachers in the vocational program. (3 cred.; prereq. sr.) Ford
- 197f.w.s. Organization and Methods of Related Art Teaching.** Development of a working philosophy of related art. Relates art and home economics subject matter in various aspects of home and community life. (1-3 cred.; prereq. sr., 91, H.E. 180 or equiv.) Esteros
- 199E. Internship.** Directed teaching and practice work at the graduate level for candidates for the master of education degree. (Cred. ar.; prereq. #) Rose
- 243f. Trends in Home Economics.** Place of home economics in the educational program today; modification of content and procedures to meet changing conditions. (3 cred.; prereq. #) Rose
- 292s.\* Problems in Evaluation.** Continuation of 192, with emphasis upon individual problems. (3 cred.; prereq. #)
- 293f.w.s.\* Problems in Home Economics Education.** Independent study of current educational problems. (1-9 cred.; prereq. 294 recommended, #) Rose, Ford, Esteros
- 294f.w.s.\* Research Methods.** Methods of collection, treatment, and interpretation of data in areas of home economics; writing of a technical report. (3-6 cred.; prereq. 192, #) Rose
- 295f.w.s.\* Seminar in Home Economics Education.** Discussion and reports on problems. (1 cred. per qtr.) Rose, Esteros, Ford

### INDUSTRIAL EDUCATION (Ind.)

The manipulative and classroom courses here listed are offered under requirement or election as indicated in the 4-year curriculum. Other courses of laboratory nature, in great number and variety, are offered in other colleges, departments, and divisions of the University. Students may also arrange to take shopwork, drawing, and related courses at the William Hood

Dunwoody Industrial Institute, without fees other than those paid at the University.

A maximum of 48 credits in shopwork and drawing is strictly enforced. Credits in excess of 48 may be recorded but will not be counted toward the graduation requirement. Advanced students may pursue manipulative courses but credits so earned will not be considered parts of the programs for graduate degrees.

- 1f. **Basic Woodwork.** Use of common hand tools and materials. (3 cred.)
- 2w. **Machine Woodwork.** Use and maintenance of common woodworking machines. (3 cred.; prereq. 1 or equiv.)
- 3s. **Shop Finishing.** Materials and processes applied to the finishing of woods, metals, and other media. (3 cred.; prereq. 1 and 2, or equiv.)
- 5f. **Basic Drawing.** Drawing as an area of industrial arts. Sketching, lettering, use of instruments, orthographic projection, pictorial representation, and duplication. (3 cred.)
- 6w. **Applied General Drawing.** Project design and development; orthographic projection, pictorial representation, and blueprint reading. (3 cred.; prereq. 5 or equiv.)
- 7s. **Building Construction Drawing.** Theory of orthographic projection and pictorial representation applied to building construction. (3 cred.; prereq. 5, 6 or equiv.)
- 10w. **Basic Electricity.** Electricity as an area of industrial arts; theories, fundamental skills, processes, projects, and jobs. (3 cred.)
- 11f.w.s. **Shopwork for Nonmajors.** For persons preparing in the fields of art, art education, nursery, kindergarten and elementary grades, exceptional classes, recreation leadership, etc. (3 cred.)
- 12f. **Electricity and Radio.** Continuation of 10; emphasis in radio on theories, fundamental skills, analysis of circuits, and practical teaching materials. (3 cred.; prereq. 10)
- 15w. **Basic Graphic Arts.** Typesetting and presswork, stencil processes, linoleum engraving, photography, and general duplicating. (3 cred.)
- 16s. **Advanced Graphic Arts.** Letter press processes, plus etching, engraving, book binding, silk screen, and photography. (3 cred.; prereq. 15)
- 20s. **Craft Work—A.** Manipulative experiences in media suitable for industrial art courses, clubs, and activities; art metal, leather, plastics, etc. (3 cred.)
- 21f. **Craft Work—B.** Fabrication, decoration, and finishing of clay; cutting, grinding, and polishing of semiprecious gems; work in silver. (3 cred.; prereq. 20)
25. **Machine Shop.** Machine tool operations; performance, application of processes, and solution of related problems. (3 cred.; offered when facilities permit)
26. **Advanced Machine Shop.** Continuation of 25; fundamental skills, machine set-ups, tool grinding, shop theory and practice. (3 cred.; offered when facilities permit)
- 40f. **Analysis.** Necessity for, and types of instructional analysis; individual work upon selected fields, for course construction purposes. (2 cred.)
- 42w. **Course Organization.** Development of techniques for selection and arrangement of instructional materials. (3 cred.; prereq. 40)
- 44s. **Equipment and Management.** Sources, purchases, costs, and inventories; installation, upkeep, and safe operation; storage and issue of tools and supplies; financial accounts, bills of material, and disposal of products. (3 cred.; prereq. 40, 42)
- 50Af-Bw-Cs. **Student Teaching.** (3 cred. per qtr., 9 cred. required; prereq. 70 or 100, 80, a 1.5 H.P.R.)

- 60f. Philosophy of Vocational Education.** Development and characteristics of vocational training; conservation of human and material resources; social and economic significance; results and weaknesses; current theories. (2 cred.)
- 61w. Practices in Vocational Education.** Plans of organization and control; types of schools and classes; state and federal aid; teacher preparation and certification. (2 cred.; prereq. 60)
- 70s. Teaching of Industrial Subjects.** General techniques of methods particularized for school shop situations. (3 cred.; prereq. 42, Ed. 55B)
- 80w. Introduction to Industrial Arts.** History, aims, offerings, techniques, schedules, equipment. (2 cred.)
- 100f. Industrial Instruction.** Concepts and techniques of instruction in industrial arts, trade and industrial schools and classes, and training-within-industry programs. (3 cred., §70; prereq. Ed. 55B)
- 101s. Tests in Industrial Subjects.** Application of principles of evaluation to shop and drawing subjects. (3 cred.; prereq. Ed. 55B)
- 102w. The General Shop.** (Not a shop course) Purpose of general shop organization; types of shops, equipment, instructional materials and procedures, pupil personnel plans, etc. (2 cred.)
- 103w. Instructional Aids.** Planning, construction, use. (3 cred.; prereq. 70 or equiv.)
- 105s. Administration of Industrial Education.** General and vocational phases; objectives, programs, and practices; laws, rulings, and standards for aid; significant literature. (3 cred.; prereq. 61, 80 or equiv.)
- 106. Industrial Education Workshop.** Problems in industrial education. Areas of concentration will vary with each successive offering. (3 or 6 cred.; prereq. teaching experience, #)
- 107f. Co-ordination.** Province and duties of co-ordinators in trade schools, part-time programs, and cosmopolitan high schools. (3 cred.; prereq. 60 and 61, or 125, or #)
- 109w. Conference Leading for Industry.** Purposes, advantages, and limitations of conference methods. Techniques of conference procedure. Experience in planning, leading, and evaluating conferences and in writing summaries. (3 cred.; prereq. #)
- 110s. Vocational Guidance.** History of educational and vocational guidance movement; typical public school means and methods; types and uses of occupational information; duties of the counselor; organization and relationships. (3 cred.; prereq. Ed. 55B)
- 111. Instructional Materials Laboratory for Nonmajors.** For experienced elementary teachers, recreation leaders, and others needing manipulative skills and craftwork activities in their teaching; individual and group projects. (3 cred.; prereq. teaching experience or #)
- 115. Supervision of Industrial Education.** Principles of creative supervision; duties, organization for supervision. (3 cred.; prereq. 60, 80, or 105)
- 125s. Philosophy and Practice of Industrial Education.** History, objectives, development, and current practices of the field. (3 cred., §60 or §61)
- 135f. Industrial Course Construction.** Principles and techniques. Experience in planning, organizing, and building a teaching guide. (3 cred., §40 or §42)
- 136. Instructional Materials Laboratory.** Laboratory and shop experiences with new materials, processes, and equipment; development of complementary instructional materials. (3-6-9 cred.; prereq. major, teaching experience or #)
- 150. Vocational Education Surveys.** Practices and techniques in the study of communities or areas for the establishment or improvement of occupational courses and facilities. (3 cred.; prereq. 105 or 125 or equiv.)

- 200f.w.s.\* Research Problems.** Independent work for the degrees, master of arts, Plan B, and master of education, Plan Y. Individual conferences. (3-6-9 cred. per qtr.; prereq. approval of candidacy)
- 205f.w.s. Seminar in Industrial Education.** (No cred.; required of all candidates for advanced degrees)
- 250f. Literature of Industrial Education.** Professional literature, organizations, leaders, and movements in the field. (3 cred.; prereq. ‡)
- 251w. Research in Industrial Education.** Critical analysis of existing researches; selection of problems; organization and presentation of research projects. (3 cred.; prereq. ‡)
- Dunwoody f.w.s. Shopwork; Drawing.** (Cred. ar.)
- Off-Campus Courses f.w.s.** Services in conference leader training and instructor training; with or without credit and fee; consultation on industrial training programs.

### METHODS AND STUDENT TEACHING (Ed.T.)

**Admission to Methods and Student Teaching**—Approval of director of laboratory experiences is required for registration in all student teaching and special methods courses. Continuation is dependent upon satisfactory work each quarter in both student teaching and methods courses. A grade average of C+ (1.5 honor points per credit) in the major, core, or the subject in which student teaching is done is required for registration in all special methods and student teaching courses except those in elementary education curriculum IA, and in nursery school, kindergarten, and primary education curriculums IB and IIIB, where a C average is required. For description of the requirements and procedures for admission to student teaching, see page 11. For clinical methods and practice in speech pathology see Ed.C.I. 174-175-176. For methods and student teaching in special subjects see the department concerned.

#### *Nursing Education*

- 51Asu.f.w. Bf.w.s. The Teaching of Nursing.** Observation and study of principles of teaching applied to clinical and classroom teaching in schools of nursing. Planning and evaluation of instruction. Supervised practice in teaching of nursing subjects. (10 cred.; prereq. Ed. 55N) Norris, Dunning

#### *Recreation Leadership*

- 84Af-Bw-Cs. Practice and Field Work in Recreation Leadership.** Students are assigned to selected agencies. (2 cred.; to be taken during jr. yr.; prereq. recreation majors) Giles
- 85Af-Bw-Cs. Practice and Field Work in Recreation.** Students are assigned to selected agencies. (1-2 cred.; to be taken during sr. yr.; prereq. recreation majors or minors) Giles

#### *Elementary Education*

- 53Af.w-Bw.s.† The Teaching of Handicapped Children.** Observing work with special classes; teaching under direction. Conducted in co-operation with the public schools of Minneapolis and St. Paul. (6 cred. per qtr., total 12 cred.; prereq. ‡) Reynolds
- 54Af.w.s-Bf.w.s.† Student Teaching in the Elementary School.** Five half-days a week in classroom participation and teaching under supervision. (6 cred. per qtr., total 12 cred.) Chase, others

- 55f. Principles of Early Childhood Education.** Development, aims, and organization of kindergarten and nursery school education. Curriculum and methods. (3 cred.; prereq. C.W. 80 or ¶C.W. 80) Fuller
- 56f.s. Methods and Observations in Kindergarten.** Directed observations of kindergarten children and procedures. (2 cred.; prereq. 55 or ¶55) Headley
- 57w. Nursery School-Kindergarten Laboratory in Art, Literature, and Social Studies.** Lectures and laboratory work on methods and materials for children 2 to 6 in relation to nursery school, kindergarten, and home. (5 cred.; prereq. 55 or ¶55) Headley
- 58s. Nursery School-Kindergarten Laboratory in Play Materials, Music, and Science.** Lectures, laboratory work, and excursions on permanent and plastic play materials, music, and science for children 2 to 6 in relation to nursery school, kindergarten, and home. (5 cred.; prereq. 55 or ¶55) Helgerson
- 59f.w. Methods and Observation in the Nursery School.** Directed observations of nursery school children and procedures. (3 cred.; prereq. 55 or ¶55) Helgerson
- 76f. The Teacher and the Parent.** Parent education methods. Observations and practice in interviewing parents and in projects for parents. Reports. (3 cred.; prereq. 55 or ¶) Cummings
- 77f.w.s. Student Teaching in the Nursery School.** Five half-days each week supervised in classroom participation. (6 cred.; prereq. approval of major adviser and director of student teaching) Fuller
- 78f.w.s. Student Teaching in the Kindergarten.** Five half-days each week in supervised classroom participation in public or private schools. (6 cred.; prereq. approval of major adviser and director of student teaching) Fuller
- 79f.w.s. Student Teaching in the Primary Grades.** Five half-days each week in supervised classroom participation in public or private schools. (6 cred.; prereq. approval of major adviser and director of student teaching) Fuller

### Secondary Education

- 52f.w.s. Student Teaching.** Supervised teaching at University High School and public high schools. Student teaching in academic subjects is normally combined with special methods courses in a 1-year course beginning in fall quarter. (Cred. ar.; prereq. completion of special methods courses or teaching experience) Grim
- 61.† Student Teaching in Norwegian.** (2 cred. per qtr., total 6 cred.; prereq. sr., ¶61A-B-C; completion of work each qtr. in both 61 and 61A-B-C necessary for continuation; admission only in fall; offered when demand warrants)
- 61A-B-C.† The Teaching of Norwegian.** Procedures in selecting and organizing materials and in teaching Norwegian. (3 cred. (f), 1 cred. (w), 1 cred. (s), total 5 cred.; prereq. sr., ¶61)
- 67f.w.s.† Student Teaching in Mathematics.** (2 cred. per qtr., total 6 cred.; prereq. sr., Math. 60 or ¶60, and ¶67A-B-C; completion of work each qtr. in both 67 and 67A-B-C necessary for continuation; admission only in fall)
- 67Af-Bw-Cs.† The Teaching of Secondary School Mathematics.** Methods, materials, curriculums, and principles of learning pertinent to secondary school mathematics. (3 cred. (f), 1 cred. (w), 1 cred. (s), total 5 cred.; prereq. sr., ¶67) Johnson
- 67Mf. The Teaching of Secondary School Mathematics.** (3 cred.; prereq. minors only) D. Johnson
- 68f.w.s.† Student Teaching in Natural Science.** (2 cred. per qtr., total 6 cred.; prereq. sr., and ¶68A-B-C; completion of work each qtr. in both 68 and 68A-B-C necessary for continuation; admission only in fall)

- 68Af-Bw-Cs.† The Teaching of Secondary School Science.** Procedures in selecting and organizing materials and in teaching secondary school science. (3 cred. (f), 1 cred. (w), 1 cred. (s), total 5 cred.; prereq. sr., ¶68) Boeck
- 68Ms. The Teaching of Secondary School Science.** (3 cred.; prereq. minors only) Boeck
- 69f.w.s.† Student Teaching in the Social Studies.** (2 cred. per qtr., total 6 cred.; prereq. sr. and ¶69A-B-C; completion of work each qtr. in both 69 and 69A-B-C necessary for continuation; admission only in fall)
- 69Af-Bw-Cs.† The Teaching of the Social Studies in the Secondary School.** (3 cred. (f), 1 cred. (w), 1 cred. (s), total 5 cred.; prereq. sr., ¶69) West
- 69Mw. The Teaching of the Social Studies in the Secondary School.** (3 cred.; prereq. minors only) Gardner
- 70f.w.s.† Student Teaching of the Modern Languages.** (2 cred. per qtr., total 6 cred.; prereq. sr. and ¶70A-B-C; completion of work each qtr. in both 70 and 70A-B-C necessary for continuation; admission only in fall)
- 70Af, Bw, Cs.† The Teaching of the Modern Languages.** Procedures in selecting and organizing materials and in teaching the modern languages. (3 cred. (f), 1 cred. (w), 1 cred. (s), total 5 cred.; prereq. sr., ¶70) Birkmaier
- 70Mf. The Teaching of Modern Languages.** (3 cred.; prereq. minors only) Birkmaier
- 71f.w.s.† Student Teaching in Latin.** (2 cred. per qtr., total 6 cred.; prereq. sr. and ¶71A-B-C; completion of work each qtr. in both 71 and 71A-B-C necessary for continuation; admission only in fall)
- 71Af-Bw-Cs.† The Teaching of Latin.** Procedures in selecting and organizing materials and in teaching Latin. (3 cred. (f), 1 cred. (w), 1 cred. (s), total 5 cred.; prereq. sr., ¶71) Birkmaier
- 71Mf. The Teaching of Latin.** (3 cred.; prereq. minors only) Birkmaier
- 72Af.w.s, Bf.w.s, Cf.w.s.† Student Teaching in Distributive Education Subjects.** Required of all students majoring in distributive education. (2 cred. per qtr., total 6 cred.; prereq. Ed. 55B and #) Meyer
- 73Af.w.s, Bf.w.s, Cf.w.s.† Student Teaching in Business Subjects.** Required of all students majoring in business education. (2 cred. per qtr., total 6 cred.; prereq. Ed. 55B and #) Price
- 74w. The Teaching of Journalism.** Study of methods and techniques of presenting journalism to students of less than college level. Required of all students with a minor in journalism. (3 cred.; prereq. Jour. 41 or 51, Ed. 55B, #)
- 75f.w.s.† Student Teaching in Language Arts.** (2 cred. per qtr., total 6 cred.; prereq. sr. and ¶75A-B-C; completion of work each qtr. in both 75 and 75A-B-C necessary for continuation; admission only in fall)
- 75Af-Bw-Cs.† Teaching the Language Arts in Secondary Schools.** Required of all majors in speech, English, and language arts. Content and method in teaching reading and literature, writing and related problems of grammar, usage, and spelling, speech, and listening. Third quarter emphasizes speech, dramatics, debate, and discussion. (3 cred. (f), 1 cred. (w), 1 cred. (s), total 5 cred.; prereq. sr., ¶75) Smith, Ballet
- 75Ms. Teaching the Language Arts in Secondary Schools.** Overview of method and content in secondary school English and speech. (3 cred.; prereq. minors only) Smith
- 80s. The Teaching of Typewriting and Bookkeeping.** General methods and techniques in teaching typewriting and bookkeeping. (2 cred.; prereq. Ed. 55B or ¶Ed. 55B) Price
- 81w. The Teaching of Shorthand.** Examination and evaluation of various methods of teaching shorthand. Application of psychological principles to teaching. (2 cred.; prereq. Ed. 55B or ¶Ed. 55B) Price

- 82f. The Teaching of Basic Business Subjects.** Developments in content and method in teaching nonvocational business subjects. (2 cred.; prereq. Ed. 55B or ¶Ed. 55B) Price
- 90Af-Bw-Cs.† The Teaching of Distributive Education Subjects.** Methods of teaching distributive education subjects in high schools and junior colleges. (2 cred. per qtr.; prereq. ‡) Meyer
- 93Af-Bw. Methods of Teaching for Core Majors.** (5 cred.; prereq. sr.) Bossing

### MUSIC EDUCATION (Mu.Ed.)

**Note**—For courses in music see *Bulletin of the College of Science, Literature, and the Arts.*

- 4f-5w-6s. Applied Instrumental Technique.** Divided into 3 quarters: strings, brass (and percussion), woodwinds. Theory and technical development of the instruments, elementary instruction in instrument playing, special attention to routine of class instruction. (6 cred.; prereq. music education major) Ivory, Prescott
- 50As. Teaching Music in Primary Grades.** Practical methods for teaching music in the nursery school, kindergarten, and grades 1, 2, 3. The child's voice, rote singing, note reading, new practices, and materials. (2 cred.; prereq. ‡) Caswell
- 50Bw. Teaching Music in Intermediate Grades.** Music methods in grades 4, 5, 6; rhythmic and melodic problems; voice testing, 2- and 3-part singing; integration. (2 cred.; prereq. ‡) Caswell
- 51f.w.s. Teaching of Music.** (Kindergarten-Primary grades) For nonmusic majors. Appreciation, methods. (3 cred.; prereq. Mus. 1) Edes, Nelson
- 52f.w.s. Teaching of Music.** (Intermediate grades) For nonmusic majors. Appreciation, methods, materials. (3 cred.; prereq. Mus. 1, Mu.Ed. 51, or ‡) Juhl, Nelson
- 53f. Teaching Music in the Secondary School.** Organization and methods of teaching chorus, glee clubs, voice classes. Attention to changing voice, voice combinations, procedures; materials for public appearances. (3 cred.; prereq. Mus. 2T, ‡) Caswell
- 59w.\*\* Choral Literature and Conducting.** Intimate contact with vocal materials and actual practice in conducting. (2 cred. for sr., 1 cred. for others) Caswell
- 60f.w.s-61f.w.s-62f.w.s. Supervision and Teaching of Music.** Experience in carrying forward, under supervision, activities of the elementary music teacher and music activities in junior and senior high school. (9 cred.; prereq. sr., 50B, 53, Ed. 55B, ‡) Ivory, others
- 63w. Conducting I.** Basic elements of baton technique; styles of beats, types of arcs, preparatory beats, patterns, other ideas involved in starting the young conductor. (2 cred.; prereq. 4-5-6) Prescott
- 64s. Band Organization.** Organization, promotion, curriculum, administration, equipment, other problems of the school band. (3 cred.; prereq. 4-5-6, ‡) Prescott
- 65f.w. Instrumentation.** Theoretical study of orchestral and band instruments, in combination. Revision of materials suitable for school use, capacity and capability of school performance on various instruments. (3 cred.; prereq. sr., Mus. 6T) Ivory
- 67s. The Teaching of Instrumental Music in Elementary Schools.** Training of directors of orchestra and band ensembles; critical survey of music materials adaptable to school music purposes. Laboratory practice. Program planning, efficient management of rehearsals. (2 cred.; prereq. ‡) Ivory

\*\* Four credits are required in Mu.Ed. 59. The course should be repeated until all 4 credits are earned.



- 68s. The Teaching of Instrumental Music in Secondary Schools.** Same description as 67. (2 cred.; prereq. sr., 65) Ivory
- 103f. Psychological Foundations of Music Education.** Implications of developmental and objective psychological data in music theory and acoustics. (3 cred.; prereq. sr., 6) Caswell
- 104s. Advanced Topics in Vocal Music Education.** Objective and empirical research and literature on voice development in individual, class, and choral work. Individual surveys of performance practices and organization of school vocal groups; selection of vocal music. (3 cred.; prereq. sr., 6) Caswell
- 105w. Advanced Topics in Instrumental Music Education.** Individual selection of topics for intensive study. Bibliographical methods, library resources. (3 cred.; prereq. sr., 6) Ivory
- 124. Selection and Conducting of Choral Materials.** Student conducting with class as performing ensemble; criteria for selecting choral and combined choral and instrumental materials; rehearsal techniques. (3 cred.; prereq. sr.; offered when feasible) Caswell
- 125. Selection of Instrumental Music Materials.** Sources and criteria; orchestra, band, ensemble music, and choral accompaniments; class teaching methods books; individual projects, group activities. (3 cred.; prereq. sr.; offered when feasible) Ivory
- 150. Organization and Supervision of Vocal-Instrumental Music in Elementary Schools.** Trends reflected in teaching materials and syllabi. Implications of supervision practices in other educational fields. (3 cred.; prereq. sr., 6 cred. in music education, 9 cred in music, and 6 cred. in education; offered when feasible) Ivory, Caswell
- 160. Organization and Supervision of Vocal-Instrumental Music in Secondary Schools.** Practical problems in school music; individual projects, group activities; classroom management, supervisory techniques, scheduling, unit construction, instruments, repertory. (3 cred.; prereq. sr., 6 cred. in music education, 9 cred. in music, and 6 cred. in education; offered when feasible) Ivory, Caswell
- 170. Recent Research and Literature.** Current research; evaluation of teaching materials; appraisal of research techniques. (3 cred.; prereq. sr.; offered when feasible) Ivory, Caswell
- 224f.w.s.\* Research Problems.** Individual projects. (3-9 cred.; prereq. knowledge of elementary statistics) Ivory, Caswell
- 225Ef.w.s.\*\* Advanced Applied Music.** See Courses in Applied Music, pages 41-42 of this bulletin. (2 or 4 cred.) Ar.

### NURSING EDUCATION (Nu.Ed.)

**Note**—For description of courses in nursing and nursing administration see *Bulletin of the School of Nursing*.

- 68f. Construction and Use of Examinations and Other Measurement in Basic Nursing Courses.** Criteria for judging and improving methods of educational measurement; examinations as aids to student progress; relation of examination scores to grading systems. Practice in making and scoring course examinations. (3 cred.) Johnston
- 69f.s. Survey of Conditions and Trends in Nursing.** Study of conditions existing in nursing as revealed in literature and reports. (3 cred.) Densford, staff
- 72f. Application of Principles of Learning to Clinical Instruction.** Learning situations in basic professional nursing program, sources and selection of ma-

\*\* 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.

- terials; organization of instruction; evaluation of student learning in clinical situations. (3 cred.) Norris, Dunning
- 74w. Sciences in a School of Nursing Curriculum.** 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. (3 cred.; prereq. #) Coe
- 162w. Personnel Work in Nursing.** Principles and techniques of personnel work applied to problems in nursing; individual differences, human behavior; psychological tests; personnel records; orientation periods, remedial programs; counseling interviews. (3 cred.) Johnston
- 165w. Problems in Nursing Care.** Research in nursing. (3 cred.; prereq. #)
- 171f.w.s. The Curriculum of the School of Nursing.** Principles of curriculum development applied to educational programs in nursing. (3 cred.; prereq. 69, Ed.T. 51A-B or #) Harrington
- 175w. Educational Administration in Nursing.** Organization, administration, and support of educational programs in nursing: in schools of professional and practical nursing; in governmental and other nursing services; in continuing education programs for practicing nurses and nurse educators. (3 cred.; prereq. sr., grad., or #) Densford
- 190f. The Survey in Nursing Education.** Survey techniques of evaluating an educational field study. (3 cred.; prereq. #) Harrington
- 197Ew-198Es. Advanced Teaching of Nursing.** Problems in teaching nursing for students registered in the master of education program in nursing education. (2 cred. for 197E, 4 cred. for 198E; prereq. registration in master of education program, or #) Harrington
- 271f. Problems in Curriculum.** Each student works on a chosen problem in nursing education. (3 cred.; prereq 171, #) Harrington

## PHYSICAL EDUCATION FOR MEN (P.E.M.)

### Nonprofessional Courses

- 1A-B-C, 2A-B-C. Sports Education.** Elective specialized courses in physical education including instruction in swimming, diving, lifesaving, bowling, boxing, wrestling, weight lifting, badminton, basketball, golf, softball, handball, squash rackets, skating, dancing, archery, gymnastics, fencing, volleyball, and adapted activities for the handicapped. (1 cred. per qtr.) Staff
- 4Aw. Football Fundamentals.** Demonstrations and practice in football fundamentals for all positions on a football team. (1 cred.) Warmath, staff
- 4Bf. Basketball Fundamentals.** Demonstrations and practice, individual and team offensive and defensive tactics. (1 cred.) Vancisin
- 4Cs. Track Fundamentals.** Demonstrations and practice in all track and field events. (1 cred.) Kelly
- 5Af.w. Touch Football, Calisthenics, Tactics.** Touch football, six-man football, calisthenic nomenclature, conditioning drills, posture exercises, mimetics, story plays, reconditioning exercises, grass drills, marching tactics. (1 cred.) Piper, Ostrander
- 5Bf.w. Gymnastics.** Stunts on the buck, side horse, long horse, parallel bars, low bar, high bar, rings, trampoline, springboard, and mats; stall bar exercises; rope climbing; and pyramid building. (1 cred.) Ostrander
- 5Cs. Stunts, Contests, Softball, Baseball.** Individual double and triple stunts; combative stunts; mass contests; weight lifting; softball; baseball fundamentals. (1 cred.) Ostrander, Siebert, Mueller
- 6Af. Intramural Sports.** Fundamentals and team play in soccer, speedball, and volleyball. (1 cred.)

- 6Bw. Intramural Sports.** Ice hockey, handball, and squash rackets. (1 cred.) Keller, Mueller
- 6Cf.w.s. Aquatics.** Advanced swimming, diving, lifesaving. (1 cred.) Thorpe
- 7Af. Games and Relays.** Low organized games for gymnasiums, playgrounds, camps, etc.; social games for recreation; progressive game parties; relays. (1 cred.) Piper, Ostrander
- 7Bw. Boxing and Wrestling.** (1 cred.) Johnson
- 7Cs. Recreational Games.** Badminton, aerial darts, deck tennis, paddle tennis, table tennis, bowling, horseshoes, and archery. (1 cred.) Piper, Ostrander, Osell
- 8s. Tennis and Golf.** (1 cred.) Brain, Bolstad
- 9Aw. Fundamental Rhythms.** Basic steps and folk dances. (1 cred.) Piper
- 9Bs. Square and Ballroom Dancing.** Instruction in circle, line, square, mixer, couple dances; square dance calling. (1 cred.) Piper
- 11Af-Bw-Cs. Survey of Recreation Activities.** Requires the student to search out, analyze, and classify recreation opportunities on the campus and in the Twin Cities area. (1 cred. per qtr.) Starr
- 23Af-Bw-Cs. Introduction to Recreation Leadership.** Study of and participation in group recreation programs in Coffman Memorial Union. (1 cred. per qtr.) Starr
- 32f. Introduction to Physical Education.** Orientation course covering briefly the history, vocational aspects, and fundamental principles of physical education. (3 cred.) Keller, Johnson
- 43f. Camp Aquatics.** Designed to prepare camp counselors to administer a waterfront program and to give practice in the basic skills in the use of small craft. (2 cred.) Ostrander
- 45s. Camp Craft.** Practical experience in various phases of camping and outdoor education. (2 cred.) Ostrander
- 46s. Camp Leadership.** Introduction to field of camping and outdoor education for prospective counselors. (2 cred.) Osell, Ostrander
- 49f. Social Aspects in Leisure.** Sociological consideration of leisure and recreation as parts of our total socio-economic structure. (3 cred.) Fitzgerald
- 51f. Mechanics of Movement.** Structure of the body, principles and mechanics of bodily movements. (3 cred.; prereq. 50 or Anat. 57) Osell
- 52w. Leadership in Social Activities.** Technique of leadership in social games, parties, dances, outings, etc. (3 cred.) Ostrander
- 55f.w. Methods and Materials in Physical Education.** Application of principles of methodology in the teaching of physical education class activities and in coaching. Includes 3 hours per week in observation and practice in leadership in activities classes. (4 cred.; prereq. 5A-B-C, 6A-B-C, 7A-B-C) Ostrander
- 56f. The Nature and Function of Play.** The biological play drives and the theory and philosophy of play and recreation. (3 cred.; prereq. soph.) Giles
- 57w. The Organization and Conduct of Recreation Centers.** Operation, management, facilities, equipment, and programs of recreation centers. (3 cred.; prereq. 23A-B-C) Giles
- 58s. Leadership in Community Recreation.** Breadth and scope of leadership in recreation. (3 cred.; prereq. 57) Giles
- 59s. Instructor's Course in First Aid.** Preparation to teach the standard course in first aid. (3 cred.; prereq. 25 or 26) Osell
- 60As. Prevention and Care of Injuries.** Policies for conditioning of athletes in interscholastic and intercollegiate sports, safety controls, and care and pre-

- vention of injuries in physical education activities. (3 cred.; prereq. 50 or Anat. 57, 51) Stein
- 60Bf.w.s. Athletic Training Laboratory.** Thirty hours of practical experience in the training room under supervision. (1 cred.; prereq. 60A) Stein
- 61s. History of Physical Education.** The influence of social, economic, political, and religious factors in the development of physical education from ancient times to the present. Origin and development of games and sports. (3 cred.) Keller
- 63s. Organization and Administration of Physical Education.** Problems of organization, administration, and supervision in required and elective courses, intramural and interschool athletics. (3 cred.; prereq. 32 or 101, 55) Piper
- 64Aw-Bs. Leadership in Nature Recreation.** Identity and scope of nature recreation field; classwork and field trips. (4 cred.; prereq. 15 cred. in natural science) Chapman
- 65w. Adapted Physical Education.** Philosophy, principles, and techniques of adapting the physical education program to meet the needs of handicapped pupils. (3 cred.; prereq. 51, Anat. 57) Osell
- 66f. Officiating Football and Basketball.** Qualifications of officials, officiating ethics, discussion of rules, and officiating techniques. Four hours per week in theory and practice under supervision. (3 cred.; prereq. 4A-B) Mueller, Donnelly
- 67s. Football Coaching.** Theory, strategy, generalship, styles of offense and defense, methods of organizing practices, and handling of men. (2 cred.; prereq. 4A or 1 yr. experience on squad) Warmath, staff
- 68f. Basketball Coaching.** Theory, styles of offense and defense, the conditioning and handling of players. (2 cred.; prereq. 4B) Cowles
- 69f. Track Coaching.** Techniques of performance in all of the standard track and field events; methods of coaching; organization of track meets; study of rules; officiating methods and practice. (2 cred.; prereq. 4C) Kelly
- 72w. Baseball Coaching.** The theory of playing each position, batting, coaching runners, and team play; study of the rules; officiating methods and practice; organization of practices. (2 cred.) Siebert
- 73f.w.s. 74f.w.s. 75f.w.s. Directed Teaching.** Six hours per week. One quarter devoted to coaching, 2 quarters to teaching physical education classes including experience at 2 of the 3 school levels. (2 cred. per qtr.; prereq. 55, Ed. 55B) Ostrander, staff
- 78w. Scout Leadership.** Orientation course for students who are interested in the Boy Scout program. (2 cred.) Osell
- 92. Coaching of Ice Hockey.** Orientation of the prospective coach and physical education teacher to the fundamentals and advanced knowledge of hockey. (2 cred.; prereq. 6B or #) Mariucci

## PHYSICAL EDUCATION FOR WOMEN (P.E.W.)

### *Nonprofessional Courses for Undergraduate Students*

The following activity courses in physical education for women are open to students in the College of Education. After the 5-credit requirement has been met, students may elect additional courses listed below. Students should register for activity classes in 210 Johnston Hall during the regular college registration period. A physical education fee of \$3.25 per quarter is charged for all activity courses. Students should check the *Class Schedule* to be sure their Activity Rating (which is required) is acceptable for the class in which they register. Those who have not received an Activity Permit Card may secure one at 101 Norris Gymnasium. For special per-

mission to take two courses in physical education, see Miss Tenney, 106 Norris Gymnasium. All classes meet in Norris Gymnasium for the first meeting. A student forfeits her place in class if she is absent the first day the class meets unless she notifies 101 Norris Gymnasium (Ext. 6175) that she is unable to attend. If a class is closed when a student registers, she should report to the first class meeting for possible cancellations.

#### Aquatics

Canoeing: elementary  
Swimming: beginning, advanced beginning, intermediate, advanced, and synchronized  
Lifesaving: American Red Cross senior course  
Water safety: American Red Cross water safety instructors' course  
Diving: beginning springboard diving

#### Rhythms

Ballroom dance  
Folk and square dance  
Modern dance: elementary, intermediate, advanced  
Tap dance

#### Individual Sports

Archery: elementary and intermediate  
Badminton: elementary  
Bowling: elementary  
Fencing: elementary  
Golf: elementary, intermediate, advanced  
Horseback riding: elementary  
Riflemarksmanship: elementary  
Skating: plain and figure  
Social games and mixers  
Tennis: elementary, intermediate, advanced

#### Team Sports

Basketball  
Softball  
Volleyball

#### Body Building

Posture and individual exercise

### Professional Courses for Undergraduate Majors

#### 20ABCf-21ABDEw-22ABCs. Physical Education Activities.

*Fall:* 20A—Badminton (½ cred.); 20B—Skills and officiating of fall team sports (1 cred.); 20C—Recreational activities, archery, bowling (1 cred.)

*Winter:* 21A—Advanced basketball (½ cred.); 21B—Rhythmic fundamentals and elementary folk dance (1 cred.); 21D—Stunts and tumbling (1 cred.); 21E—Winter sports (½ cred.)

*Spring:* 22A—Folk and ballroom dance (1 cred.); 22B—Golf (1 cred.); 22C—Tennis (1 cred.)

**25f.w.s. American Red Cross First Aid Standard.** Lectures, demonstrations, and practice in emergencies and first aid treatment. American Red Cross Standard Certificate in First Aid received upon successful completion of course. (2 cred.)

#### 40ABCDf-41ABw-42As. Physical Education Activities.

*Fall:* 40A—Modern dance (1 cred.); 40B—Skills and officiating of softball and volleyball (1 cred.); 40C—Self-testing and functional exercise (1½ cred.); 40D—Tap dance (½ cred.)

*Winter:* 41A—Advanced aquatics (1 cred.); 41B—Officiating basketball (½ cred.; prereq. 21A)

*Spring:* 42A—Senior life saving (1 cred.; prereq. 41A)

**45w.s. Introduction to the Elementary Physical Education Program.** Laboratory course for P.E.W. 70. Experience with graded activities for the elementary school child. Problems of organization and teaching progressions considered. Student teaching within the group. (2 cred.; prereq. elementary education majors only; offered when feasible)

**47f. The Teaching of Dance and Rhythmic Activities.** Methods in the teaching of creative rhythmic activities, singing games, folk and ballroom dance. Former includes an approach to children's rhythm and modern dance. (3 cred.; prereq. 21B, 22A, 40A) Burgess

**48s. The Teaching of Individual and Dual Sports.** Special techniques and methods of teaching archery, badminton, bowling, golf, and tennis. Student teaching within the group. Organization of competitive and recreational programs. (3 cred.; prereq. \*) Jaeger, Tenney

- 49s. The Teaching of Team Sports.** Special techniques for each sport and methods of teaching. Organization of extracurricular activities. Practice in skills and student teaching within group. (2 cred.) Hauptfuehrer
- 51f.w. Mechanics of Movement.** Principles of mechanics of movement with laboratory studies involving the kinesiological analysis of sport techniques. (3 cred.; prereq. Anat. 57) Wilson
- 53w. The Role of the Physical Educator in Recreation.** Function in school and community recreation; philosophy of recreation in daily living; relationship of recreation and physical education; leadership. (3 cred.; prereq. physical education majors) Tinker
- 54f.s. Camp Leadership.** Current trends and standards in camping; organization and administration of the camp program; responsibilities and duties of a counselor; committee projects; practical work in camp craft. (3 cred.) Tinker
- 62f. The Teaching of Physical Education Activities.** For students minoring in physical education. Methods in team and individual sports, rhythms and self-testing in the junior-senior high school program. (3 cred.; prereq. physical education minors and recreation majors) Hauptfuehrer
- 70f.w.s. Introduction to the Elementary Education Program.** Designed to help the elementary teacher assume responsibility in teaching physical education. Planning and methods of instruction in physical education with implications for health education and recreation. (3 cred.; prereq. 3rd qtr. soph., elementary education majors) Bockstruck
- 71. Applied Physiology.** Lectures and laboratory problems demonstrating the physiological bases for objectives and content of the physical education program. (3 cred.; offered when demand warrants)
- 76s. Advanced Folk Dance.** Theory and practice of folk dance with emphasis on national and racial origins and the relationship of dance to other folk arts. (2 cred.; prereq. #) Burgess, Bockstruck
- 77Af-Bw. The Teaching of Aquatics.** Methods and procedures related to organization, content, and teaching of swimming, and life saving; opportunity to qualify for the American Red Cross Water Safety Instructor's Certificate. Pool control and sanitation. (2 cred.; prereq. 41A, 42A) Slaughter
- 79. Massage and Therapeutic Exercises.** Principles of massage and study of conditions especially applicable to physical education, including athletic injuries, foot disorders, paralysis, and certain functional and nervous disorders, etc. Visits to Twin Cities physiotherapy departments. (2 cred.; offered when demand warrants)
- 80s. History and Trends in Dance.** History and philosophy of dance; also relation to allied arts. (3 cred.; prereq. #) Burgess
- 82f. Principles of Physical Education.** Philosophy of physical education and principles underlying curriculum building, methods of teaching, measurement, and outcomes. (3 cred.; prereq. sr.) Wilson
- 83w. Methods and Materials of School Health Education.** Methods, materials, problems, and evaluation of health education in preparation for health teaching. Allocation and gradation of health subject matter. (3 cred.; prereq. Pub.H. 59) Slocum
- 84w. The Physical Education Program in the Elementary and Secondary School.** Philosophy, objectives, trends, content, and evaluation in relation to the physical education curriculum. (3 cred.; prereq. sr.) Jaeger
- 85s. Remedial Activities in Physical Education.** Adapting the physical education program to needs of the atypical child. Principles and techniques in correction of postural defects. (3 cred.) Wilson
- 86f. Advanced Physical Education.** Fundamentals in physical education as applied in the elementary school. (1 cred.) Jaeger, Hauptfuehrer

- 87w. Dance Composition.** Advanced modern dance theory and practice. Principles of composition with practical application. (2 cred.; prereq. #) Burgess
- 88s. Advanced Problems in Dance Composition.** Various approaches to dance composition will be studied. (2 cred.; prereq. #) Burgess
- 89s. Dance Production.** Various phases of dance production in schools and colleges. Dance recital and demonstration. Elements of stage craft and costuming. (3 cred.; prereq. #) Burgess
- 90ABCf-ABCw-ABCs. Student Teaching in Physical Education.** (2 cred. (f), 3 cred. (w), 3 cred. (s), total 8 cred.; prereq. Ed. 55A-B, major in physical education) Jaeger, Hauptfuehrer, Slocum
- 91s. Principles of Play.** Nature and function of play; historical background and theoretical explanations of play; factors influencing play interests; principles of play leadership; practical skills and techniques in low organized games, rhythms, stunts, and self-testing activities. (3 cred.; prereq. N.K.P. majors) Tinker
- 93f,w.s. Student Teaching in Physical Education for Minors.** (2 cred.; prereq. Ed. 55A-B, minor in physical education) Hauptfuehrer, Jaeger
- 94f,w.s. Student Teaching in School Health Education.** (2 cred.; prereq. sr., 83, #) Slocum
- 95s. Administration of Physical Education.** Professional responsibilities; organization of instructional and extracurricular program in the school and community; appraisal of activities; protection and classification of students; standards for operation of physical education plant. (3 cred.; sr.) Baker

#### PHYSICAL EDUCATION FOR MEN AND WOMEN (P.E.)

- 101w. Principles of Physical Education.** Aims and scope of physical education; its place in education. (3 cred.; prereq. P.E.M. 55) Keller
- 103s. Physical Inspection.** Responsibility of the physical education instructor in the examination of pupils, assisting the physician, follow-up procedures, and keeping of records. (3 cred.; prereq. P.E.M. 51, Anat. 57, Pub.H. 91, 92) Osell
- 105f. Conservation of Natural Resources.** Their importance and relation to recreation and outdoor education. (2 cred.; prereq. sr., P.E.M. 64A-B) Chapman
- 107w. Camp Administration.** Prepares qualified personnel for responsibilities of camp administration. (3 cred.; prereq. P.E.M. 46, and #) Osell, Ostrander, Thorpe
- 110w. Recreation Surveys.** Techniques and practice. (3 cred.; prereq. P.E.M. 57, 58) Fitzgerald
- 111f. Recreation Areas and Facilities.** Orientation, design, planning, and standards for recreation buildings and areas. (3 cred.; prereq. P.E.M. 57, 58) Giles
- 112s. Programming in Recreation.** Principles of program planning for an organized offering of recreation opportunities. (3 cred.; prereq. P.E.M. 57, 58) Chapman
- 113w. Physical Education in the Elementary School.** Curriculum instructional procedures, classification, evaluation. (3 cred.; prereq. experience with elementary school age level, or #) Baker
- 114s. Administration of the School Health Education Program.** Co-ordination of total program; health supervision and guidance; relationships between public schools and governmental health organizations and agencies; evaluation. Guidance in the solution of individual professional problems. (3 cred.; prereq. sr., P.E.W. 83, Pub.H. 50, or equiv., or #) Slocum
- 115s. Recent Literature and Research in Mechanics of Movement.** Techniques of mechanics and kinesiology of movement; skills; evaluation of pertinent re-

- search methods and devices; application to individual projects. (3 cred.; prereq. undergraduate course in kinesiology, or #) Wilson
- 116s. Community Recreation Resources and Organizations.** Agencies and their interrelationships in the field of recreation. (3 cred.; prereq. 110-111-112) Ostrander
- 117w. Advanced Course in School Health Instruction.** Instructional problems at all levels. Individual problems discussed. (3 cred.; prereq. P.E.W. 83, or #) Slocum
- 118Ef.w.s. Problems in Teacher Education in Health, Physical Education, and Recreation.** Individual problems course for M.Ed. students who are interested in the conduct and development of professional teacher education programs or problems pertinent to these interests. (Cred. ar.; prereq. #) Baker, Jaeger, Slocum, Wilson
- 121s. Principles of Recreation Methods.** Leadership methodology in all aspects of recreation. (3 cred.; prereq. Ed.T. 84A-B-C) Fitzgerald
- 123f. Advanced Course in Methods of Teaching Physical Education.** Teaching procedures and method problems at all levels; research results. (3 cred.; prereq. #) Baker
- 124s. Supervision of Physical Education.** Functions; adaptations of accepted procedures for observation, guidance, and training of teachers; face-to-face techniques. (3 cred.; prereq. #) Baker, Jaeger
- 125f. Curriculum Trends in the Professional Preparation of Teachers of Physical Education.** Current needs and issues, philosophy and objectives, present trends, characteristic curricular patterns and standards. (3 cred.; prereq. sr., teaching experience or #) Jaeger
- 130f. Contributions of Basic Sciences to Physical Education.** Recent research in basic sciences and applications in selected areas. (3 cred.; prereq. grad., #) Wilson
- 131f. Industrial Recreation.** History, scope, place, and relationship of management-employee recreation. (3 cred.; prereq. #) Fitzgerald
- 135w.s. Tests and Measurements in Physical Education.** Analysis of tests and testing methods at all levels. Emphasis in winter quarter on needs of women's physical education and elementary education. Use of tests in physical activity programs. Application of principles of test construction to specific problems. (3 cred.; prereq. sr., E.Psy. 60 or equiv.) Wilson (w), Keller (s)
- 141f. Introduction to Hospital Recreation.** General field of recreation in hospitals as background for the recreation leader, hospital administrator, and other personnel. (3 cred.; prereq. #) Chapman
- 142s. Leadership in Hospital Recreation.** Application of leadership methodology. (3 cred.; prereq. 141) Chapman
- 143w. Programming in Hospital Recreation.** Planning recreation programs for various types of hospital patients. (3 cred.; prereq. 141, 142) Chapman
- 155s. Instructional Aids in Health, Physical Education, and Recreation.** Evaluation, construction, and use, stressing audio-visual aids. (3 cred.) Piper
- 221s. Seminar in Physical Education.** Discussion of individual projects and current problems. (No cred.; consult adviser)
- 224f.w.s.\* Research Problems in School Health Education, Physical Education, and Recreation.** Individual problems in areas of philosophy, methods, curriculum, evaluation, and measurement; all curricular levels. (Cred. ar.; prereq. #) Baker, Fitzgerald, Jaeger, Keller, Piper, Slocum, Wilson
- 233w. Administration of the Physical Education Program in Secondary Schools.** Special administrative procedures in the promotion of the physical education program. (3 cred.; prereq. 63) Donnelly



- 234s. The Curriculum in Physical Education.** Application of principles of curriculum construction to physical education. (3 cred.; prereq. 63, 101, or equiv.) Donnelly
- 236f. Recent Literature and Research in Physical Education and Recreation.** Research methods applied to physical education and recreation; designs for research problems. (3 cred.) Donnelly
- 238f. Administration of Physical Education in Colleges and Universities.** Administering programs and facilities in physical education and athletics; field trips and surveys of neighboring colleges. (3 cred.; prereq. P.E.M. 63 or #) Keller
- 240f. Legal and Financial Aspects of Recreation.** Federal, state, and local recreation laws; sources of funds for public and private recreation agencies; agency liability. (3 cred.) Fitzgerald
- 241w. Administration of Public Recreation.** Basic principles in administration of recreation as a governmental service. (3 cred.) Fitzgerald
- 242s. Community Organization for Recreation.** Nature, scope, pertinent principles, and procedures. (3 cred.; prereq. #) Fitzgerald
- 261As. Seminar in Contemporary Problems in Physical Education.** Individual presentation and class discussion of studies completed by class members and contemporary problems selected by class members. (3 cred.; prereq. consent of adviser) Donnelly, Keller, Piper
- 261Bf.w. Seminar in Contemporary Problems in Recreation.** (Cred. ar.; prereq. consent of adviser) Fitzgerald, others

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10/6/56

*Bulletin of the*  
**UNIVERSITY OF MINNESOTA**



*Late Afternoon and  
Saturday Morning Classes, 1956-1957*

College of Education

# UNIVERSITY OF MINNESOTA

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Edmund G. Williamson, Ph.D., Dean of Students

## College of Education Administration

(University of Minnesota Telephone—Federal 2-8158)

Walter W. Cook, Dean of the College of Education .....	204	Burton
Marcia Edwards, Associate Dean of the College of Education .....	204	Burton
William H. Edson, Director of Student Personnel and Chairman, Committee on Student Scholastic Standing .....	206	Burton
Paul R. Grim, Director of Student Teaching .....	210c	Burton
Arnold Woestehoff, Director, Bureau of Recommendations .....	102	Burton

See list of major advisers on page 17.

# 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 curriculums for high school and elementary teachers, or in the specialized curriculums. All courses numbered 100 or above may apply toward advanced degrees if approved by advisers as part of the graduate program. Any student registering for courses to be applied toward a degree program should read carefully the section on Admission to Degree Program, and should consult a major adviser as early as possible. Failure to apply for admission or to consult an adviser may delay graduation and make extra work necessary.

The fee for part-time registration in the College of Education is \$4 per credit for residents of the state and \$11.25 per credit for nonresidents. If 6 or more credits are taken, an incidental fee of \$15 is also required.

The fee in the Graduate School for 6 credits or less or thesis only is \$23 for residents and \$67.50 for nonresidents. Graduate students taking more than 6 credits pay \$46 (residents) and \$135 (nonresidents). The incidental fee of \$15 is required of all students in the Graduate School except teachers in service taking less than 6 credits.

Other fees include a \$5 deposit (College of Education) or a \$3 deposit (Graduate School). Auditors pay the same fees as students registered for credit.

Telephone requests for information about College of Education matters should be made to Federal 2-8158, Ext. 6703.

## Registration

Teachers in service may register from Monday through Friday of the first week of the quarter only if it is *impossible* for them to come in during the regular registration period. (See the University Calendar on page 19 for registration dates.)

Students who have been admitted to the Graduate School may secure registration materials in 316 Johnston Hall. College of Education students, including those registering as adult special students, should secure registration materials as follows: (a) those registered in the *preceding regular quarter* (excluding summer terms) should report to 206 Burton Hall; and (b) those not so registered should report to the Office of Admissions and Records, window 9, in the Administration Building.

Special arrangements will be made for registering students taking *only* Saturday classes. These students, graduate and undergraduate, should report for registration in 206 Burton Hall on Saturday morning of the first week of classes (fall quarter, October 6). Veterans registering under Public Laws 346 and 16 cannot be registered under this special arrangement for Saturday students, and they should therefore report during the first week of the quarter or during the regular registration periods.

## Admission as Adult Special Student

Teachers in service may be admitted as adult special students in the College of Education. The adult special application form should be requested from the Office of Admissions and Records and should then be presented to that office before registration.

## **Admission to Degree Program**

Anyone planning to pursue a program of study leading to an undergraduate or graduate degree should file an application for regular admission with transcripts of previous academic work. Those who have been admitted as adult special students and wish to proceed with a degree program should file transcripts *during the first quarter of registration.*

*For bachelor of science or master of education programs:*

Application for admission to the College of Education should be made through the Office of Admissions and Records, Administration Building. See the *Bulletin of the College of Education* for these programs. Procedures for undergraduate admission include satisfactory completion of certain psychological tests, a health examination, and a speech examination. These tests are offered at the beginning of each quarter. Special arrangements to complete these admission requirements can be made in the Student Personnel Office, 206 Burton Hall, by applicants who are unable to attend during the regular class week.

*For master of arts and doctor of philosophy programs:*

Application for admission to the graduate school should be made in the Graduate School Office, 316 Johnston Hall. See the *Bulletin of the Graduate School* for M.A. and Ph.D. programs, including those in the various education majors.

## **Evening and Correspondence Offerings**

Additional courses are available through evening and special classes and correspondence courses. Offerings include work in education and also in the various academic departments of the University. Announcements of these courses may be secured without charge by writing to the General Extension Division, Nicholson Hall, University of Minnesota, Minneapolis 14.

## **Research Problems**

Research problems courses, credits, and hours arranged are included in the list of late afternoon and Saturday classes. These courses are taken, on consent of the instructor, by students who are approved candidates for the M.A. degree, Plan B.

## **Bureau of Recommendations**

The Bureau of Recommendations provides placement service for persons who seek teaching, administrative, and other types of positions in schools and colleges. *Registration is compulsory for persons receiving a degree from the College of Education.* Alumni and other students who have completed 30 quarter hours of work in residence are eligible for registration. The fee is \$5.50 for each placement season during which service is desired. The Bureau receives a great many requests for experienced, as well as inexperienced, teachers each year. The office is in 102 Burton Hall.

## **Summary of Class Schedules**

On the back cover is 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 quarter.

# Program of Courses

## FALL QUARTER, 1956

The following symbols and explanations are used throughout the bulletin:

- \* An asterisk after the number indicates courses through which it is possible for graduate students to prepare required Plan B papers.
- † A dagger after a course number indicates that all quarters of the course preceding the dagger must be completed before credit will be granted for any quarter. (In 1-2†-3, the first 2 quarters must be completed, while the third is optional.)
- ‡ A double dagger following a sequence course number indicates that students may enter any quarter.
- § A section mark means that credit will not be given for the course if the equivalent course listed after the section mark has been taken for credit.
- ¶ A paragraph mark preceding a course number means "concurrent registration," or that the course so indicated may be taken simultaneously.
- # A sharp mark means "consent of the instructor."
- E 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.

Please check the fall quarter *Class Schedule* for building abbreviations. A *Class Schedule* will be given to each student with his registration material.

### **Agricultural Education (Ag.Ed.)**

*Persons interested in courses in Agricultural Education should write directly to Department of Agricultural Education, University of Minnesota, St. Paul 1.*

### **Art Education (Ar.Ed.)**

- 81 Puppetry in Education. (3 cred.) I-IV S, J 109, Cherry
- 151 Curriculum Building. (3 cred.) IX-X W, J 109, Hastie
- 156 Intercultural Education Through Art. (3 cred.) I-II S, J 109, Gayne
- 295 Problems in Art Education. (Cred. ar.; prereq. consent of major adviser) Ar., Gayne, Hastie
- 296 Seminar in Art Education. (1 cred.) IX-X Th, J 109, Gayne and others

### **Curriculum and Instruction (Ed.C.I.)**

- 63 Children's Literature. (2 cred.) IX-X M, P 2, D. V. Smith
- 105 Audio-Visual Materials in Education. (3 cred.; prereq. sr.) I-II S, lab. ar., NH 211, Pearson
- 106 Co-ordinating an Audio-Visual Education Program. (3 cred.; prereq. 105 or #) IX-X M, WeH 206, Pearson
- 109 Audio-Visual Materials and Equipment Laboratory. (3 cred.; prereq. 105 or ¶105 or #) IX-X T, WeH 206, and 1 hr. lab. IX-X Th, Pearson

- 113 High School Curriculum. (3 cred.; prereq. Ed. 55B) IX-X T, JohH 105, Bossing
- 119 Elementary School Curriculum. (3 cred.; prereq. Ed. 75B) IX-X W, NH 213, Goossen
- 125 Occupational Information Laboratory. (3 cred.; prereq. #) VIII-IX Th, Pt 202, White
- 132 Teaching Basic Business Subjects. (3 cred.) III-IV S, Bu 103, Price
- 133 Consumer Education in the Schools. (3 cred.) IX-X Th, CW 206, Price
- 136 Organization and Administration of Distributive Education. (3 cred.) 4:00-6:20 W, Bu 103, Meyer
- 137A Materials and Methods in Co-operative Part-Time Classes. (3 cred.) 4:00-6:20 Th, Bu 103, Meyer
- 143 Teaching and Supervision of Reading in the Elementary School. (3 cred.; prereq. 9 cred. in education) I-II S, 1 hr. ar., Pt 202, Bond
- 145 Reading Difficulties. (3 cred.; prereq. 143 or 144) IX-X T, 1 hr. ar., WeH 202, Bond
- 151 Diagnosis and Treatment of Learning Difficulties. (3 cred.) III-IV S, NH 213, Clymer
- 171 Curriculum Laboratory Practice. (0-3 cred.; prereq. 170A or B, #) Ar., Bossing, Goossen
- 184 Supervision of Student Teaching. (3 cred.; prereq. 15 cred. in education, or #) I-II S, Bu 111, Grim
- 199E Internship. (Cred. ar.) Ar., Grim
- 201\* Problems in Teaching the Social Studies. (3 cred.; prereq. 155 or 168, 204, or #) Ar., McCune, Morse, E. West
- 204 Social Studies Curriculum. (3 cred.) IX-X T, PeikH 165, E. West
- 205\* Problems in Audio-Visual Education. (Cred. ar.; prereq. #) Ar., Pearson
- 215\* Problems in the School Health Education Program. (Cred. ar.; prereq. #) Ar., Grout
- 222 Seminar: Current Problems in the Techniques of High School Instruction. (Cred. ar.; prereq. Ed. 55B and senior methods) IX-X W, PeikH 255, Bossing, D. V. Smith, Wakefield
- 225\* Special Problems in Secondary School Supervision. (Cred. ar.; prereq. #) Ar., Keller
- 226 Seminar in Elementary School Problems. (2 cred.) IX-X Th, PeikH 145, Archer, Bond, Clymer, Goossen, Curtin, Ruddell
- 227\* Problems in Rural Education. (Cred. ar.; prereq. Ed.Ad. 117) Ar., Archer
- 228\* Problems of Higher Education and Teacher Education. (Cred. ar.; prereq. #) Ar., Eckert, Grim
- 237 Seminar: Business and Distributive Education. (No cred.; prereq. #) IX-X F, Bu 103, Price, Meyer
- 238\* Problems in Distributive Education. (Cred. ar.; prereq. #) Ar., Meyer
- 239\* Problems in Business Education. (Cred. ar.; prereq. #) Ar., Price
- 250 Higher Education in the United States. (3 cred.; prereq. 18 cred. in education or 1 year grad. study in any field) I-II S, CW 206, Eckert
- 253 Seminar on the Improvement of College Instruction. (Cred. ar.; prereq. #) Ar., Eckert, Wrenn
- 254 Directed Experiences in College Instruction. (Cred. ar.; prereq. #) Ar., Eckert, Wrenn
- 261\* Special Problems in the Improvement of Instruction. (Cred. ar.; prereq. #) Ar., Archer, Curtin, Goossen, Ruddell



- 271\* Problems in Curriculum Construction. (3-6 cred.; prereq. #) Ar., Archer, Birkmaier, Boeck, Bossing, Curtin, Goossen, D. Johnson, Ruddell
- 273\* Problems in Reading. (Cred. ar.; prereq. 143 or 144 or #) Ar., Bond, Clymer, Reynolds
- 284\* Problems in Student Teaching. (3-9 cred.; prereq. #) Ar., Grim
- 287\* Advanced Course in the Teaching of Science. (3 cred.) III-IV S, 1 hr. ar., Bu 111, P. Johnson
- 294\* Advanced Course in Curriculum and Methods in Secondary School English. (2 cred.; prereq. Ed.T. 75C) III-IV S, JohH 307, D. V. Smith
- 296\* Special Problems in Teaching English. (Cred. ar. Ar., D. V. Smith

### **Educational Administration (Ed.Ad.)**

- 115 Administration of the Elementary School. (3 cred.; prereq. 9 cred. in education) I-II S, JohH 114, Curtin
- 200 Seminar: Elementary School Administration. (3 cred.) IX-X W, PeikH 175, Archer
- 218 Recent Literature in Secondary Education. (Cred. ar.) IX-X W, PeikH 255, Bossing, Wakefield
- 225 Pupil Personnel Administration. (3 cred.) I-II S, Bu 103, Wakefield
- 228\* Special Problems in Educational Administration. (1-3 cred.; prereq. 225) Ar., Lane, Prentis, Wakefield
- 236 Field Study in Educational Administration. (0-10 cred.; prereq. #) Ar., Domian, Lane, Prentis, Wakefield
- 263 Organization of Secondary Schools. (3 cred.) III-IV S, CW 206, Lane
- 270\* Special Problems in Secondary Education. (Cred. ar.; prereq. #) Ar., Bossing, R. Keller, Lane, Prentis, Wakefield

### **Educational Psychology (E.Psy.)**

- 133 Basic Procedures in Student Personnel Work. (3 cred.; prereq. 9 cred. in education) Sec. 1, VIII-IX W, 1 hr. ar., Bu 111, Dugan; Sec. 2, III-IV S, 1 hr. ar., JohH 113, White
- 182 Education of Exceptional Children. (3 cred.; prereq. Ed. 55B or 75B) III-IV S, Pt 202, Reynolds
- 193 Psychology of Human Learning. (3 cred.; prereq. sr.) 4:00-5:30 TTh, JohH 114, Mork
- 233\* Problems in Guidance and Personnel Work. (Sec. 1, 3 cred.) VIII-IX T, Pt 202, Dugan; (Sec. 2, 1-9 cred.) Ar., Wrenn
- 240\* Problems in Measurement. (3 cred.) Ar., P. Johnson
- 243\* Problems in Statistics for Students in Education and Psychology. (3 cred.) Ar., P. Johnson
- 253\* Research Problems. (Cred. ar.; prereq. #) Ar., Staff
- 280 Practicum in Group Leadership. (3 cred.; prereq. #) Ar., Flanders
- 281 Practice in Personnel Work. (Cred. ar.; prereq. 266 or #) Ar., Snoke, Wrenn

### **History and Philosophy of Education (H.Ed.)**

- 141 Critical Issues in Contemporary Education. (3 cred.) IX-X Th, Pt 202, Beck
- 156 History of Ideas in American Education. (3 cred.) IX-X M, Bu 111, Ellis

- 241\* Problems in the History and Philosophy of Education. (Cred. ar.; prereq. #) Ar., Beck, Ellis

### **Home Economics Education (H.E.Ed.)**

*Persons interested in courses in Home Economics Education should write directly to the School of Home Economics, University of Minnesota, St. Paul 1.*

### **Industrial Education (Ind.)**

- 40 Analysis. (2 cred.) IX-X W, TNCW 113, Kavanaugh  
60 Philosophy of Vocational Education. (2 cred.) IX-X M, TNCW 113, Widdowson  
70 Teaching Industrial Subjects. (3 cred., \$100; prereq. 42, Ed. 55B) IX-X T, TNCW 113, Nelson  
107 Co-ordination. (3 cred.; prereq. 61 or 125 or #) IX-X T, TNCW 116, Widdowson  
250 Literature. (3 cred.; prereq. #) IX-X W, TNCW 116, Micheels

### **Music Education (Mu.Ed.)**

- 224\* Research Problems. (3-9 cred.; prereq. elementary statistics) Ar., Caswell, Ivory  
225E Advanced Applied Music. (2-4 cred.) Ar.

### **Physical Education (P.E.)**

- 118E Problems in Teacher Education in Health, Physical Education, and Recreation. (Cred. ar.; prereq. #) Ar., Baker, Jaeger, Slocum, Wilson  
123 Advanced Course in Methods of Teaching Physical Education. (3 cred.; prereq. #) 4:00-5:30 TTh, NGW 3, Baker  
125 Curriculum Trends in the Professional Preparation of Teachers of Physical Education. (3 cred.; prereq. sr., teaching experience, or #) III-IV S, 1 hr. ar., NGW 3, Jaeger  
130 Contributions of Basic Sciences to Physical Education. (3 cred.; prereq. grad., #) 4:00-5:30 MW, NGW 3, Wilson  
221 Seminar: Physical Education. (No cred.) Ar., Baker, Jaeger, Slocum, Wilson  
224\* Research Problems in School Health Education, Physical Education, and Recreation. (Cred. ar.; prereq. #) Ar., Baker, Donnelly, Fitzgerald, Jaeger, Keller, Slocum

## WINTER QUARTER, 1957

The following symbols and explanations are used throughout the bulletin:

\* An asterisk after the number indicates courses through which it is possible for graduate students to prepare required Plan B papers.

† A dagger after a course number indicates that all quarters of the course preceding the dagger must be completed before credit will be granted for any quarter. (In 1-2†-3, the first 2 quarters must be completed, while the third is optional.)

‡ A double dagger following a sequence course number indicates that students may enter any quarter.

§ A section mark means that credit will not be given for the course if the equivalent course listed after the section mark has been taken for credit.

¶ A paragraph mark preceding a course number means "concurrent registration," or that the course so indicated may be taken simultaneously.

‡ A sharp mark means "consent of the instructor."

E 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.

Please check the winter quarter *Class Schedule* for building abbreviations and possible changes in offerings. A *Class Schedule* will be given to each student with his registration material.

### **Agricultural Education (Ag.Ed.)**

*Persons interested in courses in Agricultural Education should write directly to Department of Agricultural Education, University of Minnesota, St. Paul 1.*

### **Art Education (Ar.Ed.)**

- 152 Curriculum Building. (3 cred.; prereq. 151) III-IV S, Gayne
- 189 Application of Aesthetic Theory in Education. (3 cred.) I-II S, Hastie
- 284 Research in Art Education. (3 cred.) IX-X Th, Gayne
- 295 Problems in Art Education. (Cred. ar.; prereq. consent of major adviser) Ar., Gayne, Hastie
- 296 Seminar in Art Education. (1 cred.) IX-X Th, Gayne and others

### **Curriculum and Instruction (Ed.C.I.)**

- 63 Children's Literature. (2 cred.) IX-X W, Odland
- 103 Teaching Science in the Elementary School. (3 cred.; prereq. sr., Ed. 75B or teaching experience) IX-X W, Goossen
- 105 Audio-Visual Materials in Education. (3 cred.; prereq. sr.) IX-X T and 1 hr. ar., Pearson
- 109 Audio-Visual Materials and Equipment Laboratory. (3 cred.; prereq. 105 or ¶105, or #) IX-X M, Lab IX-X W, WeH 206, Pearson
- 135 Group Procedures in Guidance. (3 cred.; prereq. E. Psy. 133 or ‡, 9 cred. in education) III-IV S, 1 hr. ar., White
- 139 Co-ordination Techniques. (3 cred.) 4:00-6:20 W, Meyer

- 143 Teaching and Supervision of Reading in the Elementary School. (3 cred.; prereq. 9 cred. in education) IX-X M and 1 hr. ar., Bond
- 144 Teaching of Reading in Secondary Schools. (3 cred.; prereq. 9 cred. in education) IX-X M and 1 hr. ar., Clymer
- 145 Reading Difficulties. (3 cred.; prereq. 143 or 144) I-II S, 1 hr. ar., Bond
- 150 Supervision and Improvement. (3 cred.; prereq. 9 cred. in education) III-IV S, Goossen
- 156 Trends in Business Education. (3 cred.) IX-X Th, Price
- 168 Current Developments in the Social Studies. (3 cred.; prereq. grad.) IX-X M, McCune
- 170B Curriculum and Course of Study Construction. (3 cred.; prereq. 113 or 119 or #) IX-X T, Bossing
- 171 Curricular Laboratory Practice. (0-3 cred.; prereq. 170A or B or #) Ar., Bossing, Goossen
- 173B Organizing Units of Instruction in the Secondary School. (3 cred.; prereq. 113 or teaching experience) IX-X Th, Bossing
- 199E Internship. (Cred. ar.) Ar., Grim
- 201\* Problems in Teaching the Social Studies. (3 cred.; prereq. 155 or 168, 204 or #) Ar., McCune, Morse, E. West
- 205\* Problems in Audio-Visual Education. (Cred. ar.; prereq. #) Ar., Pearson
- 215\* Problems in the School Health Education Program. (Cred. ar.; prereq. #) Ar., Grout
- 217 Seminar in the School Health Education Program. (Cred. ar.; prereq. #) Ar., Grout
- 222 Seminar: Current Problems in the Techniques of High School Instruction. (Cred. ar.; prereq. Ed. 55B and senior methods) IX-X W, Bossing, D. V. Smith, Wakefield
- 225\* Special Problems in Secondary School Supervision. (Cred. ar.; prereq. #) Ar., Keller
- 226 Seminar in Elementary School Problems. (2 cred.) IX-X Th, Archer, Bond, Clymer, Goossen, Curtin, Ruddell
- 227\* Problems in Rural Education. (Cred. ar.; prereq. Ed.Ad. 117) Ar., Archer
- 228\* Problems of Higher Education and Teacher Education. (Cred. ar.; prereq. #) Ar., Eckert, Grim
- 237 Seminar: Business and Distributive Education. (No cred.; prereq. #) IX-X F, Price, Meyer
- 238\* Problems in Distributive Education. (Cred. ar.; prereq. #) Ar., Meyer
- 239\* Problems in Business Education. (Cred. ar.; prereq. #) Ar., Price
- 251 Curriculum Trends in American Colleges. (3 cred.; prereq. 18 cred. in education or 1 year grad. study in any field) I-II S, Eckert
- 253 Seminar on the Improvement of College Instruction. (Cred. ar.; prereq. #) Ar., Eckert, Wrenn
- 254 Directed Experience in College Instruction. (Cred. ar.; prereq. #) Ar., Eckert, Wrenn
- 261\* Special Problems in the Improvement of Instruction. (Cred. ar.; prereq. #) Ar., Archer, Curtin, Goossen, Ruddell
- 271\* Problems in Curriculum Construction. (3-6 cred.; prereq. #) Ar., Archer, Birkmaier, Boeck, Bossing, Curtin, Goossen, D. Johnson, Ruddell
- 273\* Problems in Reading. (Cred. ar.; prereq. 143 or 144 or #) Ar., Bond, Clymer, Reynolds
- 284\* Problems in Student Teaching. (3-9 cred.; prereq. #) Ar., Grim

- 285 The Professional Education of Teachers. (3 cred.; prereq. 15 cred. in education including 184 and 250 or H.Ed. 182 or E.Psy. 250 or #) III-IV S, Grim
- 294\* Advanced Course in Curriculum and Methods in Secondary School English. (2 cred.; prereq. Ed.T. 75C) III-IV S, D. V. Smith
- 296\* Special Problems in Teaching English. (Cred. ar.) Ar., D. V. Smith

### **Educational Administration (Ed.Ad.)**

- 115 Administration of the Elementary School. (3 cred.; prereq. 9 cred. in education) IX-X W, Curtin
- 117 Schools in Rural Areas. (3 cred.) III-IV S, Archer
- 118 The Community School. (3 cred.; prereq. sr.) IX-X T, 1 hr. ar., Archer
- 218 Recent Literature in Secondary Education. (Cred. ar.) IX-X W, Bossing, Wakefield
- 227 Teacher and Employee Administration. (3 cred.; prereq. 225) IX-X T, 1 hr. ar., Lane
- 228\* Special Problems in Educational Administration. (1-3 cred.; prereq. 225) Ar., Lane, Prentis, Wakefield
- 230 Public Relations for Schools. (3 cred.; prereq. 225) III-IV S, Wakefield
- 236 Field Study in Educational Administration. (0-10 cred.; prereq. #) Ar., Domian, Lane, Prentis, Wakefield
- 264 Administration of Instructional Activities in the Secondary School. (3 cred.) I-II S, Lane
- 270\* Special Problems in Secondary Education. (Cred. ar.; prereq. #) Ar., Bossing, Keller, Lane, Prentis, Wakefield
- 274 The Junior College. (3 cred.) IX-X Th, Keller

### **Educational Psychology (E.Psy.)**

- 133 Basic Procedures in Student Personnel Work. (3 cred.; prereq. 9 cred. in education) VIII-IX Th, 1 hr. ar., White
- 134 School Counseling Procedures. (3 cred.; prereq. 110 or 117, 133, #) VIII-IX W, 1 hr. ar., Dugan
- 142 Individual Mental Testing. (3 cred.; prereq. sr., 110 or 117 or #117 with #) III-IV S and 1 hr. ar., Reynolds
- 183 Education of Gifted Children. (3 cred.; prereq. Ed. 55B or 75B) IX-X T, 1 hr. ar., Reynolds
- 233\* Problems in Guidance and Personnel Work. (Sec. 1, 3 cred.) VIII-IX T, Dugan; (Sec. 2, 1-9 cred.) Ar., Wrenn
- 240\* Problems in Measurement. (3 cred.) Ar., P. Johnson
- 243\* Problems in Statistics for Students in Education and Psychology. (3 cred.) Ar., P. Johnson
- 253\* Research Problems. (Cred. ar.; prereq. #) Ar., Staff
- 280 Practicum in Group Leadership. (3 cred.; prereq. #) Ar., Flanders
- 281 Practice in Personnel Work. (Cred. ar.; prereq. 226 or #) Ar., Snoke, Wrenn

### **History and Philosophy of Education (H.Ed.)**

- 131 Comparative Education. (3 cred.) IX-X Th, Beck
- 178 Education and the Problems of American Democracy. (3 cred.) IX-X T, Ellis

- 241\* Problems in the History and Philosophy of Education. (Cred. ar.; prereq. #) Ar., Beck, Ellis

### **Home Economics Education (H.E.Ed.)**

*Persons interested in courses in Home Economics Education should write directly to the School of Home Economics, University of Minnesota, St. Paul 1.*

### **Industrial Education (Ind.)**

- 42 Course Organization. (3 cred.; prereq. 40) IX-X W, Kavanaugh  
61 Practices in Vocational Education. (2 cred.; prereq. 60) IX-X M, Widdowson  
80 Introduction to Industrial Arts. (2 cred.) IX-X T, Nelson  
109 Conference Leading for Industry. (3 cred.; prereq. #) IX-X T, Widdowson  
251 Research. (3 cred.; prereq. 250) IX-X W, Micheels

### **Music Education (Mu.Ed.)**

- 224\* Research Problems. (3-9 cred.; prereq. elementary statistics) Ar., Caswell, Ivory  
225E Advanced Applied Music. (2-4 cred.) Ar.

### **Physical Education (P.E.)**

- 107 Camp Administration. (3 cred.; prereq. P.E.M. 46 and #) IX-X W, Osell, Ostrander, Thorpe  
113 Physical Education in the Elementary School. (3 cred.; prereq. elementary school experience or #) 4:00-5:30 TTh, Baker  
117 Advanced Course in School Health Instruction. (3 cred.; prereq. P.E.W. 83 or #) III-IV S, 1 hr. ar., Slocum  
118E Problems in Teacher Education in Health, Physical Education, and Recreation. (Cred. ar.; prereq. #) Ar., Baker, Jaeger, Slocum, Wilson  
135 Tests and Measurements in Physical Education. (3 cred.; prereq. sr., E.Psy. 60) 4:00-5:30 MW, Wilson  
221 Seminar in Physical Education. (No cred.) Ar., Baker, Jaeger, Slocum, Wilson  
224\* Research Problems in School Health Education, Physical Education, and Recreation. (Cred. ar.; prereq. #) Ar., Baker, Donnelly, Fitzgerald, Jaeger, Keller, Slocum, Wilson  
233 Administration of Physical Education in Secondary Schools. (3 cred.; prereq. 63) 4:00-5:30 MW, Donnelly

## SPRING QUARTER, 1957

The following symbols and explanations are used throughout the bulletin:

- \* An asterisk after the number indicates courses through which it is possible for graduate students to prepare required Plan B papers.
- † A dagger after a course number indicates that all quarters of the course preceding the dagger must be completed before credit will be granted for any quarter. (In 1-2†-3, the first 2 quarters must be completed, while the third is optional.)
- ‡ A double dagger following a sequence course number indicates that students may enter any quarter.
- § A section mark means that credit will not be given for the course if the equivalent course listed after the section mark has been taken for credit.
- ¶ A paragraph mark preceding a course number means "concurrent registration," or that the course so indicated may be taken simultaneously.
- # A sharp mark means "consent of the instructor."
- E 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.

Please check the spring quarter *Class Schedule* for building abbreviations and possible changes in offerings. A *Class Schedule* will be given to each student with his registration material.

### **Agricultural Education (Ag.Ed.)**

*Persons interested in courses in Agricultural Education should write directly to Department of Agricultural Education, University of Minnesota, St. Paul 1.*

### **Art Education (Ar.Ed.)**

- 185 Improving Art Programs in Secondary School. (3 cred.; prereq. teaching experience or #) IX-X W, Hastie
- 295 Problems in Art Education. (Cred. ar.; prereq. consent of major adviser) Ar., Gayne, Hastie
- 296 Seminar. (1 cred.) IX-X Th, Gayne

### **Curriculum and Instruction (Ed.C.I.)**

- 63 Children's Literature. (2 cred.) IX-X M, Odland
- 101 Driver Education. (2 cred.) I-III S, Neal
- 102 Teaching Social Studies in the Elementary School. (3 cred.; prereq. Ed. 75B) I-II S, Curtin
- 119 Elementary School Curriculum. (3 cred.; prereq. Ed. 75B) I-II S, Ar.
- 122 Literature for Adolescents. (2 cred.; prereq. Ed. 55B or junior-senior high school teaching experience) III-IV S, D. V. Smith
- 125 Occupational Information Laboratory (3 cred.; prereq. #) III-IV S, White
- 131 Advanced Teaching Technical Business Subjects. (3 cred.) IX-X Th, Price
- 134 Materials and Methods in Consumer Education. (3 cred.; prereq. #) III-IV S, Price

- 135 Group Procedures in Guidance. (3 cred.; prereq. 9 cred. in education, E.Psy. 133 or #) VIII-IX W, Dugan
- 138 Training Store and Office Supervisors. (3 cred.) 4:00-6:20 T, Meyer
- 141 Co-operative Part-Time Work Experience Programs. (3 cred.) 4:00-6:20 W, Meyer
- 143 Teaching and Supervision of Reading in the Elementary School. (3 cred.; prereq. 9 cred. in education) IX-X M and 1 hr. ar., Clymer
- 145 Reading Difficulties. (3 cred.; prereq. 143 or 144) IX-X W and 1 hr. ar., Bond
- 149 Teaching and Supervision of Arithmetic in Elementary School. (3 cred.; prereq. 9 cred. in education) III-IV S, Ruddell
- 150 Supervision and Improvement of Instruction. (3 cred.; prereq. 9 cred. in education) IX-X T, Curtin
- 153 Supervision and Teaching of English in the Elementary Schools. (3 cred.; prereq. Ed. 75B) IX-X W and 1 hr. ar., Archer
- 155 Materials Laboratory for Social Studies Teachers. (3 cred.; prereq. #) IX-X M, Borchert, E. West
- 171 Curriculum Laboratory Practice. (0-3 cred.; prereq. 170A or B or #) Ar., Bossing, Goossen
- 173B Organizing Units of Instruction in the Secondary School. (3 cred.; prereq. 113 or #) IX-X Th, Bossing
- 191 Advanced Course in the Teaching and Supervision of Secondary Mathematics. (3 cred.) IX-X Th, D. Johnson
- 199E Internship. (Cred. ar.) Ar., Grim
- 201\* Problems in Teaching the Social Studies. (3 cred.; prereq. 155 or 168, 204 or #) Ar., McCune, Morse, West
- 205\* Problems in Audio-Visual Education. (Cred. ar.; prereq. #) Ar., Pearson
- 215\* Problems in the School Health Education Program. (Cred. ar.; prereq. #) Ar., Grout
- 222 Seminar: Current Problems in the Techniques of High School Instruction. (Cred. ar.; prereq. 55B and senior methods) IX-X W, Bossing, D. V. Smith, Wakefield
- 225\* Special Problems in Secondary School Supervision. (Cred. ar.; prereq. #) Ar., Keller
- 226 Seminar in Elementary School Problems. (2 cred.) IX-X Th, Archer, Bond, Clymer, Goossen, Curtin, Ruddell
- 227\* Problems in Rural Education. (Cred. ar.; prereq. Ed.Ad. 117) Ar., Archer
- 228\* Problems of Higher Education and Teacher Education. (Cred. ar.; prereq. #) Ar., Grim
- 237 Seminar: Business and Distributive Education. (No cred.; prereq. #) IX-X F, Meyer, Price
- 238\* Problems in Distributive Education. (Cred. ar.; prereq. #) Ar., Meyer
- 239\* Problems in Business Education. (Cred. ar.; prereq. #) Ar., Price
- 253 Seminar on the Improvement of College Instruction. (Cred. ar.; prereq. #) Ar., Wrenn
- 254 Directed Experience in College Instruction. (Cred. ar.; prereq. #) Ar., Wrenn
- 261\* Special Problems in the Improvement of Instruction. (Cred. ar.; prereq. #) Ar., Archer, Curtin, Goossen, Ruddell
- 266 Supervision of High School Instruction. (3 cred.; prereq. E.Psy. 193 or 293 or #) I-II S and 1 hr. ar., Keller
- 271\* Problems in Curriculum Construction. (3-6 cred.; prereq. #) Ar., Archer, Birkmaier, Boeck, Bossing, Curtin, Goossen, D. Johnson, Ruddell



- 273\* Problems in Reading. (3 cred.; prereq. 143 or 144 or #) Ar., Bond, Clymer, Reynolds
- 284\* Problems in Student Teaching. (3-9 cred.; prereq. #) Ar., Grim
- 286 The Professional Education of Teachers. (3 cred.; prereq. 15 cred. in education including 184, 250 or H.Ed. 182 or E.Psy. 250 or #) III-IV S, Grim
- 296\* Special Problems in Teaching English. (Cred. ar.) Ar., D. V. Smith

### **Educational Administration (Ed.Ad.)**

- 118 The Community School. (3 cred.; prereq. sr.) III-IV S, 1 hr. ar., Archer
- 124 Public School Administration. (3 cred.; prereq. sr., 9 cred. in education) III-IV S, Wakefield
- 167 Junior High School. (3 cred.; prereq. sr., 9 cred. in education) IX-X T, Bossing
- 210 Financial Aspects of Public School Business Administration. (3 cred.; prereq. 227) 4:00-5:30 TTh and 1 hr ar., Prentis
- 218 Recent Literature in Secondary Education. (Cred. ar.) IX-X W, Bossing, Wakefield
- 226 School Plant Planning and Management. (3 cred.; prereq. 227) I-II S and 1 hr. ar., Prentis
- 228\* Special Problems in Educational Administration. (1-3 cred.; prereq. 225) Ar., Lane, Prentis, Wakefield
- 236 Field Study in Educational Administration. (0-10 cred.; prereq. #) Ar., Domian
- 265 Administration of Noninstructional Activities in Secondary Schools. (3 cred.) IX-X M, Lane
- 270\* Special Problems in Secondary Education. (Cred. ar.; prereq. #) Ar., Bossing, Keller, Lane, Prentis, Wakefield

### **Educational Psychology (E.Psy.)**

- 133 Basic Procedures in Student Personnel Work. (3 cred.; prereq. 9 cred. in education) I-II S and 1 hr. ar., White
- 140 Instruments and Techniques of Measurements. (3 cred.; prereq. sr., 110 or 117) VIII-IX MTh, Edson
- 148 Clinical Diagnosis of Reading Difficulties. (3 cred.; prereq. Ed.C.I. 145) IX-X M and 1 hr. ar., Bond
- 184 Education of the Slow-Learning Child. (3 cred.; prereq. 182) III-IV S, Reynolds
- 233\* Problems in Guidance and Personnel Work. (Sec. 1, 3 cred.) VIII-IX T, Dugan; (Sec. 2, 1-9 cred.) Ar., Wrenn
- 240\* Problems in Measurement. (3 cred.) Ar., P. Johnson
- 243\* Problems in Statistics for Students in Education and Psychology. (3 cred.) Ar., P. Johnson
- 253\* Research Problems. (Cred. ar.; prereq. #) Ar., Staff
- 254\* Measurement and Evaluation in Higher Education. (3 cred.) III-IV S and 1 hr. ar., P. Johnson
- 280 Practicum in Group Leadership. (3 cred.; prereq. #) Ar., Flanders
- 281 Practice in Personnel Work. (Cred. ar.; prereq. 226 or #) Ar., Snoke, Wrenn

## **History and Philosophy of Education (H.Ed.)**

- 179 Critical Thinking for Teachers. (3 cred.) IX-X T, Ellis
- 182 Comparative Philosophies of Education. (3 cred.; prereq. 141) IX-X M, Beck
- 241\* Problems in the History and Philosophy of Education. (Cred. ar.; prereq. #) Ar., Beck, Ellis

## **Home Economics Education (H.E.Ed.)**

*Persons interested in courses in Home Economics Education should write directly to the School of Home Economics, University of Minnesota, St. Paul 1.*

## **Industrial Education (Ind.)**

- 44 Equipment and Management. (3 cred.; prereq. 42) IX-X M, Widdowson
- 101 Tests in Industrial Subjects. (3 cred.; prereq. Ed. 55B) IX-X Th, Kavanaugh
- 110 Vocational Guidance. (3 cred.; prereq. Ed. 55B) IX-X T, Nelson
- 125 Philosophy and Practice in Industrial Education. (3 cred., \$60 or 61) IX-X T, Widdowson
- 135 Industrial Course Construction. (3 cred., \$40 or 42) IX-X W, Micheels

## **Music Education (Mu.Ed.)**

- 224\* Research Problems. (3-9 cred.; prereq. elementary statistics) Ar., Caswell, Ivory
- 225E Advanced Applied Music. (2-4 cred.) Ar.

## **Physical Education (P.E.)**

- 114 Administration of the School Health Education Program. (3 cred.; prereq. sr., P.E.W. 83 or #) 4:00-5:30 TTh, Slocum
- 115 Advanced Kinesiology. (3 cred.; prereq. undergrad. kinesiology or #) 1 hr. ar., III-IV S, Wilson
- 118E Problems in Teacher Education in Health, Physical Education, and Recreation. (Cred. ar.; prereq. #) Ar., Baker, Jaeger, Slocum, Wilson
- 124 Supervision of Physical Education. (3 cred.; prereq. #) 4:00-5:30 MW, Jaeger
- 221 Seminar in Physical Education. (No cred.) Ar., Baker, Jaeger, Slocum, Wilson
- 224\* Research Problems in School Health Education, Physical Education, and Recreation. (Cred. ar.; prereq. #) Ar., Baker, Donnelly, Fitzgerald, Jaeger, Keller, Slocum, Wilson
- 234 Curriculum in Physical Education. (3 cred.) I-III S, Donnelly
- 261A Seminar: Contemporary Problems in Physical Education. (3 cred.; prereq. consent of adviser) 4:00-5:30 MW, Donnelly

# Major Advisers

## EDUCATION FIELDS

### Agricultural Education

Milo J. Peterson—205 Hr (StP)

### Art Education

Clifton Gayne—106 Jones  
W. Reid Hastie—106 Jones

### Business Education

Ray G. Price—101d Burton

### Core Curriculum

Nelson L. Bossing—220 Burton

### Curriculum and Instruction

Clifford P. Archer (Elem.)—112 Burton  
Emma Birkmaier (Lang.)—230 Peik  
Clarence Boeck (Sci.)—370 Peik  
Guy L. Bond (Elem.)—212 Burton  
Nelson L. Bossing (Sec.)—220 Burton  
Theodore W. Clymer (Elem.)—110 Burton  
James Curtin (Elem.)—101 Pattee  
Carl V. Goossen (Elem.)—112 Burton  
Donovan A. Johnson (Math.)—330 Peik  
Palmer O. Johnson (Sci.)—216 Burton  
George H. McCune (Soc. St.)—200 Nicholson  
Warren G. Meyer (Dist. Ed.)—105 Burton  
Ray G. Price (Bus. Ed.)—101d Burton  
Arden Ruddell (Elem.)—112 Burton  
Dora V. Smith (Eng.)—201 Burton  
Edith West (Soc. St.)—166 Peik

### Distributive Education

Warren G. Meyer—105 Burton

### Educational Administration

Clifford P. Archer (Elem.)—112 Burton  
Nelson L. Bossing (Sec.)—220 Burton  
James Curtin (Elem.)—101 Pattee  
Otto Domian (Gen.)—200a Burton  
Carl V. Goossen (Elem.)—112 Burton  
Robert J. Keller (Sec.)—130 Peik  
Willard R. Lane (Sec.)—226 Burton  
Roy Prentis (Gen.)—224 Burton  
Howard Wakefield (Gen.)—226 Burton

### Educational Psychology

Guy L. Bond—212 Burton  
Theodore W. Clymer—110 Burton  
Willis E. Dugan—219 Burton  
William Edson—206 Burton  
Ned A. Flanders—486 Ford  
Theda Hagenah—101 Eddy  
Cyril J. Hoyt—211 Burton  
Palmer O. Johnson—216 Burton  
Gordon M. A. Mork—101b Burton

Maynard Reynolds—108 Pattee  
John E. Stecklein—211 Burton  
C. Gilbert Wrenn—218 Burton

### Elementary Education

Clifford P. Archer—112 Burton  
Guy L. Bond—212 Burton  
Theodore W. Clymer—110 Burton  
James Curtin—101 Pattee  
Carl V. Goossen—112 Burton  
Arden Ruddell—112 Burton

### Health Education

Ruth Grout—1325 Mayo

### Higher Education

Ruth E. Eckert—203 Burton  
Paul R. Grim—210 Burton  
C. Gilbert Wrenn—218 Burton

### History and Philosophy of Education

Robert H. Beck—215 Burton  
Frederick E. Ellis—217 Burton

### Home Economics Education

Roxana R. Ford—107 Home Economics (StP)

### Industrial Education

William J. Micheels—105 TNCW  
Howard Nelson—103 TNCW

### Library Science

D. K. Berninghausen—6 Library

### Methods and Directed Teaching

Paul R. Grim—210 Burton

### Music Education

Arnold F. Caswell—214 Scott  
Paul Ivory—214 Scott  
Paul Oberg—106 Scott

### Nursery-Kindergarten-Primary Education

Elizabeth Fuller—104 TNCW

### Nursing Education

Katharine J. Densford—125 Owre

### Physical Education for Men

Richard J. Donnelly—217 Cooke  
Louis F. Keller—220b Cooke

### Physical Education for Women

Gertrude Baker—104 NGW

### Recreation Leadership

Gerald B. Fitzgerald—221 Cooke

## SUBJECT MATTER FIELDS

### **Botany**

See Natural Science

### **Chemistry**

See Natural Science

### **English**

Dora V. Smith—201 Burton

### **Geography**

John Borchert—282 Ford

### **German**

Lynwood G. Downs—210b Folwell

### **History**

Rodney C. Loehr—258 Ford

John Bowditch—257 Ford

### **Journalism**

Fred L. Kildow—106 Murphy

### **Latin**

Norman J. DeWitt—118 Folwell

### **Mathematics**

William Hart—119 Folwell

### **Natural Science**

Clarence Boeck—370 Peik

Palmer O. Johnson—216 Burton

### **Physics**

See Natural Science

### **Political Science**

Asher Christensen—389 Ford

### **Romance Languages**

Eugene H. Falk (French)—319 Folwell

### **Social Studies**

George McCune—200 Nicholson

Edith West—166 Peik

### **Sociology**

Arthur Johnson—446 Ford

### **Speech and Theater Arts**

Arthur Ballet—230 Peik

Howard Gilkinson—309b Folwell

Kenneth Graham—308 Nicholson

Donald K. Smith—401 Folwell

Frank Whiting—232 Northrop

### **Speech Pathology**

Bryng Bryngelson—410 Folwell

### **Zoology**

See Natural Science

# Calendar 1956-1957

## FALL QUARTER

### September

- 28 Fall registration  
Orientation program for new students
- 3 Holiday (Labor Day)
- 20 Fall quarter fees due for students registered through September 14
- 21-29 New Students' Week
- 28 Last day for registration and payment of fees for undergraduate colleges

### October

- 1 Fall classes begin
- 4 Opening convocation; IV hour classes excused
- 5 Last day for registration and payment of fees for the Graduate School, and for teachers in service
- 12 Holiday (Columbus Day)

### November

- 3 Homecoming Day
- 8 Senate meeting, 3:30 p.m.
- 17 Dads football game
- 22 Holiday (Thanksgiving Day)
- 23-24 Classes excused (except Medical and Veterinary)

### December

- 13 Senate meeting, 3:30 p.m.
- 14-20 Final examination period
- 20 Commencement, 8:00 p.m.
- 22 Fall quarter closes

## WINTER QUARTER

### January

- 25 Holiday (Christmas)
- 27 Winter quarter fees due for students in residence fall quarter in undergraduate colleges
- 1 Holiday (New Years)
- 3-4 Orientation program; registration and payment of fees for new students in all undergraduate colleges

7 Winter classes begin

- 11 Last day for registration and payment of fees for the Graduate School, and for teachers in service

### February

- 7 Senate meeting, 3:30 p.m.
- 12 Holiday (Lincoln's birthday)
- 22 Holiday (Washington's birthday)
- 25- University of Minnesota Week
- 28 Charter day convocation; IV hour classes excused

### March

- 14 Senate meeting, 3:30 p.m.
- 15-21 Final examination period
- 21 Spring quarter fees due for students in residence winter quarter in undergraduate colleges  
Commencement, 8:00 p.m.
- 23 Winter quarter closes

## SPRING QUARTER

- 28-29 Orientation program; registration and payment of fees for new students in all undergraduate colleges

### April

- 1 Spring classes begin
- 5 Last day for registration and payment of fees for the Graduate School, and for teachers in service
- 19 Holiday (Good Friday)

### May

- 2 Senate meeting, 3:30 p.m.
- 23 Cap and Gown Day convocation; IV hour classes excused
- 30 Holiday (Memorial Day)

### June

- 6 Senate meeting, 3:30 p.m.
- 8-14 Final examination period
- 9 Baccalaureate service, 3:00 p.m.
- 15 Commencement, 8:00 p.m.  
Spring quarter closes

## Summary of Class Schedules

Saturday I-II 8:30-10:20	Saturday III-IV 10:30-12:20	Monday IX-X 4:30-6:20	Tuesday IX-X 4:30-6:20	Wednesday IX-X 4:30-6:20	Thursday IX-X 4:30-6:20	Friday IX-X 4:30-6:20
<b>FALL QUARTER, 1956</b>						
Ar.Ed. 81 (I-IV) Ar.Ed. 156 Ed.Ad. 115 Ed.Ad. 225 Ed.C.I. 105 Ed.C.I. 143 Ed.C.I. 184 Ed.C.I. 250	Ed.Ad. 263 Ed.C.I. 132 Ed.C.I. 151 Ed.C.I. 287 Ed.C.I. 294 E.Psy. 133 E.Psy. 182 P.E. 125**	Ed.C.I. 63 Ed.C.I. 106 H.Ed. 156 Ind. 60 P.E. 130	Ed.C.I. 109 Ed.C.I. 113 Ed.C.I. 145 Ed.C.I. 204 E.Psy. 193 ** E.Psy. 233 *** Ind. 70 Ind. 107 P.E. 123 **	Ar.Ed. 151 Ed.Ad. 200 Ed.Ad. 218 Ed.C.I. 119 Ed.C.I. 136 * Ed.C.I. 222 E.Psy. 133 *** Ind. 40 Ind. 250 P.E. 130 **	Ar. Ed. 296 Ed.C.I. 125 *** Ed.C.I. 133 Ed.C.I. 137A * Ed.C.I. 226 E.Psy. 193 ** H.Ed. 141 P.E. 123 **	Ed.C.I. 237
<b>WINTER QUARTER, 1957</b>						
Ar.Ed. 189 Ed.Ad. 264 Ed.C.I. 145 Ed.C.I. 251	Ar.Ed. 152 Ed.Ad. 117 Ed.Ad. 230 Ed.C.I. 135 Ed.C.I. 150 Ed.C.I. 285 Ed.C.I. 294 E.Psy. 142 P.E. 117	Ed.C.I. 109 Ed.C.I. 143 Ed.C.I. 144 Ed.C.I. 168 Ind. 61 P.E. 135 ** P.E. 233 **	Ed.Ad. 118 Ed.Ad. 227 Ed.C.I. 105 Ed.C.I. 170B E.Psy. 183 E.Psy. 233 *** H.Ed. 178 Ind. 80 Ind. 109 P.E. 113 **	Ed.Ad. 115 Ed.Ad. 218 Ed.C.I. 63 Ed.C.I. 103 Ed.C.I. 139 * Ed.C.I. 222 E.Psy. 134 *** Ind. 42 Ind. 251 P.E. 107 P.E. 135 ** P.E. 233 **	Ar.Ed. 284 Ar.Ed. 296 Ed.C.I. 156 Ed.C.I. 173B Ed.C.I. 226 E.Psy. 133 *** H.Ed. 141 P.E. 113 **	Ed.C.I. 237
<b>SPRING QUARTER, 1957</b>						
Ed.Ad. 226 Ed.C.I. 101 (I-III) Ed.C.I. 102 Ed.C.I. 119 Ed.C.I. 266 E.Psy. 133 P.E. 234 (I-III)	Ed.Ad. 118 Ed.Ad. 124 Ed.C.I. 122 Ed.C.I. 125 Ed.C.I. 134 Ed.C.I. 149 Ed.C.I. 286 E.Psy. 184 E.Psy. 254 P.E. 115	Ed.Ad. 265 Ed.C.I. 63 Ed.C.I. 143 Ed.C.I. 155 E.Psy. 140 *** E.Psy. 148 H.Ed. 182 Ind. 44 P.E. 124 ** P.E. 261A **	Ed.Ad. 167 Ed.Ad. 210 ** Ed.C.I. 138 * Ed.C.I. 150 E.Psy. 233 *** H.Ed. 179 Ind. 110 Ind. 125 P.E. 114 **	Ar.Ed. 185 Ed.Ad. 218 Ed.C.I. 135 *** Ed.C.I. 141 * Ed.C.I. 145 Ed.C.I. 153 Ed.C.I. 222 Ind. 135 P.E. 124 ** P.E. 261A **	Ar.Ed. 296 Ed.Ad. 210 ** Ed.C.I. 131 Ed.C.I. 173B Ed.C.I. 191 Ed.C.I. 226 E.Psy. 140 *** Ind. 101 P.E. 114 **	Ed.C.I. 237

\* Class meets from 4:00-6:20.

\*\* Class meets from 4:00-5:30.

\*\*\* Class meets from 3:30-5:20