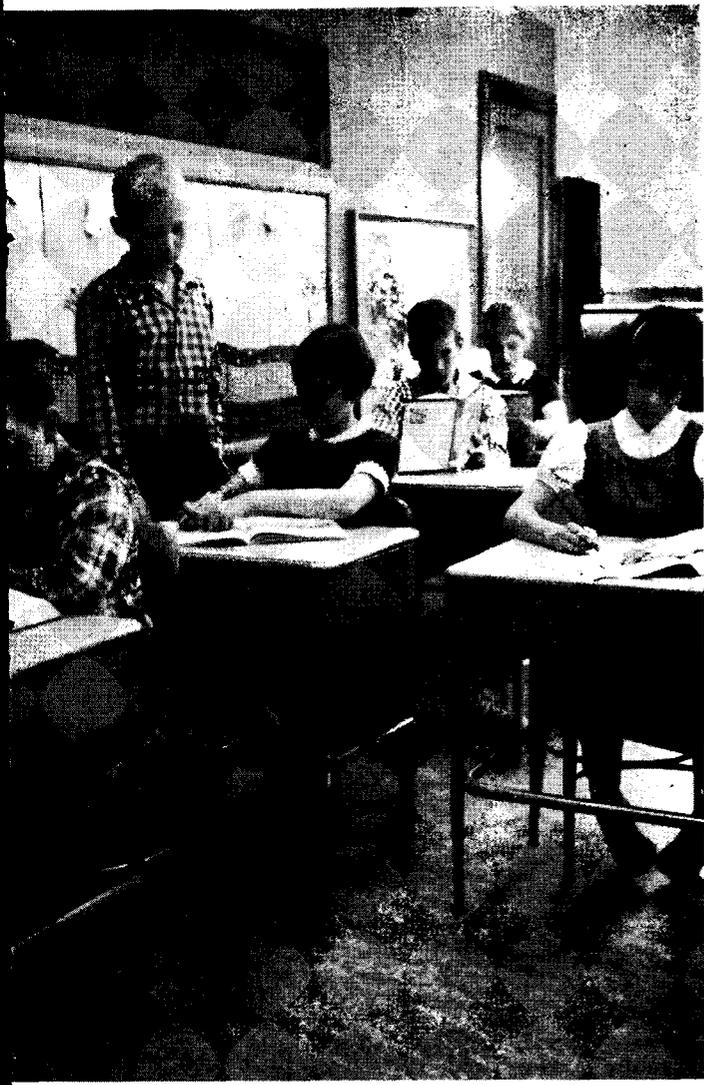


College of Education

1960-1962



A fifth grade
at work

Bulletin

of the UNIVERSITY of MINNESOTA

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 and Admission Requirements, page 4.

Graduation Requirements, page 8.

Procedures and Practices in the College of Education, page 10.

Services Available to Students, page 13.

College of Education Facilities and Services, page 14.

Awards and Scholarships, page 16.

Master of Education Degree Requirements, page 16.

Graduate Study in Education, page 17.

Section II, Curriculums (pages 19-72)—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 73-101)—This section lists the undergraduate and graduate courses offered in the College of Education.



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

Board of Regents

The Board of Regents is composed of The Honorable Ray J. Quinlivan, St. Cloud, First Vice President and Chairman; The Honorable Charles W. Mayo, M.D., Rochester, Second Vice President; The Honorable James F. Bell, Minneapolis; The Honorable Edward B. Cosgrove, Le Sueur; The Honorable Daniel C. Gainey, Owatonna; The Honorable Richard L. Griggs, Duluth; The Honorable Robert E. Hess, White Bear Lake; The Honorable Marjorie J. Howard (Mrs. C. Edward), Excelsior; The Honorable A. I. Johnson, Benson; The Honorable Lester A. Malkerson, Minneapolis; The Honorable A. J. Olson, Renville; and The Honorable Herman F. Skyberg, Fisher.

Administrative Officers

O. Meredith Wilson, Ph.D., President
Malcolm M. Willey, Ph.D., L.H.D., LL.D., Vice President, Academic Administration
Laurence R. Lunden, B.A., LL.D., Vice President, Business Administration
Stanley J. Wenberg, M.A., Vice President and Administrative Assistant
Robert Edward Summers, M.S.(Ch.E.), M.E., Dean of Admissions and Records
Edmund G. Williamson, Ph.D., Dean of Students

College of Education Officers

Walter W. Cook, Ph.D., Professor and Dean of the College of Education
Marcia Edwards, Ph.D., Professor and Associate Dean of the College of Education
William H. Edson, Ph.D., Professor, Director of Student Personnel, and Chairman of Committee on Student Scholastic Standing
Arnold S. Woestehoff, M.A., Instructor and Director of Bureau of Recommendations
James Curtin, Ph.D., Associate Professor and Director of University Elementary School
Don Davies, Ed.D., Associate Professor and Director of Student Teaching
Robert J. Keller, Ph.D., Professor and Director of University High School

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. For admission procedures, as well as other procedures and practices in the College of Education, see index.

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.

- 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, Litera-

ture, and the Arts taking prescribed preparatory work and then enroll in the College of Education as juniors:

- The core curriculum
- Economics
- English
- Geography
- German
- History
- Journalism (minor field only)
- Language arts
- Latin
- Library science (minor field only)
- Mathematics
- Natural science
- Physical science
- Political science
- Romance languages
- Russian
- Sociology
- Speech
- Speech pathology

Combined Programs with the College of Science, Literature, and the Arts—Students with majors in academic departments (see preceding paragraph list-

ing majors for those entering as juniors) may, if they wish, plan concurrent programs leading to the bachelor of arts degree from the College of Science, Literature, and the Arts and the bachelor of science degree from the College of Education. Such students apply for admission to the Upper Division of the College of Science, Literature, and the Arts and to the College of Education during the third quarter of their sophomore year. They meet the degree requirements of each college and, therefore, should expect to extend their programs 1 or more quarters beyond the usual 4-year period. To reduce the extended period to the minimum, students should plan combined programs as early as the beginning of the sophomore year.

Special Programs in the Institute of Technology and the College of Education—Students with majors in physics, chemistry or mathematics in the Institute of Technology may plan a program leading to a baccalaureate degree from the Institute of Technology and a master of education degree from the College of Education, qualifying for a teaching certificate and both degrees at the close of a 5-year program. Such students apply for admission to the College of Education in the third quarter of their third (junior) year and register for courses in the Institute of Technology and Education in the fourth and fifth years.

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 index)

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 index for 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 student 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 student must present a certificate from the University 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. Registration for the junior year requires a grade point average of 2.0 in all work of the freshman and sophomore years, with an average of 2.5 in courses for the major.

- b. Students entering the College with advanced standing must have earned at least a C+ (2.5) 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 sophomore 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.)

Admission to the 4-year Curricula—Students ordinarily are admitted to the 4-year curricula in education directly from high school although students who have completed some college work may seek to enter one of the 4-year curricula. 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 2 grade points 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 2½ grade 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; PubH 2 or 3 and PubH 4, or both requirements may be met by taking PubH 5, or PubH 50; 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 (15 cr) or Engl 1A-2A-3A (12 cr) or Engl 1B-2B-3B (12 cr) or Comm 1-2-3 (12 cr) 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 1 lang	None
3 yrs 1 lang	5 cr same lang
2 yrs 1 lang	10 cr same lang
1 yr 1 lang	15 cr same lang
Less than 1 yr 1 lang	20 cr 1 lang

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

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

d. *Natural Science*. Ten credits** in 1 of the natural sciences: astronomy, botany (laboratory required), chemistry, geology (laboratory required), zoology, or a general studies course (NSci 7-8-9 or NSci 4-5-6); or 15 credits in NSci 1-2-3.

Plan II

a. *English or Communication*. Engl A-B-C (composition portion, 6 cr) or Engl 1A-2A-3A (12 cr) or Engl 1B-2B-3B (12 cr) or Comm 1-2-3 (12 cr) 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 SSci 1-2-3.

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, NSci 7-8-9
- (2) Mathematics: any course above Math 1
- (3) Natural Science: NSci 1-2-3
- (4) Physical Science: astronomy, chemistry, geology (laboratory required), physics, NSci 4-5-6
- (5) Psychology

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 (literature portion, 9 cr); 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 in Section II 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

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

†† BA 24-25-26, 27, 32, 33, 34, 36, 37, 38, 39, 43, and 79A-B may not be used to satisfy the social science requirement.

who are preparing for high school teaching will be expected to complete Plan I or Plan II requirements (as given on the preceding pages) in the College of Science, Literature, and the Arts.

Students who have completed 2 full years of college work but lack the required number of credits or specific entrance requirements, such as language, science, or psychology, may register in the College of Education and make up deficiencies after admission. Such deficiencies, however, may delay graduation or necessitate extra summer work.

Students 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. In elementary education, a special 1-year program (September to June) is available for those entering with a Bachelor's degree (see Elementary Education, Curriculums IIIA and IIIB). A student entering elementary education after having completed 3 years of college work frequently can meet B.S. degree requirements if he attends summer school and the following year. Secondary education students transferring maximum credit, including those who already hold the Bachelor's degree, must check their individual requirements before determining the amount of additional time needed to complete B.S. degree requirements. The time needed will be influenced by the extent and strength of the preparation in the major teaching field. Ordinarily, at least 1 or 2 summer terms preceding a September-to-June

registration will be needed. Provision is also made for combining additional work needed for certification with graduate study in the major field in special cases.

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 Plan I or Plan II requirements listed on preceding pages 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, Engl 1A-2A-3A, or Engl A-B-C), or Psy 1-2. 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.

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 of this bulletin.)

Amount and Quality of Work—Usually a total of 186 credits and 372 grade points (the number of grade points must equal 2 times the number of cred-

its), including the required courses in physical education, is needed for graduation. During the junior and senior years a grade point average of 2.0 (grade average of C) for all courses except those in the major must be maintained. In the minor subjects a grade point average of 2.0 (grade average of C) is required. In the student's major subjects a grade point average of 2.5 (grade average of C+) is required.

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 following 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. A student wishing to teach outside Minnesota may have his program modified to meet the specific requirements of that state. To qualify for the degree and the Minnesota certificate, students should 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 or natural science.

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. Stu-

dents should select majors and minors early in their college course and with regard to the demands of high schools. By careful selection of courses students may complete two or more minors, thus qualifying them to teach in several different fields. Major and minor requirements in each field are described in 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 (10 cr; prereq Psy 1-2).
- b. Methods and student teaching. The student must complete a course in methods and teaching in his major field (prereq Ed 55A-B). This course includes general methods, special methods, and student teaching. (See index for specific procedures.)
- c. History and philosophy of education. Satisfactory completion of HED 180 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) personal health and (b) community health. It is suggested that students meet this requirement through registering for PubH 5

(3 cr) or PubH 50 (3 cr). Alternates for PubH 5 or PubH 50 would be PubH 2 or 3 (2 cr) and PubH 4 (2 cr); or PubH 51 (3 cr) may be taken instead of PubH 4. Note that any of the alternate plans requires more than the 3 credits for PubH 5 or 50. Certain curriculums include PubH 57 or 59.

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 the 2-quarter introductory course must be completed before the fall quarter of the senior year. A student who does not enter the College of Education by the fall or winter quar-

ter of his junior year may need to register for the summer quarter preceding his senior year in order to complete the professional sequence.

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 sufficiently 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 grade point average, 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 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—Admission to student teaching is not automatic. Students obtain applications for student teaching and information sheets in the Student Teaching Office, 227 Burton Hall, early

in the quarter preceding the quarter in which they will begin student teaching. Exact dates when applications may be picked up and when they must be submitted are announced on the Student Teaching Bulletin Board and published in the *Official Daily Bulletin*. Students planning to begin student teaching in fall quarter must apply early in the preceding spring quarter. Applications must be filed with the director of student teaching in Burton Hall promptly in accordance with the schedules posted.

Students not enrolled in the University during spring quarter who wish to begin student teaching in the fall should apply to the director of student teaching as early as possible in the summer terms.

In Summer Session, student teaching is available in a few fields only and to a limited number of students during the first term. Student teaching is offered only for students who are regularly enrolled in a degree program. New applicants must file for this before June 1.

Scheduling and other arrangements for student teaching vary from department to department. Students should consult the appropriate section of this bulletin, their major adviser, and the Student Teaching Office.

Admission to student teaching and assignment to a classroom for student teaching is subject to the approval of the director of student teaching, 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 course instructors; (c) a C+ average (2.5 grade points per credit) in the major, except in elementary education, where a C average (2.0) in all work taken, both in the major and outside, is required. (An average of C+ (2.5) is required for the IIIA Elementary and IIB Nursery School-Kindergarten-Primary education programs.) (d) completion of the College of Education psychological test battery given at the junior-year level; (e) satisfactory report from the University 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 at any time 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 grade point average.)
2. An average less than C (2 grade points for each credit taken) for all credits earned in any 1 year, and an average of less than C+ (2.5 grade 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.

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 money order for the \$3 certification fee (payable to Treasurer, State of Minnesota) and leaves the application and money order at the Education window in the Office of Admission and Records. 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 in 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's 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 Student Personnel Office. These services are available also to students not in the College of Education who are considering a career in teaching. Appointments may be made 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.

Office of Student Teaching—Student teaching in public schools in Minneapolis, St. Paul, suburban communities and schools out in the state, in campus laboratory schools, and in a variety of civic agencies, is co-ordinated in the Student Teaching Office, 227 Burton Hall. Administrative arrangements, admission to the program, and supervision are the responsibility of this office.

A student teaching workroom (240 Burton Hall) is available for the use of

student teachers in all fields. The work-room is open from 8 a.m. to 5 p.m., Monday through Friday.

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 242 Burton Hall. Students interested in join-

ing any education organizations or desiring 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 (except nursing education and agricultural education majors) register and file credentials with the Bureau of Recommendations, 102 Burton Hall, during the fall quarter of the senior year. Majors in agricultural education register with their department. The fee, \$7.50, 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 professional knowledge in education, and to render service to education throughout the state and nation.

Laboratory Schools—Three laboratory schools and four Minneapolis public schools, which are used for demonstration and research, are affiliated with the College of Education. Many senior students do their student teaching in the laboratory schools; others teach in the public schools of the Minneapolis-St. Paul metropolitan area, and in other parts of the state.

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

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

3. Affiliated with the College for demonstration work and research in the elementary grades are Marcy, Motley, Pratt, and Tuttle Schools 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 Burton Hall.

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 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.

Institute of Child Development and Welfare—Since 1925, the Institute has been concerned with the growth and development of children in a three-fold program: research, academic instruction, and parent education. In its academic instructional program, the Institute offers

both undergraduate and graduate majors in child development. The undergraduate major is administered by the College of Science, Literature, and the Arts. The graduate major is administered by the Institute and the Graduate School. In its program of parent education, the Institute conducts a parent consultation service and disseminates research findings to parents throughout the state with the aim of improving parent-child relations and increasing the effective co-operation of home and school. The research program is concerned with the physical, psychological, and social development of normal and deviant children and with various aspects of parent-child interactions, together with research carried on elsewhere in the College of Education, provides both broad and intensive opportunities for graduate study and research in all aspects of child development and child education. The Institute director, faculty, and Nursery School are located in the Child Welfare Building.

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.

Publications—In addition to the numerous publications issued privately by its faculty members, the College of Edu-

cation 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, psy-

chology 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.

W. E. Peik Teacher Education Fund—In most years one or more scholarships will be available to College of Education students.

Dora V. Smith Scholarship Fund in Education—Awarded annually to a junior in the College of Education majoring in speech, English, or language arts. Se-

lection is made on the basis of academic aptitude, character, promise as a teacher, and financial need.

Bertha Weiskopf Memorial Scholarship—A scholarship of \$100 awarded 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 chairman of the College of Education Scholarship Committee, 206 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 beyond the Bachelor's degree must be earned, and the total number of credits earned in the College must include at least 45 earned in courses numbered above 100. In the course work of the fifth year a B average (3 grade 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 index.

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 in Section III. Graduate credit may be earned in courses with numbers 100 or above.

Specialist in Education Certificate—In addition to the M.A. and Ph.D. programs in the Graduate School, 2-year graduate

programs, leading to the certificate, Specialist in Education, are offered for school superintendents, school psychologists, and elementary school administrators and supervisors. For further information see the *Bulletin of the Graduate School* and inquire at the office of the dean, College of Education.

Section II. Curriculums - 14

AGRICULTURAL EDUCATION - 10

Major advisers: Professors Peterson, Kitts; Associate Professor Swanson

This curriculum, offered jointly with the College of Agriculture, Forestry, and Home Economics, is designed for students who plan to teach agriculture in public schools and communities of Minnesota. It is also adapted to the needs of agricultural extension workers and others preparing to farm or to work in rural areas. Agricultural education provides comprehensive training in technical agriculture and permits emphasis upon such fields as dairying, agronomy, agricultural economics, horticulture, animal husbandry, soils, 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.

During the first 2 years the students complete the required work of the agricultural education curriculum in the College of Agriculture, Forestry, and Home Economics. In the junior and senior years they complete the combined curriculum of the College of Education and the College of AFHE leading to the bachelor of science degree.

In the third quarter of their sophomore year, students should make application for the combined curriculum at the Office of Admissions and Records, Coffey Hall. They will then complete admission requirements of the College of Education, which include speech, health and psychological examinations, and interviews.

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 9 weeks to observation and supervised teaching.

3. Earn a minimum of 204 credits for graduation including all-College requirements.

4. Complete the following requirements (students may wish to take exemption examinations or special examinations for credit in certain of the following listed required courses—see index):

FRESHMAN YEAR - 7

- AgEd 1—Introduction to Agricultural Education (2)
- Agro 1—Introduction to Agronomy (3)
- AnHu 1—Introductory Animal Husbandry (4)
- Biol 1-2-3—General Biology (10)
- DyHu 1—Elements of Dairying (3)
- Ent 1—Insect Life (3)
- Hort 1—General Horticulture (3)
(or) Hort 6—Fruit Growing (3)
(or) Hort 32—Vegetable Growing (3)
- InCh 4-5—General Inorganic Chemistry (10)
- Math H—Higher Algebra (3 or 5)
- MeAg 4—Mechanical Training (4)
- Orie 1—College Orientation Lectures (1)
- Rhetoric—Freshman Communication requirement
- Soil 1—Soils and Soil Management (5)

SOPHOMORE YEAR

- a. Freshman courses not completed.
- b. The following courses may be taken any quarter offered except that proper sequence of continuation courses and prerequisites must be observed:

- AgEc 1—Introduction to Economics (3)
- AgEc 2—Principles of Economics (3)
- AgEd 20—Rural Education and Community Leadership (3)
- Bact 53—General Bacteriology (5)
- Humanities requirement (9) to be selected from humanities, art, HE 120 (Art History), literature, music, philosophy, and theater arts (see index of College of AFHE bulletin)
- MeAg 23—General Physics (5)
- Mechanized agriculture (6) to be selected from the following:
 - 7—Farm Building Construction (3)
 - 12—Agricultural Machinery (3)
 - 39—Rural Sanitation and Water Supply (3)
 - 45—Engines and Tractors (3)
 - 106—Hydrology and Erosion Control (3)
(cannot be taken until jr yr)
- Psy 1-2—General Psychology (6)
- Social science requirement (see index of College of AFHE bulletin)

- c. In third quarter of sophomore year, students shall apply for admission to College of Education and the joint curriculum of agricultural education.
- d. At beginning of junior year and upon being admitted to College of Education, students shall have a grade point average of 2.3 in all courses taken in the following areas: agricultural economics, agronomy, animal husbandry, dairy, entomology, forestry, horticulture, mechanized agriculture, plant pathology, poultry, soils.

JUNIOR-SENIOR YEARS

The following courses if not previously taken:

- AgEd 56—Rural Education Through Extension Method (3)
 AgEd 81-82—Teaching Agriculture in Secondary Schools (8)
 AgEd 91—Supervised Teaching Experience (6)
 AgEd 103—Adult and Young Farmer Education (4)
 AgEd 104—Planning Programs (2)
 Agro 30—Principles of Genetics (3)
 Educ 55B—Introduction to Secondary School Teaching (5)
 MeAg 130—Farm Shop Management (3)
 PIPa 1—Plant Pathology (5)
 PubH 50—Personal Community Health (3)
 (or) PubH 5—Individual Public Health (3)
 Rhet 22—Public Speaking (3)
 Rhet 51—Exposition (cannot be taken earlier than jr yr) (3)

5. Have a grade point average of 2.5 or higher in 15 courses selected from at least 8 of the following areas:

- AgEc 12, 80, 82
 Agro 1, 21, 27, 30
 AnHu 1, 30, 36, 37, 62, 63, 64, 65
 DyHu 1, 11, 121, 122, 123
 Ent 1, 50
 For 10
 Hort 1, 6, 10, 32
 MeAg 4, 7, 12, 39, 45, 106, 130
 PIPa 1, 3
 PoHu 1, 51, 52, 154
 Soil 1, 20, 21
 VMC 52

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:

- Agricultural education: 12-15 credits, of which not more than 6 credits may be in problems courses.
- Education other than agricultural education: 11-15 credits.
- Technical agriculture and areas other than those listed above: 15-22 credits.

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

Minor in Agriculture for Elementary School Teachers

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

- AgEd 20—Rural Education and Community Leadership (3)
 AgEd 56—Rural Education Through Extension Methods (3)

Agro 1—Introduction to Agronomy (3)
 AnHu 1—Livestock Production (4)
 Hort 1—General Horticulture (3)
 (or) Hort 6—Fruit Growing (3)

(or) Hort 32—Vegetable Growing (3)
 DyHu 1—Elements of Dairying (3)
 For 1A—Conservation of Natural Resources (3)
 For 10—Farm Forestry (3)

ART EDUCATION

Major advisers: Professors Gayne, Hastie; Instructors Cherry, Hegg, Smits, 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 in-

terests 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:

- ArEd 14—Introduction to Art Education (freshmen and transfers) (2)
- ArEd 56, 57, 58—Basic Principles and Experiences in Art Education (juniors) (15)
- ArEd 86, 87, 88—Student Teaching and Supervision of Art (seniors) (9)
- ArEd 86A, 87A, 88A—The Teaching and Supervision of Art (seniors) (6)
- Total—32 credits

2. Art and Related Courses—To be selected from the following or equivalents approved by major adviser:

A. Art History and Theory (6 credits required)

- Art 1—Principles of Art (5)
- (or) Art 50—Introduction to the Visual Arts (3)
- Art 2, 3—Principles of Art (3-6)
- Art 67—Modern Art (3)

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

Art 10—Photography (3)
 Art 23, 24, 25—Drawing and Design I (9)
 Art 45—Ceramic Processes (3)
 Art 51—Principles of Pictorial Design (2)
 Art 73—Presentation Techniques (3)
 ArEd 53—Introduction to Weaving (3)
 ArEd 81—Puppetry in Education (3)
 FL 15—The Home, Its Furnishings (3)
 Spch 34—Stagecraft: Construction and Painting (3)

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

Art 40—Sculpture I (3)
 Art 52, 70—Drawing and Painting II and III (6)
 Art 90—Printmaking (3)
 Total—46 credits

3. A Teaching Minor—Must fulfill the requirements of the department involved.

4. Professional Education Courses:

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

5. General Education Courses:

Freshman English or communication plus additional courses in languages, literature, or writing (to total 18 credits)
 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 jr yr) (6)
 Physical education (3 or 5)
 PubH 5 or 50 (3)

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

7. Quality Standard—An average of C, grade point average of 2.0 in the minor and all courses outside the major; a C+ or grade point average of 2.5 in the major.

Requirements for the Minor in Art Education

Plan 1. For elementary school teachers, 27 credits:

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

Plan 2. For secondary school teachers, 28 credits:

ArEd 14—Introduction to Art Education (2)
 ArEd 56, 57—Basic Principles and Experiences in Art Education (10)
 ArEd 87A—The Teaching and Supervision of Art (2)
 Art 1—Principles of Art (5)
 (or) Art 50—Introduction to the Visual Arts (3)
 Courses in drawing and design (6)
 Electives (3-5)

Fifth Year Leading to the Master of Education Degree

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

The student must meet all general requirements for the M.Ed. degree (see Index). 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 pre-requisite 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

Graduate Work—For qualified students with majors in art education or elementary education the Art Education Department offers opportunities to work toward the M.A. and the Ph.D. See the *Bulletin of the Graduate School* and Department of Art Education advisers.

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 BA 24 and be admitted to BA 25 by passing a placement test. Students who have had 1 year of high school typewriting are admitted to BA 33; those who have had 2 years of high school typewriting are admitted to BA 34. Students who have had 2 years of high school shorthand are admitted to BA 39.

Students preparing for vocational certification may be exempt from part of BA 183J or BA 149 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, or Engl A-B-C, or Engl 1A, 2A, 3A, or Engl 1B, 2B, 3B or exemption (12-15)
SSci 1-2-3—Introduction to Social Science (12)
Psy 1-2—General Psychology (6)
Geog 41—Primary Production (5)
PubH 5—Individual, Public Health (3)
(or) PubH 50—Personal and Community Health (3)
Econ 67—Money and Banking (3)
BA 5—Elements of Statistics (4)

(or) Soc 45—Social Statistics (5)
 Econ 1-2—Principles of Economics (6)
 BA 24-25-26—Principles of Accounting (9)
 BA 32—Beginning typewriting (1)
 Physical education (men 3 cr, women 5 cr)
 Ed 55A-B—Introduction to Secondary Education (10)
 EdCI 45—Introduction to Business and Distributive Education (2)
 BA 58 and 88—Business Law (6)
 (or) BA 28—Business Law (3)
 BA 57—Survey in Marketing (3)
 BA 52—Manpower Economics and Labor Problems (3)
 HEd 180—The School and Society (3)

Major Sequences

1. Office and Basic Business Education:

Basic course requirements (88-97)
 BA 33—Intermediate Typewriting (1)
 BA 34—Typewriting Procedures (2)
 BA 36—Office Procedures (3)
 BA 37-38-39—Shorthand (9)
 BA 79A-B—Secretarial Procedures (6)
 BA 43—Shorthand Theory (2)
 BA 99—Survey of Office Management (3)
 BA 75A—Accounting Laboratory (1)
 BA 89A—Business Equipment Laboratory (1)
 EdT 73—Student Teaching of Business Subjects (9)
 EdT 80—The Teaching of Typewriting and Bookkeeping (2)
 EdT 81—The Teaching of Shorthand (2)
 EdT 82—The Teaching of Basic Business Subjects (2)
 BA 119-129—Senior Topics: Office Management (6)
 Electives (41-51)

For the purpose of computing the C+ average (2.5 grade points per credit) the following are considered major courses:

BA 24-25-26, 34, 43, 57, 79A-B, 89A, 99, 119, 129 and Econ 67

2. Clerical and Basic Business Education:

The same requirements as under sequence 1 with the exception of BA 37-38-39, 79A-B, 43, and EdT 81. In place of these courses the student will take 19 credits of approved elective courses.

The C+ average (2.5 grade points per credit) is based on the following courses:

BA 24-25-26, 34, 57, 89A, 99, 119, 129 and Econ 67

3. Distributive and Basic Business Education:

In the broad sense, distributive occupations are those that involve the market-

ing 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 (88-97)
 GC 18D—Salesmanship (3)
 Ind 40—Analysis and Course Organization (5)
 (or) Ind 135—Industrial Course Construction (3)
 ArEd 85—Art for Integration in Secondary Education (3)
 BA 107—Retail Management (3)
 BA 107C—Senior Topics: Marketing (3)
 BA 183J—Practice Course (supervised work experience) (9)
 (or) BA 149—Practice Course
 Psy 156—Psychology of Advertising (3)
 EdCI 136—Organization and Administration of Distributive Education (3)
 EdCI 139—Co-ordination Techniques (3)
 EdT 72—Student Teaching of Distributive Education Subjects (9)
 EdT 90A-B-C—The Teaching of Distributive Education Subjects (6)
 Electives (39-50)

For the purpose of computing the C+ average (2.5 grade points per credit) the following are considered major courses:

Econ 2, 67; BA 26, 52, 57, 107, 107C; Psy 156; GC 18D; EdCI 136, 139; Ind 40 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 sequences 1 and 2)

For the purpose of computing the C+ average (2.5 grade points per credit) the following are considered major courses:

BA 26, 34, 57, 99, 107, 119; GC 18D; EdCI 136, 139; Ind 40 or 135

5. Requirements for the Minor in Basic Business:

Econ 1-2—Principles of Economics (6)
 EdCI 45—Introduction to Business and Distributive Education (2)
 BA 58-88—Business Law (6)
 BA 57—Survey in Marketing (3)
 Geog 41—Primary Production (5)
 FL 20—Consumer Education (3)
 EdT 82—Teaching Basic Business (2)
 EdT 73A—Student Teaching of Business Subjects (2)
 Electives (Econ and BA courses) (12)

Recommended Electives

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

In the Upper Division it is recommended that the following areas or courses be considered: advanced courses in business administration, visual materials, consumer education in the schools, guidance, conference leading, psychology of adolescence, philosophy of education, advertising, textiles, and co-operative part-time work experience programs.

THE CORE CURRICULUM

Major adviser: Professor Bossing

The purpose of this program is to prepare teachers to teach in the "core" or "common learnings" program now being offered in an increasing number of our junior and senior high schools. Briefly stated this program has two objectives: (a) helping the prospective teachers to study the problems they face and to enter upon the task of building, each for himself, a criticized philosophy of life and education, and (b) helping students to understand and to become proficient in the "core" or "common learnings" way of teaching in the secondary school. Succinctly stated, this way of teaching involves helping children to identify and to study their real problems. It means learning how to think ever more adequately, how to work together co-operatively—democratically, how to engage in effective communication. It means helping children to develop those basic understandings and competencies necessary for effective participation in our cherished democratic way of life. It means, in dealing with these problems, drawing upon subject matters from many fields and upon all other available resources that will contribute understandings and skills.

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; 31-34 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 Lower Division courses have been carefully selected. Students will meet with their advisers once a week for a 2-hour period (in EdCI 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. An average grade of C+ (2.5) is required in the major field of concentration.

Requirements for a Major in the Core Curriculum

Starred courses are those particularly recommended in each of the major areas.

A. Core Major

1. Humanities Area (24)

- *Hum 1, 2, 3, 4, or 51, 52, 53, 54—Humanities in the Modern World (15-20)
- Hum 11, 12, 13 or 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—Twentieth-Century Literature (9)
- Engl 73, 74—American Literature (6)
- Spch 106—Discussion (3)
- Phil 1—Problems of Philosophy (5)

2. Social Science Area (24)

- *SSci 1, 2, 3, or 51, 52, 53—Introduction to Social Studies (12)
- *SSci 81, 82, 83—Public Affairs Forum (9)
- *Anth 1A—Introduction to Anthropology: Prehistoric Man and Culture (5)

- *Anth 2A—Introduction to Anthropology: Cultural Anthropology (5)
 - Anth 100—Principles of Anthropology (3)
 - Geog 1—Geography of Natural Resources (5)
 - *Geog 4—Human Geography (5)
 - Hist 1, 2, 3, or 53, 54, 55—Civilization of the Modern World (9)
 - Hist 20, 21, 22—American History (9)
 - *Pol 25, 26, 27—World Politics (9)
 - (or) Pol ABC—The State in the Modern World (9)
 - Soc 1, 2, 3—Introduction to Sociology (3-9)
 - Econ A—Business and the American Economy (3)
 - Econ B—The Scope, Methods, and Applications of Economics (3)
 - Econ C—Introduction of Economic Analysis (3)
 - Pol 1, 2—American Government and Politics (6)
 - (or) Pol 5—American Government and Politics (5)
3. *Science Area* (21)
- *NSci 1, 2, 3—Orientation in the Natural Sciences (15)
 - (or) *NSci 4, 5, 6—The Physical World (6-9)
 - *Biol 1, 2, 3—General Biology (10)
 - Phil 81-82—Science and Civilization (6)
 - (or) NSci 165—Science in World Affairs (3)
 - NSci 171, 172, 173—The Development of the Sciences (3-9)
 - (or) NSci 175—Survey of Science History (3)
 - Ast 11—Descriptive Astronomy (5)
4. *Family Life Area* (9) (General College courses may not be taken by juniors and seniors)
- GC 3D—Selecting and Furnishing a Home (3)
 - (or) FL 15—The Home and Its Furnishing (3)
 - HE 31—Introduction to Nutrition (3)
 - GC 3C—Clothing Selection, Purchase, and Care (3)
 - (or) HE 1—Choice and Care of Clothing (3)
 - GC 3E—Income Management (2)
 - (or) FL 20—Consumer Education (3)
 - FL 25—Child Development and Adjustment (3)
 - FL 1 or 1A—Preparation for Marriage (3)
 - (or) GC 3A—Home Life: Marriage and Family Living (5)
 - (or) Soc 141—The Family (3)
5. *Music and Art Appreciation* (6-12)
- *Art 1 or 50—Introduction to Art (5-3)
 - *Mus 10—Introduction to Music (5)
 - *Phil 4—Introduction to the Philosophy of Art (4)
 - Mus 31, 32, 33—Music Literature (2-6)
 - Art 66, 67, 68—Modern Painting and Sculpture (9)
- B. *Minor Field of Concentration* (18-36)
- C. *General Requirements*
1. *Education Courses* (35)
- EdCI 58—Core Curriculum Foundations (1 per qtr)
 - Ed 55A-B—Introduction to Teaching (10)
 - HEd 180—School and the Social Order (3)
 - EdT 93—Student Teaching in the Core Curriculum (12)
 - EdT 93A-B—Methods of Teaching for Core Teachers (5)
 - Minor methods (2-3)
2. *Required of All Education Students* (26)
- *Comm 1, 2, 3, or Engl A-B-C or 1A-2A-3A or 1B-2B-3B (12)
 - Psy 1, 2—General Psychology (6)
 - Physical education (3-5)
 - Public health (5-6)
3. *Electives* (18-36)
- Total hours—186**

CURRICULUM AND INSTRUCTION

Major advisers: Professors Archer, Birkmaier, Bond, Bossing, Clymer, Eckert, McCune, Price;
Associate Professors Boeck, Curtin, Goossen, D. Johnson, Meyer, West;
Assistant Professor Kegler

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 second-year school teachers in certain fields.

For English Teachers

Major adviser: Assistant Professor Kegler

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 B.

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

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

The seminar, EdCI 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: Professors McCune, Morse;
Associate Professor West

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:

- EdCI 155—Materials Laboratory for Social Studies Teachers (3)
- EdCI 168—Current Developments in the Social Studies (2)

- EdCI 201—Problems in Teaching the Social Studies (3)
- EdCI 204—Social Studies Curriculum (3)
- HEd 241—Problems in the History and Philosophy of Education (Ar)
- EPsy 208—Methods in Educational Research (3)

The seminar, EdCI 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 adviser: 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 under one of two plans: following Plan A, the student elects a major in education, educational psychology, or curriculum and instruction and takes his minor work in science; under Plan B, the student elects to pursue a concentration of studies in the field of psychology or curriculum and instruction and takes, in addition, courses in one or more of the sciences and/or courses in education in areas not represented in the field of concentration.

Students interested in obtaining the master of arts degree under one of the plans described should arrange their programs in consultation with their major adviser.

ECONOMICS

Major adviser: Associate Professor Harlan Smith

A student who majors in economics registers in the College of Science, Literature, and the Arts or in the School of Business Administration for his first 2 years. His program during this time should include the first requirement listed below under the economics major. He should also meet the requirements of Plan I or Plan II, listed in Section I. The economics major should be proficient in typing before he reaches his senior year. Spch 5 and a course in statistics are recommended. General and profes-

sional requirements for the College of Education are listed in Section I. The student must maintain a 2.5 over-all average in the social science courses.

Economics as a Major Subject:

- Econ 1-2—Principles of Economics (6)
- (or) Econ B-C—Scope, Methods, and Application of Economics and Introduction to Economic Analysis (6)
- (or) Econ 50A-B—Economic Problems of the American Economy (6)
- Econ 65—Intermediate Economic Analysis: The Firm (3)

Econ 66—Intermediate Economic Analysis: Income and Employment (3)

Econ 68—Elements of Public Finance (3)

(or) Econ 178A—Public Finance (3)

BA 52—Modern Industrial Relations: Labor Marketing (3)

Econ 69—Government Regulation of Business (3)

Econ 104—International Economics (3)

Elective courses in economics—at least 12 credits from 2 of the areas designated under economics courses in the *School of Business Administration Bulletin*

A total of 36 credits in economics

Because of the economics teacher's need for a broad social studies background and because most social studies positions require teachers to teach more than one subject within the social studies area, the economics major must complete the following spread of supporting courses in the social sciences. This requirement is in lieu of a required teaching minor.

23 credits of history, including Hist 1-2-3 or 53-54-55 (World Civilization); and Hist 20-21-22 (American History)

5 credits of geography, either Geog 1 or 4 or 41

20 credits in the other social sciences, including:

Pol 1-2 or 5 or 80 (American or National Government) and 25 (World Politics)

Soc 3 (Social Problems) and one course numbered over 100

Anth 2A (Cultural Anthropology) or 100 (Principles)

Economics majors are urged to build a teaching minor in a nonsocial science area in order to improve their chances of obtaining teaching positions.

All economics majors must include 1 course on Russia and 1 on the Far East. These courses may be taken in any one of the social sciences and will count toward meeting the credit requirements in those fields. Econ 160 or Econ 164 will satisfy the requirement for a course on Russia.

The student majoring in economics must take the following courses within the total requirement of 29 credits in Education:

EdT 69—Student Teaching in the Social Studies (1 or during jr yr and 9 or during sr yr)

EdT 69A-B-C—Methods of Teaching the Social Studies (5)

EDUCATIONAL ADMINISTRATION

Major advisers: *General and Secondary*—Professors Domian (chairman), Bossing, Hooker, Keller, Lane; Associate Professor Popper; *Elementary*—Professors Archer, Bond; Associate Professors Curtin, Goossen

The student who wishes to become a superintendent of schools, a secondary school principal or supervisor, or an elementary school principal or supervisor must complete the requirements for the master of arts degree in the Graduate School. All such candidates should have completed as undergraduate students one of the curriculums preparing teachers for the elementary or secondary schools.

For the M.A. program for prospective superintendents, secondary school principals, and general secondary co-ordinators, the major will be educational administration, with related course work in curriculum and instruction, educational psychology, and other areas. The prospective elementary school principal majors in educational administration or in

curriculum and instruction, with the program including both areas. (Supervisors and consultants for particular fields of secondary instruction and for the elementary school usually will apply for a major in curriculum and instruction.)

Advanced study beyond the M.A. degree in educational administration may lead to the specialist in education certificate or to the Ph.D. degree. Included in the specialist certificate program are advanced courses, workshops, and field work. The workshops (not listed in this bulletin) are offered only in Summer Sessions.

For information concerning the general requirements for the M.A. and the Ph.D. degrees and for the specialist in education certificate, see the *Bulletin of the Graduate School*.

EDUCATIONAL PSYCHOLOGY

Major advisers: Professors Bond, Clymer, Cook, Dugan, Edson, Edwards, Mork, Reynolds, Wrenn; Associate Professors Flanders, Hagenah, Hoyt, Stecklein, Tennyson; Assistant Professor Corcoran

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 psy-

chology 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, Clymer; Associate Professors Curtin, Goossen; Assistant Professors Balow, Odland; *Nursery School-Kindergarten-Primary Education*—Instructor Sorensen

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, grades 1-8, or curriculum IB for nursery school-kindergarten-primary teaching. Students of sophomore standing or above entering the IB curriculum are urged to start at the beginning of the academic year (fall quarter). Difficulties are encountered in program planning where initial entry is made in the middle of the school year.

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

Curriculums IA and IB— Elementary Education and Nursery School-Kindergarten- Primary Education

For 1960-61, freshmen will be accepted in these curriculums. Beginning with the fall quarter, 1961, students will be admitted to the College of Education for curriculums IA and IB only after completion of 1 year's college work, meeting the indicated requirements.

FRESHMAN AND SOPHOMORE YEARS

In order to be eligible for admission to the sophomore year in the elementary curriculums (IA and IB) in the College of Education, a student must have completed a minimum of 45 credits, at least 30 of which must be selected from courses listed under blocks 1, 2, 3, and 4 which follow. The student must have an over-all average of C as well as an average of C in the courses selected from blocks 1, 2, 3, and 4. *Items marked with two asterisks (**) may be taken only after completing the freshman year.*

1. English (11-15)

Engl A-B-C, or Engl 1A-2A-3A, or Engl 1B-2B-3B, or Comm 1-2-3, or exemption

2. Natural Science (15)

NSci 4-5-6—The Physical World, and Biol 1A-2A-3A—General Biology
(or) NSci 4-5—The Physical World, and Biol 1-2-3—General Biology
(or) NSci 1-2-3—Orientation to the Natural Sciences

3. Sociology or Social Science (6-12)

Soc 1—Introduction to Sociology, and Soc 3—Social Problems
(or) SSci 1-2-3—Introduction to Social Science

4. Geography (5)

Geog 1—Geography of Natural Resources
(or) Geog 4—Human Geography

5. History and/or Political Science (9)

6. Health (3)

PubH 5—Individual and Public Health
(or) PubH 50—Personal and Community Health

7. Music (2-4)

Mus 1—Fundamentals (or exemption)
Mus 31 or 32 or 33—Music Literature (NKP only)

8. Physical Education (3-7)

Physical education activity courses—women (5)
Physical education activity courses—men (3)
(Elementary majors are urged to substitute PEW 45 for 2 of the required activity course credits)

PEW 25—First Aid (NKP only) (2)

9. Psychology** (6)

Psy 1 and 2—General Psychology

10. Speech** (5)

Spch 5—Fundamentals of Speech

11. Art Education** (6)

ArEd 17-18-19 (any 2)—Survey of Art in Life and Education

12. Electives

A foreign language, Math 5, or additional science courses are strongly suggested for all students

JUNIOR AND SENIOR YEARS ⁻⁷

Curriculums IA and IB ⁹

Academic Courses—Approximately half of the work of the junior and senior years is in courses other than education. These credits are elective 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 Upper Division courses. Additional courses in English, speech, humanities, natural science, social studies, and art or music are recommended.

Other courses such as those in agriculture, art education, home economics, industrial education, music education, general education, and physical educa-

tion may be allowed if selected in conference with the major adviser.

1. Junior Sequence

Ed 75A-B—Introduction to Elementary School Teaching (75A, Educational Psychology; 75B, Curriculum, Measurement, and Organization) (10)

2. Physical Education

PEW 70—The Teaching of Health and Physical Education in the Elementary Schools (elementary majors only) (3)
PEW 91—Principles of Play (NKP only) (3)

3. Art Education

ArEd 84—Teaching of Art in the Elementary School (elementary only) (3)

4. Music Education

MuEd 51—Teaching Music (2)
MuEd 52—Teaching Music (elementary only) (2)

5. Basic Methods

EdCI 60—The Teaching of Reading in the Elementary School (3)
EdCI 61—The Teaching of Social Studies in the Elementary School (3)
EdCI 62—The Teaching of Mathematics in the Elementary School (3)
EdCI 63—Children's Literature (2)
EdCI 64—The Teaching of English in the Elementary School (3)
EdCI 65—The Teaching of Science in the Elementary School (3)
EdCI 66—Treatment of Learning Difficulties (elementary only) (3)

6. Student Teaching

EdT 54A and 54B—Student Teaching in the Elementary School (elementary only) (12)
EdT 77—Student Teaching in the Nursery School (4)
EdT 78—Student Teaching in the Kindergarten (6)
EdT 79—Student Teaching in the Primary Grades (6) (NKP only)

7. History and Philosophy of Education

HEd 180—The School and Society (3)

8. Electives

Elementary—A minimum of 18 credits to be taken in courses numbered 50 or above in the College of SLA. Lower Division courses in math, foreign languages, and natural sciences are acceptable toward these 18 credits. Any credits in science must be in addition to the 15 credits which are required.

N-K-P—A concentration of 18 credits in one area, or, if possible, an academic minor.

9. Other Courses Required in the IB (N-K-P) Curriculum Only

CD 80—Child Psychology (3)
EdCI 55—Foundations of Early Childhood Education (3)
EdCI 56—Methods and Observation in the Kindergarten (3)
EdCI 57—Nursery School, Kindergarten Laboratory in Art, Literature, Social Studies, and Science (6)
EdCI 59—Methods and Observation in Nursery School (2)
EdCI 105—Audio-Visual Education (3)

186 credits are necessary for graduation. (Quality credits are accepted.) The required major average of C (2.0) will be based on the following courses:

Elementary IA: Ed 75A-B; EdCI 60, 61, 62, 63, 64, 65, 66; HED 180; EdT 54A-B
N-K-P IB: Ed 75A-B; EdCI 55, 56, 57, 59, 60, 61, 62, 63, 64, 65; HED 180; EdT 77, 78, 79

Admission to student teaching requires a C average in all the major courses listed above which are taken prior to student teaching.

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 EdAd 167 (Junior High School, 3 cr).
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, and 9 (EdT 52, 2 or 3 cr), 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.

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.)

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). 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—9 credits.

EPsy 60—Introduction to Measurement and Statistics (3)

EdCI 119—Elementary School Curriculum (3)

HEd 180—The School and Society (3)

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

EdCI 65—The Teaching of Science in the Elementary School (3)

(or) EdCI 103—The Teaching of Science in the Elementary School (3)

EdCI 63—Children's Literature (2)

EdCI 102—The Teaching of the Social Studies in the Elementary School (3)

EdCI 143—The Teaching and Supervision of Reading in the Elementary School (3)

EdCI 145—Reading Difficulties (3)

EdCI 149—The Teaching and Supervision of Mathematics in the Elementary School (3)

EdCI 151—Diagnosis and Treatment of Learning Difficulties (3)

EdCI 153—Supervision and Teaching of English in the Elementary School (3)

Other courses in method by petition

3. Education electives—9 credits. These credits may be chosen from any of the preceding courses or from any of the courses listed under general courses for elementary education.

The C+ average (2.5) is based on the 21 credits of the major field excluding any credits taken as electives.

Students minoring or having a concentration in an education field are not permitted to take any education elective courses for the major area.

Note—Students may be required to take EdT 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: PubH 50 (Personal and Community Health, 3 cr)

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 science (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—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. EdAd 167 (Junior High School) (3).

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

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

Teachers College graduates, coming with 90 blanket credits and interested in the NKP emphasis under elementary education, should consult the NKP adviser for particulars about the program.

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 are urged to 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 credits and a C+ average (2.5) on the total is required.

Ed 75A-B—Introduction to Elementary School Teaching (75A, Educational Psychology; 75B, Curriculum, Measurement, and Organization) (10)

EdCI 60—The Teaching of Reading in the Elementary School (3)

EdCI 61—The Teaching of the Social Studies in the Elementary School (3)

EdCI 62—The Teaching of Mathematics in the Elementary School (3)

EdCI 63—Children's Literature (2)

EdCI 64—The Teaching of English in the Elementary School (3)

EdCI 65—The Teaching of Science in the Elementary School (3)

(In exceptional cases courses in the same area numbered 100 or above may be substituted for the methods courses in the 60 sequence)

EdCI 145—Reading Difficulties (3)

(or) EdCI 151—Diagnosis and Treatment of Learning Difficulties (3)

(or) EdCI 66—Treatment of Learning Difficulties (3)

EdT 54A-B—Student Teaching in the Elementary School (12)

(Admission to student teaching shall be based on a C+ (2.5) average in all courses in the major program completed prior to student teaching)

MuEd 51—Teaching of Music (2)

(or) MuEd 52—Teaching of Music (2) (pre-req #)

ArEd 84A—Teaching of Art in the Elementary School (3)

On completion of the IIIA curriculum 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.

Admission to this program is based on the assumption that the student has an adequate background in the areas of natural science, geography, history, and health. In case of deficiencies the student shall be required to take additional courses in deficient areas in order to give him an appropriate background for elementary school teaching.

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

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 EdT 52 (Student Teaching in the Secondary School) and 3 credits in EdAd 167 (The Junior High School).

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 are urged to 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)

CD 80—Child Psychology (3)

EdCI 55—Foundations of Early Childhood Education (3)

EdCI 56—Methods and Observation in the Kindergarten (3)

EdCI 57—Nursery School—Kindergarten Laboratory in Art, Literature, Social Studies, and Science (6)

EdCI 59—Methods and Observation in the Nursery School (2)

EdCI 60—The Teaching of Reading in the Elementary School (3)

EdCI 61—The Teaching of the Social Studies in the Elementary School (3)

EdCI 62—The Teaching of Mathematics in the Elementary School (3)

EdCI 63—Children's Literature (2)

EdCI 64—The Teaching of English in the Elementary School (3)

EdCI 65—The Teaching of Science in the Elementary School (3)

EdT 77—Student Teaching in the Nursery School (4)

EdT 78—Student Teaching in the Kindergarten (6)

EdT 79—Student Teaching in the Primary Grades (6)

MuEd 51—Teaching of Music (2)

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

Completion of Psy 1-2 (General Psychology) is required for admission to the curriculum if it has not been included in the student's previous Bachelor's degree program.

Admission to this program is based on the assumption that the student has an adequate background in the areas of natural science, geography, history, and health. In case of deficiencies, the student shall be required to take additional courses in deficient areas in order to provide an appropriate background for teaching in the primary grades.

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 De-

velopment and 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 development courses at the graduate level and who meet all the regulations for the professional degree. Undergraduate students in the nursery school-kindergarten-primary school curriculum who expect to qualify for the M.Ed. degree should confer with their advisers by the beginning of the junior year in order that the work of the junior, senior, and fifth years may be coordinated to the best advantage.

In addition to the general requirements for the M.Ed. degree the specific requirements in early childhood education are as follows: (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 development and in 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.

Graduate Programs

Programs leading to the M.A. and Ph.D. degrees are offered in the Graduate School, emphasizing various areas of study in elementary education. Applicants should have completed one of the undergraduate curriculums leading to certification for elementary school teaching. In general, the graduate programs either prepare the teacher at an advanced level for his classroom work or lead toward one of the several specialties in public school work. For example, there are graduate programs for prospective school psychologists, supervisors and consultants, principals, specialists in teacher training, child psychologists, teachers of special classes, and reading specialists.

Classroom teachers, supervisors, and consultants ordinarily will major in the Graduate School in curriculum and instruction. Prospective elementary school principals may major in educational administration or in curriculum and instruction, but their programs will include work in both areas with special emphasis on the improvement of instruction. Graduate programs in childhood education are offered by the Institute of Child Development and Welfare with majors in child development; for school psychological work, the programs combine graduate study in educational psychology, child development, psychology, and curriculum and instruction. Special class teachers should refer to the listing of courses under curriculum and instruction and educational psychology which cover their particular area of teaching.

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*. In applying for admission to the Graduate School, the applicant should be sure to indicate the area which he wishes to emphasize in his program.

ENGLISH

Major advisers: Professor Allen, Assistant Professor Kegler

Students who major in English register in the College of Science, Literature, and the Arts for the first 2 years, and their programs during this time should include the Lower Division courses in the major, listed below. General and professional requirements of the College of Education are described in Section I. All English majors must complete Spch 5 in addition to other general requirements. Those who wish to combine the major in English with related work in speech, journalism, and library science instead of completing a minor in a second teaching field should refer to the language arts curriculum.

English as a Major Subject:

Engl 21-22-23—Introduction to Literature (15)
 Engl 55-56—Shakespeare (6)
 Engl 72-73-74—American Literature (9)
 Engl 165—Introduction to Modern English (3)
 Comp 27-28—Advanced Writing (6)
 Electives in courses numbered 100 or above (9)
 (or) 3 credits in courses numbered 100 or above and 6 credits in Upper Division humanities courses

Students with a major in English are required to take EdCI 122 (Literature for Adolescents, 3 cr), which is counted in the professional requirement. For student teaching and special methods in English they register in EdT 75 (Stu-

dent Teaching in the Language Arts), and EdT 75A-B-C or D (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 Lower Division 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 Graduate Study in Education, Section I.

GEOGRAPHY

Major adviser: Professor Borchert

A student who majors in geography registers in the College of Science, Literature, and the Arts for the first 2 years. His program during this time should include the first three courses listed under the major. He should also meet the requirements of Plan I or Plan II, listed in Section I. The geography major is urged to take geology as part of his natural science requirement. He should also be proficient in typing before he reaches his senior year. Completion of Spch 5 is advisable. General and professional requirements for the College of Education are described in Section I. The stu-

dent must maintain an over-all 2.5 grade point average in the social science courses.

Geography as a Major Subject:

Geog 1—Geography of Natural Resources (5)
 Geog 4—Human Geography (5)
 Geog 41—Geography of Primary Production (5)
 Elective courses in geography—At least 24 credits, including 1 course in each of the following areas: (a) Anglo-America, (b) Europe, (c) Soviet Union, (d) Southeast Asia, (e) Africa and the Middle East, (f) Latin America
 A total of 39 credits in geography

Because of the geography teacher's need for a broad social studies back-

ground and because most social studies positions require teachers to teach more than one subject within the social studies area, all geography majors must complete the following spread of supporting courses in other social science fields. This requirement is in lieu of a required teaching minor.

27 credits in history, including Hist 1-2-3 or 53-54-55 (Civilization of the Modern World) and Hist 20-21-22 (American History), plus 9 additional credits in courses numbered 65 or above

18 credits in the other social sciences, including: Pol 1-2 or 5 or 80 (American or National government)

Econ 1-2 (Principles of Economics) or B-C (Scope, Methods, and Application of Economics and Introduction to Economic Analysis) or 50A-B (Economic Problems of the American Economy)

Soc 3 (Social Problems)

Anth 2A (Cultural Anthropology) or 100 (Principles of Anthropology)

Geography majors are urged to build a teaching minor in a non-social science area in order to improve their chances of obtaining teaching positions.

The student majoring in geography must take the following courses within the total requirement of 29 credits in Education:

EdT 69—Student Teaching in the Social Studies (1 cr during jr yr and 9 cr during sr yr)

EdT 69A-B-C—Methods of Teaching the Social Studies (5)

Geography as a Minor Subject: 28 credits of geography, including Geog 1, 4, and 41 plus 1 course in each of 3 of the 6 areas listed for geography major.

GERMAN

Major adviser: Associate Professor Menze

A student wishing to obtain a major or a minor in German registers for the first 2 years of work in the College of Science, Literature, and the Arts and there meets the group requirements of that college as well as all prerequisites for Upper Division courses in German.

The 2 years of work remaining will be taken in the College of Education. General and professional requirements of the College of Education are stated in Section I. It is recommended that the College of Education student majoring in German include in his program Ger 80 or Clas 56.

German as a Major Subject for High School Teaching:

Ger 80—History of the German Language (3)

(or) Clas 56—Elementary Linguistics (3)

Ger 57-58-59—Composition (6)

Ger 61-62-63—Conversation (6)

Ger 68—German Pronunciation (2)

Any 2 quarters (6 cr) of:

Ger 91-92-93—Civilization and Culture

(or) Ger 95-96—Survey of German Literature

(or) Ger 64-65-66—Advanced Conversation and Essay Writing

12 credits in courses numbered 56 or above (at least 9 cr should be in literary courses)

German as a Minor Subject: 23 credits including Ger 57-58-59, 61-62-63, 68 and 7 additional credits in courses numbered 56 or above.

HIGHER EDUCATION

Major advisers: Professors Eckert, R. J. Keller, Morse, Wrenn; Associate Professor Davies

Qualified graduate students may select courses preparing them for service in colleges and universities. These courses and seminars are designed both for students majoring in education and for those specializing in other academic and professional disciplines. 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 Professor Loehr, Assistant Professor Wright

A student who majors in history registers in the College of Science, Literature, and the Arts for his first 2 years. His program during this time should include the first two requirements listed under the history major. He should also meet the requirements of Plan I or Plan II, listed in Section I. The history major is urged to take geology as part of his natural science requirement. He should be proficient in typing before he reaches his senior year. Completion of Spch 5 is advisable. General and professional requirements for the College of Education are described in Section I. The student must maintain an over-all 2.5 average in social science courses.

History as a Major Subject:

Hist 1-2-3 or 53-54-55—Civilization of the Modern World (9)

Hist 20-21-22—American History (9)

Hist 127—Russia (3)

Elective courses in history—at least 27 additional credits in courses numbered 65 or above (with completion of satisfactory paper, as required for SLA majors)

A course taken in history or in one of the other social science areas in each of the following cultural areas: (a) Latin America, (b) Asia, (c) Africa and the Middle East. These courses can be counted toward the required number of credits in these fields.

A total of 48 credits in history

Because of the history teacher's need for a broad social studies background and because most social studies positions

require teachers to teach more than one subject within the social studies area, all history majors must complete the following supporting courses in other social science fields. This requirement is in lieu of a required teaching minor.

23 credits in geography, including Geog 1 and Geog 4 and 1 course in each of 4 of the 6 areas listed for the geography major

15 credits in the other social sciences, including: Pol 1-2 or 5 or 80 (American or National Government)

Econ 1-2 (Principles of Economics) or B-C (Scope, Methods, and Application of Economics, and Introduction to Economic Analysis) or 50A-B (Economic Problems of the American Economy)

Soc 3 (Social Problems)

Anth 2A (Cultural Anthropology) or 100 (Principles of Anthropology)

History majors are urged to build a teaching minor in a non-social science area in order to improve their chances of obtaining teaching positions.

The major in history must take the following courses within the total requirement of 29 credits in education:

EdT 69—Student Teaching in the Social Studies (1 cr during jr yr and 9 cr during sr yr)

EdT 69A-B-C—Methods of Teaching the Social Studies (5)

History as a Minor Subject: 30 credits in history, including Hist 1-2-3 or 53-54-55; and Hist 20-21-22; and 12 credits in courses numbered 65 or above.

HISTORY AND PHILOSOPHY OF EDUCATION

Major adviser: Professor Beck

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 pro-

gram 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 Ford, Brown; Associate Professor Holmblade; Assistant Professor Kafka; Instructors Anderson, Christenson, Wantoch

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 AFHE and completes the required work of the home economics education curriculum. In the junior and senior years she completes the combined curriculum of the College of Education and the College of AFHE leading to the bachelor of science degree.

When the student has earned a minimum of 90 credits and at least 2 grade points 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. In the third quarter of the sophomore year, the student should make application for the combined curriculum at the Office of Admissions and Records, Coffey Hall. She will then complete admission requirements of the College of Education, which include speech, health, and psychological examinations and interviews.

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

1. The College of Education examinations.

2. Certain home economics courses with a grade of at least C. For the general home economics teaching specialization a grade of at least C is required for the following courses: HE 3, 4, 21, 40, 41, 76.

3. Home economics courses required in the teaching curriculum with a grade point average of 2.5.

In order to be recommended for graduation from the teaching specialization, the student must have (a) 2.5 grade points per credit in 40 credits of home economics work in the curriculum for general home economics teaching, (b) an average of 2 grade points per credit in all other courses pursued during the junior and senior years.

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

Teaching Home Economics—Students must meet the all-College requirements for graduation from the College of Agriculture, Forestry, and Home Economics. The following courses are required for those preparing for teaching general home economics.

FRESHMAN COURSES

Orie 1—College Orientation Lectures (1)
 HE 1—Choice and Care of Clothing (3)
 HE 3—Clothing Construction A (3)
 HE 10—Introduction to Home Economics (1)
 HE 17—Personal and Family Living (3)
 HE 20—Introduction to Related Art (4)
 HE 21—Color and Design I (3)
 HE 31—Introduction to Nutrition (3)
 HE 40—Food Preparation (5)
 Rhet 1-2-3—Communication (9)
 Biol 1A, 2A, 3A—General Biology (7)
 (and) Phsl 4—Human Physiology (4)
 (or) GC 10A-B—Human Biology (6)
 DyHu 20—Household Microbiology
 (or) Bact 53—General Bacteriology (5)
 InCh 4-5—General Inorganic Chemistry (10)
 (or) GC 7C—Physical Science: Elements of Chemistry (5)
 PubH 5—Individual and Public Health (3)
 (or) PubH 50—Personal and Community Health (3)
 GC 7A—Physical Science: Elements of Physics (5)
 (or) AgEn 35—Household Physics (5)
 Humanities (9) (may be taken from humanities, art, HE 120, literature, music, philosophy or theater arts; courses may be taken on Mpls or StP Campus)
 Physical education (3)

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

SOPHOMORE COURSES

HE 4—Clothing Construction B (3)
 HE 24—Home Planning and Furnishing (5)
 (preferably as 3rd qtr soph or jr)
 HE 41—Food Management and Marketing (5)
 HE 49—Household Equipment (3)
 Psy 1-2—General Psychology (6)
 Rhet 22—Public Speaking (3)
 Bact 53—General Bacteriology (5)
 (or) DyHu 20—Household Microbiology (4)
 AgBi 1—Introduction to Organic Chemistry (5)
 AgEc 1-2—Introduction and Principles of Economics (6)

(or) Econ 1-2—Principles of Economics (10)
One elective course in related art

JUNIOR AND SENIOR COURSES

HE 50—Textiles (4)
HE 76—Nutrition (4)
(or) HE 170, 171—Nutrition of Family, Child Nutrition (6)
HE 85—Home Management: Principles (3)
HE 86—Home Management: Laboratory (4)
HEEd 90—Child Training (3)
PubH 52—Health Care of the Family (1)
HE 185—Family Relationships (3)
Rhet 51—Exposition (exemption by exam) (3)
Ed 55A-B—Introduction to Secondary School Teaching (10)
HEd 180—The School and Society (3)
HEEd 91—Observation, Materials, Teaching in Home Economics (§HEEd 93) (5)
HEEd 92—Teaching Problems in Home Economics (§HEEd 94, 192, 194A) (2)
HEEd 93, 94—Supervised Teaching in Home Economics (9)
HEEd 192—Evaluation in Home Economics (2)
HEEd 194A—Adult Education in Home Economics (3)

Nine elective credits shall be taken in at least 2 of these home economics areas:

Foods—HE 70, 139, 140, 141
Clothing—HE 53, 115, 116
Related Art—HE 89, 120, 127, 180, 186

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*:

HE 102—Advanced Textiles (3)
HE 115—Economic and Social Aspects of Clothing (3)
HE 120—Art History (3)

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

HE 63—Quantity Cookery (6)
HE 70—Advanced Food Preparation (3)
HE 142—Experimental Cookery (3)
AgBi 2—Quantitative Methods (5)

Teaching Nutrition—*Omit* from the requirements in general teaching the following courses:

HE 3, 4, 21, GC 10A-B, 7A-C

To the requirements in general teaching *add*:

HE 142—Experimental Cookery (3)
HE 173—Nutrition in Disease (4)
HE 179—Readings in Nutrition (2)

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

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

2. *Add* the following:

HE 23—Advanced Design (3)
HE 25—Design Applied to Crafts (3)
HE 120—Art History (3)
HE 122A—Rendering Techniques for Interiors (3)
(and) HE 122B—Advanced Interior Design (3)
(or) HE 125—Advanced Costume Design (3)
HEEd 197—Organization and Methods of Related Art Teaching (1-3)
Art 1—Principles of Art (5)
Art 20—Elements of Drawing (2)

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 extension 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.

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:

AgBi 1; Rhct 51; HEEd 92, 94

Add to the requirements in general home economics teaching:

- AgJo 53—Publicity (3)
- Pol 1, 2—American Government and Politics (6)
- Sociology—3 credits to be selected from Soc 1, 2, 3, 14 or 14A, 91, 95, 140
- AgEc 8—Rural Economics (3)
(or) AgEc 126—Economics of Consumption (3)
- HEEd 95—Field Experience for Home Agents (prereq ¶HEEd 190, 192, 194A) (6)
- HEEd 190—Readings in Home Economics Education (prereq ¶HEEd 95, 192, 194A) (1-3)
- AgEd 56—Rural Education Through Extension Methods (3)

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

Professional Five-Year Curriculum

This is a joint curriculum between the College of Education and the College of AFHE leading to the degree of master of education (M.Ed.).

Special Requirements

1. A total of 230 credits including at least 45 (in courses numbered 100 or above) in the fifth year.
2. An average of B in courses in the fifth year.
3. A satisfactory report on a health examination within 1 year prior to obtaining the M.Ed. degree.
4. Satisfactory performance in requirements prescribed by the College of Education for professional degrees:
 - a. 90 credits in academic fields

- b. A teaching minor or concentration in an academic field (18 cr)
- c. Broad major field specialization (approximately 90 cr)
- d. 35 credits in education including 1 quarter internship (optional—8 cr allowed for 1 qtr)

The best results may be anticipated when plans for the extended training are made during the student's junior year 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 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 students 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; Assistant Professor 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 sat-

isfactory 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 programs—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 index.

In addition to the campus schedules, the Department conducts off-campus courses in centers scattered throughout the state; offerings are made through co-operation of officials in the State Department of Education and local school authorities. Such courses may be had with fee and credit, or without fee and credit, according to demand, but a given class or group must be of one or the other type rather than mixed as to status. Services of the Department are available to industrial groups, such as foremen and other personnel who have instructional responsibilities, and to the public school authorities. The Department provides courses for other divisions of the College and the University.

FRESHMAN YEAR

Comm 1, 2, 3 (12) or Engl A, B, C (15) or
Engl 1, 2, 3 (12)
Math T—Trigonometry (3)
Math 10—College Algebra (5)
Ind 6—Introduction to Industrial Arts Teaching (5)
Course blocks A, B, C (15)
Ind 35—Fundamentals of Vocational Education (3)

PEM 1, 2, 3—Sports Education (3)
Total—46 credits

SOPHOMORE YEAR

SSci 1, 2, 3—Introduction to Social Science (12)
Natural science electives—15 credits required other than mathematics and psychology, to be selected from the following recommended list:
NSci 1, 2, 3 (15)
NSci 4, 5, 6 (10)
GC 7A, 7B, 7C, 7D (5 each) or 7EX (3)
Psy 1, 2—General Psychology (6)
Course blocks A, B, C (9)
Elective, industrial laboratory (6)
Total—48 credits

JUNIOR YEAR

Ed 55A, B—Introduction to Secondary School Teaching (10)
PubH 5—Individual Public Health (3)
Ind 40—Analysis and Course Construction (5)
Ind 50—Industrial Processes and Practices (3)
Ind 55—Teaching Industrial Arts (5)
Ind 90—Independent Study I (3)
Ind 60A—Student Teaching (3)
Ind 101—Tests in Industrial Subjects (3)
Course block D (6)
Total—43 credits

Note—Prerequisites to student teaching are advanced junior or full senior status, taking of psychological examinations, courses Ind 6 and 55, and a C+ average (2.5 grade points per credit) in the major. The C+ average is based on all courses in industrial education, laboratory courses included. It is assumed that 30 of the 48 laboratory credits will have been completed.

SENIOR YEAR

Humanities electives—15 credits required, to be selected from the following recommended list:
GC 45BX (5)
Hum 51, 52, 53 (15)
Engl 37, 38, 39 (9)
Arch 51, 52, 53 (12)
HEd 180—The School and Society (3)
Elective, industrial classroom (selected from Ind 91, 92, 103, and EdCI 105) (3)
Ind 60B, C—Student Teaching (6)
Ind 110—Vocational Guidance (3)
Elective, industrial laboratory (3)
Elective, academic (16)
Total—49 credits
Total for 4 years—186 credits

All General College courses must be taken during freshman or sophomore years.

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: 92 credits in academic subjects, 33 in education, 17 in industrial education, 44 in shopwork and drawing. Total credit requirement, 186.

Course Blocks and Requirements

Block A (12 cr required):

- Ind 2—Wood Processing I (3)
- Ind 3—Wood Processing II (3)
- Ind 4—Wood Processing III (3)
- Ind 5—Wood Processing IV (3)
- Ind 12—Craftwork (3)
- Ind 15—Graphic Arts I (3)
- Ind 16—Graphic Arts II (3)

Block B (6 cr required):

- Ind 7—Drafting (3)
- Ind 8—Design I (3)
- Ind 9—Building Construction Drafting (3)

Block C (6 cr required):

- Ind 20—Electricity and Electronics (3)
- Ind 21—Communication Electronics (3)
- Ind 22—Industrial Electronics (3)
- Ind 23—Applied Electronics I (3)
- Ind 24—Applied Electronics II (3)
- Ind 30—Small Gas Engines (3)

Block D (6 cr required):

- Ind 25—Metal Processing I (3)
- Ind 26—Metal Processing II (3)
- Ind 27—Metal Processing III (3)
- Ind 28—Metal Processing IV (3)
- Ind 29—Metal Processing V (3)

Block E (10 cr required):

- Ind 6—Introduction to Industrial Arts Teaching (5)
- Ind 55—Teaching Industrial Arts (5)

Manual Arts Therapy

Selected students working toward the B.S. degree, with a major in industrial education, or those who already possess this degree, can become qualified as manual arts therapists by attending a 3-month clinical training program at the Minneapolis Veterans Administration Hospital. Persons desiring to learn more of this co-operative clinical training program 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 69—Newspaper and Magazine Articles (3)
- Jour 82—Supervision of School Publications (3)
- EdT 74—The Teaching of Journalism (3)

Nine additional credits chosen from Jour 54, 90 or 121, 103, 109, 120, 124, and 130.

THE LANGUAGE ARTS

Major advisers: *English*—Professor Allen; Assistant Professor Kegler;
Speech—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 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 Lower Division courses of the curriculum. Comm 1-2-3 is recommended in place of Engl A-B-C or Engl 1-2-3 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 EdCI 122 (3 cr) 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 students 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, 48 credits:

Engl 21-22-23—Introduction to Literature (15)
 Engl 55-56—Shakespeare (6)
 Engl 72-73-74—American Literature (9)
 Engl 165—Introduction to Modern English (3)
 Comp 27-28—Advanced Writing (6)
 Electives in courses numbered 100 or above (9)
 (or) 3 credits in courses numbered 100 or above and 6 credits in Upper Division humanities courses

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 credits:

Spch 5—Fundamentals of Speech (5)
 Spch 31—Introduction to the Theater (3)
 Spch 67—Phonetics (3)
 (or) Spch 119—Introduction to Speech Correction (3)
 Electives (24)

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, 65, 67, 97, 101, 102, 103, 106, 143, 161, 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 5 and 31; and 15 credits of electives with not less than 6 credits in each of the 2 speech areas.

Journalism and Library Science

All language arts majors will take Jour 90 (3 cr). In addition they will take 8 to 12 credits in library science chosen from the following courses: Lib 50, 62,

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 cr);

Spch 5 and 31 and 3 more credits chosen from Spch 101, 106, and 161 (11 cr). 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, or 74. 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)
 Courses from Lat 171-172-173—Advanced Readings (6)
 Clas 56—Elementary Linguistics (3)
 (and) 9 credits in classics courses or in the area of classical civilization offered by the departments of Art, History, Philosophy

Latin as a Minor Subject—A total of 23 credits required, including the following 21 credits of Upper Division work:

Classics courses or courses in the area of classical civilization offered by the departments of Art, History, Philosophy (6)
 Lat 73—Prose Composition (3)
 Lat 51-52-53—Survey of Latin Literature (9)
 Clas 56—Elementary Linguistics (3)

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 1 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 2 years of Latin may, with permission of the department, take Lat 1, 2, and 3 for credit, or they may enter Lat 4 followed by Lat 51-52-53. Students entering with 3 years or 4 years of Latin may enter Lat 51-52-53 directly.

The first 2 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 Lower Division courses in Latin prerequisite to registration in Lat 51-52-53. The general and professional requirements of the College of Education are described in Section I.

LIBRARY SCIENCE

Minor adviser: Assistant Professor Zimmerman

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 certification program of 24 credits in library science.
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 Library School*.

3. For the liberal arts graduate who lacks a teaching certificate, a special 66-credit M.A. program.

Courses Advised—For a minor in library science and recommendation to the Minnesota State Department of Education for certification the student must be admitted to the 24-credit certification program by the Library School and the

College of Education and have successfully completed the following courses:

Lib 53, 62, 70, 74, 83, 171, 172 and either 50 or 55. EdCI 105 is also recommended

Students who cannot take the whole 24 credits are encouraged to take Lib 53, 74, 83, 171, and 172 as useful preparation for assignment in school libraries.

MATHEMATICS

Major advisers: Professors Hart, Kalisch, Loud; Associate Professor Carlson; Assistant Professor Storvick

Students take the first 2 years in the College of Science, Literature, and the Arts and meet the Lower Division requirements of that college. They should include in their programs the courses prerequisite to Math 40, and as much as possible of the sequence Math 40-53-54-55, listed under the major. The general and professional requirements of the College of Education are described in Section I. Solid geometry (entrance credit or its equivalent) and higher algebra taken either in high school or college are prerequisites for both majors and minors in mathematics. Students who do not present solid geometry for entrance may meet this requirement by taking a course in the subject offered (a) by the General Extension Division, (b) in daytime classes directed by the Department of Mathematics in the Institute of Technology, (c) in the Correspondence Study Department, or (d) by the Public School System of Minneapolis in individualized instruction for adults at West High School.

Mathematics as a Major Subject:

Math T—Trigonometry (3)
 (or) Trigonometry taken in high school
 Math 10—College Algebra (5)
 Math 40-53-54—Mathematical Analysis I, II, III (15)
 Math 60—Synthetic Metric Geometry (3)
 Additional credits in courses numbered over 54 (8)

Recommended electives:

Math 20—Mathematics of Investment (5)
 Phil 2—Logic (5)

The student of proper ability should endeavor to take more than the specified courses with the objective of preparing for graduate study with mathematics as either the major or the minor subject.

Mathematics as a Minor Subject:

Math T—Trigonometry (3)
 (or) Trigonometry taken in high school
 Math 10—College Algebra (5)
 Math 40-53-54—Mathematical Analysis I, II, III (15)
 Math 60—Synthetic Metric Geometry (3)

Programs Leading to the Master of Education Degree

1. Fifth-Year Program—The College of Education offers a fifth-year program leading to the master of education degree for students who hold a Bachelor's degree and teaching certificate with a major in mathematics. Emphasis in the fifth year is on courses offered by the Department of Mathematics in the College of Science, Literature, and the Arts with related work in education included in the program. Work of the fifth year is based on the 4-year mathematics major described in this bulletin. Students with a Bachelor's degree in mathematics education from other accredited institutions may be admitted to the fifth-year program but may be asked to make up certain undergraduate courses that may be lacking. A special announcement, giving details concerning admission and requirements, will be sent on request.

2. Five-Year Program—For students interested in a 5-year program the Institute of Technology and the College of Education offer a combined curriculum leading to the bachelor of science and the master of education degrees with a major in mathematics. For other information see index for Special Programs.

MUSIC EDUCATION

Major advisers: Professor Oberg; Associate Professors Caswell, Ivory

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 11A-11B-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, suburban, and University Elementary and High Schools.

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

MuEd 4-5-6-7, 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 MuEd 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, 100, 204) *for credit* until he has passed the required entrance examination. 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)
 MuEd 4-5-6-7—Applied Instrumental Technique (6)
 MuEd 59—Choral Literature and Conducting (1)
 Engl 1A-2A-3A—Freshman Composition (12)
 Hist 11-12-13—Medieval History (9)
 (or) Hist 1-2-3—Civilization of Modern World (9)
 (or) SSci 1-2-3—Introduction to Social Science (12)
 Physical education (3 or 5)
 PubH 3 (2) and 4 (2) or 5 (3) or 50 (3) or 51 (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)
 (or) Mus 49—Men's or Women's Glee Club (3)
 (or) Mus 66-67-68—Chamber Singers (6)
 Mus 60 or 61 or 62—Instrumental Ensemble (2)
 (or) Mus 112 or 113 or 114—History of Vocal Art (2)
 (or) Mus 115 or 116 or 117—Vocal Literature (2)
 Mus 76—Form and Analysis (3)
 MuEd 50A—Teaching Music in Primary Grades (2)
 MuEd 50B—Teaching Music in Intermediate Grades (2)
 MuEd 53—Teaching Music in Secondary Schools (3)
 MuEd 59—Choral Literature and Conducting (3) (1 or for jr, 2 or for sr)
 MuEd 60-61-62—Supervision and Teaching of Music (9)
 MuEd 65—Instrumentation (3)
 MuEd 67—Teaching Instrumental Music in Elementary Schools (2)
 MuEd 68—Teaching Instrumental Music in Secondary Schools (2)

Ed 55A-55B—Introduction to Secondary School Teaching (10)
 HEd 180—The School and Society (3)
 PubH 59—Health of the School Child (2)
 Academic electives (minor) (21-30)
 Electives in education including special methods (academic minor) (6)

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)
 (or) Mus 10—Introduction to Music (4)
 Music education methods (2-4) selected from:
 MuEd 50B—Teaching Music in Intermediate Grades (2)
 MuEd 51—Teaching of Music (kindergarten—primary grades) (2)
 MuEd 52—Teaching of Music (intermediate grades) (2)
 MuEd 53—Teaching Music in Secondary Schools (3)
 MuEd 67-68—Teaching Instrumental Music in Elementary—Secondary Schools (4)

The remaining credits to be selected from:

MuEd 4-5-6-7—Applied Instrumental Technique (2-4)
 Mus 39—Women's Glee Club (3)
 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)
 MuEd 59—Choral Literature and Conducting (2)
 Mus 60-61-62—Instrumental Ensemble (2)
 Mus 66-67-68—Chamber Singers (6)
 Mus 115-116-117—Vocal 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 grade point requirements for the 4-year curriculum, a grade point ratio of 3 (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.

Education, 6 credits selected from:

- EPsy 193—Psychology of Human Learning (3)
- EdCI 113—High School Curriculum (3)
- (or) EdCI 119—Elementary School Curriculum (3)
- EdCI 150—Supervision and Improvement of Instruction (3)
- (or) EdCI 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

Advisers: *Education*—Associate Professor Boeck; *Botany*—Assistant Professor A. Hansen; *Physics*—Associate Professor Freier; *Zoology*—Professor M. Olson.
Department representative: *Chemistry*—Professor O'Connor

For registration, students with the core subject botany, physics, or zoology should consult the appropriate subject adviser; those with a chemistry core should consult the education adviser.

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 curriculum 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 Lower Division courses of this curriculum in so far as possible. For the general and professional requirements of the College of Education, see Section I.

Requirements for the Major in Natural Science

1. Completion of the courses and credits in one of the groups A1, Botany; B1, Zoology; C1, Chemistry; or D1, Physics. This is referred to as the core subject. C+ is required in the core subject and a C average in all science outside of the core.

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, chemistry, botany, and zoology, when these sub-

jects are not used to satisfy requirements in 1 and 2. The botany and/or zoology requirement will be met with Biol 1-2-3 (General Biology) and 5 credits elected from the field with consent of adviser. 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. Biol 1-2-3—General Biology (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)
5 additional credits chosen with consent of adviser
2. Biol 1-2-3—General Biology (10)
10 additional credits chosen with consent of adviser

Group B—Zoology

1. Biol 1-2-3—General Biology (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)
8 additional credits chosen with consent of adviser
2. Biol 1-2-3—General Biology (10)
10 additional credits chosen with consent of adviser

Group C—Chemistry

1. InCh 4-5—General Inorganic Chemistry (10)
InCh 11—Semimicro Qualitative Analysis (4)
(or) InCh 24-25-26—Chemical Principles (with consent of adviser) (15)
OrCh 16—Carbon Compounds (4)
AnCh 57—Quantitative Analysis (4)
PCh 107-108—Physical Chemistry (6)
2. InCh 4-5—General Inorganic Chemistry (10)
OrCh 16—Carbon Compounds (4)

Group D—Physics

1. Phys 7-8-9—General Physics (15)
Phys 50-51—Intermediate Physics (8)
Phys 50A or 51A—Intermediate Physics Laboratory (1)
6 additional credits chosen with consent of adviser
2. Phys 7-8-9—General Physics (15)

Group E—Geology (15-credit requirement only):

- Geol 1-2, A-B—General Geology and Laboratory (10)
5 credits chosen from Geol 23, 24, 25, 107, 114, 118, 120, 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 EdT 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.

NURSING EDUCATION

Major advisers: Professors Fritz, Harrington; Assistant Professors Dunning, Weise

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 curriculum 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; *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 evaluating 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, 10 Columbus Circle, New York 19, N. Y. The fee for this examination is \$8 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 grade points. Candidates must also meet the graduation requirements of the College of Education (see Section I). They are, however, exempt from 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 Upper Division 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 college or university courses in biological or physical science or psychology laboratory, 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
 —Literature, Composition; or Engl 1A-2A-3A or 1B-2B-3B—Freshman English (12-15) or exemption
 CD 40—Child Training (3)
 (or) CD 80—Child Psychology (3)
 Physical education (5)
 Psy 1-2—General Psychology (6)
 Science (biological or physical science or psychology laboratory) (4)
 Sociology or social science (6-8)

Course Requirements for the Nursing Education Major

Of the following courses, Ed 55N, NuEd 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. Requirements for registration in student teaching (EdT 51A, B) are (a) senior standing, (b) a passing grade in Ed 55N, (c) taking College of Education Test Battery, (d) attainment of a grade point average of 2.5 in completed courses in the nursing education major, including clinical nursing courses [a major portion of the clinical requirement should be completed], (e) a satisfactory rating on the required speech test, and (f) completion of the required clinical experience.

Ed 55N—Introduction to Teaching Nursing (5)
 EdT 51A, B—The Teaching of Nursing (10)
 NuEd 69—Survey of Conditions and Trends in Nursing (3)
 NuAd 170—Foundations of Nursing Administration (3)
 NuAd 160—Ward Administration (3)
 HED 180—The School and Society (3)
 Clinical nursing (12)
 Electives in nursing, nursing education, nursing administration, or public health (3)
 PubH 53 or 100—Introduction to Public Health (3-5)
 Total—45-47 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. 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 or nursing administration. A description of the available minors follows.

Course Requirements for the Nursing Administration Minor

Minor adviser: Assistant Professor Grainger

The nursing 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.

Nurs 165—Work Simplification in Nursing (4)
 NuAd 167—Studies and Experience in Ward Administration (6)
 Total—10 credits

Course Requirements for the Clinical Nursing Minor

Minor advisers: Assistant Professors Coe, Ledger, Low; Instructors Cook, Peterson, Whitney

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 outpatient 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.

Students electing nursing of children are required to have completed a minimum of 6 weeks in pediatrics; those electing psychiatric nursing are required to have a minimum experience of 12 weeks in psychiatric nursing; those electing tuberculosis nursing are required to have satisfactorily completed a basic course in tuberculosis nursing including clinical experience. Students who have not met these requirements must do so before the beginning of their junior year.

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 one or more additional quarters to complete the total course requirements.

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 (18)
Physiology (4)

Nursing of Children:

Nurs 154A-B-C—Pediatric Nursing (18)
CD 40—Child Training (3)
Electives in child development (6)

Obstetric Nursing:

Nurs 152A-B-C—Obstetric Nursing (18)
PubH 58—Maternal and Child Health (3)

Operating Room Nursing:

Nurs 153A-B-C—Operating Room Nursing (18)

Psychiatric Nursing:

Nurs 155A-B-C—Psychiatric Nursing (18)
Psy 144-145—Abnormal Psychology (6)

Rural Hospital Nursing:

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

Surgical Nursing:

Nurs 157A-B-C—Surgical Nursing (18)

Tuberculosis Nursing:

PubH 60—Tuberculosis and Its Control (2)
Nurs 158—Tuberculosis Nursing (15)

Master of Education Program in Nursing Education

Major advisers: Professors Fritz, Harrington;
Assistant Professors Dunning, Weise

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 credits as described below within the master of education 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 (6)
Nursing education (12)
Education (9)
Field experience in teaching (9)
Electives (9)
Total—45 credits

Variation in the distribution of credits requires approval of the major adviser and the College of Education Committee on Student Scholastic Standing.

The following courses are required of all candidates:

Nurs 190—Foundations of Nursing (3)
NuEd 197E-198E—Advanced Teaching of Nursing (9)
EdCI 199E—Internship (9)

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 have the equivalent of Ed 55N or B, EdT 51A-B, and at least 3 credits in other education courses in an accredited university will be required to include them in the master of education program.

Candidates must meet the general requirements for the master of education degree (see index) with the exception of a teaching minor in an academic field.

Students in this program must be prepared to accept, if necessary, assignment to field experience outside of the Twin Cities during the internship quarter.

PHYSICAL EDUCATION FOR MEN

Major advisers: Professors Donnelly, Piper; Associate Professors Heusner, Osell, Ostrander; Assistant Professors Mueller, Stish; Instructors Anderson, Lewis

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

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

FRESHMAN YEAR

Comm 1-2-3—Communication; or Engl 1A-2A-3A or Engl 1B-2B-3B—Freshman English (12)
 Soc 1—Introduction to Sociology (3)
 (or) SSci 1-2-3—Introduction to Social Science (12)
 Biol 1, 2, 3—General Biology (10)
 (or) GC 10A-B-C—Human Biology (9)
 PEM 4A-B-C—Fundamentals of Sports (3)
 PEM 5A-B-C—Physical Education Activities (3)
 PEM 32—Introduction to Physical Education (3)
 PEW 25—First Aid (2)
 (or) PEM 59—Instructor's Course in First Aid (2)
 PubH 3—Personal Health (2)
 General electives (11)

SOPHOMORE YEAR

InCh 4-5—General Inorganic Chemistry (10)
 (or) GC 7A, 7C—Physical Science (10) and GC 8A—Applied Mathematics (5)
 (or) Phys 1, 1A—Introduction to Physical Science (and Laboratory) (4) and GC 7C—Physical Science (5)
 Spch 5—Fundamentals of Speech (5)
 (or) GC 32A-B—Oral Communication (6)
 Psy 1-2—General Psychology (6)
 PEM 6A-B-C—Intramural Sports (3)
 PEM 7A-B-C—Recreational Games and Sports (3)
 Anat 57—Human Anatomy (4)
 (or) PEM 50—Human Anatomy (3)
 PEM 8—Tennis and Golf (1)
 PubH 4—Health Problems of the Community (2)
 (or) PubH 51—Community Hygiene (2)
 General electives (12)

JUNIOR YEAR

PubH 59—Health of the School Child (2)
 PEM 9A-B—Folk, Ballroom and Square Dancing (2)
 PEM 51—Mechanics of Movement (3)
 PEM 55—Methods and Materials in Physical Education (4)
 PEM 60A—Prevention and Care of Injuries (3)
 PEM 68††—Basketball Coaching (2)
 PEM 69—Track Coaching (2)
 PEM 72††—Baseball Coaching (2)
 PEM 96—Administration of Intramural Sports (2)
 Ed 55A-B—Introduction to Secondary School Teaching (10)
 General electives (15)

SENIOR YEAR

PEM 60B—Athletic Training Laboratory (1)
 PEM 63—Organization and Administration of Physical Education (3)
 PEM 65—Adapted Physical Education (3)
 PEM 66—Officiating Football and Basketball (3)
 PEM 67—Football Coaching (2)

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

- PEM 73-74-75—Directed Teaching (6)
 (or) PEM 76—Directed Teaching (block plan)
 (9)
 PEW 83—Methods and Materials in School
 Health Education (3)
 PEM 97—Testing in Physical Education (2)
 PEM 101—Principles of Physical Education (3)
 HED 180—The School and Society (3)
 PubH 91, 92—Principles of Human Function
 (8)
 General electives and methods in the minor to
 complete total of 186 credits

The C+ average is based on the following courses:

- PEM 4A-B-C, 5A-B-C, 6A-B-C, 7A-B-C, 8,
 9A-B, 25, 32, 51, 55, 60A-B, 63, 65, 66, 67,
 68, 69, 72, 96, 97, 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 HED 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+ (2.5 grade 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 31 credits is required as follows:

Group A—all required:

- PEM 5C—Physical Education Activities (1)
 PEM 7A-B-C—Recreational Games and Sports
 (3)
 PEM 55—Methods and Materials in Physical
 Education (4)
 Anat 57—Human Anatomy (4)
 PEM 60A—Prevention and Care of Injuries (3)
 PEM 63—Organization and Administration of
 Physical Education (3)
 PEM 101—Principles of Physical Education (3)

Group B—4 credits required:

- PEM 67—Football Coaching (2)
 PEM 68—Basketball Coaching (2)
 PEM 69—Track Coaching (2)

- PEM 72—Baseball Coaching (2)
 PEM 81—Hockey Coaching (2)

Group C—6 credits required:

- PEM 5A-B—Physical Education Activities (2)
 PEM 6A-B-C—Intramural Sports (3)
 PEM 8—Tennis and Golf (1)
 PEM 9A—Fundamental Rhythms (1)
 PEM 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.

The M.Ed. is designed primarily as a 5-year degree program which a student completes uninterruptedly after receiving the B.S. degree with a major in physical education. This applies both to graduates of the University of Minnesota as well as to graduates of other accredited institutions that have the same undergraduate requirements for physical education as does the University of Minnesota. In addition to being a program designed for the physical educator without teaching experience, the M.Ed. is also well-suited for teachers who have a Bachelor's degree but do not have an undergraduate major in physical education. Finally, the M.Ed. provides a teaching or a nonresearch program for experienced physical education teachers who are not interested in or qualified to do the research required in the M.A. program.

Furthermore, the M.Ed. program is available for recreation students who may specialize in 1 of 2 areas: (1) recreation leadership and administration, and (2) hospital recreation.

The M.A. program is explained in full in the *Bulletin of the Graduate School*. This is a program that should be elected by students who plan to pursue work beyond the Master's level leading to a

Doctor's degree. It should also be elected by those students who as a result of their previous training or interest prefer to do

the research that is required of all M.A. candidates instead of the internship required in the M.Ed. sequence.

PHYSICAL EDUCATION FOR WOMEN

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

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.

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 29 credits in education including student teaching in physical education, methods in the minor, Ed 55A-B, and HED 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+ (2.5 grade 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—Literature, Composition; or Engl 1A-2A-3A or 1B-2B-3B—Freshman English; or exemption (9-15)
 Biol 1-2-3 or 1A-2A-3A—General Biology (7-10)
 Soc 1—Introduction to Sociology (3)
 PEW 20A-B-C, 21A-E, 22B-C, 41A, 42A—Physical Education Activities (7½)
 PubH 5—Individual, Public Health (3); (or) PubH 50—Personal and Community Health (3)
 General electives (4-6)

SOPHOMORE YEAR

InCh 4-5—General Inorganic Chemistry (10)
 Spch 5—Fundamentals of Speech (5)
 Psy 1-2—General Psychology (6)
 PEW 21B, 21D, 22A, 40A-B-C-D, 41B—Physical Education Activities (7½)
 Anat 57—Elementary Anatomy (4)
 PEW 49—The Teaching of Team Sports (2)
 PEW 77—The Teaching of Aquatics (2)
 PubH 59—Health of School Child (health minors only) (2)
 General electives (4-6)

JUNIOR YEAR

PEW 25—Standard and Advanced First Aid (2)
 PEW 47, 48—The Teaching of Dance, Individual and Dual Sports (6)

- PEW 51—Mechanics of Movement (3)
- Ed 55A-B—Introduction to Secondary School Teaching (10)
- PEW 53—The Role of Physical Education in Recreation (3)
- PEW 86—Advanced Fundamentals (1)
- PEM 61—History of Physical Education (3)
- PEW 83—Methods and Materials of School Health Education (3)
- PEW 85—Teaching of Posture and Self-Testing Activities (3)
- PEW 90A—Student Teaching in Physical Education (3)
- General electives (8)

SENIOR YEAR

- Phys 51—Physiology (6)
- PEW 82—Principles of Physical Education (3)
- PEW 102—The Physical Education Program for the Elementary and Secondary School (3)
- PEW 95—Administration of Physical Education (3)
- PEW 90A-B-C—Student Teaching in Physical Education (6-9)
- PE 135—Tests and Measurements in Physical Education (3)
- HEd 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, PEW 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:

- PEW 62—The Teaching of Physical Education Activities (3)
- PEW 82—Principles of Physical Education (3)
- PEW 83—Methods and Materials of School Health Education (3)
- PEW 102—Physical Education Program for the Elementary and Secondary Schools (3)

III. Student Teaching (required)

- PEW 93—Student Teaching (2)

IV. Electives selected from the following list, 6 credits:

- PEW 25—Standard and Advanced First Aid (2)
- PEW 53—The Role of the Physical Educator in Recreation (3)
- PEW 54—Camp Leadership (3)
- PEW 70—Introduction to Physical Education in the Elementary School (3)
- PEW 85—The Teaching of Posture and Self-Testing Activities (3)
- PEW 95—Administration of Physical Education (3)
- PEW 113—Physical Education in the Elementary School (3)
- PEW 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:

- PEW 76—Advanced Folk Dance (2)
- PEW 80—History and Trends in Dance (3)
- PEW 87—Advanced Dance Composition (2)
- PEW 88—Problems in Dance Composition (2)

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

- PEW 47—The Teaching of Rhythmic Activities and Dance (3)
- PEW 89—Dance Production (3)
- ArEd 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 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. Courses in physical education numbered 100 and above may be taken either in the Department of

Physical Education for Women or in the Department of Physical Education for Men.

2. Average performance skill in at least 3 activity areas (sports, aquatics, 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 Section I).

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

Advisers: *Education*—Associate Professor Boeck; *Physics*—Associate Professor Freier; *Mathematics*—Professors Hart, Loud. Department Representative: *Chemistry*—Professor O'Connor

For registration, students with major concentration in physics or mathematics should consult the subject adviser; those with a chemistry concentration the education adviser.

The programs for majors or minors in physical science are designed for students who wish to prepare to teach physical science and mathematics in 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. An average of C+ is required in the major concentration and a C average in the areas outside the major concentration. 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: 32 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 T. 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 T.

General Requirements for a Minor in Physical Science

The student must offer a major in mathematics (which consists of 31 credits beyond Math T).

Option A: 24 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, 32 credits

- InCh 4-5—General Inorganic Chemistry (10)
 InCh 11—Semimicro Qualitative Analysis (4)
 (or) InCh 24, 25, 26—Chemical Principles
 (with consent of adviser) (15)
 AnCh 57—Quantitative Analysis (4)
 OrCh 61, 62—Organic Chemistry (8)
 PCh 107-108—Physical Chemistry (6)

Minor Concentration

(Option of 24 credits)

- InCh 4-5—General Inorganic Chemistry (10)
 InCh 11—Semimicro Qualitative Analysis (4)
 OrCh 16—Carbon Compounds (4)
 PCh 107-108—Physical Chemistry (6)

(Option of 20 credits)

- InCh 4-5—General Inorganic Chemistry (10)
 OrCh 16—Carbon Compounds (4)
 PCh 107-108—Physical Chemistry (6)

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 (31 credits beyond Math T):

- Courses through Math 54
 Math 60—Synthetic Metric Geometry (3)
 Electives from courses numbered over 54 (8)

Requirements for Special Methods and Practice Teaching

For Majors in Physical Science, with Minor in Mathematics

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

For Majors in Mathematics, with Minor in Physical Science

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

Student Teaching:

6 credits in major, 3 credits in minor

Five-Year Program Leading to the Master of Education Degree

Students interested in a 5-year program leading to a certificate to teach physics or chemistry see index listing

of Special Programs for information about the combined curriculums offered

by the Institute of Technology and the College of Education.

POLITICAL SCIENCE

Major advisers: Professors Christensen and Warp

A student who majors in political science registers in the College of Science, Literature, and the Arts for the first 2 years. His program during this time should include the first three requirements outlined below under the political science major. He should also meet the requirements of Plan I or Plan II, listed in Section I. Completion of Spch 5 is advisable. The student should be proficient in typing before he reaches his senior year. He must maintain an over-all 2.5 grade point average in the social science courses.

Political Science as a Major Subject:

Pol 1-2-3—American Government and Politics (9)

(or) Pol 5 and 3—American Government and Politics (8)

(or) Pol 80—National Government in the United States (3) and Pol 3—American Government and Politics (3)

Pol A-B—State in the Modern World (6)

Pol 25—World Politics (3)

Elective courses in political science—At least 18 additional credits in courses numbered 100 and above. Six of these credits must be taken in the field of American government (in courses numbered between 100 and 139) and 6 credits must be taken in the field of international relations (in courses numbered between 170 and 199).

The political science major must take 1 course on Russia and 1 on the Far East. These courses may be taken in any of the social sciences, and the credits count toward meet-

ing the total required credits in that field.
Total—36 credits in political science

Because of the political science teacher's need for a broad social studies background and because most social studies positions require teachers to teach more than one subject within the social studies area, all political science majors must complete the following spread of supporting courses in the other social science fields. This requirement is in lieu of a required teaching minor.

23 credits of history, including Hist 1-2-3 or 53-54-55 (9) and Hist 20-21-22 (9)

Geog 1 or 4 (5)

20 credits of economics, sociology, and anthropology, including:

Econ 1-2 or B-C or 50 A-B (6)

Soc 3 (3)

Sociology course numbered 100 or above (3)

Anth 2A (5) or 100 (3)

Political science majors are urged to build a teaching minor in a non-social science area in order to improve their chances of obtaining teaching positions.

The major in political science must take the following courses within the total requirements of 29 credits in education:

EdT 69—Student Teaching in the Social Studies (1 cr during jr yr and 9 cr during sr yr)

EdT 69A-B-C—Methods of Teaching the Social Studies (5)

RECREATION LEADERSHIP

Major advisers: Lecturer Fitzgerald; Associate Professors Giles, 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:

NSci 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)
PubH 3—Personal Health (2)

Group C: Social Science, 21 to 24 credits:

SSci 1-2-3—Introduction to Social Science (12)
Hist 20-21-22—American History (9)
(or) a total of 21-24 credits in the following fields: sociology, political science, economics, history, geography, and social science

Group D: English Composition, Literature, and Speech, 14 credits:

Comm 1-2-3—Communication (or Engl 1A-2A-3A, or Engl A-B-C, or GC 31A-B-C) (9-15)
Spch 5—Fundamentals of Speech (5)

Group E: Skill Techniques, 24 credits:

Music, 5 credits

Mus 1—Fundamentals of Music (2)
GC 24A-B-C—Music Today (3)

Arts and Crafts, 9 credits

ArEd 18—Design Activities for Elementary Education (3)
ArEd 81—Puppetry (3)
Art 10—Photography (3)
PEM 45—Camp Craft (2)

Dramatics, 4 credits

Spch 31—Theater Arts (4)

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

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

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

PEW A-B-C—College Program in Physical Education—selected from Aquatics, Individual Sports, and Rhythms (4)
PEW 25—First Aid (2)

Group F: Recreation, 9 credits:

PEM 11A-B-C—Survey of Recreation Activities (3)
PEM 23A-B-C—Introduction to Recreation Leadership (3)
PEM 49—Social Aspects of Leisure (3)
(or) GC 4—Leisure Today (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 student 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)
 EdCI 104—Adult Education (2)
 EdCI 105—Audio-Visual Materials in Education (3)
 (or) PE 155—Instructional Aids in Health, Physical Education, and Recreation (3)
 HEd 180—The School and Society (3)

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

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

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

Music, 2 credits

- MuEd 51—Teaching of Music (2)

Art, 3 credits

- Ind 1—Elementary Handcrafts (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

- PEM 64A-B—Leadership in Nature Recreation (4)

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

- PEM 5A-B-C—Physical Education Activities (3)

- PEM 7A-B-C—Recreational Games and Sports (3)

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

- PEW 20C—Physical Education Activities (1)
 PEW 62—Teaching of Physical Education Activities (3)
 PEM 9A—Fundamental Rhythms (1)
 PEM 9B—Square and Ballroom Dancing (1)

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

- EdT 84A-B-C—Practice and Field Work in Recreation (6)
 EdT 85A-B-C—Practice and Field Work in Recreation (6)
 Special methods and directed teaching in minor (if teaching certificate is desired) (11)
 PubH 51—Community Hygiene (3)
 General electives to be selected from Upper Division courses in consultation with major adviser

The C+ average is based on the following courses: PEW 54 or PEM 46, PEM 57, 58, 78, PE 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

- PEW 25—First Aid (2)
 EdT 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)
 EdCI 104—Adult Education (2)
 EdCI 169—Extracurricular Activities (4)
 EPsy 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 Bachelor's degree in recreation leadership and administration.

2. In addition to the practice and field work required for graduation in the undergraduate curriculum, a period of satisfactory internship will be required for which a maximum of 8 credits will be given, if the student does not have qualifying experience in the recreation field.

3. Students with Bachelor's degrees with majors in physical education, recreation, social work, or other allied fields from other accredited institutions, may receive the master of education degree with a major 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 Section III.

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 professional 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, handicrafts, 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:

- GC 7A-B-C-D—Physical Sciences (15)
- (or) NSci 1-2-3—Orientation in Natural Sciences (15)
- GC 10A-B—Human Biology (6)
- GC 10C—Human Biology (3)
- (or) PubH 3—Personal Health (2)

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

- GC 31A-B-C-D—Writing Laboratory (9)
- (or) Comm 1-2-3—Communication (12)

- (or) Engl 1A-2A-3A—Freshman English (12)
- GC 32A-B-C-D—Oral Communication Speech Laboratory (6)
- (or) Spch 5—Fundamentals of Speech (5)
- GC 29A-B-C-D-E—Literature (3)

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

- GC 37—Social Trends and Problems (5)
- GC 38A—General Geography (5)
- GC 39—General Anthropology (3)
- GC 43A—Background of the Modern World (5)
- GC 43B—Historical Biography (3)
- GC 44B—Current History (2)
- GC 45A—The Growth of American Democracy (5)
- GC 45C—Minnesota and the Upper Midwest (5)
- GC 45D—Community Problems (3)
- GC 46A-B—Problems of Government (3-6)
- Pol 1-2—American Government and Politics (6)
- SSci 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 (3-9)

Group D: Psychology, 5 credits required:

- GC 2A—Psychology in Modern Society (5)
- (or) Psy A—Elementary Psychology (5)

Group E: Recreation Theory, 9 credits required

- PEM 11A, B, C—Survey of Recreation Activities (3)
- PEM 23A, B, C—Introduction to Recreation Leadership (3)
- PEM 49—Social Aspects of Leisure (3)
- (or) GC 4—Leisure Today (3)

Group F: Recreation Skills, 19 credits required:

- GC 22A, B—Art Today (3-6)
- GC 23A—Art Laboratory (3)
- GC 24A, B, C—Music Today (3-9)
- (or) Mus 1—Fundamentals of Music (2)
- GC 25A—Music Laboratory (2)
- PEM 4A, B, C—Fundamentals of Sports (1-3)
- (or) PEW A-B-C—College Program in Physical Education (1-3)
- PEW 25—First Aid (2)
- PEM 6C—Aquatics (1)
- PEM 45—Camp Craft (2)
- PEM 43—Camp Aquatics (2)

JUNIOR AND SENIOR YEARS

Courses taken while enrolled in the College of Education:

Group A: Recreation Theory, 35 credits required:

- PEM 57—Organization and Conduct of Recreation Centers (3)

- PEM 58—Leadership in Community Recreation (3)
 PEM 52—Leadership in Social Activities (3)
 PEM 78—Scout Leadership (2)
 PEW 54 or PEM 46—Camp Leadership (2)
 PE 105—Conservation of Natural Resources (2)
 PE 107—Camp Administration (3)
 PE 110—Recreation Surveys (3)
 PE 111—Recreation Areas and Facilities (3)
 PE 112—Programming in Recreation (3)
 PE 116—Community Recreation Resources and Organization (3)
 EdT 84A-B-C—Field Practice in Recreation, Junior Year (6)
 EdT 85A-B-C—Field Practice in Recreation, Senior Year (6)
 PE 121—Principles of Recreation Methods (3)
 PE 141—Introduction to Hospital Recreation (3)
 PE 142—Leadership in Hospital Recreation (3)
 PE 143—Programming in Hospital Recreation (3)

Group B: Recreational Skills, 22 credits required:

- Ind 1—Elementary Handcrafts (3)
 Ind 12—Craft Work (3)
 PEM 64A-B—Leadership in Nature Recreation (4)
 Spch 31—Introduction to the Theater Arts (4)
 Spch 131—Creative Dramatics (3)
 Spch 132—Children's Theater (3)
 MuEd 51—Teaching of Music (2)

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

- PEM 5C—Stunts, Contests, Softball, Baseball (1)
 PEM 7A—Games and Relays (1)
 PEM 7C—Recreational Games (1)
 PEM 8—Tennis and Golf (1)
 PE 9A-B—Rhythms (2)
 PEM 66—Officiating Football and Basketball (3)
 PEM 68—Basketball Coaching (2)
 PEM 69—Track Coaching (2)

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

- PEW 62—Teaching of Physical Education Activities (3)
 PEW 20C—Physical Education Activities (1)

- PEM 9A—Fundamental Rhythms (1)
 College program in physical education (4)
 PEM 9B—Square and Ballroom Dancing (1)

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

- PE 155—Instructional Aids in Health, Physical Education, and Recreation (3)
 PubH 4—Health Problems of the Community (2)
 (or) PubH 51—Community Hygiene (3)

Group D: General Electives, 20 or 21 credits selected from Upper Division 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.

- PEM 46—Camp Leadership (2)
 PEM 45—Camp Craft (2)
 PE 107—Camp Administration (3)
 PE 105—Conservation of Natural Resources (2)
 PEM 43—Camp Aquatics (2)
 EPsy 158—Psychology of Adolescence (3)
 PEM 64A-B—Leadership in Nature Recreation (4)
 PEM 52—Leadership in Social Activities (3)
 PE 121—Principles of Recreation Methods (3)
 Recreational music (3)
 Recreational dramatics (3)
 Handcrafts (3)
 Recreational games and sports (3)
 PEM 43 or 6C—Aquatics (1)
 PEW 25—First Aid (2)
 Field work in camping (1 summer's experience)

ROMANCE LANGUAGES

Major advisers: *French*—Professor Falk, Associate Professor Renaud;
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 Lower Division requirements of that college. Their pro-

grams should include the prerequisite courses and the following Upper Division courses. For general and professional requirements of the College of Education, see Section I.

French as a Major Subject: Fren 20, and 36 Upper Division 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 recommended (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: 36 Upper Division credits in Spanish including:

Span 53—Spanish Composition (3)
 Span 54-55—Spanish Conversation (6)

Span 56—Spanish Phonetics and Diction (3)
 Span 65-66-67—Survey of Spanish Literature (9)
 (or) Span 68-69—Survey of Spanish Literature (10)
 (or) Span 74-75-76—Survey of the Literature of Spanish America (9)
 Span 70-71-72—Latin-American Civilization and Culture (9)
 (or) Span 90-91-92—Spanish Civilization and Culture (9)
 Span 103-104-105—Spanish Syntax and Composition (3)
 Span 171-172-173—History of the Spanish Language (3)
 In addition, Clas 56 is recommended (3)

Spanish as a Minor Subject: 23 college credits of which 17 credits will be 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 teach or specialize in the administration and supervision of schools in rural areas. One program is especially designed for county or intermediate unit school administrators and general supervisors. It combines a series of courses

on rural life with courses in elementary education and preparation for services furnished by intermediate school units. Consult the adviser or the office of the dean of the College of Education for a special announcement giving the details of work. Other programs are available in the Graduate School.

RUSSIAN

Major advisers: Professors Birkmaier, Mather

The College of Education and the Department of Slavic and Oriental Languages of the College of Science, Literature, and the Arts offer a program of study for a teaching major and minor in Russian.

A student wishing to obtain a major or minor in Russian registers for the first 2 years of work in the College of Science, Literature, and the Arts and there meets the Lower Division group requirements for the College of Education as well as all prerequisites for Upper Division courses in Russian. These prerequisites are Russ 1, 2 and 3 (15 cr); 4, 5, and 6 (9 cr)—a total of 24 credits. The 2 years of work remaining will be taken in the College of Education. For

the general and professional requirements for the College of Education, see Section I.

Russian as a Major Subject: 36 Upper Division credits, including:

Russ 56, 57, 58—Russian Conversation (9)
 Russ 61, 62, 63—Russian Composition (6)
 Russ 75, 76, 77—Russian Civilization and Culture (9)
 Russ 71, 72, 73—Readings in Russian Literature (9)
 Clas 56—Elementary Linguistics (3)

Russian as a Minor Subject: 27 Upper Division credits, including:

Russ 56, 57, 58, 61, 62, 63
 Clas 56
 Russ 75, 76, 77
 (or) Russ 71, 72, 73

SCHOOL HEALTH EDUCATION

Minor adviser: Associate 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:

Biol 1, 2, 3—General Biology (9)
 (or) Biol 1A, 2A, 3A—General Biology (6)
 (or) CC 10A-B—Human Biology (6)
 (or) NSci 1, 2—Orientation in Natural Sciences (10)
 PubH 5—Individual, Public Health (3)
 (or) PubH 50—Personal and Community Health (3)
 PubH 59—Health of the School Child (3)
 PEW 25—Standard and Advanced First Aid (2)

Minor in School Health Education, 25-28 credits required:

PubH 133—Mental Hygiene (3)
 (or) EPsy 159—Personality Development and Mental Hygiene (3)
 PEM 59—Instructor's Course in First Aid (3)
 PubH 75—Environmental Sanitation (3)
 PubH 100—Preventive Medicine and Public Health (5)
 HE 30—Nutrition (2)
 (or) HE 31—Nutrition (3)
 PEW 83—Methods and Materials of School Health Education (3)
 (or) PE 117—Advanced Course in School Health Instruction (3)
 PE 114—Administration of the School Health Education Program (3)
 FL 1A—Preparation for Marriage (3)
 PEW 94—Student Teaching in School Health Education (2)
 (or) Equivalent included in PEW 90A-B-C or PEM 73, 74, 75

SOCIAL STUDIES

Minor adviser: Associate Professor Edith West

Those interested in social studies majors should see individual social sciences (history, geography, economics, sociology, and political science).

Those interested in social studies minors should decide whether they wish to minor in geography, history, or the broader social studies minor listed below. The minor below may be taken only by those not majoring in one of the social sciences.

Social Studies as a Minor Field:

27 credits of history, including: Hist 1-2-3 or 53-54-55; Hist 20-21-22; and 9 additional credits in courses numbered 65 and above

8 credits of geography, including: Geog 1 or 4; and 3 credits in courses numbered 100 and above
 6 credits of economics, including Econ 1-2 or B-C or 50A-B
 6 credits of sociology, including Soc 3 and a course numbered 50 or above
 6 credits of political science, including Pol 1-2 or 5 or 80
 Total—53 credits in social science

Those minoring in social studies must include 1 course on Russia and 1 on the Far East. These courses may be taken in any of the social sciences.

SOCIOLOGY

Major advisers: Associate Professor Arthur Johnson; Professor Reuben Hill

A student who majors in sociology registers in the College of Science, Literature, and the Arts for his first 2 years. His program during this time should include the first three requirements listed below under the sociology major. He should also meet the requirements of Plan I or Plan II, listed in Section I. He should be proficient in typing before he reaches his senior year. Completion of

Spch 5 is advisable. General and professional requirements for the College of Education are described in Section I. The student must maintain an over-all 2.5 grade point average in the social science courses.

Sociology as a Major Subject:

Soc 1—Introduction to Sociology (3)
 Soc 3—Social Problems (3)

Soc 45—Social Statistics (5)
 Soc 53—Elements of Criminology (3)
 Soc 180—Methods of Social Research (3)
 Elective courses in sociology—at least 13 additional credits in courses numbered 50 or above
 Total—30 credits in sociology

Because of the sociology teacher's need for a broad social studies background and because most social studies positions require teachers to teach more than one subject within the social studies area, all sociology majors must complete the following supporting courses in other social science fields. This requirement is in lieu of a required teaching minor.

23 credits in history, including Hist 1-2-3 or 53-54-55 (9); and Hist 20-21-22 (9)
 5 credits in geography—Geog 1 or 4
 26 credits in the other social sciences, including:

Pol 1-2 (6) or 5 (5) or 80 (3)
 Econ 1-2 (6) or B-C (6) or 50A-B (6)
 Anth 2A (5) or 100 (3)

Sociology majors are urged to build a teaching minor in a non-social science area in order to improve their chances of obtaining teaching positions.

All sociology majors must take 1 course on Russia and 1 on the Far East. These courses may be taken in any of the social sciences and will count toward credit requirements in those fields. The major in sociology must take the following courses within the total requirement of 29 credits in education:

EdT 69—Student Teaching in the Social Studies (1 or during jr yr and 9 or during sr yr)
 EdT 69A-B-C—Methods of Teaching the Social Studies (5)

SPECIAL EDUCATION

Major advisers: Professor Reynolds; Associate Professors Capobianco, Lassman;
 Assistant Professor Force; Instructor Kenmore

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 (see index) trains specialists in speech correction.

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, deaf and hard-of-hearing) should consult advisers as early as possible, preferably before the beginning of the junior year.

Students who already hold regular teaching certificates and have teaching experience do not usually take the minors outlined below. They should consult an adviser to make up a special pro-

gram to meet certification requirements of the State Department of Education. EdT 53A may be (a) substituted for the second quarter of student teaching (EdT 54B) by students enrolled in the IA elementary curriculum, or (b) substituted for EdT 78 or 79 by K-P majors.

Teaching Blind and Partially Sighted Children

Adviser: Kenmore

Students wishing endorsement for a special certificate to teach the blind and partially seeing complete a regular curriculum leading to certification for kindergarten-primary, elementary, or secondary school teaching. They may take three courses in special education during the junior or senior year: EdT 50, EPsy 182, and EdCI 115. After graduation they take the remaining courses listed for the graduate program in teaching blind and partially seeing children. Most students will wish to use course work completed in this program in meeting requirements for the M.A. degree.

The following courses are required to qualify for teaching blind and partially

seeing children. Most of this specialized work is offered at graduate level. (See above.)

- EPsy 182—Education of Exceptional Children (3)
- EdCI 115—Introduction to the Education of Visually Handicapped Children (3)
- EdCI 116—Braille I (3)
- EdCI 117—Braille II (3)
- EdCI 118—Education of Blind Children in the Elementary Grades (3)
- EdCI 120—Education of Blind Students in Secondary Schools (3)
- EdCI 182—Education of Partially Seeing Children (3)
- EdCI 178—Structure and Function of the Eye—Educational Implications (3)
- EPsy 288—Practicum in Special Education (6)

The Minor in Teaching Mentally Retarded Children

Adviser: Capobianco

A minimum of 23 credits is required for a minor in the field of teaching mentally retarded children. Required in this curriculum are three basic courses (EPsy 182, EPsy 184 or 191, and CD 143) plus EdT 53A. The latter course may sometimes be substituted for part of the student teaching requirement in certain other curriculums.

- EPsy 182—Education of Exceptional Children (3)
- EPsy 184—Education of Mentally Retarded Children in the Elementary School (3)
- (or) EPsy 191—Education of Mentally Retarded in the Secondary School (3)
- CD 143—Problems of Mental Deficiency (3)
- EdT 53A—The Teaching of Handicapped Children (Mentally Retarded) (6)

Other courses may be selected from the following in consultation with adviser:

- EdT 50—Junior Practicum in Special Education (3)
- EdCI 145—Reading Difficulties (3)
- CD 80—Child Psychology (3)
- CD 81—Adolescent Psychology (3)
- CD 85—Psychological Appraisal of Child Behavior (3)
- CD 89—The Psychology of Parent-Child Relationships (2)
- EPsy 110—Measurement in the Classroom
- Spch 161—Speech Correction
- Ind 1 or 12—Handicrafts or Craftwork
- (or) ArEd 19—Functional Arts, Crafts in Elementary Education (3)

The Minor in Teaching Crippled Children

Adviser: Force

Students wishing to minor in teaching crippled children take a minimum of 23 credits from among the courses listed below, selected in consultation with the adviser. EdT 53A is required in this curriculum. It should be noted that EdT 53A may sometimes be substituted for part of the student teaching requirements in other curriculums.

- EPsy 182—Education of Exceptional Children (3)
- EPsy 187—Education of Crippled Children (3)
- EPsy 190—Educational Problems of Cerebral Palsy (3)
- EdT 53A—The Teaching of Handicapped Children (Crippled Children) (6)

Other courses may be selected from the following in consultation with adviser:

- EdT 50—Junior Practicum in Special Education (3)
- Anat 57—Anatomy for Physical Education Students (4)
- Spch 161—Speech Correction (3)
- CD 143—Problems: Mental Deficiency (3)
- PEW or PEM 51—Mechanics of Movement (kinesiology) (3)
- PEM 65—Adapted Physical Education (3)
- PE 104—Teaching Physical Education for the Handicapped Child (3)
- CD 142—Psychology of Atypical Children (3)

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 (EdT 53A and B) may sometimes be substituted for other student teaching requirements.

- EPsy 185—Education of the Auditorially Handicapped Child (3)
- Spch 67—Phonetics (3)
- Spch 161—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)

EdT 53A-B—The Teaching of Handicapped Children (in a class for the deaf and hard-of-hearing) (12)

SPEECH AND THEATER ARTS

Major advisers: Professors Graham, D. K. Smith, Whiting; Associate Professor Ballet

Students interested in speech should consider the language arts curriculum. For curriculum in speech pathology, see index.

Students majoring in speech register for the first 2 years in the College of Science, Literature, and the Arts and meet the Lower Division requirements. For general and professional requirements of the College of Education, see Section I.

Speech and Theater Arts as a Major Subject

1. All students must complete the following core of 17 credits:

Spch 5—Fundamentals of Speech (5)
 Spch 31—Introduction to the Theater Arts (3)
 Spch 32—Beginning Acting (3)
 Spch 67—Phonetics (3)
 Spch 81—Interpretative Reading (3)

2. Students select one of the following curriculums with the aid of a major adviser:

Curriculum I—27 credits

Spch 51—Advanced Public Speaking (3)
 Spch 106—Discussion (3)
 Spch 161—Introduction to Speech Correction (3)

Plus 9 credits selected from the following:

Spch 74, 75, 76—Play Production (9)
 Spch 66—Radio and Television Drama (3)
 Spch 82, 83—Interpretative Reading (6)

Plus 9 credits selected from the following:

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)
 Spch 126—History and Criticism of Public Address (3)
 Spch 169—Speech and Language in Human Behavior (3)

Curriculum II—27 credits

Spch 34—Stagecraft (3)
 Spch 65—Radio and Television Speech (3)
 (or) Spch 66—Radio and Television Drama (3)
 Spch 76—Play Production (3)
 Spch 78—Advanced Acting (3)
 (or) Spch 83—Oral Interpretation (3)
 Spch 91—Stage Design (3)
 (or) Spch 90—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 26 credits in speech courses, including Spch 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 EdT 75A-B-C, Teaching of the Language Arts, and in EdT 75, Student Teaching in the Language Arts, for the professional work of the senior year. Students minoring in speech with an English major will register for EdT 75D but those with a major other than English will register for EdT 76C.

SPEECH PATHOLOGY

Undergraduate adviser: Assistant Professor Starr (225 Shevlin Hall)

The speech pathology curriculum is presently being revised. Students interested in this curriculum must consult their adviser for current requirements.

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 Lower Division courses listed below.

FRESHMAN AND SOPHOMORE YEARS

Comm 1-2-3—Communication (or Engl 1A-2A-3A, or IB-2B-3B, or Engl A-B-C, or exemption) (9-15)
 Biol 1A-2A-3A—General Biology (7)
 Psy 1-2—General Psychology (6)
 Spch 5—Fundamentals of Speech (5)
 Psy 4-5—Introductory Laboratory Psychology (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 161—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)
 CD 80—Child Psychology (3)
 CD 132—Adolescent Development (3)
 EPsy 110—Educational Measurement in Classroom (3)
 (or) Psy 70—Principles of Psychological 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)
 EPsy 142—Individual Mental Testing (3)
 EdCI 174-175-176—Clinical Methods and Practice in Speech Pathology (9)
 HED 180—The School and Society (3)
 Electives to complete total of 186 credits

Suggested electives are:

EdCI 145—Reading Difficulties (3)
 Spch 140—Introduction to Voice Science (3)
 EPsy 182—Education of Exceptional Children (3)
 EPsy 187—Education of Crippled Child (3)
 EPsy 190—Educational Problems of Cerebral Palsy (3)

The C+ average is based on the following courses: Spch 61, 67, 152-153, 155, 161, 162-163; EdCI 174-175-176.

STUDENT PERSONNEL WORK

Major advisers: Professors Dugan, Edson, Wrenn; Associate Professors Hagenah, Tennyson

Work leading to the M.A., Specialist Certificate (2-year program), 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 ac-

tive school, university, or social agency guidance programs, provided for under EPsy 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: EdCI 125 and 135, EPsy 116, 117, 125, 126, 133, 134, 140, 159, 216-218, 225-226, 233, 250, 251, 290, and 293. In addition, stu-

dents 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.

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. Students interested in this field should consult an adviser in the School of Social Work, Ford Hall.

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 number of credits, and the prerequisite courses. The days and hours when classes meet, the place of meeting, quarter offered, and the name of the instructor 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 minimum class standing 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 prefix precedes the number of a course listed as a prerequisite, this prerequisite course is in the same department as the course being described. A prerequisite reading "5 cr" 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 page footnotes:

- ° Courses through which it is possible for graduate students to prepare Plan B papers.
- † To receive credit, all courses listed before dagger must be completed.
- ‡ Students may enter any quarter preceding the double dagger.
- § No credit is given if credit has been received for equivalent course listed after section mark.
- ¶ Means "concurrent registration in" (i.e., course must be taken simultaneously).
- ‡ Means "consent of instructor."
- △ Means "consent of department offering course."

AGRICULTURAL EDUCATION (AgEd)

1. **Introduction to Agricultural Education.** Orientation to employment and service in agricultural education. Qualifications of teachers, survey of preparatory offerings, and an overview of the program of agricultural education in Minnesota. (2 cr)
20. **Rural Education and Community Leadership.** Appraisal of community educational agencies; process of and responsibilities for community leadership; role of the school in the rural community; co-ordination of the school with nonschool educational agencies. (3 cr)
56. **Rural Education Through Extension Methods.** Role of the Extension Service in rural education; methods and techniques of instruction in nonschool educational programs. (3 cr; prereq soph)
- 81-82. **Teaching Agriculture in the Secondary School.** Fundamentals of teaching agriculture to high school students; use of the home, farm, and community in structuring courses of study; Future Farmers of America, Vo-Ag Planning and Summary Book;

building and utilizing teaching units. (4 cr per qtr; prereq Psy 2 for 81, Ed 55B or Ed 55B for 82)

91. **Supervised Teaching Experience.** Supervised experience in work of agriculture instructor. Includes instruction in development of individual farming programs, contacting parents, program analysis of community needs, conducting classes, community activities, Future Farmers, and case studies. (6 cr; prereq sr, 82 and #)
103. **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; occupational opportunities and establishment in farming; analysis of farm businesses as a basis for balanced programs of instruction. (4 cr; prereq 81)
104. **Planning Programs.** Developing a program of agricultural education in a community school. Integration with total school program. Administrative relationships and professional improvement. (2 cr; prereq last qtr undergrad regis or #)
- 120.* **Rural Education and Community Leadership.** Same as AgEd 20, with additional reading and special problem required. (3 cr; prereq grad, or #)
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 cr; prereq sr, or #)
141. **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 cr per qtr, total 9 cr; prereq grad or #, 10 cr in education or #)
145. **The Integrated Course of Study in Agriculture.** Philosophy, organization, and administration of instruction in agriculture departments in secondary schools. (3 cr; prereq sr, 10 cr in education)
- 156.* **Rural Education Through Extension Methods.** Same as AgEd 56 with additional reading and special problem required. (3 cr; prereq grad, or #)
- 199E. **Internship.** (Cr ar)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

221. **Field Problems.** (3 cr)
- 232.* **Research in Agricultural Education.** (Cr ar)
250. **Supervision of Vocational Agriculture.** (1-3 cr)
283. **Organization and Administration of Educational Programs in Agriculture.** (3 cr per qtr, maximum 9)
286. **Current Issues in Agricultural Education.** (Cr ar)
291. **Seminar in Agricultural Education.** (Cr ar)

ART EDUCATION (ArEd)

14. **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 cr)
17. **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 cr)
18. **Design Activities for Elementary Education.** (See ArEd 17) Relationships between art and nature. Problems in invention, arrangement and decoration, color, lettering, posters, bulletin board displays, etc. (3 cr)

19. **Functional Arts and Crafts in Elementary Education.** (See ArEd 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 cr)
53. **Introduction to Weaving.** Equipment, design, setting up and operation of table and floor looms. (3 cr)
54. **Advanced Weaving.** Multiharness floor looms, warp beams, draft studies, design, finishes. (3 cr)
- 56, 57, 58. **Basic Principles and Experiences in Art Education.** Sequence for art education 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 cr per qtr; prereq 14)
81. **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 cr)
84. **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 cr; prereq 6 cr from 17, 18, and 19)
- 84A. **Teaching Art in the Elementary School.** Combination of materials, workshop, and methods for students without previous background in art. (3 cr; enrollment limited to IIIA registrants)
85. **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 cr)
- 86, 87, 88.† **Student Teaching and Supervision of Art.** Observations, participation, student teaching, and supervisory experiences with various types and levels of art classes. (3 cr per qtr, 9 cr required; prereq sr art education, 56-57, Ed 55A-55B, ¶86A or ¶87A or ¶88A)
- 86A, 87A, 88A.† **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 cr per qtr, 6 cr required; prereq sr art education, 56-57, Ed 55A-55B, ¶86 or ¶87 or ¶88)
- 151-152-153. **Curriculum Building in Art Education.** Functions of art in society. Selection, evaluation, and organization of material for teaching units and projects. (3 cr per qtr)
156. **Intercultural Education Through Art.** Approaches to international understanding and co-operation through recognition of aesthetic contributions of diverse peoples to American life. (3 cr)
158. **Art Education in Europe.** Current practices, problems, and achievements in art education in Western Europe as compared with practices in American art education. (3 cr)
184. **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 cr; prereq tchg exper or #)
185. **Improving Art Programs in the Secondary School.** For experienced teachers of art and advanced students; general research and critical examination of art programs. (3 cr; prereq tchg exper or #)
189. **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 cr)

FOR GRADUATE STUDENTS ONLY(Descriptions in the *Bulletin of the Graduate School*)

284. **Research in Art Education.** (3 cr)
 295. **Problems in Art Education.** (Cr ar)
 296. **Seminar in Art Education.** (0-1 cr)

CHILD DEVELOPMENT AND WELFARE (CD)

80. **Child Psychology.** Science of child development and its applications. (3 cr; prereq Psy 1-2)
81. **Adolescent Psychology.** Social, physical, mental, emotional, and personality development during adolescence. (3 cr; prereq Psy 1-2)
83. **Guidance of Children's Activities.** Techniques of guiding children's interests and activities. Creative materials and group activities. (3 cr; prereq 80)
85. **Psychological Appraisal of Child Behavior.** Observation, interview, testing, and other means of appraising children's behavior. (3 cr; prereq 80)
90. **Child Rearing.** Practical problems in the development and rearing of children. Observations in the nursery school. (3 cr; prereq Psy 1-2)
125. **Experimental Child Psychology.** Introduction to methods, techniques, and problems in the experimental laboratory. (3 cr; prereq sr, 80 or equiv, Psy 5, and 12 cr in psychology, educational psychology, or sociology)
140. **Behavior Problems.** Types, origin, development, and treatment of behavior problems in children and adolescents. (3 cr; prereq sr, 12 cr in psychology, educational psychology, or sociology)
142. **Psychology of Handicapped Children.** Research related to sensory, speech, language and physical disabilities of children. (3 cr; prereq sr, 12 cr in psychology)
143. **Problems of Mental Deficiency.** Diagnosis, care, training; social and vocational problems; legal aspects. (3 cr; prereq sr, 12 cr in psychology or equiv)
144. **Psychology of the Gifted Child.** Research literature on the identification and development of talent, and the psychology of general and special skills. (3 cr; prereq 80 or equiv and 9 cr in psychology, educational psychology, sociology, or home economics)
155. **History of Child Development.** Origins and history of the scientific study of children. (2 cr; prereq 80)
166. **Maturity and Old Age.** Developmental changes in the aging and aged; adjustment and care. (2 cr; prereq sr, 12 cr in psychology, education, or sociology; offered 1961-62 and alt yrs)
170. **Parent Education.** Programs, materials, methods, organization, and administration. Demonstrations of group procedures. (3 cr; prereq sr, 12 cr in child development and welfare or home economics or education or psychology or sociology or public health)
179. **Clinical Procedures with Children.** Survey of methods of clinical psychology emphasizing basic concepts and research problems, in clinical work with children. (3 cr; prereq 12 cr in psychology, educational psychology, or sociology)
180. **Personality Development in Children.** Origins of personality in personal and interpersonal behavior. Theories of personality and adjustment. (3 cr; prereq 80)
181. **Social Development of Children.** Group formation and organization; social interaction and social relations; developmental changes. (3 cr; prereq 80)
182. **Learning in Young Children.** Discussion of research literature on children's learning and its relationship to learning in experimental, school, and home settings. (3 cr; prereq 80)

183. **Language and Thought in Children.** Development of speech, language, and thought processes in children. (3 cr; prereq 80)
184. **Sensory and Motor Development.** Development of sensory and perceptual processes; simple and complex motor skills. (3 cr; prereq 80)
185. **Children in Society.** Review of historical, socio-economic, cross-cultural influences, and social changes on child development. (3 cr; prereq sr, 12 cr in educational psychology, psychology, sociology, or home economics)
190. **Topics in Child Development.** Independent reading or research in child psychology and child development. (Cr ar; prereq 18 cr with B avg incl 80, Psy 70 or BA 5 or Soc 45)

Note—For child development courses at the 200 level please consult the *Bulletin of the Graduate School*.

CURRICULUM AND INSTRUCTION (EdCI)

General Courses

104. **Adult Education.** Agencies, programs, philosophies, history, and trends. Each student will devote some time to a field of special interest. (3 cr)
105. **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 cr; prereq sr)
106. **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 cr; prereq 105 or #)
107. **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 cr [or 2 cr when offered with 108 in alt yrs]; prereq 9 cr in education)
- 108.† **Radio and Television in Education.** Same content as 107, but expanded. (2 cr per qtr; prereq 107; offered 1961-62 and alt yrs)
109. **Audio-Visual Materials and Equipment Laboratory.** Planning and making materials for audio-visual education; use of machines and equipment. (3 cr; prereq 105 or ¶105 or #)
115. **Introduction to the Education of Visually Handicapped Children.** Introduction to educational programs, services, and resources for blind and partially seeing children; exploration of historical background, philosophy, sociological and psychological problems in providing service in this area. (3 cr; prereq #)
116. **Braille I.** Mastery of literary Braille code and introduction to use of mathematics and music codes; analysis of specialized equipment with emphasis on use of Braille writers and slates. (3 cr; prereq 115 or #)
117. **Braille II.** Development of classroom materials involving literary Braille code; mastery of Nemeth Code of Mathematics; opportunity for mastery of music code; consideration of newer approaches in setting up text and reference materials. (3 cr; prereq 116)
133. **Consumer Education in the Schools.** Organizing a program in the school. Contribution of various fields at secondary and elementary levels. (3 cr)
145. **Reading Difficulties.** Causes, prevention, and correction. Remedial practices useful to the classroom teacher, school counselor, and reading specialist. (3 cr; prereq 143 or 144 or equiv)
151. **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 cr)

- 152A-B-C. Early Childhood Education.** 152A: History and philosophy. 152B: Organization and administration. 152C: Methods and materials. (2 cr per qtr; prereq 12 cr in psychology, educational psychology, or home economics)
- 171. Curriculum Laboratory Practice.** Analysis and construction of units, courses of study, and curriculums according to needs, interests, level, and specialization. (0-3 cr per qtr; prereq 170A or B, #)
- 174-175-176. Clinical Methods and Practice in Speech Pathology.** Case history and analysis; testing and diagnosis of speech defects; techniques and work programs for treatment; practical clinical work. (3 cr per qtr; prereq Spch 61, 67, 161, 162, and 163)
- 178. Structure and Function of the Eye; Educational Implications.** An ophthalmologist discusses anatomy and physiology of the eye. An educator presents the educational implications. Consideration of vision screening, visual efficiency, aids. Field trips, films, observations. (3 cr; prereq #)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

- 203. Supervision and Administration of Special Education.** (3 cr; prereq #)
- 205.* Problems in Audio-Visual Education.** (Cr ar)
- 207.* Problems in Radio-Television Education.** (1-3 cr per qtr)
- 215.* Problems in the School Health Education Program.** (Cr ar)
- 217. Seminar in the School Health Education Program.** (Cr ar)
- 227.* Problems in Rural Education.** (Cr ar; prereq EdAd 117)
- 243. Recent Research in Reading.** (3 cr)
- 253A. Seminar: Materials and Methods in Marriage Education.** (4 cr)
- 271.* Problems in Curriculum Construction.** (3-6 cr per qtr)
- 273.* Problems in Reading.** (Cr ar)

Elementary Education

- 55. Foundations of Early Childhood Education.** Development, tools, aims of early childhood education. (3 cr; prereq CD 80 or ¶CD 80)
- 56. Methods and Observations in Kindergarten.** Directed observations of kindergarten children and procedures. (3 cr; prereq 55 or ¶55)
- 57. Nursery School-Kindergarten Laboratory in Art, Literature, Social Studies, and Science.** Lectures and laboratory work on methods and materials for children of ages 2 to 6 in relation to nursery school, kindergarten, and home. (6 cr; prereq 55 or ¶55)
- 59. Methods and Observation in the Nursery School.** Directed observations of nursery school children and procedures. (2 cr; prereq 55 or ¶55)
- 60. The Teaching of Reading in the Elementary School.** Emphasis on intermediate and upper elementary grades. Reading readiness, word recognition techniques, development of basic study skills, development of word meanings, comprehension abilities, and interests and tastes in reading. (3 cr; prereq Ed 75A)
- 61. The Teaching of the Social Studies in the Elementary School.** Content and philosophy of the social studies program. Methods of instruction and problems. (3 cr; prereq Ed 75B)
- 62. The Teaching of Mathematics in the Elementary School.** Principles of learning pertinent to the modern program of mathematics in primary and elementary grades. Objectives, content, philosophy, instructional materials, methods of instruction and evaluation. (3 cr; prereq Ed 75A)
- 63. Children's Literature.** Materials for children's reading in the elementary school program. (2 cr)

64. **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 cr; prereq Ed 75A)
65. **The Teaching of Science in the Elementary School.** Objectives, content, materials, philosophy, and methods of instruction and evaluation; practical applications. (3 cr; prereq Ed 75A, 10 cr in natural science)
66. **Treatment of Learning Difficulties.** Classroom procedures in diagnosis and treatment of learning difficulties at the elementary school level. Emphasis on arithmetic, reading, and other language arts. Requires application of procedures of diagnosis in the elementary school. (3 cr; prereq 60, 62, †student tchg)
102. **Teaching and Supervision of the Social Studies in the Elementary School.** Content and organization of social studies programs. Programs of understanding, improving the learning situation, and effective use of materials. (3 cr; prereq Ed 75B or equiv)
110. **Practicum in Laboratory School Teaching (K-6).** Experience in teaching and/or research with a class of children in the University Elementary School. (Cr ar; prereq elem student tchg or elem school tchg, permission of director of the elem school and co-ordinator of elem student tchg)
118. **Education of Blind Children in the Elementary Grades.** Adaptation of broad curriculum areas for blind children in elementary grades; procedures in teaching specialized curriculum, i.e. Braille reading, typing, orientation and mobility; utilization of family, school, and community resources. (3 cr; prereq 115, 116, and #)
119. **Elementary School Curriculum.** Selection and organization of subject matter for courses; methods, problems, and findings of research by subjects. (3 cr; prereq Ed 75B or equiv)
121. **Literature for the Elementary School.** Evaluative survey of books for children; research related to children's reading interests; selection of literature for elementary schools. (3 cr)
143. **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 cr; prereq 9 cr in education)
149. **Teaching and Supervision of Mathematics in the Elementary School.** Present practices and trends in methods, materials, and curriculum development; review of curriculum studies; evaluation and diagnosis; literature on current issues and problems. (3 cr; prereq 9 cr in education)
150. **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 cr; prereq 9 cr in education)
153. **Supervision and Teaching of English in Elementary Schools.** Improvement of instruction in language, spelling, and handwriting. (3 cr; prereq Ed 75A-B or equiv)
- 165A-B. **Arithmetic for Gifted Children.** Psychology of giftedness in general mathematics; social aspects. Development of creative thinking in children: discovery, generalization, analogy and abstraction; laws of arithmetic, elementary theory of numbers, geometric intuition, combinatorics and probability. Source materials for teachers; pedagogical procedures illustrated. (3 cr per qtr [2 qtrs]; prereq sr)
- 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 cr; prereq 119 or #)
- 173A. **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 cr; prereq 119 or tchg exper)

181. **Foundations of Elementary School Methods.** Psychology and philosophy related to improvement of elementary school instruction. Utilization of research findings. (3 cr; prereq 9 cr in education)
182. **Education of Partially Seeing Children.** Principles of preparation, selection, and effective use of instructional materials for the partially seeing child; adaptation of school environment. (3 cr; prereq 115, 178, and #)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

226. **Seminar in Elementary School Problems.** (2 cr)
257. **Research in Language Instruction in the Elementary Schools.** (Cr ar)
- 261.^o **Special Problems in the Improvement of Instruction.** (Cr ar)
263. **Research in Mathematics Instruction in the Elementary School.** (3 cr)
264. **Research in Educational Diagnosis.** (3 cr)

Secondary Education

45. **Introduction to Business and Distributive Education.** Survey of the field of business and distributive education at the secondary, junior college, and adult levels. (2 cr)
58. **Core Curriculum Foundations.** Philosophy, nature, scope, organization, and problems of the core curriculum. (1 cr; prereq #)
113. **High School Curriculum.** Viewpoints and curriculum issues, reorganization trends, typical research findings by subjects, and analysis of state and local curriculums. (3 cr; prereq Ed 55A-B or equiv)
114. **Development of the Core Curriculum.** Planning and administering the core curriculum; its philosophical, psychological, and educational bases; preparation of the core teacher. (3 cr)
120. **Education of Blind Students in Secondary Schools.** Adaptation of curriculum of junior-senior high school for blind students. Preparation of educational materials. Reader service, orientation and mobility, specialized equipment; utilization of guidance and counseling services; local, state, and national resources. (3 cr; prereq 115, 116, 118, and #)
122. **Literature for Adolescents.** Background for pupil guidance in extensive reading in junior and senior high schools. (2 cr; prereq Ed 55B or jr-sr high school tchg exper)
125. **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 cr; prereq #)
131. **Advanced Course in Teaching the Technical Business Subjects.** Recent research and trends in teaching typewriting, shorthand, and office practice. (3 cr)
132. **Teaching the Basic Business Subjects.** Recent trends and developments in teaching general business, economic geography, marketing, business law, and consumer education. (3 cr)
134. **Materials and Methods in Consumer Education.** Development of teaching units; teaching methods; recent aids and materials. (3 cr; prereq #)
135. **Group Procedures in Guidance.** Content and materials for home room groups, occupations units, and other guidance courses in junior and senior high school. (3 cr; prereq 9 cr in education, EPsy 133 or #)
136. **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 federal vocational acts. Basic course for teacher-coordinators and vocational administrators. (3 cr)

- 137A. **Materials and Methods in Co-operative Part-Time Classes.** For co-operative part-time distributive, office, miscellaneous trades, and diversified occupations classes. (3 cr)
- 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 cr; prereq #)
138. **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 cr)
139. **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 cr)
141. **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 cr)
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 cr)
144. **Teaching of Reading in Secondary Schools.** Procedures, objectives, and materials, with special consideration for teaching reading in subject-matter fields. (3 cr; prereq 9 cr in education)
147. **Workshop in Teaching Display.** Materials and methods in teaching. Practice in using equipment. (3 cr; limited to 20 students; prereq #)
155. **Materials Laboratory for Social Studies Teachers.** Printed and audio-visual materials useful in social studies classes. (3 cr; prereq #)
156. **Trends in Business Education.** Historical development of business education; trends in philosophy, curriculum, and teaching procedures. (3 cr)
159. **Materials Laboratory, Secondary School Distributive Education.** Development of specific related vocational materials for distributive occupations co-operative part-time classes. (3 cr; prereq 137A or EdT 90A-B-C or #)
160. **Materials Laboratory, Occupational Relations.** Development of general related vocational materials for all kinds of co-operative part-time classes. (3 cr; prereq 137A or EdT 90A-B-C or #)
161. **Curriculum Construction in Business Education.** Curriculum problems; organization and preparation of teaching units. (3 cr; prereq 113)
168. **Current Developments in the Social Studies.** Contemporary literature, curricular trends, and developments in methods. (3 cr; prereq grad or #)
169. **Extracurricular Activities.** Aims and values; practices in organizing, administering, and supervising; methods of evaluation. (4 cr; prereq Ed 55A-B or equiv)
- 170B. **Curriculum and Course of Study Construction.** Principles and methods for selection and organization of units, courses of study, and curriculums. (3 cr; prereq 113 or 119 or #)
- 173B. **Organizing Units of Instruction in the Secondary School.** Development of principles and procedures for constructing units of instruction. (3 cr; prereq 113 or #)
191. **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 cr)
- 199E. **Internship.** Advanced supervised teaching and practice work for candidates for the master of education degree. (Cr ar)

FOR GRADUATE STUDENTS ONLY*(Descriptions in the Bulletin of the Graduate School)*

200. **Organization and Supervision of Business Education.** (3 cr)
 201.* **Problems in Teaching the Social Studies.** (3 cr per qtr)
 204. **Social Studies Curriculum.** (3 cr)
 222. **Seminar: Current Problems in the Techniques of High School Instruction.** (Cr ar)
 225.* **Special Problems in Secondary School Supervision.** (Cr ar)
 237. **Seminar in Business and Distributive Education.** (No cr)
 238.* **Problems in Distributive Education.** (Cr ar)
 239.* **Problems in Business Education.** (Cr ar)
 266. **Supervision of High School Instruction.** (3 cr)
 287.* **Advanced Course in the Teaching of Science.** (3 cr)
 294.* **Advanced Course in Curriculum and Methods in Secondary School English.**
 (2 cr per qtr)
 296.* **Special Problems in Teaching English.** (Cr ar)

Higher Education

184. **Supervision of Student Teaching.** For persons planning to supervise or administer student teaching and other professional laboratory experiences in elementary and secondary education. (3 cr; prereq 15 cr in education or #)

FOR GRADUATE STUDENTS ONLY*(Descriptions in the Bulletin of the Graduate School)*

- 228.* **Problems of Higher Education and Teacher Education.** (Cr ar)
 250. **Higher Education in the United States.** (3 cr)
 251. **Curriculum Trends in American Colleges.** (3 cr)
 252. **Effective College Teaching.** (3 cr)
 253. **Seminar on the Improvement of College Instruction.** (Cr ar)
 254. **Directed Experience in College Instruction.** (Cr ar)
 284.* **Problems in Student Teaching.** (3-9 cr)
 285-286. **The Professional Education of Teachers.** (3 cr)

EDUCATION (Ed)**General Courses**

- 55A. **Introduction to Secondary School Teaching.** The pupil: development, individual differences, guidance; public secondary school: purposes, status, history; teaching profession: evolution, organizations, ethics, problems. (5 cr; prereq Psy 2)
- 55B. **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 cr; prereq 55A or #)
- 55N. **Introduction to Teaching Nursing.** Basic educational psychology for nursing education majors. Principles of measurement and test usage, psychology of learning, group processes. (5 cr; prereq Psy 2)

75A-B. 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.

75A. Educational Psychology. Child growth and development during elementary school years; principles of learning; adjustment. (5 cr; prereq Psy 2)

75B. Curriculum, Measurement, and Organization. Individual and trait differences in relationship to educational practices; principles of measurement, descriptive statistics, curriculum and school organization. (5 cr; prereq 75A)

81. Introduction to Education for Public Health Nurses. Principles, methods, and materials in education as applied to public health nursing situations. Group work emphasized. (3 cr; not open to candidates for degree in College of Education; prereq PubH 62, 100, and 133)

EDUCATIONAL ADMINISTRATION (EdAd)

General Administration

101. Public School Administration for Teachers. Organization, administration, and general support of public schools in state and local school districts. (3 cr; prereq sr, non-educational administration majors, 9 cr in education)

117. 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 cr)

118. The Community School. Philosophy, purposes, organization, and functioning of the community school; its relationships with the area it serves. (3 cr; prereq sr, grad)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

201, 202. Foundations in Educational Administration. (3 cr per course)

210. Financial Aspects of Public School Business Administration. (3 cr)

225. Pupil Personnel Administration. (3 cr)

226. School Plant Planning and Management. (3 cr)

227. Teacher and Employee Administration. (3 cr)

228.* Special Problems in Educational Administration. (1-3 cr per qtr)

230. Public Relations for Schools. (3 cr)

235. Seminar in Educational Administration. For Plan A Master's degree and Ph.D. degree candidates in educational administration. (No cr)

236. Field Study in Educational Administration. Required for the certificate Specialist in Education. (0-10 cr)

Elementary Administration

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

200. Seminar in Elementary School Administration. (3 cr per qtr)

215. The Elementary School Principalship. (3 cr)

270A. Problems in Elementary Education. (Cr ar, maximum 9)

Secondary Administration

167. **Junior High School.** Sources of the movement; purposes, functions, and limitations; types of reorganization; fundamental problems of reorganization; curriculum. (3 cr; prereq sr, 9 cr in education)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

218. **Recent Literature in Secondary Education.** (Cr ar)
 264. **Administration of Instructional Activities in the Secondary School.** (3 cr)
 265. **Administration of Noninstructional Activities in the Secondary School.** (3 cr)
 270B.* **Problems in Secondary Education.** (Cr ar, maximum 9)

Higher Education Administration

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

253. **Administration in Higher Education.** (3 cr)
 274. **The Junior College.** (3 cr)
 290. **Financing Higher Education.** (3 cr)
 291. **Public Relations for Colleges and Universities.** (3 cr)

EDUCATIONAL PSYCHOLOGY (EPsy)

General Courses

60. **Introduction to Measurement and Statistics.** Measures of central tendency, variability, and correlation; principles of test construction. (2 or 3 cr; prereq 6 cr in psychology; offered when feasible)
100. **Individual Appraisal for Counseling.** Analysis of appraisal techniques; use in guidance and counseling. (3 cr; prereq 9 cr in education)
110. **Educational Measurement in the Classroom.** Principles and methods for construction, evaluation, and improvement of educational measurements in classroom instruction. (3 cr)
116. **Introduction to Statistical Methods.** (Not equivalent to EPsy 216, 216A) Simpler statistical techniques in educational work. Comprehension of literature using elementary statistical concepts and methods. (3 cr; not open to Master's or Ph.D. degree candidates who will take more than 1 qtr of statistics; prereq ¶116A or #)
- 116A. **Introduction to Statistical Methods—Laboratory.** (See EPsy 116) (2 cr)
117. **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 cr; prereq 116 or 216 or Psy 70 or equiv)
125. **Group Dynamics in Education.** Review selected literature; practical application of social-psychological concepts to the analysis of group behavior. (3 cr)
126. **Analysis of Behavior in Groups.** Analysis of group behavior by laboratory experimentation; individual projects with class help. (3 cr; prereq 125)
133. **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 cr; prereq 9 cr in education)

140. **Instruments and Techniques of Measurement.** Measuring intelligence, achievement, interests, attitudes, and personality traits; using measurement in educational guidance, personnel work, administration, and supervision. (3 cr; prereq sr, 110 or 117)
142. **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 cr; prereq sr, 110 or 117 or §117 with #)
143. **Advanced Individual Mental Testing.** Develops proficiency in administering and interpreting 3 or 4 selected individual mental tests. (3 cr; prereq 142 and #)
148. **Clinical Diagnosis of Reading Difficulties.** Their relationship to psychological factors, and their clinical remedial correction. (3 cr; prereq EdCI 145)
150. **Clinical Practice in Remedial Teaching.** Remedial tutoring of individual children who have difficulty in school learning. (3 cr; prereq EdCI 145 or 151, and #)
151. **Clinical Practice in Educational Diagnosis.** Measurement, interview technique, preparation of case reports. Work with children referred to the Psycho-Educational Clinic. (3 cr; prereq 142, EdCI 145, and #)
159. **Personality Development and Mental Hygiene.** Understanding of personality development and mental hygiene for self and others. Offered fall quarter for seniors and first-year graduate students only: elementary and secondary classroom conditions. Offered spring quarter for graduate students only: basic theory, group and individual procedures in treatment. (3 cr)
182. **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 cr; prereq Ed 55B or 75B or equiv)
183. **Education of Gifted Children.** Abilities, characteristics, and education of intellectually gifted children and adults. (3 cr; prereq Ed 55B or 75B or equiv)
184. **Education of Mentally Retarded Children in the Elementary Schools.** Curriculum, materials, and methods of instruction in special classes for educable mentally retarded children in the elementary schools. Problems of administration, diagnosis, parent counseling. Field trips when possible. (3 cr; prereq 182 or #)
185. **Education of the Auditorially Handicapped Child.** Summer workshop—see the *Bulletin of the Summer Session* for description. (3 cr)
187. **Education of the Crippled Child.** Characteristics and abilities of crippled children; discussion of methods and materials for their training; observation of teaching situations involving these groups. Personal consultation will be scheduled in addition to regular class hours. (3 cr; prereq 182 or equiv)
190. **Educational Problems of Cerebral Palsy.** Unique problems in development, learning, and adjustment produced by cerebral palsy. Study and development of materials to meet the special educational needs. Observations of teaching the cerebral palsied; personal conferences. (3 cr; prereq 182 or #)
191. **Education of the Mentally Retarded in Secondary Schools.** Curriculum, materials, and methods of instruction for educable mentally retarded students in secondary schools. Philosophy, administration, vocational and personal guidance, parent consultation, and work programs. Field trips when possible. (3 cr; prereq 182 or #)
193. **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 cr; prereq sr)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

- 208.* **Methods in Educational Research.** Suggested for all candidates for graduate degrees. (3 cr)
- 216-217-218. **Statistical Methods in Education.** (3 cr per qtr)

- 216A-217A-218A. **Statistical Methods in Education—Laboratory.** (2 cr per qtr)
 219. **Design and Analysis of Statistical Investigations.** (3 cr)
 219A. **Design and Analysis of Statistical Investigations—Laboratory.** (2 cr)
 220-221. **Advanced Theory of Measurement.** (2 cr per qtr)
 225. **Diagnosis as a Phase of Counseling.** (3 cr)
 226.* **Interviewing Procedures in Counseling.** (3 cr)
 233.* **Problems in Guidance and Personnel Work.** (1-9 cr)
 240.* **Problems in Measurement.** (3 cr per qtr)
 243.* **Problems in Statistics for Students in Education and Psychology.** (3 cr per qtr)
 244. **Research in Special Education.** (3 cr)
 253.* **Research Problems.** (Cr ar)
 259. **Personality Theory and Mental Hygiene.** (3 cr)
 260. **Educational Psychology Seminar.** (No cr)
 280. **Practicum in Group Leadership.** (3 cr)
 288. **Practicum in Special Education.** (3-9 cr; prereq #)
 289. **Survey of Special Education Problems.** (3 cr; prereq special certification)
 290. **Individual Differences.** (3 cr)
 293.* **Psychology of Learning.** (3 cr)
 294.* **Recent Theory and Research in Human Learning.** (3 cr)

Secondary Education

134. **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 cr; prereq 110 or 117, 133, and #)
 158. **Psychology of Adolescence.** (3 cr; prereq Ed 55B or equiv)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

282. **Supervised Practicum in Counseling.** (3 cr)

Higher Education

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

250. **College Student Personnel Work—Development and Administration.** (3 cr)
 251. **College Student Personnel Work.** (1-3 cr per qtr)
 254.* **Measurement and Evaluation in Higher Education.** (3 cr)
 281. **Practice in Personnel Work.** (3 cr per qtr)

HISTORY AND PHILOSOPHY OF EDUCATION (HEd)

“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 western civilization against which public education will be studied.

101. **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 cr; offered when demand warrants)

110. **Intercultural Education.** Racial, religious, and nationality problems; their importance for schools. (3 cr; offered when feasible)
131. **Comparative Education.** Compares European, Asiatic, and American systems and philosophies of education. Explores possibilities of international education. (3 cr)
141. **Critical Issues in Contemporary Education.** Introduces graduate students to ideas involved in current theory and practice. (3 cr)
156. **History of Ideas in American Education.** Readings in American political, economic, and social development; special reference to the emerging system of public education. (3 cr)
175. **The Educational Philosophy of John Dewey.** Dewey's philosophy of education as shown in selected writings. The relevance of Dewey to contemporary educational and political problems of a democracy. (3 cr)
178. **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 cr)
180. **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 cr; prereq sr)
182. **Comparative Philosophies of Education.** Examination of competing philosophies of education. (3 cr)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

- 241.^o **Problems in the History and Philosophy of Education.** (Cr ar)
242. **Seminar in Educational Philosophy.** (3 cr)

HOME ECONOMICS EDUCATION (HEEd)

90. **Child Training.** Growth and development of children and problems in training. Emphasis on the preschool child. Observations of children. (3 cr; prereq soph, Psy 2)
91. **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 cr; prereq HE 4, 21, 41, Ed 55A-B, and ¶93)
92. **Teaching Problems in Home Economics.** Teaching procedures; management of home-making department, space and equipment, relationship of teacher to school, community, and profession. (2 cr; prereq sr, 91, 93, and ¶94, ¶192, and ¶194A)
- 93-94. **Supervised Teaching in Home Economics.** Observation, participation, and actual teaching experience under supervision in different home economics situations and on different age levels. In the second quarter the student spends 6 weeks in a selected school in the state. (9 cr; prereq HE 4, 21, 41, Ed 55A-B, completion of home experience in home economics)
95. **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 required. (6 cr; prereq 91, 93, and consent of head of Home Economics Education and director of Agricultural Extension)
190. **Readings in Home Economics Education.** Independent study under tutorial guidance. (1-3 cr; prereq #)
192. **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 cr; prereq sr, 91, 93, Ed 55A-B)

- 193A. Home Economics Curriculum.** (Secondary level) Contributions of home economics at elementary and secondary levels; techniques employed in curriculum planning and reconstruction. (3 cr; prereq 94 or #)
- 193B. Home Economics Curriculum.** (College level) Place and problems of home economics in higher education; curriculum offerings; teaching schedules and load. (3 cr; prereq #)
- 194A. Adult Education in Home Economics.** Objectives; problems affecting community and family life; methods of helping adults and out-of-school youth to solve problems in home living. (3 cr; prereq 91, 93 or equiv)
- 194B. Adult Education in Home Economics.** Planning a community program; teaching procedures; special problems. For teachers and supervisors of adult education. (3 cr; prereq sr, #)
- 195. Space, Equipment, Furnishings, and Materials for Home Economics Departments.** Remodeling old and planning new departments; equipping and furnishing them. Review of research; investigation of problems. (3 cr; prereq grad or adult special students [srs by #], 91, 93, HE 49; offered when demand warrants)
- 196. Home Experiences 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 cr; prereq sr; offered when demand warrants)
- 197. 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 cr; prereq sr, 91, HE 24 or equiv)
- 199E. Internship.** Directed teaching and practice work at the graduate level for candidates for the master of education degree. (Cr ar; prereq #)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

- 243. Trends in Home Economics.** (3 cr)
- 292.* Problems in Evaluation.** (3 cr)
- 293.* Problems in Home Economics Education.** (1-9 cr)
- 294.* Research Methods.** (3-6 cr)
- 295.* Seminar in Home Economics Education.** (1 cr per qtr)

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 letter in parentheses (A, B, C, D, or E) following the course title designates blocks of courses from which students elect; 12 credits are required from Block A, 6 from B, 6 from C, 6 from D, and 10 from E.

- 1. Elementary Handcrafts.** For majors in elementary education, art education, exceptional and recreational education. (3 cr)
- 2. Wood Processing I (A).** Use of common hand and machine tools, materials and finishing principles. (3 cr)
- 3. Wood Processing II (A).** Use and maintenance of power equipment; laboratory production experiences. (3 cr)

4. **Wood Processing III (A).** Building construction practices. Requirement may be satisfied by taking Dunwoody Carpentry or AgEn 7, Farm Building Construction. (3 cr; prereq Δ)
5. **Wood Processing IV (A).** Advanced building construction. (3 cr; prereq Ind 4, Δ)
6. **Introduction to Industrial Arts Teaching (E).** Objectives, programs, and experiences involving tools, materials, design, and processes of industrial arts teaching. (5 cr; for freshmen and others contemplating the major)
7. **Drafting (B).** Sketching, lettering, use of instruments, orthographic projection, pictorial representation and blueprint reading. (3 cr)
8. **Design I (B).** Laboratory. Introduces the student to creative design as a process of solving problems with tools and materials. (3 cr; prereq 7 or $\#$)
9. **Building Construction Drafting (B).** Principles of orthographic and pictorial representation applied to building construction. (3 cr; prereq 7)
12. **Craftwork (A).** Manipulative experiences in craft mediums suitable for industrial arts, such as plastics, art metal, lapidary, and leatherwork. (3 cr)
15. **Graphic Arts I (A).** Typesetting and presswork, photography, silk screen printing, and general duplicating. (3 cr)
16. **Graphic Arts II (A).** Letterpress, dry point etching, bookbinding, photography, and offset printing. (3 cr)
20. **Electricity and Electronics (C).** Introduction to electricity as an area of industrial arts; basic principles, fundamental skills, projects, processes, and teaching ideas particularized for junior high school. (3 cr)
21. **Communication Electronics. (C).** Continuation of Ind 20 into basic principles of radio and audio equipment for industrial arts teaching. Construction practice and principles of vacuum tubes and transistor circuitry. (3 cr; prereq 20)
22. **Industrial Electronics (C).** Principles of television, oscillator circuits, computer circuits, telemetering and control and test equipment circuits; appropriate laboratory activities. (3 cr; prereq 21)
23. **Applied Electronics I (C).** (3 cr; prereq Δ)
24. **Applied Electronics II (C).** (3 cr; prereq Δ)
25. **Metal Processing I (D).** General metalwork, machine practices. (3 cr; prereq Δ)
26. **Metal Processing II (D).** General metalwork, machine practices. (3 cr; prereq Δ)
27. **Metal Processing III (D).** General metalwork, welding. (3 cr; prereq Δ)
28. **Metal Processing IV (D).** General metalwork, sheet metal fabrication. (3 cr; prereq Δ)
29. **Metal Processing V (D).** Advanced metalwork. (3 cr; prereq Δ)
30. **Small Gas Engines (C).** Operating principles, maintenance and adjustment of 2- and 4-cycle gas engines. May be satisfied by Dunwoody Institute course of same title. (3 cr; prereq Δ)
35. **Fundamentals of Vocational Education.** Development and characteristics of vocational training; conservation of human and material resources; social and economic significance; current theories and practices; programs of organization and control; types of programs, support; selection, training, and certification of teachers. (3 cr)
40. **Analysis and Course Organization.** Need for and types of instructional analysis; study of objectives; development of instructional course organizations in selected fields. (5 cr)
50. **Industrial Practices and Processes.** An organized series of field trips to be selected; representative industrial plants; visitation preceded by classroom study and investigation. (3 cr; prereq 35)
55. **Teaching Industrial Arts (E).** Laboratory in study and practice of teaching industrial arts. (5 cr; prereq 55A)

- 60A-B-C. Student Teaching.** (3 cr per letter, 9 cr required; prereq 6 and 55 or 6 and 100, Δ)
- 90-91-92. Independent Study.** Self-directed study; preceded by classroom instruction in basic research procedures. (3 cr per qtr; prereq jr or #)
- 100. Industrial Instruction.** Concepts and techniques of instruction in industrial arts, trade and industrial schools and classes, and training-within-industry programs. (3 cr; prereq 40, Ed 55B, #)
- 101. Tests in Industrial Subjects.** Application of principles of evaluation to shop and drawing subjects. (3 cr; prereq Ed 55B)
- 102. The General Shop.** (Not a shop course) Purpose of general shop organization; types of shops, equipment, instructional materials and procedures, pupil personnel plans. (3 cr)
- 103. Instructional Aids.** Planning, construction, use. (3 cr; prereq 55 or 100 or equiv)
- 105. Administration of Industrial Education.** General and vocational phases; objectives, programs, and practices; laws, rulings, and standards for aid; significant literature. (3 cr; prereq 35 or equiv)
- 106. Industrial Education Workshop.** Areas of concentration vary with each successive offering. (3 or 6 cr; prereq tchg exper, #)
- 107. Co-ordination.** Province and duties of co-ordinators in trade schools, part-time programs, and cosmopolitan high schools. (3 cr; prereq 35 or 125, or #)
- 109. Conference Leading for Industry.** Purposes, advantages, and limitations of conference method. Techniques of conference procedure. Experience in planning, leading, and evaluating conferences and in writing summaries. (3 cr; prereq #)
- 110. 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 cr; 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 cr; prereq tchg exper or #)
- 115. Supervision of Industrial Education.** Principles of creative supervision; duties, organization for supervision. (3 cr; prereq 35 or 105)
- 125. Philosophy and Practice of Industrial Education.** History, objectives, development, and current practices of the field. (3 cr, §35)
- 135. Industrial Course Construction.** Principles and techniques. Experience in planning, organizing, and building a teaching guide. (3 cr, §40)
- 136. Instructional Materials Laboratory.** Laboratory and shop experiences with new materials, processes, and equipment; development of complementary instructional materials. (3-6-9 cr; prereq major, tchg exper or #)
- 150. Vocational Education Surveys.** Practices and techniques in the study of communities or areas for the establishment or improvement of vocational courses and facilities. (3 cr; prereq 105 or 125 or equiv)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

- 200.* Research Problems.** (3-6-9 cr per qtr)
- 205. Seminar in Industrial Education.** (No cr)
- 250. Literature of Industrial Education.** (3 cr)
- 251. Research in Industrial Education.** (3 cr)

Off-Campus Courses. Services in conference leader training and instructor training; with or without credit and fee; consultation on industrial training programs.

METHODS AND STUDENT TEACHING (EdT)

For description of the requirements and procedures for admission to student teaching, see Section I. Student teaching courses listed in other sections of this bulletin are as follows (see entries for the departments concerned): AgEd 91; ArEd 86-87-88; HEEd 93-94; Ind 60A-B-C; MuEd 60-61-62; PEM 73-74-75-76; PEW 90A-B-C-D-E.

For the practicum in laboratory school teaching in special education, see EdCI 110; for clinical methods and practice in speech pathology, see EdCI 174-175-176; for practice in personnel work, see EPsy 281-282; and for internship, see EdCI 199E.

Nursing Education

51A-B. The Teaching of Nursing. Observation, principles of teaching applied to clinical and classroom teaching in schools of nursing. Planning and evaluation of instruction. Supervised student teaching of nursing subjects. (10 cr; prereq Ed 55N)

Recreation Leadership

84A-B-C. Practice and Field Work in Recreation Leadership. Students are assigned to selected agencies. (2 cr; to be taken during jr yr; prereq recreation majors)

85A-B-C. Practice and Field Work in Recreation. Students are assigned to selected agencies. (1-2 cr; to be taken during sr yr; prereq recreation majors or minors)

Elementary Education

50. Junior Practicum in Special Education. Supervised observation and participation in classrooms and related school activities for exceptional children; a pre-student teaching exploratory experience. (3 cr; prereq #)

52. Student Teaching.** Primarily for students wishing to elect credits in student teaching in addition to regular requirements. (Cr ar)

53A-B. 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 cr per qtr; prereq #)

54A-B. Student Teaching in the Elementary School.** Five half-days a week in classroom participation and teaching under supervision. (6 cr per qtr)

77. Student Teaching in the Nursery School.** Twelve hours each week in supervised classroom participation. (4 cr)

78. Student Teaching in the Kindergarten.** Five half-days each week in supervised classroom participation in schools. (6 cr)

79. Student Teaching in the Primary Grades.** Five half-days each week in supervised classroom participation in schools. (6 cr)

Secondary Education

52. Student Teaching.** Supervised teaching primarily for students wishing to elect credits in student teaching in addition to regular requirements. (Cr ar)

60. Student Teaching in Library Science.** For both liberal arts college graduates and College of Education undergraduates intending to become school librarians. (3 cr; prereq Lib 53, 62, 70, 74, 171, 172 [or permission of college supervisory prof], sr)

67.† Student Teaching in Mathematics.** (3 cr U High, 6 cr off-campus, total 9 cr; prereq sr, Math 60 or ¶60, and 67A-B-C during same yr; satisfactory completion of each qtr's work necessary for continuation)

** Admission only by application to the director of student teaching.

- 67A-B-C.†** The Teaching of Secondary School Mathematics. Methods, materials, curriculums, and principles of learning pertinent to secondary school mathematics. (3 cr [f], 1 cr [w], 1 cr [s], total 5 cr; prereq sr, 67 during same yr)
- 67M. The Teaching of Secondary School Mathematics. (3 cr; prereq minors only)
- 68.†** Student Teaching in Science. (3 cr U High, 6 cr off-campus, total 9 cr; prereq sr, and 68A-B-C during same yr; satisfactory completion of each qtr's work necessary for continuation)
- 68A-B-C.†** The Teaching of Secondary School Science. Procedures in selecting and organizing materials and in teaching secondary school science. (3 cr [f], 1 cr [w], 1 cr [s], total 5 cr; prereq sr, 68 during same yr)
- 68M. The Teaching of Secondary School Science. (3 cr; prereq minors only)
- 69.†** Student Teaching in the Social Studies. (Jr yr [1 cr U High, [Ed 55A], sr yr [3 cr U High...6 cr off-campus]; prereq sr, and 69A-B-C during same yr; satisfactory completion of each qtr's work necessary for continuation)
- 69A-B-C.†** The Teaching of the Social Studies in the Secondary School. (3 cr [f], 1 cr [w], 1 cr [s], total 5 cr; prereq sr, 69 during same yr)
- 69M. The Teaching of the Social Studies in the Secondary School. (3 cr; prereq minors only)
- 70.†** Student Teaching of the Modern Languages. (3 cr U High, 6 cr off-campus, total 9 cr; prereq sr, and 70A-B-C during same yr; satisfactory completion of each qtr's work necessary for continuation)
- 70A-B-C.†** The Teaching of the Modern Languages. Procedures in selecting and organizing materials and in teaching the modern languages. (3 cr [f], 1 cr [w], 1 cr [s], total 5 cr; prereq sr, 70 during same yr)
- 71.†** Student Teaching in Latin. (3-9 cr total [all off-campus]; prereq sr, and 71A-B-C during same yr; satisfactory completion of each qtr's work necessary for continuation)
- 71A-B-C.†** The Teaching of Latin. Procedures in selecting and organizing materials and in teaching Latin. (3 cr [f], 1 cr [w], 1 cr [s], total 5 cr; prereq sr, 71 during same yr)
- 71M. The Teaching of Latin. (3 cr; prereq minors only)
- 72.** Student Teaching in Distributive Education Subjects. Required of all students majoring in distributive education. (9 cr total; prereq Ed 55B, ‡)
- 73.** Student Teaching in Business Subjects. Required of all students majoring in business education. (9 cr total; prereq Ed 55B, ‡)
74. The Teaching of Journalism. Methods and techniques of presenting journalism to students of less than college level. Required of all students with a minor in journalism. (3 cr; prereq Jour 41 or 51)
- 75.†** Student Teaching in Language Arts. (3 cr U High, 6 cr off-campus, total 9 cr; prereq sr, and 75A-B and C or D during same yr; satisfactory completion of each qtr's work necessary for continuation)
- 75A-B-C-D.** Teaching the Language Arts in Secondary Schools.
- 75A: Required of all majors in speech, English, language arts. Content and method in teaching reading and literature, writing and related problems of grammar, usage, spelling, speaking, and listening. (3 cr; prereq sr, 75 during same yr)
- 75B: Required of all majors in speech, English, language arts. Special emphasis on recent trends in teaching of the language arts, especially writing and grammar. Stress on variant systems of grammatical analysis. (1 cr; prereq sr, 75 and 75A during same yr)

** Admission only by application to the director of student teaching.

- 75C:** Required of all English and language arts (English core) majors. Emphasizes speech, dramatics, debate, discussion, and related co-curricular activities. (1 cr; prereq sr, 75 during same yr)
- 75D:** Required of all speech and language arts (speech core) majors. Content and methods in teaching speaking, listening, and dramatic activities. Specifically for those who will teach a course in speech in secondary schools. (1 cr; prereq sr, 75 during same yr)
- 75G. Teaching the Language Arts in Secondary Schools.** Overview of method and content in secondary school English. (3 cr; prereq minor in English or language arts with major in fields other than speech)
- 76G. Teaching the Language Arts in Secondary Schools.** Overview of method and content in secondary school speech and related co-curricular activities. (3 cr; prereq minor in speech with major in fields other than English)
- 80. The Teaching of Typewriting and Bookkeeping.** General methods and techniques in teaching typewriting and bookkeeping. (2 cr; prereq Ed 55B or ¶Ed 55B)
- 81. The Teaching of Shorthand.** Examination and evaluation of various methods of teaching shorthand. Application of psychological principles to teaching. (2 cr; prereq Ed 55B or ¶Ed 55B)
- 82. The Teaching of Basic Business Subjects.** Developments in content and method in teaching nonvocational business subjects. (2 cr; prereq Ed 55B or ¶Ed 55B)
- 90A-B-C.† The Teaching of Distributive Education Subjects.** Methods of teaching distributive education subjects in high schools and junior colleges. (2 cr per qtr; prereq #)
- 93.†** Student Teaching in the Core Curriculum.** (12 cr total [all off-campus]; prereq sr, and 93A-B, or ¶93B)
- 93A-B.†** Methods of Teaching for Core Majors.** (3 cr for A, 2 cr for B, total 5 cr; prereq sr)

MUSIC EDUCATION (MuEd)

Note—For courses in music see *Bulletin of the College of Science, Literature, and the Arts*.

- 4-5-6-7. Applied Instrumental Technique.** Divided into 4 quarters: 2 strings, 1 brass and percussion, 1 woodwinds. Theory and technical development of instruments, elementary instruction in instrument playing, special attention to routine of class instruction. (8 cr; prereq mus ed major)
- 50A. Teaching Music in Primary Grades.** Practical methods for teaching music in nursery school, kindergarten, and grades 1, 2, 3. The child's voice, rote singing, note reading, new practices, materials. (2 cr; prereq #)
- 50B. 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 cr; prereq #)
- 51. Teaching of Music.** (Kindergarten-Primary grades) For nonmusic majors. Appreciation, methods. (2 cr; prereq Mus 1)
- 52. Teaching of Music.** (Intermediate grades) For nonmusic majors. Appreciation, methods, materials. (2 cr; prereq 51, Mus 1, or #)
- 53. Teaching Music in Secondary Schools.** Organization and methods of teaching chorus, glee clubs, voice classes. Attention to changing voice, voice combinations, procedures; materials for public appearances. (3 cr; prereq Mus 2T, #)
- 59. Choral Literature and Conducting.** Intimate contact with vocal materials and actual practice in conducting. (2 cr for sr, 1 cr others)

** Admission only by application to the director of student teaching.

- 60-61-62. Supervision, Teaching of Music.** Experience in carrying forward, under supervision, activities of elementary music teacher and music activities in junior and senior high school. (9 cr; prereq sr, 50B, 53, Ed 55B, #)
- 63. Conducting I.** Basic elements of baton technique; styles of beats, types of arcs, preparatory beats, patterns, other ideas involved in starting young conductor. (2 cr; prereq 6 or #)
- 64. Band Organization.** Organization, promotion, curriculum, administration, equipment, other problems of school band. (3 cr; prereq 6, #)
- 65. 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 cr; prereq sr, Mus 6T)
- 67. Teaching 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 cr; prereq #)
- 68. Teaching Instrumental Music in Secondary Schools.** Same description as 67. (2 cr; prereq sr, 65)
- 100. Principles.** Place of music in education; philosophy, objectives, trends, content, evaluation of school music programs. (3 cr)
- 103. Psychological Foundations.** Implications of developmental and objective psychological data in music theory and acoustics. (3 cr; prereq sr, #)
- 104. Advanced Topics: Vocal Music.** 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 cr; prereq sr, #)
- 105. Advanced Topics: Instrumental Music.** Individual selection of topics for intensive study. Bibliographical methods, library resources. (3 cr; prereq sr, #)
- 124. Selection, Conducting of Choral Materials.** Student conducting with class as performing ensemble; criteria for selecting choral and combined choral and instrumental materials; rehearsal techniques. (3 cr; prereq sr)
- 125. Selection, Instrumental Music Materials.** Sources and criteria; orchestra, band, ensemble music, and choral accompaniments; class teaching methods books; individual projects, group activities. (3 cr; prereq sr)
- 150. Organization, Supervision of Vocal-Instrumental Music in Elementary Schools.** Trends reflected in teaching materials and syllabi. Implications of supervision practices in other educational fields. (3 cr; prereq sr, 6 cr in music education, 9 cr in music, and 6 cr in education; offered when feasible)
- 160. Organization, Supervision of Vocal-Instrumental Music in Secondary Schools.** Practical problems in school music; individual projects, groups activities; classroom management, supervisory techniques, scheduling, unit construction, instruments, repertory. (3 cr; prereq sr, 6 cr in music education, 9 cr in music, and 6 cr in education; offered when feasible)
- 170. Recent Research and Literature.** Current research; evaluation of teaching materials; appraisal of research techniques. (3 cr; prereq sr; offered when feasible)
- 194. Advanced Selection, Conducting of Choral Materials.** Discussion, evaluation, implementation of departmental set of criteria for selecting choral music for school groups. Selections of varying degrees of difficulty for analysis; practical application of advanced rehearsal and conducting techniques using the class as performing choral group for student directors. (3 cr; prereq 124)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

- 224.* Research Problems.** (3-9 cr)

NURSING EDUCATION (NuEd)

Note—For description of courses in nursing and nursing administration see *Bulletin of the School of Nursing*.

69. **Survey of Conditions and Trends in Nursing.** Conditions existing in nursing as revealed in literature and reports. (3 cr)
74. **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 cr; prereq #)
162. **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 cr)
165. **Problems in Nursing Care.** Research in nursing. (3 cr; prereq #)
168. **Evaluation of Achievement.** Principles, techniques, and summarization methods of evaluation applied to nursing. (3 cr; prereq sr, Ed 55N or NuAd 173, or #)
171. **The Curriculum of the School of Nursing.** Principles of curriculum development applied to educational programs in nursing. (3 cr; prereq 69, EdT 51A-B or #)
175. **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 cr; prereq sr, or #)
190. **The Survey in Nursing Education.** Survey techniques in evaluating an educational field. (3 cr; prereq #)
- 197E-198E. **Advanced Teaching of Nursing.** Problems in teaching nursing. (3 cr for 197E, 6 cr for 198E; prereq regis in master of education program, or #)

PHYSICAL EDUCATION FOR MEN (PEM)

Nonprofessional Courses

- 1A-B-C, 2A-B-C. **Sports Education.** Elective specialized courses in physical education including instruction in swimming, diving, lifesaving, bowling, wrestling, weight lifting, badminton, basketball, golf, softball, handball, paddeball, squash rackets, skating, dancing, archery, gymnastics, volleyball, and adapted activities for the handicapped. (1 cr per qtr)

Professional Courses

- 4A. **Football Fundamentals.** Demonstrations and practice in football fundamentals for all positions on a football team. (1 cr)
- 4B. **Basketball Fundamentals.** Demonstrations and practice, individual and team offensive and defensive tactics. (1 cr)
- 4C. **Track Fundamentals.** Demonstrations and practice in all track and field events. (1 cr)
- 5A. **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 cr)
- 5B. **Gymnastics.** Stunts on the buck, side horse, long horse, parallel bars, low bar, high bar, rings, trampoline, springboard, and mats; stall bar exercises; rope climbing; and pyramid building. (1 cr)
- 5C. **Stunts, Contests, Softball, Baseball.** Individual double and triple stunts; combative stunts; mass contests; weight lifting; softball; baseball fundamentals. (1 cr)
- 6A. **Intramural Sports.** Fundamentals and team play in soccer, speedball, and volleyball. (1 cr)

- 6B. **Intramural Sports.** Ice hockey, handball, paddleball, and squash rackets. (1 cr)
- 6C. **Aquatics.** Advanced swimming, diving, lifesaving. (1 cr)
- 7A. **Games and Relays.** Low organized games for gymnasiums, playgrounds, camps, etc.; social games for recreation; progressive game parties; relays. (1 cr)
- 7B. **Boxing and Wrestling.** (1 cr)
- 7C. **Recreational Games.** Badminton, aerial darts, deck tennis, paddle tennis, table tennis, bowling, horseshoes, and archery. (1 cr)
8. **Tennis and Golf.** (1 cr)
- 9A. **Fundamental Rhythms.** Basic steps and folk dances. (1 cr)
- 9B. **Square and Ballroom Dancing.** Instruction in circle, line, square, mixer, couple dances; square dance calling. (1 cr)
- 11A-B-C. **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 cr per qtr)
- 23A-B-C. **Introduction to Recreation Leadership.** Study of and participation in group recreation programs in Coffman Memorial Union. (1 cr per qtr)
32. **Introduction to Physical Education.** Orientation course covering briefly the history, vocational aspects, and fundamental principles of physical education. (3 cr)
43. **Camp Aquatics.** Administration of waterfront program and practice in the basic skills in handling small craft. (2 cr)
45. **Camp Craft.** Practical experience in various phases of camping and outdoor education. (2 cr)
46. **Camp Leadership.** Introduction to field of camping and outdoor education for prospective counselors. (2 cr)
49. **Social Aspects in Leisure.** Sociological consideration of leisure and recreation as parts of our total socio-economic structure. (3 cr)
50. **Human Anatomy.** Emphasizes bones, nerves, and muscles and their significance in physical education. (3 cr)
51. **Mechanics of Movement.** Structure of the body, principles and mechanics of bodily movements. (3 cr; prereq 50 or Anat 57)
52. **Leadership in Social Activities.** Technique of leadership in social games, parties, dances, outings, etc. (3 cr)
55. **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 cr; prereq 5A-B-C, 6A-B-C, 7A-B-C, Psy 2)
56. **The Nature and Function of Play.** The biological play drives and the theory and philosophy of play and recreation. (3 cr; prereq soph)
57. **The Organization and Conduct of Recreation Centers.** Operation, management, facilities, equipment, and programs of recreation centers. (3 cr; prereq 23A-B-C)
58. **Leadership in Community Recreation.** Breadth and scope of leadership in recreation. (3 cr; prereq 57)
59. **Instructor's Course in First Aid.** Preparation to teach the standard course in first aid. (3 cr; prereq PEW 25 or Standard Certificate, age 20)
- 60A. **Prevention and Care of Injuries.** Policies for conditioning of athletes in interscholastic and intercollegiate sports, safety controls, and care and prevention of injuries in physical education activities. (3 cr; prereq 50 or Anat 51, 57)
- 60B. **Athletic Training Laboratory.** Thirty hours of practical experience in the training room under supervision. (1 cr; prereq 60A)

61. **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 cr)
63. **Organization and Administration of Physical Education.** Problems of organization, administration, and supervision in required and elective courses, recreation and inter-school athletics. (3 cr; prereq 32 or 101, 55)
- 64A-B. **Leadership in Nature Recreation.** Identity and scope of nature recreation field; classwork and field trips. (4 cr; prereq 15 cr in natural science)
65. **Adapted Physical Education.** Philosophy, principles, and techniques of adapting the physical education program to meet the needs of handicapped pupils. (3 cr; prereq 51, Anat 57)
66. **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 cr; prereq 4A-B)
67. **Football Coaching.** Theory, strategy, generalship, styles of offense and defense, methods of organizing practices, and handling of men. (2 cr; prereq 4A or 1 yr experience on squad)
68. **Basketball Coaching.** Theory, styles of offense and defense, the conditioning and handling of players. (2 cr; prereq 4B)
69. **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 cr; prereq 4C)
72. **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 cr)
- 73, 74, 75. **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 cr per qtr; prereq 55, Ed 55B)
76. **Directed Teaching—Block Plan.** Full time teaching for one half term. (9 cr; not open to students who have taken 73, 74, 75; prereq 55, Ed 55B)
78. **Scout Leadership.** Orientation course for students who are interested in the Boy Scout program. (2 cr)
81. **Coaching of Ice Hockey.** Orientation of the prospective coach and physical education teacher to the fundamentals and advanced knowledge of hockey. (2 cr; prereq 6 B or #)
96. **The Administration of Intramural Sports.** Principles, policies, procedures, personnel, and planning involved in administration of intramural sports programs with emphasis on secondary school level. (2 cr; prereq jr)
97. **Testing in Physical Education.** Selection, evaluation, construction, and administration of tests. Emphasis on physique, motor, and sports skill testing at secondary school level. (2 cr; prereq 55B)

PHYSICAL EDUCATION FOR WOMEN (PEW)

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 (maximum \$6.50) 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 Gym-

nasium. For special permission to take two courses in physical education, see Miss Tenney, 106 Norris Gymnasium. All classes meet in Norris Gynasium 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

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

Tumbling and trampoline

Professional Courses for Undergraduate Majors

20ABC-21ABDE-22ABC. Physical Education Activities.

Fall: 20A—Badminton ($\frac{1}{2}$ cr); 20B—Skills and officiating of fall team sports (1 cr); 20C—Archery and bowling (1 cr); 21D—Posture and functional exercise (1 cr)

Winter: 21A—Advanced basketball ($\frac{1}{2}$ cr); 21B—Rhythmic fundamentals and elementary folk dance (1 cr); 21E—Winter sports ($\frac{1}{2}$ cr)

Spring: 22A—Folk and ballroom dance (1 cr); 22B—Golf (1 cr); 22C—Tennis (1 cr)

25. **Standard and Advanced First Aid.** Lectures, demonstration, and practice in emergencies and first aid treatment. American Red Cross Standard Certificate in First Aid received upon successful completion of course. (2 cr)

40ABCD-41AB-42A. Physical Education Activities.

Fall: 40A—Elementary modern dance ($\frac{1}{2}$ cr); 40B—Skills and officiating of softball and volleyball (1 cr)

Winter: 40D—Intermediate modern dance (1 cr); 41A—Advanced aquatics (1 cr); 41B—Officiating basketball ($\frac{1}{2}$ cr; prereq 21A)

Spring: 42A—Senior life saving (1 cr; prereq 41A); 40C—Stunts, tumbling, and apparatus ($1\frac{1}{2}$ cr)

45. **Physical Education Activities for the Elementary School.** Laboratory course for PEW 70. Experience with graded activities for the elementary school child. Problems of organization and teaching progressions considered. (2 cr; prereq elementary education majors only)

47. **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 cr; prereq 22A, 21B, 40A, 40D)

48. **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 cr; prereq #)

49. **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 cr)

51. **Mechanics of Movement.** Principles of mechanics of movement with laboratory studies involving the kinesiological analysis of sport techniques. (3 cr; prereq Anat 57)
53. **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 cr; prereq physical education majors)
54. **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 cr)
62. **The Teaching of Physical Education Activities.** Methods in team and individual sports, rhythms and self-testing in the junior-senior high school program. (3 cr; prereq physical education minors and recreation majors)
70. **The Teaching of Health and Physical Education in the Elementary School.** Methods of instruction in health and physical education for the elementary education major. (3 cr; prereq PEW 45, 3rd qtr soph, elementary education majors)
71. **Applied Physiology.** Lectures and laboratory problems demonstrating the physiological bases for objectives and content of the physical education program. (3 cr; offered when demand warrants)
76. **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 cr; prereq #)
77. **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 cr; prereq 41A, 42A)
79. **Massage and Therapeutic Exercises.** Principles of massage, conditions especially applicable to physical education, athletic injuries, foot disorders, paralysis, and certain functional and nervous disorders. Visits to Twin Cities physiotherapy departments. (2 cr; offered when demand warrants)
80. **History and Trends in Dance.** History and philosophy of dance; also relation to allied arts. (3 cr; prereq #)
82. **Principles of Physical Education.** Philosophy of physical education and principles underlying curriculum building, methods of teaching, measurement, and outcomes. (3 cr; prereq sr)
83. **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 cr; prereq PubH 59)
85. **The Teaching of Posture and Self-testing Activities.** Methods of teaching posture, functional exercise, stunts, tumbling, and apparatus. Practical procedures relating to appraisal and correction of posture problems. Principles of good movement applied through student teaching within the group. (3 cr)
86. **Advanced Physical Education.** Fundamentals in physical education as applied in the elementary school. (1 cr)
87. **Dance Composition.** Advanced modern dance theory and practice. Principles of composition with practical application. (2 cr; prereq #)
88. **Advanced Problems in Dance Composition.** Various approaches to dance composition will be studied. (2 cr; prereq #)
89. **Dance Production.** Various phases of dance production in schools and colleges. Dance recital and demonstration. Elements of stage craft and costuming. (3 cr; prereq #)
- 90ABC. **Student Teaching in Physical Education.** (3 cr [f], 3 cr [w], 3 cr [s]; prereq Ed 55A-B, major in physical education)
91. **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 cr; prereq N-K-P majors)

93. **Student Teaching in Physical Education for Minors.** (2 cr; prereq Ed 55A-B, minor in physical education)
94. **Student Teaching in School Health Education.** (2 cr; prereq sr, 83, #)
95. **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 cr; prereq sr)

PHYSICAL EDUCATION FOR MEN AND WOMEN (PE)

101. **Principles of Physical Education.** Aims and scope of physical education; its place in education. (3 cr; prereq PEM 55)
102. **The Physical Education Program in the Elementary and Secondary School.** Philosophy, objectives, trends, content, and evaluation in relation to the physical education curriculum. (3 cr; prereq sr)
103. **Physical Inspection.** Responsibility of the physical education instructor in the examination of pupils, assisting the physician, follow-up procedures, and keeping of records. (3 cr; prereq PEM 51, Anat 57, PubH 91, 92)
105. **Conservation of Natural Resources.** Their importance and relation to recreation and outdoor education. (2 cr; prereq sr, PEM 64A-B)
107. **Camp Administration.** Prepares qualified personnel for responsibilities of camp administration. (3 cr; prereq PEM 46, and #)
110. **Recreation Surveys.** Techniques and practice. (3 cr; prereq PEM 57, 58)
111. **Recreation Areas and Facilities.** Orientation, design, planning, and standards for recreation buildings and areas. (3 cr; prereq PEM 57, 58)
112. **Programming in Recreation.** Principles of program planning for an organized offering of recreation opportunities. (3 cr; prereq PEM 57, 58)
113. **Physical Education in the Elementary School.** Curriculum instructional procedures, classification, evaluation. (3 cr; prereq experience with elem school age level, or #)
114. **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 cr; prereq sr, PEW 83, PubH 50, or equiv, or #)
115. **Advanced Kinesiology.** Techniques of mechanics and kinesiology of movement; skills; evaluation of pertinent research methods and devices; application to individual projects. (3 cr; prereq undergrad course in kinesiology, or #)
116. **Community Recreation Resources and Organization.** Agencies and their interrelationships in the field of recreation. (3 cr; prereq 110-111-112)
- 117A. **Instruction in School Health Education for Elementary Schools.** Offered in summer only. Description in the *Bulletin of the Summer Session*. (3 cr)
- 117B. **Advanced Instruction in School Health for Secondary Schools.** Instructional problems at secondary level. Individual problems discussed. (3 cr; prereq PEW 83, or #)
- 118E. **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. (Cr ar; prereq #)
121. **Principles of Recreation Methods.** Leadership methodology in all aspects of recreation. (3 cr; prereq EdT 84A-B-C)
123. **Advanced Course in Methods of Teaching Physical Education.** Teaching procedures and method problems at all levels; research results. (3 cr; prereq #)

- 124. **Supervision of Physical Education.** Functions; adaptations of accepted procedures for observation, guidance, and training of teachers; face-to-face techniques. (3 cr; prereq #)
- 125. **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 cr; prereq sr, tchg exper or #)
- 130. **Contributions of Basic Sciences to Physical Education.** Recent research in basic sciences and applications in selected areas. (3 cr; prereq grad or #)
- 131. **Industrial Recreation.** History, scope, place, and relationship of management-employee recreation. (3 cr; prereq #)
- 135. **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 cr; prereq sr, EPsy 60 or equiv)
- 141. **Introduction to Hospital Recreation.** General field of recreation in hospitals as background for the recreation leader, hospital administrator, and other personnel. (3 cr; prereq #)
- 142. **Leadership in Hospital Recreation.** Application of leadership methodology. (3 cr; prereq 141)
- 143. **Programming in Hospital Recreation.** Planning recreation programs for various types of hospital patients. (3 cr; prereq 141)
- 155. **Instructional Aids in Health, Physical Education, and Recreation.** Evaluation, construction, and use, stressing audio-visual aids. (3 cr)

FOR GRADUATE STUDENTS ONLY

(Descriptions in the *Bulletin of the Graduate School*)

- 221. **Seminar in Physical Education.** (No cr)
- 224.° **Research Problems in School Health Education, Physical Education, and Recreation.** (Cr ar)
- 233. **Administration of the Physical Education Program in Secondary Schools.** (3 cr)
- 234. **The Curriculum in Physical Education.** (3 cr)
- 236. **Introduction to Research in Physical Education and Recreation.** (3 cr)
- 238. **Administration of Physical Education in Colleges and Universities.** (3 cr)
- 240. **Legal and Financial Aspects of Recreation.** (3 cr)
- 241. **Administration of Public Recreation.** (3 cr)
- 242. **Community Organization for Recreation.** (3 cr)
- 261A. **Seminar in Contemporary Problems in Physical Education.** (3 cr)
- 261B. **Seminar in Contemporary Problems in Recreation** (Cr ar)

INDEX

	Page		Page
Activities	14	Exceptional Children, Teaching of, <i>see</i> Special Education	
Administration, <i>see</i> Educational Administration		Extension Courses	10, 13, 33
Admission Procedures	10	Facilities and Services, College	14-16
Admission Requirements	4-8	Faculty Advisers	13
Adult Special Students	11	Fees, <i>see</i> <i>Bulletin of General Information</i>	
Advanced Standing, Examinations for	11	Field Studies and Surveys, Bureau of	15
Advisers	13	Four-year Programs	4, 19-72
Agricultural Education	5, 19-21, 73-74	French	65-66
Air Science, <i>see</i> ROTC		General Courses, Education	82-83
Application and Registration, Student Teaching	11	General Information (Section I)	4-18
Application for a Degree	11	Geography	4, 36-37
Art Education	4, 21-23, 74-76	German	4, 37
Awards and Scholarships	16	Grade Points	8-9
Bureau of Educational Research	15	Grades	8-10
Bureau of Field Studies and Surveys	15	Graduate Study in Education	17-18
Bureau of Recommendations	14	Graduation with Honors	10
Business and Distributive Education 4, 23-25		Graduation Requirements	8-10
Certification of Teachers	12	Handicapped Children, <i>see</i> Special Education	
Change of Major	11	Health Certificate	5
Change of Registration	11	Health Education Requirement	9-10
Child Development and Welfare	4, 29-35, 76-77, 91-93	Higher Education	37, 82, 84, 86
<i>Class Schedule</i>	2, 73	History	4, 38
College Facilities and Services	14-16	History and Philosophy of Education	38, 86-87
Combined Programs with College of Science, Literature, and the Arts	4	Home Economics Education 4, 38-41, 87-88	
Commercial Education, <i>see</i> Business Education		Home Economics Extension	40-41
Committee on Student Scholastic Standing	7, 11, 13	Honors	10
Core Curriculum	4, 25-26	How to Use Bulletin	2
Correspondence Courses	13	Industrial Education	4, 41-43, 88-90
Courses of Study	4, 19-72	Information Desk	10, 13
Credits	8-10	Institute of Child Development and Welfare	15
Curriculum and Instruction	26-27, 77-82	Journalism	4, 43
Curriculum Laboratory	15	Junior High School Endorsement	31, 33
Curriculums (Section II)	19-72	Junior Year, Admission to	11
Degrees	10, 16-18	Kindergarten Education, <i>see</i> Early Childhood	
Description of Courses (Section III) 73-101		Laboratory Schools	14
Distributive Education	4, 23-25	Language Arts	4, 43-45
Early Childhood Education	4, 29-35, 76-80, 83, 91-93	Language Requirements in Graduate Study	17
Education, General Courses	82, 84-85	Latin	4, 45
Educational Administration	28, 83-84	Library Science	4, 45-46
Educational Psychology	29, 84-86	Majors and Minors in Graduate Study	17
Educational Research, Bureau of	15	Manual Arts Therapy	43
Elementary Education, <i>see</i> Early Childhood		Master of Education Degree	16
English	4, 36	Mathematics	4, 46
Entrance Requirements	5-8		
Evening Courses	13, 33		

	Page		Page
Methods and Student Teaching	11-12, 91-93	Romance Languages	4, 65-66
Military Science, <i>see</i> ROTC		Rural Education	4, 66
Music Education	4, 47-49, 93-94	Russian	4, 66
Natural Science	4, 49-50	Scholarships	16
Naval Science, <i>see</i> ROTC		School Health Education	66
Nursery School Education, <i>see</i> Early Childhood		Secondary Education	4, 80-82, 86, 91-93
Nursing Education	5, 50-54, 82, 91, 95	Senior Balance Sheet	11
Orientation-Registration Program	14	Services Available to Students	13-14
Philosophy of Education	38, 86-87	Social Studies	67
Physical Education for Men	4, 54-56, 95-97	Sociology	4, 67-68
Physical Education for Men and Women	100-101	Spanish	65-66
Physical Education for Women	4, 56-58, 97-100	Special Education	68-70
Physical Education Requirement	6	Special Methods, <i>see</i> Methods, Student Teaching	
Physical Examinations	11	Special Programs, Agriculture, Home Economics, Institute of Technology	5
Physical Science	4, 58-60	Specialist in Education Certificate	18, 28, 29
Placement Records and Service	13, 14	Speech and Theater Arts	4, 70
Political Science	4, 60	Speech Pathology	4, 71
Practice Teaching, <i>see</i> Methods, Student Teaching		Student Activities	14
Primary Education, <i>see</i> Early Childhood		Student Personnel Office and Services	13
Probation	12	Student Personnel Work	71-72
Procedures and Practices in the College	10-13	Student Scholastic Standing, Committee on	7, 11, 12, 13
Professional Requirements	9-10	Student Teaching, Application and Registration	11-12, 91
Psycho-Educational Clinic	15	Symbols in Course Descriptions	73
Publications	15	Teacher Certification and Placement Service	12, 13, 14
Quality of Work	8, 12	Teaching of Exceptional Children, <i>see</i> Special Education	
Recommendations, Bureau of	14	Theory and Practice of Teaching, <i>see</i> Methods and Student Teaching, Curriculum and Instruction	
Recreation Leadership	4, 60-65, 91	Transfer Students	7-8, 10
Registration Procedures	11	Two-Year Programs	4, 19-72
Requirements for Admission	4-8	Unsatisfactory Work	12
Requirements for Graduation	8-10	Visiting Teachers	72
Reserve Officers Training Corps (ROTC)	2, 5		
Residence Requirements	10		

Late Afternoon and Saturday Morning Classes

1960-1961



A fifth grade
at work

Bulletin
of the UNIVERSITY of MINNESOTA

UNIVERSITY OF MINNESOTA

Board of Regents

The Board of Regents is composed of The Honorable Ray J. Quinlivan, St. Cloud, First Vice President and Chairman; The Honorable Charles W. Mayo, M.D., Rochester, Second Vice President; The Honorable James F. Bell, Minneapolis; The Honorable Edward B. Cosgrove, LeSueur; The Honorable Daniel C. Gainey, Owatonna; The Honorable Richard L. Griggs, Duluth; The Honorable Robert E. Hess, White Bear Lake; The Honorable Marjorie J. Howard (Mrs. C. Edward), Excelsior; The Honorable A. I. Johnson, Benson; The Honorable Lester A. Malkerson, Minneapolis; The Honorable A. J. Olson, Renville; and The Honorable Herman F. Skyberg, Fisher.

Administrative Officers

O. Meredith Wilson, Ph.D., President
Malcolm M. Willey, Ph.D., L.H.D., LL.D., Vice President, Academic Administration
Laurence R. Lunden, B.A., LL.D., Vice President, Business Administration
Stanley J. Wenberg, M.A., Vice President and Administrative Assistant
Robert E. Summers, M.S.(Ch.E.), M.E., Dean of Admissions and Records
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
Don Davies, Director of Student Teaching.....	229	Burton
Arnold Woestehoff, Director, Bureau of Recommendations.....	102	Burton

See list of major advisers on page 22.

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 \$6 per credit for residents of the state and \$15 per credit for nonresidents. If 6 or more credits are taken, an incidental fee of \$20 is also required.

The fee in the Graduate School for 6 credits or less or thesis only is \$35.50 for residents and \$90 for nonresidents. Graduate students taking more than 6 credits pay \$71 (residents) and \$180 (nonresidents). The incidental fee of \$20 is required of all students in the Graduate School except teachers in service taking less than 6 credits.

Other fees include a \$1 Record Service Fee required of all new students. 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 21 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 1). Veterans registering under Public Laws 346, 16, and 894 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 in any division of the University are eligible for registration. The fee is \$7.50 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 offerings. This will help to simplify the planning of programs for the year and quarter.

Program of Courses

FALL QUARTER, 1960

The following symbols and explanations are used throughout the bulletin:

* Graduate students may prepare Plan B papers.

† To receive credit, all courses listed after dagger must be completed.

‡ (Double dagger) Students may enter any quarter preceding the symbol.

§ (Section mark) No credit if credit received for equivalent course after symbol.

¶ Means "concurrent registration in."

(Sharp) Means "consent of instructor."

E 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 (AgEd)

Persons interested in courses in agricultural education should write directly to Department of Agricultural Education, University of Minnesota, St. Paul 1.

Art Education (ArEd)

- 86A The Teaching and Supervision of Art. (2 cr, †86A, 87A, 88A; prereq sr art educ, 56-57, Ed 55A-55B, ¶86) IX-X T, J 109, Gayne
- 156 Intercultural Education Through Art. (3 cr) I-II S, Gayne
- 185 Improving Art Programs in the Secondary School. (3 cr; prereq tchg exper or #) III-IV S, Hastie

Child Development and Welfare (CD)

- 179 Clinical Procedure with Children. (3 cr; prereq 12 cr in psychology, educational psychology, or sociology) IX-X MF, Wirt

Curriculum and Instruction (EdCI)

- 63 Children's Literature. (Sec 2, 2 cr) IX-X W, Bu 120, Odland
- 66 Treatment of Learning Difficulties. (3 cr; prereq 60, 62A, ¶stu tchg) Sec 1, IX-X W, CW 218, Balow; Sec 2, IX-X W, WeH 202, Dykstra
- 102 Teaching Social Studies in the Elementary School. (3 cr; prereq Ed 75B) I-II S, CW 218, Ar

- 105 Audio-Visual Materials in Education. (3 cr; prereq sr) I-II S and 1 hr lab per wk ar, NH 211, Pearson
- 106 Co-ordinating an Audio-Visual Education Program. (3 cr; prereq 105 or #) IX-X M, WeH 206, Pearson
- 109 Audio-Visual Materials and Equipment Laboratory. (3 cr; prereq 105 or #105 or #) Lect, IX-X T, WeH 206, Pearson; Lab, Sec 2, IX-X Th, WeH 206, Pearson
- 110 Practicum in Laboratory School Teaching, Grades K-6. (Cr ar; prereq 2 qtrs outstanding elem stu tchg and/or elem tchg under contract...recommendation of adviser, director of student teaching, and director of Elementary School) Ar
- 113 High School Curriculum. (3 cr; prereq Ed 55A-55B, or equiv) IX-X T, Bu 120, Bossing
- 115 Introduction to Education of Visually Handicapped Children. (3 cr) IX-X W, CW 206, Kenmore
- 116 Braille I. (3 cr; prereq EdCI 115 or #) IX-X Th, Pt 202, Kenmore
- 119 Elementary School Curriculum. (3 cr; prereq Ed 55A-55B, or equiv) IX-X W, Bu 125, Goossen
- 125 Occupational Information Laboratory. (3 cr; prereq #) Sec 2, 3:45-5:15 TTh, Bu 125, Tennyson
- 130 Education of the Deaf in Great Britain. (3 cr) IX-X T, Watson
- 131 Advanced Course in Teaching the Technical Business Subjects. (3 cr) IX-X Th, Bu 103, Price
- 135 Group Procedures in Guidance. (3 cr; prereq EPsy 133 or #, 9 cr in education) III-IV S, JohH 114, Ar
- 136 Organization and Administration of Distributive Education. (3 cr) 4-6:20 W, Bu 103, Meyer
- 143 Teaching and Supervision of Reading in the Elementary School. (3 cr; prereq 9 cr in education) III-IV S and 1 hr ar, Pt 202, Bond
- 144 Teaching of Reading in Secondary Schools. (3 cr; prereq 9 cr in education) IX-X T, 1 hr ar, Bu 211, Bond
- 149 Teaching and Supervision of Mathematics in the Elementary School. (3 cr; prereq 9 cr in education) III-IV S, CW 218, Stochl
- 150 Supervision, Improvement of Instruction. (3 cr; prereq 9 cr in education) IX-X M, Bu 211, Curtin
- 153 Supervision and Teaching of English in the Elementary School. (3 cr; prereq Ed 75A-75B or equiv) IX-X W, 1 hr ar, JohH 106, Archer
- 156 Trends in Business Education. (3 cr) I-II S, Bu 103, Price
- 160 Materials Laboratory; Occupational Relations. (3 cr; prereq 137A or EdT 90A-B-C or #) 4-6:20 T, Bu 103, Meyer
- 171 Curriculum Laboratory Practice. (0-3 cr; prereq 170A or B, #) Ar, Bossing, Goossen
- 174, 175, 176 Clinical Methods and Practice in Speech Pathology. (3 cr; prereq Spch 61, 67, 119, 162, and 163) Ar
- 184 Supervision of Student Teaching. (3 cr; prereq 15 cr in education or #) III-IV S, PeikH 175, Davies
- 199E Internship. (Cr ar) Ar

- 201* Problems in Teaching the Social Studies. (3 cr; prereq 155 or 168, 204 or #) Ar, Staff
- 204 Social Studies Curriculum. (3 cr) IX-X T, PeikH 165, West
- 205* Problems in Audio-Visual Education. (Cr ar; prereq #) Ar, Pearson
- 215* Problems in the School Health Education Program. (Cr ar; prereq #) Ar, Grout
- 222 Seminar: Current Problems in the Techniques of High School Instruction. (Cr ar; prereq Ed 55A, B, and senior methods) IX-X W, PeikH 275, Bossing, Keller, Popper, Winter
- 225* Special Problems in Secondary School Supervision. (Cr ar; prereq #) Ar, Bossing, Keller, Lane, Popper
- 226 Seminar in Elementary School Problems. (2 cr) IX-X Th, PeikH 165, Staff
- 227* Problems in Rural Education. (Cr ar; prereq EdAd 117) Ar, Archer
- 228* Problems: Higher Education and Teacher Education. (Cr ar; prereq #) Ar, Eckert
- 238* Problems in Distributive Education. (Cr ar; prereq #) Ar, Meyer
- 239* Problems in Business Education. (Cr ar; prereq #) Ar, Price
- 251 Curriculum Trends in American Colleges. (3 cr; prereq yr of grad study in any field or 18 cr in education) I-II S, Bu 123, Eckert
- 254 Directed Experiences in College Instruction. (Cr ar; prereq #) Ar, Eckert and others
- 261* Special Problems in the Improvement of Instruction. (Cr ar; prereq #) Ar, Archer, Goossen, Curtin, Stochl
- 271* Problems in Curriculum Construction. (3-6 cr; prereq #) Ar
- 273* Problems in Reading. (Cr ar; prereq 143 or 144 or #) Ar, Bond, Chase, Odland, Reynolds, Balow
- 280 Supervision of Counseling. (3 cr; prereq #) Ar, Dugan, Tennyson, Blocher, Soldahl
- 284* Problems in Student Teaching. (3-9 cr; prereq #) Ar, Davies
- 294* Advanced Course in Curriculum and Methods in Secondary School English. (2 cr; prereq EdT 75A,B,C, or equiv) I-II S, PeikH 245, Kegler
- 296* Special Problems in Teaching English. (Cr ar) Ar, Kegler

Educational Administration (EdAd)

- 101 Public School Administration. (3 cr; prereq sr, 9 cr in education; open only to non-EdAd majors) III-IV S and 1 hr ar, Bu 103, Popper
- 118 The Community School. (3 cr; prereq sr) IX-X T and 1 hr ar, Psy 109, Archer
- 201 Foundations in Educational Administration. (3 cr) 4:30-6 TTh, CW 218, Lane
- 210 Financial Aspects of Public School Business Administration. (3 cr; prereq 227) III-IV S and 1 hr ar, JohH 115, Domian
- 215 The Elementary School Principalship. (3 cr) I-II S and 1 hr ar, Pt 202, Curtin

- 218 Recent Literature in Secondary Education. (1-3 cr) IX-X W, PeikH 275, Bossing, Keller, Popper, Winter
- 228* Special Problems in Educational Administration. (Cr ar; prereq 225) Ar, Domian, Hooker, Lane
- 235 Seminar in Educational Administration. (No cr) IX-X M, JohH 114, Bossing, Domian, Hooker, Keller, Lane, Popper
- 236 Field Study in Educational Administration. (0-10 cr; prereq #) Ar, Domian, Hooker, Lane
- 270A* Special Problems in Elementary Education. (Cr ar; prereq #) Ar, Archer, Bond, Curtin, Goossen
- 270B* Special Problems in Secondary Education. (Cr ar; prereq #) Ar, Bossing, Domian, Hooker, Keller, Lane, Popper
- 274 The Junior College. (3 cr) III-IV S and 1 hr ar, Bu 211, Keller

Educational Psychology (EPsy)

- 133 Basic Procedures in Student Personnel Work. (3 cr; prereq 9 cr in education) Sec 1, I-II S, Bu 211, Tennyson; Sec 2, 3:45-5:15 W, Bu 211, Blocher
- 150 Clinical Practice in Remedial Teaching. (3 cr; prereq EdCI 145 or 151, and #) Ar, B Balow
- 159 Personality Development and Mental Hygiene. (3 cr; sr or 1st yr grad) III-IV S, FraH 120, Vance
- 182 Education of Exceptional Children. (3 cr; prereq Ed 55B or 75B) III-IV S, CW 222, Capobianco
- 184 Education of the Slow-Learning Child. (3 cr; prereq 182 or equiv) IX-X W, Pt 202, Capobianco
- 187 Education of the Crippled Child. (3 cr; prereq 182 or equiv) IX-X Th, Pt 202, Force
- 193 Principles of Psychology in Human Learning. (3 cr; prereq sr) I-II S, Bu 211, Kellogg
- 233* Problems in Guidance and Personnel Work. (1-9 cr) Ar, Tennyson
- 240* Problems in Measurement. (Cr ar) Ar, Hoyt
- 243* Problems in Statistics for students in Education and Psychology. (Cr ar) Ar, Collier
- 244 Research in Special Education. (3 cr; prereq 116, 117 or equiv or #) IX-X M, Pt 202, Kenmore, Reynolds, Hodges
- 250 College Student Personnel Work—Development and Administration. (3 cr; prereq 1 course in higher education or ¶ or #) IX-X M, Bu 120, Wrenn
- 253* Research Problems. (Cr ar; prereq #) (Sec 1, 1-3 cr) 3:50-5 M, Bu 123, Tennyson, Blocher; (Sec 2, 1 cr) Ar, Hoyt; (Sec 4, Cr ar) Ar, Ar
- 260 Educational Psychology Seminar. (No cr) Ar, Staff
- 280 Practicum in Group Leadership. (3 cr; prereq #) Ar, Flanders
- 281 Practice in Personnel Work. (Cr ar; prereq 265, 266 or #) Sec 2, Ar, Snoke, Wrenn
- 282B Supervised Practicum in Counseling. (3 cr; prereq #) I-IV S, Bu 129, Soldahl, Blocher
- 287 Practicum: School Psychological Services. (1-3 cr; prereq #) Ar, Hodges

- 288 Practicum: Special Education (Cr ar; prereq #) Ar, Kenmore, Capobianco
 292 Recent Literature (3 cr; prereq #) Ar, Hoyt

History and Philosophy of Education (HEd)

- 141 Critical Issues in Contemporary Education. (3 cr) IX-X T, CW 222, Beck
 156 History of Ideas in American Education. (3 cr) IX-X M, JohH 113, Bagley
 241* Problems in the History and Philosophy of Education. (Cr ar; prereq #)
 Ar, Beck, Bagley

Home Economics Education (HEEd)

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)

- 35 Fundamentals of Vocational Education. (3 cr) IX-X M, TNCW 116, Widdowson
 40 Analysis and Course Organization. (5 cr) IX-X WF, TNCW 113, Kavanaugh
 100 Industrial Instruction. (3 cr; prereq 40, Ed 55B, #) IX-X Th, TNCW 113, Micheels
 109 Conference Leading for Industry. (3 cr; prereq #) IX-X T, TNCW 116, Widdowson

Music Education (MuEd)

- 100 Principles of Music Education. (3 cr) IX-X T, ScH 104, Ivory
 104 Advanced Topics in Vocal Music Education. (3 cr; prereq sr, #) IX-X M, ScH 4, Ivory

Physical Education for Men (PEM)

- 234 The Curriculum in Physical Education. (3 cr; prereq 63, 101 or equiv) 4-5:30 MW, CH 214, Donnelly

Physical Education for Women (PEW)

- 118E Problems in Teacher Education in Health, Physical Education, Recreation. (Cr ar; prereq #) Baker, Jaeger, Slocum, Wells
 123 Advanced Course in Methods of Teaching Physical Education. (3 cr; prereq #) 4-5:30 TTh, NGW 3, Baker
 125 Curriculum Trends in the Professional Preparation of Teachers of Physical Education. (3 cr; prereq tchg exper or #) III-IV S, 1 hr ar, NGW 3, Jaeger
 221 Seminar in Physical Education. (0 cr) Ar, Baker, Jaeger, Slocum, Wells
 224 Research Problems in School Health Education, Physical Education and Recreation. (Cr ar; prereq 236, 135 or EPsy 116, #) Ar, Baker, Jaeger, Slocum, Wells

WINTER QUARTER, 1961

The following symbols and explanations are used throughout the bulletin:

* Graduate students may prepare Plan B papers.

† To receive credit, all courses listed after dagger must be completed.

‡ (Double dagger) Students may enter any quarter preceding the symbol.

§ (Section mark) No credit if credit received for equivalent course after symbol.

¶ Means "concurrent registration in."

(Sharp) Means "consent of instructor."

E 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 (AgEd)

Persons interested in courses in agricultural education should write directly to Department of Agricultural Education, University of Minnesota, St. Paul 1.

Art Education (ArEd)

- 81 Puppetry in Education. (3 cr) I-IV S, Cherry
- 87A The Teaching and Supervision of Art. (2 cr, †86A, 87A, 88A; prereq sr art educ, 56-57, Ed 55A-55B, ¶87) IX-X T, Hastie
- 153 Curriculum Building in Art Education. (3 cr) I-II S, Hastie
- 184 Improving Art Programs in the Elementary Schools. (3 cr; prereq tchg exper or #) III-IV S, Gayne

Child Development and Welfare (CD)

- 142 The Psychology of Handicapped Children. (3 cr; prereq sr, 12 cr in psychology) 4-5:30 TTh, Templin
- 170 Parent Education. (3 cr; sr, grad; prereq 12 cr in child development or home economics, education, psychology, sociology, or public health) 4-5:30 TTh, Grams
- 248 Clinical Child Psychology. (3 cr; prereq #) IX-X MF, Wirt

Curriculum and Instruction (EdCI)

- 62 Teaching of Mathematics in the Elementary School. (3 cr; prereq Ed 75A) Sec 3, IX-X T, IX Th, Jackson
- 63 Children's Literature. (2 cr) Sec 2, IX-X W, Odland
- 66 Treatment of Learning Difficulties. (3 cr; prereq 60, 62A, stu tchg) Sec 1, IX-X W, Balow; Sec 2, IX-X W, Dykstra

- 102 Teaching Social Studies in the Elementary School. (3 cr; prereq Ed 75B) IX-X T, Ar
- 104 Adult Education. (3 cr) VIII-IX Th, Nolte
- 105 Audio-Visual Materials in Education. (3 cr; prereq sr) IX-X M, 1 hr lab per wk ar, Pearson
- 109 Audio-Visual Materials and Equipment Laboratory. (3 cr; prereq 105 or #105, or #) Lect IX-X T, Pearson; Lab, Sec 2, IX-X Th, Pearson
- 110 Practicum in Laboratory School Teaching, Grades K-6. (Cr ar; prereq 2 qtrs outstanding elem stu tchg, and/or elem tchg under contract...recommendation of adviser, director of stu tchg, and director of Elementary School) Ar
- 117 Braille II. (3 cr; prereq EdCI 116) IX-X MW, Kenmore
- 118 Procedures and Curriculum Adaptation in the Education of Blind Children I. (3 cr; prereq #) IX-X T, Kenmore
- 119 Elementary School Curriculum. (3 cr; prereq Ed 75B or equiv) III-IV S, Goossen
- 121 Selecting Literature for the Elementary School. (3 cr) I-II S, Odland
- 135 Group Procedures in Guidance. (3 cr; prereq EPsy 133 or #, 9 cr in education) I-II S, Tennyson
- 139 Co-ordination Techniques. (3 cr) 4-6:20 W, Meyer
- 143 Teaching and Supervision of Reading in the Elementary School. (3 cr; prereq 9 cr in education) IX-X T and 1 hr ar, Bond
- 145 Reading Difficulties. (3 cr; prereq 143 or 144) III-IV S and 1 hr ar, Bond
- 151 Diagnosis and Treatment of Learning Difficulties. (3 cr) I-II S, Balow
- 153 Supervision and Teaching of English in Elementary Schools. (3 cr; prereq Ed 75A, B, or equiv) IX-X W, Chase
- 161 Curriculum Construction in Business Education. (3 cr; prereq 113) III-IV S, Price
- 162 Laboratory in Nursery School and Kindergarten Instruction Practices. (3 cr; prereq tchg exper or #) IX-X W, Headley
- 168 Current Developments in the Social Studies. (3 cr; prereq grad or #) I-II S, McCune
- 170B Curriculum and Course of Study Construction. (3 cr; prereq 113 or 119 or #) IX-X T, Bossing
- 171 Curriculum Laboratory Practice. (0-3; prereq 170A or B or #) Ar, Bossing, Goossen
- 174, 175, 176 Clinical Methods and Practice in Speech Pathology. (3 cr per qtr; prereq Spch 61, 67, 119, 162, and 163) Ar
- 178 Educational and Social Implications of Visual Impairment. (3 cr; prereq #) III-IV S, Kenmore
- 191 Advanced Course in the Teaching and Supervision of Secondary Mathematics. (3 cr) IX-X Th, Johnson
- 199E Internship. (Cr ar) Ar
- 201* Problems in Teaching the Social Studies. (3 cr; prereq 155 or 168, 204 or #) Morse, McCune, West

- 205* Problems in Audio-Visual Education. (Cr ar; prereq #) Ar, Pearson
- 215* Problems in the School Health Education Program. (Cr ar; prereq #) Ar, Grout
- 222 Seminar: Current Problems in the Techniques of High School Instruction. (Cr ar; prereq Ed 55B and senior methods) IX-X W, Bossing, Keller, Popper, Winter
- 225* Special Problems in Secondary School Supervision. (Cr ar; prereq #) Ar, Keller, Lane, Popper
- 226 Seminar in Elementary School Problems. (2 cr) IX-X Th, Staff
- 227* Problems in Rural Education. (Cr ar; prereq EdAd 117) Ar, Archer
- 228* Problems in Higher Education and Teacher Education. (Cr ar; prereq #) Ar, Eckert
- 238* Problems in Distributive Education. (Cr ar; prereq #) Ar, Meyer
- 239* Problems in Business Education. (Cr ar; prereq #) Ar, Price
- 252 Effective College Teaching. (3 cr; prereq yr grad study in any field or 18 cr in education) I-II S, Eckert
- 254 Directed Experience in College Instruction. (Cr ar; prereq #) Ar, Eckert, Hill
- 257 Research: Language Instruction in Elementary Schools. (3 cr; prereq 153) IX-X W, 1 hr ar, Archer
- 261* Special Problems in the Improvement of Instruction. (Cr ar; prereq #) Ar, Archer, Goossen, Curtin, Stochl
- 263 Research in Mathematics Instruction in the Elementary School (3 cr) III-IV S, Stochl
- 271* Problems in Curriculum Construction. (3-6 cr; prereq #) Ar, Staff
- 273* Problems in Reading. (Cr ar; prereq 143 or 144 or #) Ar, Balow, Bond, Chase, Odland, Reynolds
- 280 Supervision of Counseling. (3 cr) Ar, Dugan, Tennyson, Soldahl, Blocher
- 284* Problems in Student Teaching. (3-9 cr; prereq #) Ar, Davies
- 285 The Professional Education of Teachers. (3 cr; prereq 15 cr in education incl 134 and 250 or HEd 182 or EPsy 250 or #) III-IV S, Davies
- 294* Advanced Course in Curriculum and Methods in Secondary School English. (2 cr; prereq EdT 75C) I-II S, Kegler
- 296* Special Problems in Teaching English. (Cr ar) Ar, Kegler

Educational Administration (EdAd)

- 117 Schools in Rural Areas. (3 cr) III-IV S and 1 hr ar, Archer
- 202 Foundations in Educational Administration. (3 cr) IX-X TTh, Lane
- 218 Recent Literature in Secondary Education. (Cr ar) IX-X W, Bossing, Keller, Popper, Winter
- 227 Teacher and Employee Administration. (Cr ar; prereq 225) I-II S and 1 hr ar, Lane
- 228* Special Problems in Educational Administration. (Cr ar; prereq 225) Ar, Domian, Hooker, Lane

- 230 Public Relations for Schools. (3 cr; prereq 225) IX-X TTh, Popper
- 235 Seminar in Educational Administration. (No cr) IX-X M, Bossing, Domian, Hooker, Keller, Lane, Popper
- 236 Field Study in Educational Administration. (0-10 cr; prereq #) Ar, Domian, Hooker, Lane
- 264 Administration of Instructional Activities in the Secondary School. (3 cr) III-IV S and 1 hr ar, Keller
- 270A* Special Problems in Elementary Education. (Cr ar; prereq #) Ar, Archer, Bond, Curtin, Goossen
- 270B* Special Problems in Secondary Education. (Cr ar; prereq #) Ar, Bossing, Domian, Hooker, Keller, Lane, Popper

Educational Psychology (EPsy)

- 133 Basic Procedures in Student Personnel Work. (3 cr; prereq 9 cr in educ) 3:45-5:15 W, Blocher
- 134 School Counseling Procedures. (3 cr; prereq 110 or 117, 133 or #) 3:45-5:15 TTh, Blocher
- 142 Individual Mental Testing. (3 cr; prereq EdCI 145 or 151 and #) III-IV S, Reynolds, Hodges
- 150 Clinical Practice in Remedial Teaching. (3 cr; prereq EdCI 145 or 151 and #) Ar, Balow
- 183 Education of Gifted Children. (3 cr; prereq Ed 55B or 75B) IX-X T, Reynolds
- 190 Educational Problems of Cerebral Palsy. (3 cr; prereq 182 or #) IX-X W, Force
- 191 Education of the Mentally Retarded in Secondary Schools. (3 cr; prereq 182 or #) IX-X W, Capobianco
- 233* Problems in Guidance and Personnel Work. (Sec 1, 1-9 cr) Ar, Tennyson; (Sec 2, 1-9 cr) Ar, Wrenn, Dugan, Edson, Hagenah, Snoke; (Sec 3, cr ar) 3:30-5 M, Blocher
- 240* Problems in Measurement. (Cr ar) Ar, Hoyt
- 243* Problems in Statistics for Students in Education and Psychology. (Cr ar) Ar, Collier
- 251 College Student Personnel Work. (1-3 cr; prereq 250 or other course in higher educ) Ar, Wrenn, Snoke
- 253* Research Problems. (Sec 1, cr ar) 3:30-5 M, Tennyson, Blocher; (Sec 2, cr ar) Ar, Hoyt; (Sec 4, cr ar) Ar, Staff
- 260 Educational Psychology Seminar. (No cr) Ar, Staff
- 280 Practicum in Group Leadership. (3 cr; prereq #) Ar, Flanders
- 281 Practice in Personnel Work. (Cr ar; prereq 226 or #) Sec 2, Ar, Wrenn, Snoke
- 282B Supervised Practicum in Counseling. (3 cr; prereq #) I-IV S, Soldahl, Blocher
- 287 Practicum: School Psychological Services. (1-3 cr; prereq #) Ar, Hodges
- 288 Practicum: Special Education. (Cr ar; prereq #) Ar, Kenmore, Capobianco

- 289 Survey of Special Education Problems. (3 cr; prereq 182, #) IX-X Th, Capobianco
- 292 Recent Literature. (3 cr; prereq #) Ar, Hoyt

History and Philosophy of Education (HEd)

- 101 Historical Foundations of Modern Education. (3 cr) IX-X T, Bagley
- 131 Comparative Education. (3 cr) IX-X M, Beck
- 241* Problems in the History and Philosophy of Education. (Cr ar; prereq 226 or #) Ar, Beck, Bagley

Home Economics Education (HEEd)

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)

- 101 Tests in Industrial Subjects. (3 cr; prereq Ed 55B) IX-X W, TNCW 113, Kavanaugh
- 105 Administration of Industrial Education. (3 cr; prereq 35 or equiv) IX-X T, TNCW 113, Nelson
- 107 Co-ordination. (3 cr; prereq 35 or 125 or #) IX-X M, TNCW 113, Widdowson
- 250 Literature. (3 cr) IX-X Th, TNCW 116, Micheels

Physical Education for Men (PEM)

- 107 Camp Administration. (3 cr; prereq PEM 46 and #) IX-X W, Osell, Ostrander, Thorpe

Physical Education for Women (PEW)

- 113 Physical Education in the Elementary School. (3 cr; prereq elem school exper or #) 4-5:30 TTh, NGW 3, Baker
- 115 Advanced Kinesiology. (3 cr; prereq undergrad course in kinesiology or #) 4-5:30 MW, NGW 3, Wells
- 117B Advanced Course for Secondary Schools in School Health. (3 cr, §117A; prereq 83 or #) III-IV S and 1 hr ar, NGW 3, Slocum
- 118E Problems in Teacher Education in Health, Physical Education, and Recreation. (Cr ar; prereq #) Ar, Baker, Jaeger, Slocum, Wells
- 221 Seminar in Physical Education. (No cr) Ar, Baker, Jaeger, Slocum, Wells
- 224* Research Problems in School Health Education, Physical Education, and Recreation. (Cr ar; prereq #) Ar, Baker, Jaeger, Slocum, Wells

SPRING QUARTER, 1961

The following symbols and explanations are used throughout the bulletin:

* Graduate students may prepare Plan B papers.

† To receive credit, all courses listed after dagger must be completed.

‡ (Double dagger) Students may enter any quarter preceding the symbol.

§ (Section mark) No credit if credit received for equivalent course after symbol.

¶ Means "concurrent registration in."

(Sharp) Means "consent of instructor."

E 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 (AgEd)

Persons interested in courses in agricultural education should write directly to Department of Agricultural Education, University of Minnesota, St. Paul 1.

Art Education (ArEd)

- 84A Teaching Art in the Elementary School. (3 cr; prereq 6 cr from 17, 18, and 19) I-IV S, Wold
- 88A Teaching Supervision. (2 cr, +86A, 87A, 88A; prereq sr, 56-57, Ed 55A-B, 188) IX-X T, Gayne
- 296 Seminar in Art Education. (1 cr) IX-X Th, Gayne and staff

Child Development and Welfare (CD)

- 213 Advanced Adolescent Psychology. (3 cr; prereq 12 cr in psychology, educational psychology, or sociology) 4-5:30 TTh, Grams
- 249 Treatment of Disturbed Children. (3 cr; prereq CD 248 or equiv) IX-X MF, Wirt

Curriculum and Instruction (EdCI)

- 63 Children's Literature. (2 cr) Sec 1, IX-X T, Odland
- 65 The Teaching of Science in the Elementary School. (3 cr; prereq Ed 75A, 10 cr in natural science) Sec 2, IX-X T, IX Th, Goossen
- 66 Treatment of Learning Difficulties. (3 cr; prereq 60, 62A, stu tchg) IX-X W, Dykstra
- 103 Teaching Science in the Elementary School. (3 cr; prereq sr, Ed 75B or tchg exper) III-IV S, Goossen

- 110 Practicum in Laboratory School Teaching, Grades K-6. (Cr ar; prereq 2 qtrs outstanding elem stu tchg, and/or elem tchg under contract...recommendation of adviser, director of student teaching, and director of Elementary School) Ar, Staff
- 113 High School Curriculum. (3 cr; prereq Ed 55A-B or equiv) III-IV S, Winter
- 120 Education of Blind Children in the Secondary Schools. (3 cr) IX-X M, Kenmore
- 122 Literature for Adolescents. (3 cr; prereq Ed 55B or jr-sr high school tchg exper) I-II S, Kegler
- 125 Occupational Information Laboratory. (3 cr; prereq #) Sec 2, 3:45-5:15 TTh, Tennyson
- 132 Teaching the Basic Business Subjects. (3 cr) I-II S, Price
- 133 Consumer Education in the Schools. (3 cr) IX-X Th, Price
- 141 Co-operative Part-time Work Experience Programs. (3 cr) 4-6:20 W, Meyer
- 144 Teaching of Reading in Secondary Schools. (3 cr; prereq 9 cr in educ) IX-X W and 1 hr ar, Chase
- 145 Reading Difficulties. (3 cr; prereq 143 or 144) IX-X T and 1 hr ar, Bond
- 149 Teaching and Supervision of Mathematics in the Elementary School. (3 cr; prereq 9 cr in educ) 4:30-6 MW, Stochl
- 150 Supervision and Improvement of Instruction. (3 cr; prereq 9 cr in educ) I-II S, Curtin
- 151 Diagnosis and Treatment of Learning Difficulties. (3 cr) IX-X M, Balow
- 153 Supervision and Teaching of English in Elementary Schools. (3 cr; prereq Ed 75A, B, or equiv) III-IV S, Archer
- 155 Materials Laboratory for Social Studies Teachers. (3 cr; prereq #) IX-X T, West
- 159 Materials Laboratory, Secondary School Distributive Education. (3 cr; prereq 137A or EdT 90A-B-C or #) 4-6:20 T, Meyer
- 171 Curriculum Laboratory Practice. (0-3 cr; prereq 170A or B or #) Ar, Bossing, Goossen
- 173B Organizing Units of Instruction in the Secondary School. (3 cr; prereq 113 or #) IX-X Th, Bossing
- 174, 175, 176 Clinical Methods and Practice in Speech Pathology. (3 cr per qtr; prereq Spch 61, 67, 119, 162 and 163) Ar
- 182 Education of Partially Seeing Children. (3 cr; prereq 115, 178) IX-X W, Kenmore
- 192 Advanced Course in the Teaching and Supervision of Secondary Mathematics. (3 cr) IX-X Th, Johnson
- 199E Internship. (Cr ar) Ar, Staff
- 201* Problems in Teaching the Social Studies. (3 cr; prereq 155 or 168, 204 or #) Ar, Morse, McCune, West
- 203 Supervision, Administration of Special Education. (3 cr; prereq #) IX-X T, Force
- 205* Problems in Audio-Visual Education. (Cr ar; prereq #) Ar, Pearson

- 215* Problems in the School Health Education Program. (Cr ar; prereq #) Ar, Grout
- 222 Seminar: Current Problems in the Techniques of High School Instruction. (Cr ar; prereq Ed 55A, B, and senior methods) IX-X W, Bossing, Keller, Winter, Popper
- 225* Special Problems in Secondary School Supervision. (Cr ar; prereq #) Ar, Keller, Lane, Popper
- 226 Seminar in Elementary School Problems. (2 cr) IX-X Th, Staff
- 227* Problems in Rural Education. (Cr ar; prereq EdAd 117) Ar, Archer
- 228* Problems: Higher Education and Teacher Education. (Cr ar; prereq #) Ar, Eckert
- 238* Problems in Distributive Education. (Cr ar; prereq #) Ar, Meyer
- 239* Problems in Business Education. (Cr ar; prereq #) Ar, Price
- 253 Seminar on the Improvement of College Instruction. (Cr ar) 7:30-9:30 p.m. W, Eckert
- 254 Directed Experience in College Instruction. (Cr ar; prereq #) Ar, Hill
- 261* Special Problems in the Improvement of Instruction. (3 cr; prereq #) Ar, Archer, Goossen, Curtin, Stochl
- 266 Supervision of High School Instruction. (3 cr; prereq EPsy 193 or 293 or #) IX-X M and 1 hr ar, Thompson
- 271* Problems in Curriculum Construction. (3-6 cr; prereq #) Ar, Staff
- 273* Problems in Reading. (Cr ar; prereq 143 or 144 or #) Ar, Bond, Chase, Odland, Reynolds, Balow
- 280 Supervision of Counseling. (3 cr; prereq #) Ar, Dugan, Tennyson, Soldahl, Blocher
- 284* Problems in Student Teaching. (Cr ar; prereq #) Ar, Davies
- 286 The Professional Education of Teachers. (3 cr; prereq 15 cr in education incl 184, 250 or HEd 182 or EPsy 250 or #) III-IV S, Davies
- 296* Special Problems in Teaching English. (Cr ar) Ar, Kegler

Educational Administration (EdAd)

- 118 The Community School. (3 cr; prereq sr, grad) IX-X W, Archer
- 167 Junior High School. (3 cr; prereq sr, 9 cr in education) IX-X T, Bossing
- 215 The Elementary School Principalship. (3 cr) III-IV S, Curtin
- 218 Recent Literature in Secondary Education. (Cr ar) IX-X W, Bossing, Keller, Winter
- 224 Legal Aspects of Public School Administration. (3 cr) I-II S and 1 hr ar, Hooker
- 226 School Plant Planning and Management. (3 cr; prereq 227) I-II S and 1 hr ar, Domian
- 228* Special Problems in Educational Administration. (Cr ar; prereq 225) Ar, Hooker, Lane, Domian
- 235 Seminar in Educational Administration. (No cr) IX-X M, Bossing, Domian, Hooker, Keller, Lane, Popper

- 236 Field Study in Educational Administration. (0-10 cr; prereq #) Ar, Domian, Hooker, Lane, Popper
- 265 Administration of Noninstructional Activities in Secondary Schools. (3 cr) IX-X Th, Thompson
- 270A Special Problems in Elementary Education. (Cr ar; prereq #) Ar, Staff
- 270B Special Problems in Secondary Education. (Cr ar; prereq #) Ar, Staff

Educational Psychology (EPsy)

- 125 Group Dynamics. (3 cr) IX-X T, 2 hrs ar, Flanders
- 133 Basic Procedures in Student Personnel Work. (3 cr; prereq 9 cr in education) I-II S, R Johnson
- 148 Clinical Diagnosis of Reading Difficulties. (3 cr; prereq EdCI 145 or 151 and #) I-II S, Balow
- 150 Clinical Practice in Remedial Teaching. (3 cr; prereq EdCI 145 or 151 and #) Ar, Balow
- 152 Introduction to School Psychological Services. (3 cr) III-IV S, Hodges
- 182 Education of Exceptional Children. (3 cr; prereq Ed 55B or 75B or equiv) I-II S, Force
- 184 Education of the Slow-Learning Child. (3 cr; prereq 182) IX-X W, Capobianco
- 233* Problems in Guidance and Personnel Work. (Cr ar) Sec 1, Ar, Tennyson; Sec 2, Ar, Dugan, Wrenn, Edson, Hagenah, Snoke
- 240* Problems in Measurement. (3 cr) Ar, Hoyt
- 243* Problems in Statistics for Students in Education and Psychology. (Cr ar) Ar, Collier
- 244 Research: Special Education. (3 cr; prereq 116, 117 or equiv, #) IX-X Th, Force, Capobianco
- 253* Research Problems. (Sec 2, cr ar) Ar, Hoyt; (Sec 3, cr ar) Ar, Hodges; (Sec 4, cr ar) Ar, Ar
- 259 Personality Theory in Mental Hygiene. (Cr ar; prereq grad) I-II S, Flanders
- 260 Educational Psychology Seminar. (No cr) Ar, Staff
- 280 Practicum in Group Leadership. (Cr ar; prereq #) Ar, Flanders
- 281 Practice in Personnel Work. (Cr ar) Sec 2, Ar, Snoke
- 287 Practicum: School Psychological Services. (1-3 cr; prereq #) Ar, Hodges
- 288 Practicum: Special Education. (Cr ar; prereq #) Ar, Kenmore, Capobianco
- 292 Recent Literature. (3 cr; prereq #) Ar, Borow, Hoyt

History and Philosophy of Education (HEd)

- 141 Critical Issues in Contemporary Education. (3 cr) IX-X M, Bagley
- 182 Comparative Philosophies of Education. (3 cr; prereq 141) IX-X T, Beck
- 241* Problems in the History and Philosophy of Education. (Cr ar; prereq #) Ar, Beck, Bagley

Home Economics Education (HEEd)

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)

- 110 Vocational Guidance. (3 cr; prereq Ed 55B) IX-X Th, Nelson
- 125 Philosophy and Practice of Industrial Education. (3 cr) IX-X M, Widdowson
- 135 Industrial Course Construction. (3 cr, \$40) IX-X T, Kavanaugh
- 251 Research. (3 cr) IX-X W, Micheels

Music Education (MuEd)

- 103 Psychological Foundations. (3 cr; prereq sr, #) IX-X M, Ar

Physical Education for Women (PEW)

- 104 Teaching of Physical Education for the Handicapped Child. (3 cr; prereq sr, #) III-IV S and 1 hr ar, Wells
- 114 Administration of School Health Education Program. (3 cr; prereq sr, PEW 83, PubH 50 or #) 4-5:30 TTh, Slocum
- 118E Problems in Teacher Education in Health, Physical Education, and Recreation. (Cr ar; prereq #) Ar, Baker, Jaeger, Slocum, Wells
- 124 Supervision of Physical Education. (3 cr; prereq #) 4-5:30 MW, Jaeger
- 221 Seminar in Physical Education. (No cr) Ar, Baker, Jaeger, Slocum, Wells
- 224* Research Problems in School Health Education, Physical Education, and Recreation. (Cr ar; prereq #) Ar, Baker, Jaeger, Slocum, Wells

Calendar 1960-61

FALL QUARTER

September

- 23 Fall Registration
- 5 Holiday (Labor Day)
- 15 Fall quarter fees due for students registered through September 9
- 16-24 New Students' Camps, September 11-18; New Students' Parents' Day, September 18; Welcome Week, September 17-24
- 23 Last day for registration and payment of fees for the undergraduate colleges
- 26 Fall quarter classes begin
- 29 Opening convocation, 11:30 a.m., IV hour classes excused
- 30 Last day for registration and payment of fees for the Graduate School and for teachers in service

October

- 12 Holiday (Columbus Day)
- 15 Homecoming Day

November

- 3 Senate meeting, 3:30 p.m.
- 11 Holiday (Veterans Day)
- 24 Holiday (Thanksgiving)
- 25-26 Classes excused (except Medical and Veterinary)

December

- 8 Senate meeting, 3:30 p.m.
- 9-15 Final examination period
- 15 Commencement, 8 p.m.
- 17 Fall quarter closes

WINTER QUARTER

December

- 26 Holiday (Sunday, December 25, Christmas Day)
- 27 Winter quarter fees due for students in residence fall quarter
- 29-30 Orientation program; registration for new students in all undergraduate colleges

January

- 2 Holiday (Sunday, January 1, (New Year's Day)
- 3 Registration resumes. Winter quarter fees due for new stu-

dents in all undergraduate colleges. Winter classes begin

- 6 Last day for registration and payment of fees for the Graduate School and teachers in service

February

- 2 Senate meeting, 3:30 p.m.
- 20-26 University of Minnesota Week
- 22 Holiday (Washington's Birthday)
- 23 Charter Day Convocation, 11:30 a.m., IV hour classes excused

March

- 9 Senate meeting, 3:30 p.m.
- 10-11 and
- 13-16 Final examination period
- 16 Spring quarter fees due for students in residence winter quarter in undergraduate colleges
- Commencement, 8:30 p.m.
- 18 Winter quarter closes

SPRING QUARTER

March

- 23-24 Orientation program, registration, and payment of fees for new students in all undergraduate colleges
- 27 Spring quarter classes begin
- 30 Last day for registration and payment of fees for the Graduate School and for teachers in service
- 31 Holiday (Good Friday)

April

- 27 Senate meeting, 3:30 p.m.

May

- 18 Cap and Gown Day Convocation, 11:30 a.m., IV hour classes excused
- 30 Holiday (Memorial Day)

June

- 1 Senate meeting, 3:30 p.m.
- 3 and 5-9 Final examination period
- 4 Baccalaureate service, 3 p.m.
- 10 Commencement, 8 p.m.
- Spring quarter closes

Major Advisers

EDUCATION FIELDS

Agricultural Education

Milo J. Peterson—205 Horticulture (StP)

Art Education

Clifton Gayne—106 Jones
W. Reid Hastie—106 Jones

Business Education

Ray G. Price—117 Burton

Child Development and Welfare

Harold W. Stevenson—102 Child Welfare
Merrill F. Roff—202 Child Welfare
Mildred C. Templin—205 Child Welfare

Core Curriculum

Nelson L. Bossing—246 Burton

Curriculum and Instruction

Clifford P. Archer (Elem.)—136 Burton
Nelson L. Bossing (Sec.)—246 Burton
Emma Birkmaier (Lang.)—224 Peik
Clarence H. Boeck (Sci.)—370 Peik
Guy L. Bond (Elem.)—214 Burton
Naomi Chase (Elem.)—221 Burton
James Curtin (Elem.)—101 Pattee
Carl V. Goossen (Elem.)—136 Burton
Donovan A. Johnson (Math.)—330 Peik
Stanley Kegler (Engl.)—230 Peik
George H. McCune (Soc. St.)—103 Wesbrook
Warren G. Meyer (Dist. Ed.)—115 Burton
Norine Odland (Elem.)—136 Burton
Ray G. Price (Bus. Ed.)—117 Burton
Edith West (Soc. St.)—166 Peik
Stephen S. Winter (Sec.)—243 Burton

Distributive Education

Warren G. Meyer—115 Burton

Educational Administration

Clifford P. Archer (Elem.)—136 Burton
Nelson L. Bossing (Sec.)—246 Burton
James Curtin (Elem.)—101 Pattee
Otto Domian (Gen.)—207 Burton
Carl V. Goossen (Elem.)—136 Burton
Clifford P. Hooker (Gen.)—205 Burton
Robert J. Keller (Sec.)—130 Peik
Willard R. Lane (Sec.)—201 Burton
Samuel H. Popper (Gen.)—203 Burton

Educational Psychology

Guy L. Bond—214 Burton
Henry Borow—118 Nicholson
Raymond Collier—226 Burton
Willis E. Dugan—139 Burton
William H. Edson—206 Burton
Ned A. Flanders—104 Child Welfare
Theda Hagenah—101 Eddy
Cyril J. Hoyt—139A Burton
Maynard Reynolds—14 Pattee
John E. Stecklein—330 Burton
Wesley Tennyson—137 Burton
E. Paul Torrance—330 Burton
C. Gilbert Wrenn—139C Burton

Elementary Education

See *Curriculum and Instruction and Educational Administration*

Health Education

Ruth Grout—1325 Mayo

Higher Education

Don Davies—229 Burton
Ruth E. Eckert—255 Burton
C. Gilbert Wrenn—139C Burton

History and Philosophy of Education

Robert H. Beck—233 Burton

Home Economics Education

Roxana R. Ford—117 McNeal (StP)
Marjorie Brown—119 McNeal (StP)
Amy Jean Holmblade—107 McNeal (StP)

Industrial Education

William J. Micheels—103 TNCW
Howard Nelson—103 TNCW

Library Science

D. K. Berninghausen—6 Walter Library
A. Patricia Zimmerman—3 Walter Library

Methods and Directed Teaching

Don Davies—229 Burton

Music Education

Arnold Caswell—214 Scott
Paul Ivory—214 Scott
Paul Oberg—106 Scott

Nursery-Kindergarten-Primary Education

Katherine Sorenson—250 Burton

Nursing Education

Edna L. Fritz—125 Owre

Physical Education for Men

Richard J. Donnelly—220B Cooke
William Heusner—218 Cooke
Eugene Stish—217 Cooke

Physical Education for Women

Gertrude Baker—104 Norris Gymnasium

Recreational Leadership

Gerald B. Fitzgerald—204 Cooke
Frederick M. Chapman—204 Cooke

Special Education

R. J. Capobianco—14 Pattee
Dewey G. Force, Jr.—14 Pattee
Maynard C. Reynolds—14 Pattee

SUBJECT MATTER FIELDS

Botany

See Natural Science

Chemistry

See Natural Science

English

Stanley Kegler—230 Peik
Norine Odland—136 Burton
Harold Allen—317 Folwell

Geography

John Borchert—282 Ford

German

Edwin E. Menze—214 Folwell

History

W. E. Wright—219 Ford

Journalism

Fred L. Kildow—106 Murphy

Latin

Norman J. DeWitt—118 Folwell

Mathematics

Warren S. Loud—100 Folwell
Elizabeth Carlson—121 Folwell
Gerhard K. Kalisch—125 Folwell
David A. Storvick—123 Folwell

Natural Science

Clarence Boeck—370 Peik

Physics

See Natural Science

Political Science

Asher Christensen—392 Ford
George Warp—358 Ford

Romance Languages

Eugene H. Falk (French)—200 Folwell
Rodolfo Floripe (Spanish)—318 Folwell

Social Studies

George McCune—103 Westbrook
Edith West—166 Peik

Sociology

Arthur Johnson—446 Ford

Speech and Theater Arts

Kenneth Graham—306 Nicholson
Donald K. Smith—401 Folwell
Frank Whiting—105 Shevlin
Arthur A. Ballet—102 Shevlin

Speech Pathology

Clark Starr—225B Shevlin

Zoology

See Natural Science

Summary of Class Schedules, 1960-1961

SATURDAY (I-II)	SATURDAY (III-IV)	MONDAY (IX-X)	TUESDAY (IX-X)	WEDNESDAY (IX-X)	THURSDAY (IX-X)	FRIDAY (IX-X)
FALL QUARTER						
ArEd 156	ArEd 185	CD 179	ArEd 86A	EdCI 63	EdCI 109	CD 179
EdCI 102	EdCI 135	EdCI 106	EdCI 109	EdCI 66	EdCI 116	Ind 40
EdCI 105	EdCI 143	EdCI 150	EdCI 113	EdCI 115	EdCI 125††	
EdCI 156	EdCI 149	EdAd 235	EdCI 125††	EdCI 119	EdCI 131	
EdCI 251	EdCI 184	EPsy 244	EdCI 130	EdCI 136§§	EdCI 226	
EdCI 294	EdAd 101	EPsy 250	EdCI 144	EdCI 153	EdAd 201¶¶	
EdAd 215	EdAd 210	EPsy 253††	EdCI 160§§	EdCI 222	EPsy 187	
EPsy 133	EdAd 274	HEd 156	EdCI 204	EdAd 218	Ind 100	
EPsy 193	EPsy 159	Ind 35	EdAd 118	EPsy 133††	PEW 123††	
EPsy 282B (I-IV)	EPsy 182	MuEd 104	EdAd 201¶¶	EPsy 184		
	PEW 125	PEM 234††	HEd 141	Ind 40		
			Ind 109	PEM 234††		
			MuEd 100			
			PEW 123††			
WINTER QUARTER						
ArEd 81 (I-IV)	ArEd 184	CD 248	ArEd 87A	EdCI 63	CD 142††	CD 248
ArEd 153	EdCI 119	EdCI 105	CD 142††	EdCI 66	CD 170††	
EdCI 121	EdCI 145	EdCI 117	CD 170††	EdCI 117	EdCI 104 (VIII-IX)	
EdCI 135	EdCI 161	EdAd 235	EdCI 62	EdCI 139§§	EdCI 109	
EdCI 151	EdCI 178	EPsy 233**	EdCI 102	EdCI 153	EdCI 191	
EdCI 168	EdCI 263	EPsy 253**	EdCI 109	EdCI 162	EdCI 226	
EdCI 252	EdCI 285	HEd 131	EdCI 118	EdCI 222	EdAd 202	
EdCI 294	EdAd 117	Ind 107	EdCI 143	EdCI 257	EdAd 230	
EdAd 227	EdAd 264	PEW 115††	EdCI 17C B	EdAd 218	EPsy 134††	
EPsy 282B (I-IV)	EPsy 142		EdAd 202	EPsy 133††	EPsy 289	
	PEW 117B		EdAd 230	EPsy 190	Ind 250	
			EPsy 134††	EPsy 191	PEW 115††	
			EPsy 183	Ind 101		
			HEd 101	PEM 107		
			Ind 105	PEW 115††		
			PEW 113††			
SPRING QUARTER						
ArEd 84A (I-IV)	EdCI 103	CD 249	ArEd 88A	EdCI 66	ArEd 296	CD 249
EdCI 122	EdCI 113	EdCI 120	CD 213††	EdCI 141§§	CD 213††	
EdCI 132	EdCI 153	EdCI 149¶¶	EdCI 63	EdCI 144	EdCI 65	
EdCI 150	EdCI 286	EdCI 151	EdCI 65	EdCI 149¶¶	EdCI 125††	
EdAd 224	EdCI 215	EdCI 266	EdCI 125††	EdCI 182	EdCI 133	
EdAd 226	EPsy 152	EdAd 235	EdCI 145	EdCI 122	EdCI 173B	
EPsy 133	PEW 104	HEd 141	EdCI 155	EdCI 253**	EdCI 192	
EPsy 148		Ind 125	EdCI 159§§	EdAd 118	EdCI 226	
EPsy 182		MuEd 103	EdCI 203	EdAd 218	EdAd 265	
EPsy 259		PEW 124††	EdAd 167	EPsy 184	EPsy 244	
			EPsy 125	Ind 251	Ind 110	
			HEd 182	PEW 124††	PEW 114††	
			Ind 135			
			PEW 114††			

KEY
** 3:30-5
†† 3:45-5:15
‡ 4-5:30
§§ 4-6:20
¶¶ 4:30-6
7:30-9:30 P.M.