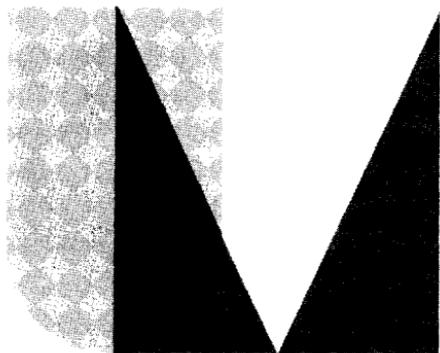
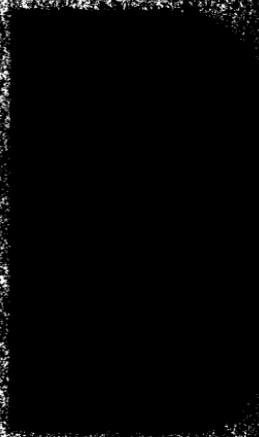
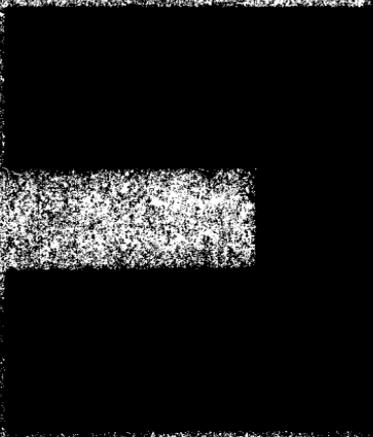


UNIVERSITY
MINNESOTA
BULLETIN



1968-70

SCHOOL OF EDUCATION COLLEGE OF EDUCATION



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, page 2.
- Admission Requirements, page 4.
- Graduation Requirements, page 7.
- Procedures and Practices in the College of Education, page 9.
- Student Services, page 13.
- Special Agencies, page 14.
- Awards and Scholarships, page 16.
- Master of Education Degree Requirements, page 16.
- Graduate Study in Education, page 16.

Section II, Curricula (pages 18-96)—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 of this bulletin for specific page references.

Section III, Description of Courses (pages 97-144)—This section lists the undergraduate and graduate courses offered in the College of Education.

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

- College of Liberal Arts Bulletin*
- Agriculture and Forestry Bulletin*
- Home Economics Bulletin*
- Graduate School Bulletin*

All of these bulletins are available at the information booth in Morrill Hall or may be obtained by writing to the Office of Admissions and Records, University of Minnesota, Minneapolis, Minnesota 55455.

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 *Army-Navy-Air Force ROTC Bulletin*.

UNIVERSITY OF MINNESOTA

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COLLEGE OF EDUCATION

Section I. General Information

The College of Education at the University of Minnesota was established in 1905 to prepare men and women for teaching in the schools of Minnesota and working in 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 prepare 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 life. Toward these ends the College of Education utilizes all the resources of its own faculty and works in cooperation with other colleges of the University.

The College of Education is united with other colleges of the University in the common aim of fostering liberal education for all students, regardless of specialization or vocational goals. A liberal education is one that frees us from ignorance, enables us to experience life more fully, and enlarges our powers to judge intelligently. To participate in the quest for a liberal education requires that we seek to expand our control over the primary instruments of acquiring and communicating knowledge; that we seek to understand both the broadly significant findings of the sciences and the methods whereby the sciences contribute to man's knowledge of himself and his environment; that we seek historical and philosophical perspective on the nature of our own lives and the world in which we live; and that we seek to vivify our lives through an understanding and appreciation of the arts. Learning to view and use these knowledges, skills, and appreciations in a way that will disseminate them more broadly throughout society is integral to the quest for a liberal education as it is understood by the College of Education.

A student desiring to complete an undergraduate degree program in the College of Education is expected to distribute some part of his course work in areas of study beyond those most closely associated with his specialized or vocational interests.

COURSES OF STUDY

All students who plan to receive a teacher's certificate from the state of Minnesota upon graduation from the University of Minnesota (Minneapolis and St. Paul) must complete a B.S. degree program in the College of Education. Students wishing physical education or recreation and park administration programs enter the College of Education as freshmen. All other majors take 1 or 2 years of preprofessional work in another college before entering the College of Education.

This section of the bulletin contains brief descriptions of the courses of study, admission requirements, graduation requirements, and procedures and practices that are followed in the College of Education. These requirements

should be studied as well as the detailed requirements for a particular curriculum as listed in Section II of this bulletin.

Detailed information concerning general entrance requirements, as well as University admission procedures and estimated expenses, will be found in the *General Information Bulletin*. The Office of Admissions and Records, University of Minnesota, will send the student a copy upon request.

Programs in Which Students Normally Begin Directly in the College of Education

Students who wish to be graduated in physical education or recreation and park administration are encouraged to register as freshmen in the College of Education and complete the program of study as prescribed in Section II. Students in other colleges who decide on one of these majors should transfer to the College of Education as soon as possible.

Programs in Which Students Normally Spend the Freshman Year in the College of Liberal Arts

Students who wish to major in art education, business and distributive education, industrial education, and music education spend 1 year in the College of Liberal Arts taking preparatory work as prescribed in the appropriate curriculum in Section II. They apply for a transfer to the College of Education early in the third quarter of the freshman year.

Programs in Which Students Normally Spend Two Years in the College of Liberal Arts

Students wishing to major in one of the following programs spend 2 years in the College of Liberal Arts:

Biological Science	Language Arts
Chemistry	Latin
Earth Science	Mathematics
Economics	Physics
Elementary Education	Political Science
English	Russian
French	Sociology
Geography	Spanish
German	Speech
History	Speech Pathology

These students apply for transfer to the College of Education early in the third quarter of their sophomore year.

Combined Programs with the College of Liberal Arts

Students who qualify may combine programs of the College of Liberal Arts and of the College of Education and earn both the B.A. and B.S. degrees. The student must complete the requirements of both colleges and must register

General Information

3 quarters in the Upper Division of each college. Students 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. They should formally apply for admission to the program early in the third quarter 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 combined program in the third quarter of their third (junior) year. The student carries courses in both colleges concurrently during the fourth and fifth years and is awarded both degrees when he meets the graduation requirements that include: (1) the prescribed courses in both colleges and a total of 245 credits; (2) 45 credits of graduate level courses (numbered 100 or higher) in physics and education (maximum of 12 in education) with a B (3.00) average; (3) a research or expository paper; and (4) a minimum of 45 credits earned while in residence in the College of Education. The residence requirement is to be met by transferring to the College of Education for the fifth year of the combined program.

Master of Education Degree and 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, 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 or during the sophomore year for entrance to a 2-year program. (See *Army-Navy-Air Force ROTC Bulletin*.)

ADMISSION REQUIREMENTS

General Statement—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

Admission Requirements

teaching, and at other points in the training which may be necessary in individual cases.

1. Students who apply for admission to the College of Education must satisfactorily complete certain clearance procedures as listed in the instruction sheet issued at the time of application. One of the clearances requires a certificate from the University Health Service indicating that the student has no physical limitations or health conditions which would prevent successful pursuit of educational work.
2. Students applying for admission must present a record of success in previous academic work.
 - a. To be considered for admission to the College of Education as a freshman, a high school graduate must have a college aptitude rating of 50 or higher. This rating is the average of the applicant's percentile rank in his high school graduating class and his percentile rank among University freshmen on a college aptitude test. Such students are considered without reference to the pattern of courses taken in high school.
 - b. To be considered for admission with advanced standing a student must have at least a C (2.00) average in all of his previous work. In addition, a student applying for a program that prepares for teaching above the elementary grades must have earned at least a C+ (2.50) average in all college courses that will be counted toward his major.
 - c. Students who intend to enter the College of Education after 1 or 2 years of preprofessional study in the College of Liberal Arts must meet the freshman entrance requirements of that college. (See *General Information Bulletin*.)

Admission Requirements for Specific Programs in Education

Specific admission requirements have been established for the elementary program as well as for the agricultural education, art education, business and distributive education, home economics education, industrial education, music education, and speech pathology programs. The student who plans to enter the College of Education should read carefully the requirements for the program of his choice. (See Section II.)

Admission to Academic Secondary Curriculums

Students who have taken 2 years of work in the College of Liberal Arts and are preparing to teach academic subjects in high school may be considered for admission to the College of Education upon satisfying the following requirements:

1. 90 quarter credits with a C (2.00) grade point average.

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2. 15 quarter credits in a major field with a C+ (2.50) grade point average.
3. 10 quarter credits in a minor field with a C (2.00) grade point average. (In the case of those individuals taking broad field majors, the minors may be subdivisions of the broad field major and the student should present a minimum of 25 credits in the major.)
4. Freshman English: Engl 1-2-3 or Comm 1-2-3 or Engl 10H-11H-12H, or Engl A-B-C, or Comp 1-2-3, or exemption.
5. 48 credits from the following categories as indicated below. Courses used to meet major and/or minor requirements may be included in these 48 credits.
 - a. *Communication, Language, or Symbolic Systems*: English and foreign language skills; linguistics, rhetoric, logic, philosophical analysis; mathematics (9 credits; freshman composition may not be included).
 - b. *Physical and/or Biological Science*: (12 credits).
 - c. *Man and Society*: Psy 1-2 and 12 credits selected from among at least two of the following fields: history, geography, political science, sociology, anthropology, and economics (or SSci 1-2-3 plus an additional 3-credit course in one of the social sciences).
 - d. *Artistic Expression*: (9 credits from literature, humanities, art, and music; freshman English may not be included).
6. PubH 5 or 50 (3 credits) or equivalent.
7. Nonprofessional physical education courses (3 credits).

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.

Admission of Students from Colleges Outside the University

Students who have not completed the amount and kind of course work necessary for admission to a program of the College of Education will generally be expected to complete the prescribed work in the College of Liberal Arts.

Students with 2 full years of quality college work who lack minor requirements may be admitted to the College of Education and make up deficiencies after admission. Such deficiencies, however, may delay graduation or necessitate extra summer work.

Admission of Students with Three 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

Graduation Requirements

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 program is available for those entering with a Bachelor's degree (see Elementary Education, Curriculum IIIA). 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 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.

Adult Special Students

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.

GRADUATION REQUIREMENTS

Students who complete the following requirements graduate from the College of Education with the bachelor of science degree and receive upon application 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

A minimum of 186 credits and a C (2.00) average, including the required courses in physical education, is needed for graduation. During the junior and senior years a grade average of C (2.00) for all courses except those in the major must be maintained. In a teaching minor a grade average of C (2.00) is required. In the student's teaching major subject, excepting elementary education, a grade average of C+ (2.50) is required. The required grade average is based on University of Minnesota work exclusive of courses offered by the General College.

The College of Education permits its students to register for certain courses offered on a P-N basis, but interested students should check the restrictions on the use of P-N courses that are posted at the Student Personnel Office.

Professional Requirements for Students Graduating from all Curricula Except Secondary Academic

The requirements for these programs are outlined in the descriptions of the specific curricula in Section II of this bulletin.

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Professional Requirements for Students Graduating with Secondary Academic Majors

The following requirements are for students with 2 years of college preparation who are enrolled in the 2-year College of Education curricula 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 each of the majors in the area of social 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 minor may be presented in military science, naval science, or air science. Students should select majors and minors early in their college course and with regard to the demands of high schools. 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 courses in methods and teaching in his major field (prereq Ed 55A-B). These courses include general methods, special methods, and student teaching, and are normally spread over more than 1 quarter. (See Index under Methods and Student Teaching.)
- c. History and philosophy of education—Satisfactory completion of HEd 90 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. All of these courses are described in Section III, Description of Courses.

Health Education

All students in the College of Education except those in 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

Procedures and Practices in the College of Education

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.

Residence Requirements

A minimum of 45 credits must be earned while in residence in the College of Education. Thirty of the last 45 credits of the degree must be earned in residence. 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, Duluth, or Robbinsdale.

The required courses in education are arranged in a sequence for the junior and senior years. A student who does not enter the College of Education by the fall or winter quarter of his junior year may need to register for the summer terms 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 "with 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 or 5th-year curricula 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 Student Personnel Office in 206 Burton Hall.

Admission Procedures—There is a different admission procedure for the various groups of students entering the College of Education: (1) those without previous college training, (2) those transferring from another division of the University, (3) those transferring from another collegiate institution, and (4) adult special students.

1. Students without previous college training apply for admission as freshmen. They are referred to the *General Information Bulletin* and are

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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 instructions. 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 the Office of Admissions and Records in Morrill Hall, 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—Students who believe themselves sufficiently prepared in some subjects to pass examinations in them upon entrance may, with the approval of the Committee on Student Scholastic Standing, take such examinations without charge. They may 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 206 Burton Hall.

Change of Registration—The student who finds it necessary to change his program should obtain a change in 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.

A student is not permitted to change his registration in a course to a different grading system on or after the opening day of the quarter.

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

Procedures and Practices in the College of Education

Clearance for Admission to the Junior Year—Students who are enrolled in the College of Education in the sophomore year are asked to complete clearances during the spring quarter. They take the required physical examination and psychological and speech tests according to printed instructions mailed to them during winter quarter.

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 Committee on Student Scholastic Standing, 206 Burton, 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 previous to 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, during stated intervals throughout the year, depending upon the major and program they intend to complete. Exact dates when applications should be picked up, and when they must be submitted, are announced to students in the Official Daily Bulletin of the *Minnesota Daily*, and in the lecture sessions of Ed 55 and Ed 75.

Majors in biological science, chemistry, earth science, economics, elementary education, English, geography, German, French, history, language arts, Latin, mathematics, physics, political science, Russian, sociology, Spanish, and speech and theatre arts must pick up applications for student teaching in the Student Teaching Office, 227 Burton, during the first 3 weeks of the spring quarter prior to the academic year in which they will take methods and student teaching. They must present these applications to their advisers, who forward them with their recommendations within 1 week to the Student Teaching Office.

Majors in agricultural education, art education, business and distributive education, home economics education, industrial education, music education, physical education for men and for women, and speech pathology, and minors

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in health education and library science file applications early in the quarter preceding the one in which they expect to begin student teaching.

Minors in special education (teaching mentally retarded, crippled, hearing impaired, and visually handicapped children) and physical education for women file applications during the quarter preceding the one in which they expect to begin student teaching.

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

Summer Session student teaching is available only in a few fields and to a limited number of students during the first term. Student teaching is offered only for University of Minnesota 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 are subject to the approval of the director of student teaching, and involve the following "clearances":

1. Completion of a satisfactory pattern of courses in the major field and the recommendation of the major adviser.
2. Completion of the basic junior courses (Ed 55A-B for secondary education and Ed 75A for elementary education) and the recommendation of the course instructors.
3. C+ average (2.50 grade points per credit) in the major for all secondary programs except agricultural education, which has special requirements. The IA elementary program requires a C average (2.00) in all work in the major and outside the major, considered separately.
4. C average (2.00 grade points per credit) in the teaching minor, and satisfactory progress toward all other degree requirements of the college.
5. Completion of the College of Education psychological test battery given at the junior-year level.
6. 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.
7. Satisfactory rating on the Speech and Hearing Clinic tests included in the requirements for junior standing.
8. In modern languages, passing a special proficiency examination.

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 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 percent 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 (2.00) for all credits earned in any 1 year, and an average of less than C+ (2.50) in courses in the major subject.

Students who fail to make satisfactory progress toward a degree after being on probation for 1 quarter are in danger of being dropped.

Teacher Certification—When the senior student who wishes to teach in Minnesota registers for the final quarter in the College of Education, he is expected to apply for the teacher's certificate. He obtains the application form in 206 Burton Hall, attaches a money order for the certification fee (payable to the Treasurer, State of Minnesota) and leaves the application and money order at the College of Education window in the Office of Admissions 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.

Education Courses in the General Extension Division—For evening and correspondence study courses in education see the *Evening Classes Bulletin* and the *Independent Study Bulletin*. 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.

STUDENT SERVICES

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 student should consult his adviser con-

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cerning preparation in his major field, registration each quarter, and on general academic questions. 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 other schools in the state and in a variety of civic agencies is coordinated 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 workroom is open from 7:45 a.m. to 4:30 p.m., Monday through Friday.

Orientation-Registration Program—An orientation program for all new freshman and sophomore students is offered by the University shortly before the opening of each quarter. Students are expected to attend in order 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 student organizations in the College of Education maintain a joint office in 242 Burton Hall. Students interested in joining any education organizations or desiring 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 and candidates for the master of education degree, excepting those in recreation and park administration, register with the Bureau of Recommendations. The \$15 fee entitles the student to placement service for a 1-year period ending October 1.

SPECIAL AGENCIES

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—Selected Minneapolis public schools are used for demonstration, observation, and research. Senior students do their student teaching in the public schools of the Minneapolis-St. Paul metropolitan area, or in other parts of the state.

Marshall-University High School is a 6-year secondary school designed to provide opportunity for observation, demonstration, student teaching, ex-

perimentation, and research in secondary education. The University Nursery School provides similar facilities. Minneapolis schools located near the campus are affiliated with the College of Education for demonstrations and research in the elementary grades.

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

Education Library and Instructional Materials Center—To facilitate research, class instruction, and curriculum development studies, the College of Education library has been established on the second floor of the Walter Library. Instructional materials formerly included in the Curriculum Laboratory have served as the nucleus of a more extensive collection of curriculum materials, school textbooks, literature for children and adolescents, and other aids to improvement of instruction. Reference materials usable in research projects and professional books for class study are also included.

Institute of Child Development—The Institute of Child Development of the University of Minnesota has been a prominent center for research and study in child psychology since its founding in 1925. In its academic instructional program, the institute offers both undergraduate and graduate majors in child psychology. The undergraduate major is administered by the College of Liberal Arts. The graduate major is administered jointly by the institute and the Graduate School. The institute operates a laboratory nursery school for observation, research, and the training of nursery school teachers; and maintains a clinic for diagnostic study and treatment of a wide range of children's behavior problems. The research programs deal with personality and social development, language and cognitive development, and learning, perception, and motivation in children. The institute director, faculty, Nursery School, and Child Development Clinic are located in the Child Development 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 the diagnosis and remedy of special problems of children; (b) to encourage and conduct research; and (c) to provide special assistance for children who have educational problems due to physical, mental, or emotional handicaps. Although the facilities of the clinic are used 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 children, parents, and teachers. Teachers and parents concerned with obtaining diagnostic and remedial help for particular children apply to the director of the clinic for appointments.

General Information

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. Selection 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. 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, 107 Armory.

MASTER OF EDUCATION DEGREE REQUIREMENTS

The various M.Ed. programs are described in Section II under each teaching area.

The professional degree, master of education (M.Ed.), is granted to students who satisfactorily complete prescribed 5-year or 5th-year programs. Sometimes students register in these curricula at the beginning of the freshman year, but 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.

GRADUATE STUDY IN EDUCATION

Graduate study in education, leading to the master of arts, the doctor of philosophy, and the doctor of education degrees, and specialist certificates may be pursued in the Graduate School. Application for admission to these programs must be made to the Graduate School office. Graduate courses may be taken during the regular academic year and during the Summer Session. Students holding the Bachelor's degree, attending summers only, may ordinarily complete the work for the Master's degree in three or four full Summer Sessions.

Graduate Study in Education

Section II of this bulletin refers to various graduate programs, but for a complete description of graduate work in education, and for a full statement of regulations, consult the *Graduate School Bulletin*. Applicants must present a minimum of 6 quarter credits in psychology, plus not less than 18 quarter credits of undergraduate work in education, including introduction to secondary or elementary school teaching. Ordinarily students entering graduate study in education should already hold a teaching certificate, and for some fields, such as school administration or counseling, teaching experience is strongly advised.

Section II. Curricula

Note—Faculty listings in this section are as of March 15, 1968.

AGRICULTURAL EDUCATION

Major Advisers: Professors Kitts, Marvin, Peterson, Swanson; Assistant Professors McMillion, Nelson, Persons; Instructor Priebe

The agricultural education major 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 appropriate to the needs of agricultural extension workers and others preparing for professional agricultural work or for farming. Agricultural education provides comprehensive training in technical agriculture and permits emphasis upon such fields as animal science, agronomy, agricultural economics, horticulture, soils, and mechanized agriculture. 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 major 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, St. Paul Campus. They will then complete admission requirements of the College of Education, which include speech, health and psychological examinations, and interviews.

Students may complete minors in agricultural departments. Such a minor consists of 18 credits exclusive of introductory courses. Minors in high school teaching subjects are included in this section.

Students wishing to major in agricultural education must:

1. Have satisfactory agricultural background and experience.
2. Complete the student teaching requirement.
3. Earn a minimum of 204 credits for graduation including all-college requirements. A minimum of 80 credits must be in technical agriculture courses.
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) in addition to the minimum C.L.E. requirements listed for the agricultural science and industries curriculum in the College of AFHE.

FRESHMAN YEAR

AgEd 1—Introduction to Agricultural Education (1)	AnSc 1—Introductory Animal Husbandry (5)
Agro 19—Introduction to Agronomy (3)	Biol 1-2—General Biology (10)

Agricultural Education

Ent 1—Insect Life (4)
GeCh 4-5—General Principles of Chemistry (10)
AnSc 30—Milk Production (3)
Hort 1—General Horticulture (4)
(or) Hort 6—Fruit Growing (3)
(or) Hort 32—Vegetable Growing (3)

Math 10—College Algebra and Analytic Geometry (5)
MeAg 4—Agricultural Shop: Metalwork (4)
Rhetoric—Freshman communication requirement
Soil 19—Introductory Soil Science (4)

SOPHOMORE YEAR

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

AgEc 1—Introduction to Economics (3)
AgEc 2—Principles of Macro-Economics (3)
AgEc 3—Principles of Micro-Economics (3)
AgEd 20—Rural Education and Community Leadership (3)
Organic chemistry (5) (BioC 1)
Biochemistry (4) (BioC 2)
MicB 53—General Bacteriology (5)
Artistic expression requirement (9) to be selected from humanities, art, HE 120 (Art History), literature, music, philosophy, and theatre arts (see index of Agriculture bulletin)

Phys 1—Introductory Physics (3)
Phys 2—Introductory Physics (3)
Mechanized agriculture (9) to be selected from the following:
7—Farm Building Construction (3)
12—Agricultural Machinery (3)
64—Rural Sanitation and Water Supply (3)
45—Engines and Tractors (3)
84—Hydrology and Erosion Control (3) (prereq jr)
Psy 1-2—General Psychology (6)
AnSc 44—Principles of Livestock Feeding (5)

- c. In the third quarter of the sophomore year, students must apply for admission to the College of Education to permit joint registration in the College of Education and the College of AFHE.
- d. At the beginning of the junior year and upon being admitted to the College of Education students must have a grade point average of 2.30 in all courses taken in the following areas: agricultural economics, agronomy, animal science, entomology, food science, forestry, horticulture, agricultural journalism, mechanized agriculture, plant pathology, soils, and veterinary medicine.

JUNIOR-SENIOR YEARS

The following courses if not previously taken:

AgEd 56—Rural Education Through Extension Methods (3)
AgEc 80—Farm Accounting (3)
AgEc 82—Farm Management Economics (4)
AgEd 81—Teaching Agriculture in Secondary Schools (4)
AgEd 91—Student Teaching (6)
AgEd 101—Young Farmer in Agriculture (4)
AgEd 103—Adult Education in Agriculture (4)
AgEd 104—Planning Programs (3)
Gen 66—Principles of Genetics (3)

Ed 55B—Introduction to Secondary School Teaching (5)
MeAg 130—Instructional Method in Farm Mechanics (3)
PIPa 1—Plant Pathology (5)
PubH 50—Personal and Community Health (3)
(or) PubH 5—Individual and Public Health (3) (transfer students or others who have already taken PubH 3 should take PubH 4 or 51)
Rhet 22—Public Speaking (3)
Rhet 51—Exposition (3) (prereq jr)

Curricula

Note—For agricultural education majors, AgEd 56, 101, and MeAg 130 may be taken concurrently with AgEd 91 or by consent of instructor.

5. Achieve a minimum grade point average of 2.50 in 15 courses selected from at least 8 of the following areas by the time of graduation:

AgEc 80, 82, 30, 40, 50, 56, 71, 144	Hort 1, 6, 10, 16, 32, 21, 22, 23, 24, 36,
Agro 19, 51, 52, 53, 101, 135	41, 44, 60, 142
AnSc 1, 2, 20, 30, 31, 32, 33, 34, 44, 45,	MeAg 4, 7, 12, 12A, 45, 45A, 55, 64, 65,
50, 53, 54, 56, 111, 163, 164, 165, 166,	84
167	PIPa 1
Ent 1, 50	Soil 19, 51, 53, 54, 123, 132
FSc 10	VMC 52
For 10	

Minors in Agriculture and Agricultural Education

1. **Minor in Agriculture for Elementary School Teachers**—A minor in agriculture is open to students majoring 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)	Hort 1—General Horticulture (3)
AgEd 56—Rural Education Through Extension Methods (3)	(or) Hort 6—Fruit Growing (3)
Agro 19—Principles of Agronomy (3)	(or) Hort 32—Vegetable Growing (3)
AnSc 1—Introduction to Animal Science (5)	For 10—Farm Forestry (3)
	For 11—Conservation of Natural Resources (3)

2. **Minor in Agriculture for Agricultural Education Majors**—Students majoring in agricultural education may complete minors in agriculture departments. Such a minor consists of 18 credits exclusive of introductory courses. For details see the *Agriculture Bulletin*.

3. **Minor in Agricultural Education**—A minor in agricultural education is open to students majoring in the agricultural science and industries curriculum. This minor, however, will not complete the requirements for a teaching certificate.

It is recommended that Psy 1 and 2 be completed before entering the minor sequence. A minimum of 18 credits may be selected from the following: AgEd 20, 56, 101, 103, 104, 121, 171.

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 requirements 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 student teaching required for graduates in the 4-year curriculum, a period of internship will be required for which the maximum of 8 credits will be given.

3. The distribution of credits for the fifth year will include:

- a. Agricultural education (12-15 credits) of which not more than 6 credits may be in a problems course
- b. Education other than agricultural education (11-15 credits)
- c. Technical agriculture and areas other than those listed above (15-22 credits)

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

ART EDUCATION

Major Advisers: Professors Gayne, Hastie; Instructors Bradley, Hegg, Olson

For talented students interested in careers in art education and for those who wish to combine creative art careers with teaching, 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. The student successfully completing the 4-year curriculum receives the bachelor of science degree, and upon application is awarded the teaching certificate by the State Department of Education. He is qualified to teach art in elementary and secondary schools, and to fill other educational positions.

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

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

Curricula

cause the elementary school provides the only channel through which art may reach the majority of individuals in our society.

The Department of Art Education coordinates the varied facilities of the University available for art education training through program planning and advice for education majors at both undergraduate and graduate levels.

The Major in Art Education

Admission

Students who plan careers in art education are expected to submit applications for admission to the College of Education early in the third quarter of the freshman year or during the quarter in which they will meet admission requirements. Limited space restricts the number that can be admitted to the program.

Freshmen should complete at least 45 credits including a minimum of 15 credits of art with at least one course in each of the five areas: art history, design theory, drawing and painting, sculpture, and design in materials (architecture, ceramics, commercial, costume, crafts, industrial, interior, jewelry, landscape, photography, puppetry, stage, weaving). The student must have an overall grade point average of C (2.00) and an average of C+ (2.50) in courses taken to fulfill requirements in Groups 1 and 2 below. At the time of formal application for transfer to the College of Education the student must complete clearances, including psychological tests, interviews, and, if requested, examples of art work.

Course Requirements

Group 1. Art Education Courses

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

Group 2. Art and Related Courses—46 credits required to be selected from the following or equivalents approved by major adviser:

A. Art History and Theory (6 credits required)

Arth 2, 3, 4—Survey of History of Art (3-9)
Arth 78—Modern Art (3)

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

Art 10—Photography (3)	ArEd 80—Contemporary Crafts (3)
Art 25—Drawing, color (3)	ArEd 81—Puppetry in Education (3)
Art 45—Ceramic Processes (3)	FamS 15—The Home, Its Furnishing (3)
Art 73—Presentation Techniques (3)	Th 34—Stagecraft: Construction and Painting (3)
ArEd 53—Introduction to Weaving (3)	

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

Art 40—Sculpture I (3)
Art 20, 51, 70—Drawing, Painting II and III (6)
Art 32—Printmaking (3)

Group 3. A teaching minor is recommended to be chosen from teaching minors as specified in this bulletin; or as an alternative, 15 Upper Division credits outside both the major field and professional education may be chosen.

Group 4. Professional Education Courses (18 credits required):

Ed 55A-B—Introduction to Secondary School Teaching (10)	Methods in the minor (2-3)
HED 90—The School and Society (3)	Education electives (2-3)
	Total—18 credits

Group 5. Liberal Education Courses

A. Freshman English Requirement

Engl 1-2-3, or Comm 1-2-3, or Engl 10H-11H-12H, or exemption
Additional courses in language, literature, writing, or foreign languages (9 credits)

B. Physical and/or Biological Sciences (9 credits)

C. Man and Society

Hum 1, 2, 3 (15) or Hist 1, 2, 3 (9)
Soc 1 (3)
Psy 1, 2 (6)

D. Artistic Expression

(See Group 2)

Group 6. Physical Education and Health

Physical Education (3)
PubH 5 or 50 (3)

Group 7. Electives—To complete a total of 186 credits.

Recommended: Continuation of a language begun in high school; speech and theatre arts for use in teaching and in play production; courses in philosophy, history, sociology, psychology; sports, dance, journalism, music, literature. Electives may be in art courses beyond the minimal requirement. Attendance at concerts, exhibitions, and plays is urged as a part of art education.

Quality Standard

In addition to the overall average and the average in the major, the student must have a C average (2.00) in his minor and a C average (2.00) in all course work outside the major in the junior and senior years.

The Minor in Art Education

Plan 1. For Elementary School Teachers (27 credits):

Note—This minor does not satisfy the requirement of an academic minor in the elementary IA program.

ArEd 17C—Experiences with Pictorial Expression (3)

ArEd 18C—Experiences with Design and Materials (3)

ArEd 19C—Experiences with Functional Design and Crafts (3)

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

Drawing and design courses (6)

Electives (9)

Curricula

Plan 2. For Secondary School Teachers (28 credits):

ArEd 14—Introduction to Art Education (2)	Art 2-3-4—Survey of History of Art (3-9)
ArEd 56, 57—Basic Principles and Experiences in Art Education (10)	Courses in drawing and design (6)
ArEd 87A—The Teaching and Supervision of Art (2)	Electives (3-5)

Fifth Year Leading to the Master of Education Degree

The M.Ed. degree is administered by the College of Education. Students seeking this degree should apply to the Office of Admissions and Records for admission to the College of Education.

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 credits)
2. Education electives (9-12 credits)
3. Academic electives (9-12 credits)
4. Demonstration of competency in teaching
5. Comprehensive examinations in art education and education

For Graduates of Other Institutions—Graduates of other institutions who have had an undergraduate major in art or in art education equivalent to that offered by the University of Minnesota are eligible to apply for the fifth-year M.Ed. program. In some cases it may be necessary for the student to take prerequisite courses at the undergraduate level. Undergraduate work in education must be equivalent to that required in the 4-year program at the University of Minnesota.

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 *Graduate School Bulletin* and the Department of Art Education advisers.

BUSINESS AND DISTRIBUTIVE EDUCATION

Major Advisers: Professors Meyer, Price; Assistant Professors Ashmun, Driska, Klaurens

The following curricula are designed to prepare teachers of business subjects in secondary schools. Completion of one of these curricula leads to the bachelor of science degree. While no minor is required, it is possible by a careful selection of electives to complete a minor.

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

Business and Distributive Education

Students will normally enter the College of Education at the beginning of their second year; however, they may enter later providing they satisfy the admission requirements.

Requirements for Admission

For admission to the College of Education the student is required:

1. To have completed approximately 45 quarter credits from the courses listed under freshman and sophomore years, groups 1-8, and 11A or 11B.
2. To have an overall grade average of at least C (2.00) with a C+ (2.50) in the major.

FRESHMAN AND SOPHOMORE YEARS

Students who have had high school courses or experience in bookkeeping may be exempt from Acct 24 and be admitted to Acct 25 by passing a placement test. Students who have had previous typewriting instruction may be admitted to EdCI 47 or EdT 80. Students who have had previous shorthand instruction may be admitted to EdCI 49 or EdT 81.

Students preparing for vocational certification in distributive education may be exempt from part of EdCI 51 if they have had practical business experience. The extent of this exemption will depend on the quality, amount, and recency of such experience.

1. Education (3 credits)

EdCI 45—Introduction to Business and Distributive Education (3)

2. Freshman English (12-15 credits)

Comm 1-2-3; Engl 1-2-3; Engl A-B-C; Engl 10H-11H-12H; or Comp 1-2-3; or exemption

3. Communications, Language, Symbolic Systems (9 credits)

Mathematics (3 credits required); and speech, rhetoric, philosophic analysis, logic, linguistics, English, foreign language, journalism, or additional mathematics

4. Physical and Biological Sciences (9 credits)

Natural science, biology, botany, chemistry, physics, astronomy, or geology

5. Man and Society (9 credits)

SSci 1-2-3—Personality, Work, Community (9) or courses selected from two of the following fields: sociology, political science, history, anthropology, economic geography

6. Public Health (3 credits)

PubH 5—Individual and Public Health (3) (or) PubH 50—Personal and Community Health (3)

7. Physical Education (3 credits)

8. Artistic Expression (9 credits)

Art, music, literature, theatre arts, humanities, HEc 21, 22

Curricula

9. Psychology (6 credits)

Psy 1 and 2—General Psychology (6)

10. Economics (6 credits)

Econ 1 and 2—Principles of Economics (6)

11A. Distributive and Basic Business (20-21 credits)

EdCI 46—Materials and Methods in Beginning Typewriting and Related Office Machines (1)

GC 18D—Salesmanship (3)

Acct 24-25-26—Principles of Accounting (9)

Soc 45—Social Statistics (5)

BLaw 28—Business Law (3)

(or) BLaw 58—Business Law: Contracts (3)

(or) GC 20A—Practical Law (5)

11B. Office and Basic Business (24-28 credits)

GC 14D—Introduction to Data Processing (3)

GC 31D—Writing Laboratory: Business Writing (3)

EdCI 46—Materials and Methods in Beginning Typewriting and Related Office Machines (1)

EdCI 47—Materials and Methods in Intermediate Typewriting and Related Office Machines (1)

EdCI 48—Materials and Methods in Beginning Shorthand (3)

EdCI 49—Materials and Methods in Intermediate Shorthand (3)

Acct 24-25-26—Principles of Accounting (9)

Soc 45—Social Statistics (5)

BLaw 28 or 58—Business Law (3) (or)

GC 20A—Practical Law (5)

12. Electives (chosen after consultation with adviser)

The Major in Office and Basic Business Education

JUNIOR AND SENIOR YEARS

1. Economic electives (6)

2. Mktg 57—Principles of Marketing (3)

3. Mgt 109—Management of Administrative Services (3)

4. Business administration electives to be selected from the following (9)

Prod 50—Production Management (3)

BFin 56—Finance Fundamentals (3)

IR 52—Systems: Labor Marketing (3)

Ins 53—Risk Management, Insurance (3)

Mgt 70—Fundamentals of Management (3)

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

6. HED 90—The School and Society (3)

7. Methods and Student Teaching

EdT 80—Teaching Typewriting and Office Procedures (2-4)

EdT 81—Teaching Shorthand (2-5)

EdT 82—Teaching the Basic Business Subjects (2)

EdT 83—Teaching Bookkeeping and Data Processing (2)

EdT 73—Student Teaching of Business Subjects (9)

8. Electives (24 credits)

Business and Distributive Education

For the purpose of computing the C+ (2.50) average the following are considered major courses:

Acct 26, GC 14D, GC 31D, EdCI 47, 49, BFin 56, IR 52, Ins 53, Mgt 70, Prod 50, Mktg 57, EdT 80, 81, Mgt 109

Major in Clerical and Basic Business Education

JUNIOR AND SENIOR YEARS

The same requirements with the exception of EdCI 48, 49, and EdT 81. In place of these courses the student will take 11 credits of elective courses approved by the adviser.

The C+ (2.50) average is based on the following courses:

Acct 26, GC 14D, GC 31D, EdCI 47, BFin 56, IR 52, Ins 53, Mgt 70, Prod 50, Mktg 57, EdT 80, Mgt 109

The Major in Distributive and Basic Business Education

JUNIOR AND SENIOR YEARS

1. Economics (3 credits)

Econ 65 or 66—Intermediate Economic Analysis I, II (3 each)
(or) 67—Money and Banking (3)

2. Industrial Relations (3 credits)

IR 52—Systems: Labor Marketing (3)

3. Marketing (12-23 credits)

EdCI 51—Distributive Occupational Experience (0-9)	GC 18C—Marketing: Retailing Sales (5)
Mktg 57—Marketing (3)	Psy 156—Psychology of Advertising (3) (or)
Mktg 107—Retail Management I (3) (or)	Jour 156—Psychology of Advertising (3)
	Marketing elective (3)

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

5. History and Philosophy of Education

HEd 90—The School and Society (3)

6. Distributive Education

DE 136—Organization and Administration of Distributive Education (3)	DE 141—Cooperative Occupational Education Programs (3)
DE 139—Coordination Techniques (3)	DE 147—Workshop: Teaching Display (3)

7. Industrial Education

Ind 40—Analysis: Course Construction (5)
(or) 135—Course Construction (3)

8. Methods and Student Teaching

EdT 90A-B-C—Teaching Distributive Education Subjects (6)
EdT 72—Student Teaching: Distributive Education (9)

Curricula

9. Electives

For the purpose of computing the C+ (2.50) average the following courses are considered major courses:

Econ 2, Acct 26, IR 52, Mktg 57, 107 or GC 18C, Psy 156 or Jour 156, GC 18D, DE 136, 139, 147, Ind 40 or 135

The Minor in Basic Business

Econ 1-2—Principles of Economics (6)
EdCI 45—Introduction to Business and Distributive Education (3)
BLaw 58, 88—Business Law (6)
Mktg 57—Principles of Marketing (3)
EdT 82—Teaching Basic Business Subjects (2)
EdT 73—Student Teaching in Business Subjects (3)

Electives—6 credits in economics and 9 credits to be selected from: Prod 50—Production Management (3)
BFin 56—Finance Fundamentals (3)
IR 52—Systems: Labor Marketing (3)
Ins 53—Risk Management, Insurance (3)
Mgt 70—Fundamentals of Management (3)

The Minor in Distribution

Econ 1-2—Principles of Economics (or) Econ B-C (or) Econ 50A-B (or) AgEc 1-2 (6)
GC 18D—Salesmanship (3)
EdCI 45—Introduction to Business and Distributive Education (3)
Mktg 57—Principles of Marketing (3) (or) AgEc 40—Principles of Marketing Organization (3)
DE 136—Organization and Administration of Distributive Education (3)

Mktg 107—Retail Management I (3) (or) GC 18C—Marketing: Retailing Sales (5)
EdT 90B—Teaching Distributive Education Subjects (2)
EdT 72—Student Teaching in Distributive Education (3)
Electives approved by adviser (12)

At least half of the credits in this minor must be Upper Division courses.

Recommended Electives

In the Upper Division it is recommended that the following areas or courses be considered: advanced courses in the School of Business Administration, visual materials, consumer education in the schools, guidance, conference leading, psychology of adolescence, social foundations of education, advertising, textiles, occupational psychology, vocational psychology, and cooperative part-time work-experience program.

COUNSELOR EDUCATION, COUNSELING PSYCHOLOGY, AND COLLEGE PERSONNEL WORK

Major Advisers: Professors Blocher, Borow, Edson, Hagenah, Parker, Tennyson; Associate Professors Glotzbach, Hansen, Schmidt, Snoke; Assistant Professor A. Anderson

Graduate study leading to the M.A., specialist certificate (2-year program), or Ph.D. degrees can be taken with a concentration in this area. Preparation is possible for professional 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 placed upon preparation that leads to understanding the individual student and group behavior. Emphasis is also placed upon clinical practice or supervised experience in school, university, or social agency guidance programs, provided for under EPsy 281 and 282, or under internship in counseling psychology and personnel work.

Some basic courses most frequently included in the preparation for various fields of personnel work are: EdCI 124, 125, and 135, EPsy 116, 117, 125, 133, 140, 259, 225-226, 233, 250, and 251A-B-C. In addition, students are advised to become familiar with curriculum and administrative problems at either the public school or higher education level, to take selected courses in psychology and sociology, and, if doctoral candidates, to take advanced courses in statistics and measurement and to probe research problems.

CURRICULUM AND INSTRUCTION

Major Advisers: Professors Birkmaier, Boeck, Clymer, Curtin, Eckert, Gardner, Goossen, Donovan Johnson, Kegler, McCune, Price, West; Assistant Professors Gennaro, David C. Johnson, Lange, Piché

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

For English Teachers

Major Advisers: Professor Kegler; Assistant Professor Piché

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 in 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—Principles of Secondary School Curriculum (3) | EdCI 294—Strategies and Problems of Instruction in English (3) |
| EdCI 122A—Teaching Literature in Secondary Schools (3) | EdCI 295—Readings in English and Modern Language Education (1-3) |
| EdCI 122B—Teaching Rhetoric and Composition in Secondary Schools (3) | EdCI 296—Special Problems in Teaching English (Cr ar) |
| EdCI 140—Teaching Speech in Secondary Schools (3) | EdCI 297—Research in English and Speech Education (Cr ar) |
| EdCI 144—Teaching Reading in Secondary Schools (3) | HEd 141—Critical Issues in Contemporary Education (3) |
| EdCI 195A—Curriculum Development in Secondary English and Speech (3) | EPsy 117—Basic Principles of Measurement (3) |
| EdCI 195B—Sources for Curriculum Development in English and Speech (3) | EPsy 193—Psychological Analysis of Instruction (3) |

Curricula

For suggested courses in related fields, see the description of graduate programs in English and speech education available from advisers. Programs should be arranged in consultation with advisers.

For Science Teachers

Major Advisers: Professor Boeck; Assistant Professor Cennaro

Note—See also the 5-year program in 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 or in curriculum and instruction and takes his minor work in science; under Plan B, the student majors in 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 or the student majors in education with related fields in the sciences or science and other academic areas.

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.

For Social Studies Teachers

Major Advisers: Professors Gardner, McCune, 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, sociology, or anthropology. Courses which are recommended as fitting into this plan are:

EdCI 155—Materials Laboratory for Social Studies Teachers (3)	EdCI 201—Problems: Teaching the Social Studies (3)
EdCI 168—Current Developments in the Social Studies (2)	EdCI 204—Social Studies Curriculum (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.

ECONOMICS

Major Adviser: Associate Professor Harlan Smith

A student who majors in economics registers in the College of Liberal Arts for his first 2 years. His program during this time should include the first requirement listed below under the economics major. He also meets the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum, listed in Section I of this bulletin. The economics major should be proficient in typing before he reaches his senior year. Spch 5 and a course in statistics are recommended. The student must maintain a 2.50 overall average in all social science courses.

Economics as a Major Subject

- Econ 1-2—Principles of Economics (6-8)
- (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)
- Econ 62—Labor Economics (3)
- Econ 69—Government Regulation of Business (3)
- Econ 104—International Economics (3)
- Elective courses in economics—at least 12 credits from two of the areas designated under economics courses in the *College of Liberal Arts Bulletin*
- A total of 30 credits in economics beyond the level of Econ 1-2 (or its equivalent)

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 23-24—American History
- 5 credits of geography, either Geog 1 or 4 or 41
- 20 credits in political science, sociology, and anthropology, including:
 - Pol 1-2—American Government and Politics
 - Soc 3—Social Problems (and) one course numbered over 100
 - Anth 2A—Cultural Anthropology (or) 100—Principles of Cultural Anthropology

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 one course on Russia and one 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.

Professional Education Courses—The student majoring in economics must take the following courses and meet the minimum requirement of 29 credits in education:

- Ed 55A-B—Introduction to Secondary School Teaching (10)
- EdT 69J—Student Teaching: Social Studies Juniors (1) (prereq jr, ¶55A)
- EdT 69—Student Teaching in the Social Studies (9 during sr yr)
- EdT 69A-B—Methods of Teaching the Social Studies (5)
- HEd 90—The School and Society (3)

EDUCATIONAL ADMINISTRATION

Major Advisers: Professors Hooker (chairman), Curtin, Domian, Keller, Popper; Associate Professors Davis, Lambert, Mueller, Nickerson; Assistant Professors Ammentorp, Cross, Sederberg

The student who wishes to become a superintendent of schools, a secondary school principal or supervisor, or an elementary school principal or

Curricula

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 curricula preparing teachers for the elementary or secondary schools.

For the M.A. program for prospective superintendents, secondary school principals, and general secondary coordinators, 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 Ed.D. or Ph.D. degree. Included in the specialist certificate program are advanced courses, workshops, and field work.

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

EDUCATIONAL PSYCHOLOGY

Major Advisers: Professors Wilk (chairman), Balow, Blocher, Borow, Clymer, Collier, Corcoran, Deno, Edson, Edwards, Hagenah, Hewer, Hoyt, Kellogg, Kingsley, Merwin, Parker, Raygor, Reynolds, Stecklein, Tennyson; Associate Professors Burris, Duker, Force, Glotzbach, Hall, Hansen, Hively, MacEachern, Neale, Schmidt, Smith, Snoke, Terwilliger, Weatherman, Wilderson; Assistant Professors A. Anderson, D. Anderson, Briggs, Gallistel, Giese, D. Johnson, P. Johnson, Marquardt, Moores, Murray, Rynders, Samuels, Taylor, Tumure, Wood

Graduate study in educational psychology leading to the M.A. or Ph.D. degree may be designed to provide professional preparation in one of four specialized areas: foundation studies (school learning, cognition, personality and social psychology, measurement, statistics, and research design); counselor education (school counseling, counseling psychology, college personnel work); school psychology; and special education. The specialist certificate (2-year program) is offered in counseling, special education, and school psychology. Students may also elect one of these areas as a minor field for the M.A. or the Ph.D. degree.

Students who plan to major or minor in educational psychology should apply for admission to the Graduate School and plan their program in consultation with a department adviser. Although students apply and are admitted to concentrate their study primarily in one area, all students are expected to attain a level of competence in certain foundation studies and in research methodology. For courses and requirements, see the *Graduate School Bulletin*.

ELEMENTARY, KINDERGARTEN, AND NURSERY SCHOOL EDUCATION

Major Advisers: *Elementary Education (supervision or teaching)*— Professors Clymer, Curtin, Goossen; Associate Professors Chase, Dykstra, Humphreys, Jackson, Lambert, Manning, Odland, Stochl; Assistant Professors R. Johnson, Post; *Kindergarten Education*—Instructor Vizenor

The curricula outlined in this section prepare students for elementary school teaching from kindergarten through the 8 years of the elementary school. Upon graduation the student, depending on his choice of curriculum, is eligible for one of two certificates: (a) the general elementary certificate for teaching in the elementary school (grades 1 through 8), and (b) the special certificate for kindergarten teaching which is earned in addition to the general elementary certificate.

The following curricula are for persons of different backgrounds of education, training, and experience. Curriculum IA is for regular college students who take 4 years of work. Curriculum IIIA is for students who already hold a B.A. or B.S. degree. The Kindergarten Endorsement Program is for students who, in addition to completing the IA or IIIA curriculum (and thus becoming eligible for the general elementary credential for teaching in the elementary school—grades 1 through 8), wish to receive a special certificate for kindergarten teaching. After admission to the College of Education a student in one of these curricula will be assigned an adviser in the Department of Elementary Education. Information about curricula 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 IA plus the Kindergarten Endorsement Program for elementary school teaching, grades kindergarten through 8.

A limited number of deficiencies due to transfer from other colleges can be made up after entering the College of Education. The aim is broad functional contacts with cultural fields of knowledge essential for the liberal education of the teacher and as resources for teaching the common and special subjects of the elementary school.

Curriculum IA—Elementary Education

Students who plan to follow curriculum IA will register in the College of Liberal Arts for the first 2 years. Students will be considered for admission to the College of Education for curriculum IA only after completion of 2 years' college work with a minimum of 90 credits. The program for these first 2 years should follow the listing below. A grade point average of at least C (2.00) is required for considering admission to the junior year.

FRESHMAN AND SOPHOMORE YEARS (In the College of Liberal Arts)

Note—Items marked with two asterisks (**) may be taken *only after completing the freshman year.*

Curricula

1. English

Engl 1-2-3 or Comm 1-2-3 or Engl 10H-11H-12H or Comp 1-2-3 or Engl A-B-C or exemption
Engl 60—Introduction to English Language (3)**

2. Natural Science

NSci 4-5—The Physical World (8) (and) Biol 1-2—General Biology (10)
NSci 1-2-3—Orientation to the Natural Sciences (15)
(or) other patterns of course work of a minimum of 15 credits spread over both the physical and biological sciences

3. Social Sciences

Geog 1—Geography of Natural Resources (5)
(or) Geog 4—Human Geography (5)
Hist 23-24—American History (8)
Soc 1—Man in Modern Society (3) (and) Soc 3—Social Problems (3)
(or) SSci 1-2-3—Personality, Work, Community (9)

4. Mathematics

Math 5A and 5B—Foundations of Arithmetic (6)

5. Music, Art, and Speech

Mus 4—Fundamentals (2) or exemption
ArEd 10C—Survey of Art Activities (3)
A minimum of 4 elective credits from among the following courses to meet the required minimum of 9 credits in the area of artistic expression:
Engl A-B-C (4)
(or) Comm 1-2-3 (3)
Th 11, or 131, or 132
(or) Art 1, or 2, or 3, or 4, or 5, or 47
(or) Humanities
(or) Literature

6. Speech

Spch 5—Fundamentals of Speech (5)
(or) Spch 2—Communication in the Modern World (interpersonal communication) (3)
(and) Spch 6—Fundamentals of Speech (3)

7. Psychology

Psy 1-2—General Psychology (6)**

8. Health and Physical Education

PubH 5—Individual and Public Health (3)
(or) PubH 50—Personal and Community Health (3)**
Physical education activity courses (3), with inclusion of PEWP 45 (2) recommended for part of the requirement

9. Electives to complete a total of 90 credits; should include courses toward an academic minor

Elementary, N-K-P Education

JUNIOR AND SENIOR YEARS

(In the College of Education)

Approximately half the work in the junior and senior years is in courses other than education. In selecting academic courses students should consult the *College of Liberal Arts Bulletin* and confer with their major advisers.

Academic Requirements

1. *Upper Division Academic Credits*—A minimum of 18 credits in Upper Division academic courses. Students who did not complete Engl 60, Introduction to English Language, during the sophomore year must include this course before graduation. An exception to the Upper Division academic requirements allows students to count toward these 18 credits any credits accumulated in Lower Division courses in the natural sciences in excess of the basic 15-credit requirement, and credits in any mathematics courses numbered 40 or above.
2. *Academic Minor*—A minimum of 30 credits from any one of the following fields: anthropology, art, economics, English, a foreign language, geography, history, humanities, mathematics, music, natural science, political science, sociology, speech, others by special permission. This minor is not expected to lead to a junior high school endorsement. Those interested should see statement under "Junior High School Endorsement."

Professional Requirements

1. Foundations

- Ed 75A—Introduction to Elementary School Teaching (educational psychology) (5)
(jr yr)
Ed 75B—Introduction to Elementary School Teaching (curriculum and organization)
(3) (sr yr)
HEd 90—The School and Society (3) (sr yr)

2. Physical Education

- PEWP 70—Teaching Health and Physical Education in the Elementary Schools (3)

3. Art Education

- ArEd 84—Teaching Art in the Elementary School (2)

4. Music Education

- MuEd 56—Teaching Music in the Elementary School (3)

5. Basic Methods (*Transfer students*: four of the six courses below must be taken in this college)

- EdCI 60—Teaching Reading in the Elementary School (3)
EdCI 61—Teaching Social Studies in the Elementary School (3)
EdCI 62—Teaching Mathematics in the Elementary School (3)
EdCI 63—Children's Literature (3)
EdCI 64—Teaching English in the Elementary School (3)
EdCI 65—Teaching Science in the Elementary School (3)

Curricula

6. Student Teaching

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

It is strongly recommended that students successfully complete 9 credits of the basic methods courses (EdCI 60, 61, 62, 63, 64, 65) prior to their first quarter of student teaching. Admission to student teaching requires a C average (2.00) in all the major courses listed below which are taken prior to student teaching.

Amount and Quality of Work—A total of 186 credits is necessary for graduation. The required major average of C (2.00) will be based on the following courses:

Elementary IA: Ed 75A-B; EdCI 60, 61, 62, 63, 64, 65; HEEd 90; EdT 54A-B

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.

The B.A. or B.S. degree with at least a 2.50 overall grade point average is required for consideration of admission to this program.

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 grade point average of 2.00 based on all courses in the major program completed prior to student teaching is required for consideration of admission to student teaching.

A minimum of 47 credits with at least a C average (2.00) in the total major program is required for graduation.

Ed 75A—Introduction to Elementary School Teaching (5)

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

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

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

EdCI 63—Children's Literature (3)

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

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

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

MuEd 56—Teaching Music in the Elementary School (3)

PEWP 70—Teaching Health and Physical Education in the Elementary School (3)

Ed 75B—Introduction to Elementary School Teaching (3)

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

On completion of the IIIA curriculum the student will be recommended for the B.S. degree from the College of Education and for the general elementary certificate for teaching in the elementary school (grades 1 through 8).

Admission to this program is based upon the assumption that the student has an adequate background of liberal education. The student will be required to meet the minimum academic requirements of the freshman and sophomore years of the IA program. Where deficiencies exist the student will take addi-

tional courses to meet the requirements in art, English, health, mathematics, music, natural science, physical education, psychology, social sciences, and speech.

Kindergarten Endorsement Program

This program is for students who, in addition to completing the IA or IIIA curriculum (and thus becoming eligible for the general elementary credential for teaching in the elementary school—grades 1-8), wish to receive a special certificate for kindergarten teaching.

Students who wish to become certified for kindergarten teaching are required to complete, in addition to the IA or IIIA curriculum, the following 15 credits:

- EdCI 56—Nursery School Kindergarten Curriculum I (3)
- EdCI 57—Nursery School Kindergarten Curriculum II (3)
- CPsy 80—Child Psychology (3)
- EdT 78—Student Teaching in Kindergarten (6)

EdT 78 will take the place of 6 of the 12 credits required in EdT 54A-B in the IA or IIIA curriculum.

A 2.00 grade point average in the 15-credit program is the minimum grade point average required for satisfactory completion of the program.

Teaching Educationally Disadvantaged Children

Students interested in teaching educationally disadvantaged children should express this interest to their advisers as early as possible in the junior year. The teaching of the educationally disadvantaged may be made an area of special emphasis in the students' programs and student teaching experiences.

Junior High School Endorsement

A student following curricula IA or IIIA may secure endorsement on the certificate for the elementary school permitting him to teach half-time or less in the junior high school. A student who wishes to teach full-time in junior high school must complete the regular major required for secondary school teachers of the subject. A student who wishes to teach half-time must complete a regular minor in that subject for teaching in secondary schools, which he must expand to a major within 7 years of the initial certification. The following professional requirements must be met:

1. EdAd 167—The Junior High School (3)
2. A special methods course covering the junior high school level in the minor.
3. Student teaching in grades 7, 8, or 9 (EdT 52, Student Teaching [2-3]) in addition to student teaching in the elementary school.

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 com-

Curricula

pletion 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 (curriculum 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 curricula 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 elementary education. 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 will major in educational administration but their programs will include work in curriculum and instruction with special emphasis on the improvement of instruction. Graduate programs in childhood education are offered by the Institute of Child Development with majors in child psychology. For school psychological work, the programs combine graduate study in educational psychology, child psychology, psychology, and curriculum and instruction. Special class teachers should refer to the listing of courses under curriculum and instruction and under 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 *Graduate School Bulletin*. 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 (e.g., curriculum and instruction—elementary; or educational administration—elementary; or educational psychology, etc.).

Nursery School Certification

Note—Students wishing to enter this program should contact Professor Shirley Moore, Institute of Child Development.

Elementary education majors wishing to qualify for teacher certification at the nursery school level must complete the following courses as part of, or in addition to, their preparation for elementary and kindergarten teaching:

Early Childhood Education—15 credits

EdCI 56—Nursery-Kindergarten Curriculum I (3)

EdCI 57—Nursery-Kindergarten Curriculum II (3)

EdCI 59—Methods and Observation in Nursery School (3)

EdT 77—Student Teaching in Nursery School (6)

Child Psychology—12 credits

CPsy 80—Child Psychology (3)
CPsy 126—Case Study of Children (3)

(or) CPsy 127—Social Behavior of Young Children (3)

Two additional courses in child psychology, one of which must be selected from the following list:

CPsy 180—Personality Development (3)
CPsy 181—Peer Relationships (3)

CPsy 183—Language Development (3)

CPsy 186—Cognitive Development (3)

CPsy 188—Children in Society (3)

CPsy 189—Parent-Child Relationships (3)

ENGLISH

Major Advisers: Assistant Professor Piché; Instructors Caddy, Kemp

Students majoring in English register in the College of Liberal Arts for the first 2 years. Their programs during this time should include the Lower Division courses in the major, listed below. They must fulfill general requirements of the College of Education and the Lower Division requirements for admission to the junior year in the Academic Secondary School Curriculum, listed in Section I of this bulletin.

Students who major in English must complete Spch 5 and one course selected from each of the following two groups:

Group A: Spch 51, 61, 101, 106

Group B: Th 11, Spch 81, or both Th 12 and Th 74

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)

Engl 166—History of the English Language (3)

Comp 27, 28—Advanced Writing (6)

Electives in courses numbered 75 or above (12) or a minimum of 6 credits in courses numbered 75 and above and the remainder from Upper Division humanities courses.

Students with a major in English are required to take EdCI 122A, Teaching Literature in Secondary Schools (3), which is counted in the professional requirement. For student teaching and special methods in English they register in EdT 75, Student Teaching in the Language Arts, and EdT 75A, Teaching Language Arts in Secondary Schools (3), and 75B, Teaching English in Secondary Schools (2).

Students interested in earning both the B.A. and B.S. degrees should consult one of the major advisers for information about the combined degree program.

English as a Minor Subject—Engl 22, 23, 55, 56, 73, 74, and 165; and Comp 27, 28.

Note—Students majoring or minoring in English who receive a grade of A or B in Comp 27 may elect an English course numbered over 74 or Spch 109 instead of Comp 28.

Curricula

Professional Education Courses—The student majoring in English must take the following courses in education:

Ed 55A-B—Introduction to Secondary School Teaching (10)	EdT 75B—Teaching English in Secondary Schools (2)
EdT 75—Student Teaching in Language Arts (9)	HEd 90—The School and Society (3)
EdT 75A—Teaching Language Arts in Secondary School (3)	EdCI 122A—Teaching Literature in Secondary Schools (3)

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.

FRENCH

(See Romance Languages)

GEOGRAPHY

Major Advisers: Associate Professor Barrett; Assistant Professor Adams

A student who majors in geography registers in the College of Liberal Arts for the first 2 years. His program during this time should include the first three courses listed under the major. He also meets the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum, listed in Section I of this bulletin. The geography major is urged to take geology as part of his science requirement. He should be proficient in typing before he reaches his senior year. Completion of Spch 5 is advisable. The student must maintain an overall 2.50 grade point average in all social science courses.

Geography as a Major Subject

Geog 41—Economic Geography (5)

Geog 4—Human Geography (5)

Geog 41—Economic Geography (5)

Elective courses in geography, at least 24 credits, including one course in each of the following areas: (a) Anglo-America, (b) Europe, (c) Soviet Union, (d) Asia, (e) Africa, (f) Latin America

Total of 39 credits in geography

Because of the geography 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 geography majors must com-

plete the following spread of supporting courses in other social science fields. This requirement is in lieu of a required teaching minor.

- 26 credits in history, including Hist 1-2-3 or 53-54-55—Introduction to Modern European History (and) Hist 23-24—American History, plus 9 additional credits in courses numbered 65 or above
- 18 credits in political science, economics, sociology, and anthropology, including:
- Pol 1-2—American Government and Politics
 - Econ 1-2—Principles of Economics
 - (or) B—Scope, Methods, and Application of Economics (and) C—Introduction to Economic Analysis;
 - (or) 50 A-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 nonsocial science area in order to improve their chances of obtaining teaching positions.

Geography as a Minor Subject—28 credits of geography, including Geog 1, 4, and 41 plus one course in each of three of the six areas listed for a geography major. The student must also include the following: Hist 23-24 (8), Pol 1-2 (6), Econ 1-2 or B-C or 50A-B (6), Anth 2A (5) or 100 (3).

Professional Education Courses—The student majoring in geography must take the following courses and meet the minimum requirement of 29 credits in education.

- Ed 55A-B—Introduction to Secondary School Teaching (10)
- EdT 69J—Student Teaching: Social Studies Juniors (1) (prereq jr, ¶55A)
- EdT 69—Student Teaching in the Social Studies (9 during sr yr)
- EdT 69A-B—Teaching Social Studies in the Secondary School (6)
- HEd 90—The School and Society (3)

GERMAN

Major Advisers: Professors Menze, C. Wood

A student who wishes to obtain a major or a minor in German registers for the first 2 years of work in the College of Liberal Arts and there meets the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum, listed in Section I of this bulletin, as well as all prerequisites for Upper Division courses in German. The 2 years of work remaining will be taken while the student is registered in the College of Education.

German as a Major Subject for High School Teaching—51 Upper Division credits in courses numbered above Ger 50.

- | | |
|--|--|
| Ling 55—Linguistics for Foreign Language Teachers (3) | Ger 68—Contemporary Germany (3) |
| Ger 56A—Reading and Analysis of Literary Texts (3) | Ger 91, 92, 93—German Civilization and Culture (9) |
| Ger 57-58-59—Composition (6) | Ger 94, 95—Survey of Literature (6) |
| Ger 61-62-63—Conversation (6) | Ger 107-108-109—The Structure of Modern German (9) |
| Ger 64-65-66—Advanced Conversation and Essay Writing (6) | |

Curricula

German as a Minor Subject—30 credits in Upper Division courses numbered above Ger 50, including:

Ger 56A, 57-58-59, 61-62-63, 64-65-66, 68, 92-93

EdT 70M—Teaching Foreign Languages (3) except for majors in other foreign languages

Professional Education Courses—The student majoring in German must take the following courses and meet the minimum requirement of 29 credits in education:

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

EdT 70—Student Teaching in Modern Languages (3 on campus, 6 off campus, total 9)

EdT 70A-B—Teaching Modern Languages (5)

HEd 90—The School and Society (3)

Note—Each student's proficiency in listening, speaking, reading, and writing will be tested before entrance into EdT 70 and EdT 70A.

HIGHER EDUCATION

Major Advisers: Professors Eckert, Keller, Mork

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 cooperation of the University's instructional, research, and service departments. See the *Graduate School Bulletin* for a statement of courses and requirements for advanced degrees.

HISTORY

Major Advisers: Professor T. Smith; Assistant Professors Green, Noonan

A student who majors in history registers in the College of Liberal Arts for his first 2 years. His program during this time should include the first two requirements listed under the history major. He also meets the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum, listed in Section I of this bulletin. The history major is urged to take geology as part of his science requirement. He should be proficient in typing before he reaches his senior year. Completion of Spch 5 is advisable. The student must maintain an overall 2.50 average in all social science courses.

History as a Major Subject

Hist 1-2-3 or 53-54-55—Introduction to Modern European History (9)

Hist 23-24—American History (8)

Hist 120F—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 Arts majors)

A course taken in history or one of the other social sciences 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 47 credits in history

Home Economics Education

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.

- 22 credits in geography, including Geog 1 and 4, and one course in each of four of the six areas listed for the geography major.
- 18 credits in political science, economics, sociology, and anthropology including:
- Pol 1-2—American Government and Politics
 - Econ 1-2—Principles of Economics;
 - (or) B—Scope, Methods, and Application of Economics (and) C—Introduction to Economic Analysis;
 - (or) 50A-B—Economic Problems of the American Economy
 - Soc 3—Social Problems
 - Anth 2A—Cultural Anthropology
 - (or) Anth 100—Principles of Anthropology

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

History as a Minor Subject—29 credits in history, including Hist 1-2-3 or 53-54-55; and 23-24; and 12 credits in courses numbered 65 or above.

The student must also include the following: Geog 1 or 4 (5), Pol 1-2 (6), Econ 1-2 or B-C or 50A-B (6), Anth 2A (5) or 100 (3)

Professional Education Courses—The major in history must take the following courses and meet the minimum requirement of 29 credits in education:

- Ed 55A-B—Introduction to Secondary School Teaching (10)
- EdT 69J—Student Teaching: Social Studies Juniors (1) (prereq jr, ¶55A)
- EdT 69—Student Teaching in the Social Studies (9 during sr yr)
- EdT 69A-B—Teaching the Social Studies in the Secondary School (5)
- HEd 90—The School and Society (3)

HISTORY AND PHILOSOPHY OF EDUCATION

Major Advisers: Professors Beck, Corcoran, T. Smith; Associate Professor Bagley

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

HOME ECONOMICS EDUCATION

Major Advisers: Professors Brown, Ford, Whiteford;
Assistant Professors Christenson, Wantoch

The curricula in home economics education offered jointly by the College of Agriculture, Forestry, and Home Economics and the College of Education are designed for students who plan to become home economics teachers in secondary schools or adult programs or to assume home economics positions in the Agricultural Extension Service. Satisfactory completion of the teaching cur-

Curricula

riculum qualifies the student for teaching home economics in Minnesota including those departments which are federally aided.

During the first 2 years the student is registered in the College of AFHE and carries 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.

Application for admission to the joint curriculum should be made during the first 2 weeks of the third quarter of the sophomore year or of the first quarter in residence for those who transfer after 2 years of college work. The application form and information about procedure should be obtained at 109 McNeal Hall.

Application for student teaching must be made during the quarter prior to proposed enrollment in HEEd 63. Forms and a list of requirements for admission to student teaching may be obtained at 109 McNeal Hall.

In order to be recommended for graduation from the teaching specialization, the student must have a C+ average (2.50) in 40 credits of required home economics work in the curriculum for general home economics teaching and a C average (2.00) in all other courses pursued during the junior and senior years.

Home Economics Teaching

The following courses are required for those preparing for teaching home economics. The list includes the liberal education requirements, as well as those in the major and professional areas.

FRESHMAN-SOPHOMORE YEARS

Rhetoric—Freshman communication requirement (9)
Rhet 22—Public Speaking (3)
HE 1—Clothing Selection (3)
HE 3—Clothing Construction I (3)
(or) HE 4—Clothing Construction II (3)
HE 5—Home Economics in Contemporary Society (3)
HE 15—Home and Family in Society (3)
HE 20—Introduction to Related Art (3)
HE 21—Color (3)
HE 24A—Problems in Home Planning and Furnishing I (3)
HE 24B—Home Planning, Furnishing Experience I (3)
HE 31—Principles of Nutrition (3)
HE 40—Food Preparation (5)
HE 41—Food Management and Marketing (5)
HE 49—Household Equipment (3)
PubH 5—Individual and Public Health (3)
(or) PubH 50—(see jr-sr list)
Soc 1A or 1—Man in Modern Society (3)
AgEc 1-2-3—Economics (9)
(or) Econ 1-2—Principles of Economics (6-8)
Psy 1-2—General Psychology (6)

HEEd 49—Introduction to Home Economics Education (2)
GC 10B—Human Body: Structure, Function, Health (5)
3 credits in historical and philosophical studies selected from the following: Hist 1 through 6, 12 through 19, 23, 24; Phil 3; Pol 40
3 credits elective in communication (see C.L.E. course list)
9 credits to be selected from literature, non-studio art or music, or HE 120
(or) 12 credits in humanities (3 in social science)
FScI 20—Introductory Microbiology (4)
Select one of the following options:

Option I

GeCh 4-5—General Principles of Chemistry (10)
BioC 1—Elementary Biochemistry I (5)
(or) OrCh 61-62—Elementary Organic Chemistry (10)
Biol 1-2—General Biology (10)
GC 7A—Physics (5)
(or) NSci 4—Physical World (4)

Home Economics Education

Option II

- Social science elective (3)
GeCh 4-5—General Principles of Chemistry (10)
GC 7A—Physics (5)
(or) NSci 4—The Physical World (4)

Option III

- 12 credits social science electives from two areas (such as sociology, anthropology, history, political science)
NSci 4-5—The Physical World (8)

JUNIOR-SENIOR YEARS

- HE 50—Textiles (4)
HE 76—Current Problems in Nutrition (3)
HE 85—Home Management Principles (3)
HE 86 or 86A—Home Management Laboratory (4)
(or) HE 86B—Experimental House (4)
HE 87—Family Relationships (3)
HE 99—Senior Seminar (3)
HE 115—Sociological and Economic Aspects of Clothing (3)
(or) HE 116—Family Clothing Problems (3)
PubH 50—Personal and Community Health (3)
(or) PubH 5 (see fr-soph list)
Rhet 51—Exposition (3)
Ed 55A-B—Introduction to Secondary School Teaching (10)
HEd 90—School and Society (3)
HEED 60—Curriculum in Home Economics Education (3)
HEED 61—Methods of Teaching Home Economics (3)

- HEEd 62—Evaluation of Home Economics (3)
HEEd 63—Supervised Teaching in Home Economics (9)
HEEd 64—Adult Education in Home Economics (3)
HEEd 65—Colloquium in Home Economics Education (2)
HEED 90—Child Development (3)
HEEd 90A—Practicum in Child Development (1)

9 credits to be selected from advanced courses in at least two areas (the following are recommended):

- Foods: 70, 137, 138, 139
Textiles and Clothing: 53, 152, 153, 154
Family Social Science: 182, 183, 186, 187, 190
Related Art: 120, 127, 180, 197
Household Equipment: 131, 133, 189A-B-C

Home Economics Extension

FRESHMAN-SOPHOMORE YEARS

- Rhetoric—Freshman communication requirement (9)
Rhet 22—Public Speaking (3)
HE 1—Clothing Selection (3)
HE 3—Clothing Construction I (3)
(or) HE 4—Clothing Construction II (3)
HE 5—Home Economics in Contemporary Society (3)
HE 15—Home and Family in Society (3)
HE 20—Introduction to Related Art (3)
HE 21—Color (3)
HE 24A—Problems in Home Planning and Furnishing I (3)
HE 24B—Home Planning, Furnishing Experience I (3)
HE 31—Principles of Nutrition (3)
HE 40—Food Preparation (5)
HE 41—Food Management and Marketing (5)
HE 49—Household Equipment (3)
PubH 5—Individual and Public Health (3)
(or) PubH 50— (see jr-sr list)
3 credits in historical and philosophical studies selected from the following: Hist

- I through 6, 12 through 19, 23, 24; Phil 3; Pol 40
3 credits elective in communication (see C.L.E. course list)
9 credits to be selected from literature, non-studio art or music, or HE 120
(or) 12 credits in humanities
Psy 1-2—General Psychology (6)
AgEc 1-2-3—Economics (9)
(or) Econ 1-2—Principles of Economics (6-8)
6 additional credits in social science to be selected from anthropology, geography, political science, sociology
GeCh 4-5—General Principles of Chemistry (10)
GC 7A—Physics (5)
(or) NSci 4—Physical World (4)
FSci 20—Introductory Microbiology (4)
GC 10B—Human Body: Structure, Function, Health (5)
HEEd 49—Introduction to Home Economics Education (2)

Curricula

JUNIOR-SENIOR YEARS

- HE 50—Textiles (4)
HE 76—Current Problems in Nutrition (3)
HE 85—Home Management Principles (3)
HE 86 or 86A—Home Management Laboratory (4)
(or) 86B—Experimental House (4)
HE 87—Family Relationships (3)
HE 99—Senior Seminar (3)
HE 115—Sociological and Economic Aspects of Clothing (3)
(or) HE 116—Family Clothing Problems (3)
9 credits in advanced home economics courses to be selected in consultation with adviser
PubH 50—Personal and Community Health (3)
(or) PubH 5 (see fr-soph list)
Rhet 51—Exposition (3)
- AgJo 53—Publicity (3)
Ed 55A-B—Introduction to Secondary School Teaching (10)
AgEd 56—Rural Education Through Extension Methods (3)
HEEd 60—Curriculum in Home Economics (3)
HEEd 61—Methods in Teaching Home Economics (3)
HEEd 64—Adult Education in Home Economics (3)
HEEd 95—Supervised Field Experience (6)
HEEd 190—Readings (2)
HEEd 90—Child Development (3)
HEEd 90A—Practicum in Child Development (1)
Electives to meet graduation requirement

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.). For information, consult the chairman of the Department.

INDUSTRIAL EDUCATION

Major Advisers: Professors Kavanaugh, Moss, Nelson; Associate Professor Randleman; Assistant Professor Pucel

Students applying for admission to the industrial education undergraduate degree program must have satisfactorily completed 45 quarter credits (2.00 grade average) of college-level work. Courses in mathematics, physical science, and English must be represented among those 45 credits. For those entering CLA with the expectation of pursuing an industrial education major it is suggested that the first-year program be drawn from the liberal education block below.

The following curriculum has been designed for persons who desire to prepare for teaching positions in the field of industrial arts education and to gain background for later graduate level courses. The satisfactory completion of the 4 years of work here specified entitles the student to the bachelor of science degree and provides the education necessary for the high school standard special certificate required to teach industrial arts in Minnesota public schools.

Certain departmental courses of professional or classroom type are also acceptable for vocational certification leading to service in vocational technical schools and programs—day, evening, and part-time. The state supervisor of trade and industrial education certifies 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 therefore should not be confused.

In addition to the campus schedules, the department conducts off-campus courses in centers scattered throughout the state; offerings are made through cooperation 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.

Students may arrange to take a number of shopwork and drawing courses at William Hood Dunwoody Industrial Institute, without fees other than those paid at the University. Department consent must be secured prior to registration in Dunwoody courses. For a listing of all department course offerings see Section III.

Industrial Education Course Requirements (74 credits)

- Ind 6—Introduction to Industrial Arts Teaching (5)
- Ind 35—Fundamentals of Vocational Education (3)
- Ind 40—Analysis and Course Construction (3)
- Ind 50—Industrial Practices and Processes (3)
- Ind 90—Independent Study I (3)
- Ind 101—Tests in Industrial Subjects (3)
- Ind 110—Vocational Guidance (3)
- Laboratory Blocks A, B, C, D (42 credits distributed 6 in each of two blocks and 15 in each of two other blocks)
- Block A—Ind 2, 3, 4, 12, 30, 31, 32, 74, 75, MeAg 7
- Block B—Ind 7, 8, 9, 10, 70, 71, 15, 16, 72, 73
- Block C—Ind 20, 21, 22, 23, 24, 78, 79
- Block D—Ind 25, 26, 27, 28, 29, 76, 77, MeAg 4
- Electives—9 credits to be selected from among: Ind 44, 91, 92, 103, 60D; EdCI 105; Blocks A, B, C, D

Professional Education (28 credits)

- HEd 90—The School and Society (3)
- Ed 55A-B—Introduction to Secondary School Teaching (10)
- Ind 35—Teaching Industrial Arts (3)
- Ind 60A, B, C—Student Teaching (9)
- Ind 60S—Student Teaching Seminar (1-3)
- Hlth 25—First Aid (2)

Liberal Education (84 credits)

Communication, Language, or Symbolic Systems

- Comm 1, 2, 3 or Rhet 1, 2, 3, 4 and Math T and Math 10
- (or) Comp 1, 2, 3 or Engl 1, 2, 3 or Engl A, B, C and Math T and Math 10 and an additional course in speech or language

Man and Society (14)

- Suggested courses—SSci 1, 2, 3; Anth 2A, 42, 100; AgEc 1, 2, 3; Econ 1, 2; history
- Required courses—Psy 1, 2

Physical Sciences (15)

- Suggested courses—Phys 1 and 1A, 2 and 2A, 3 and 3A; GeCh 4-5
- Required courses—PubH 5 or 50

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Artistic Expression (14)

Suggested courses—GC 45B (recommended), Hum 1A, 2A, 3A (or) 1, 2, 3 (or) 21, 22, 23 (or) 51, 52, 53 (or) 71, 72, 73; Art 10, 11, 24, 25; ArtH 1, 2, 3 (or) 50, 52, 53

Physical Education (3)

Academic electives (to complete a total of 84 credits in the liberal education classifications)—To be selected from mathematics, science, language, English, speech, social science, philosophy, history, sociology, psychology, and child psychology. It is strongly recommended that the student plan his academic electives to provide subject concentrations which will directly reinforce his professional education. Consultation with department staff concerning an elective plan is encouraged during the student's sophomore year.

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

Prerequisites to student teaching are advanced-junior or full-senior status, taking of psychological examinations, courses Ind 6 and 55 or 6 and 100, and a C+ average (2.50 grade points per credit) in the major. The C+ average is based on all courses in industrial education, laboratory courses included. It is required that 30 of the 42 laboratory credits (Blocks A, B, C, D) will have been completed.

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 cooperative clinical training program are invited to confer or to correspond with one of the major advisers.

JOURNALISM

Minor Adviser: Associate Professor Sim

Journalism is a desirable minor for teachers who are called upon to supervise school publications, to teach subjects related to the field, or to assist with school public relations. It is recommended as a minor for students in the English, language arts, and social studies curricula.

Journalism as a Minor Subject

Jour 11—Introduction to Journalistic Writing (3)
Jour 41—Publications Editing (3)
EdT 74—The Teaching of Journalism (3)
Jour 82—Supervision of School Publications (3)

Jour 90—Mass Communications and the News (3)
6 additional credits chosen from Jour 57, 60, 103, 109, 111, 124, and 150

THE LANGUAGE ARTS

Major Advisers: *English*—Assistant Professor Piché; Instructor Kemp; *Speech*—Professor Graham; Assistant Professors Adey, Fredericks, Piché

The 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 science. 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 Liberal Arts for the first 2 years and should include in his program the required Lower Division courses for admission to the junior year in the Academic Secondary 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 responsible 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 122A (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 one of the two fields, English or speech, and completes the course requirements listed for his core subject. A student may not offer more than 54 credits in this field.
2. The student must also complete 30 or 31 credits in the second field.
3. In addition 12 or 13 credits are required in journalism or library science, as listed under Journalism and Library Science below.

English

English as the Core Subject (54 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)

Curricula

Engl 166—History of the English Language (3)

Comp 27, 28—Advanced Writing (6)

Electives in courses numbered 75 or above (12 credits) (or) a minimum of 6 credits

in courses numbered 75 or above and remainder from Upper Division humanities courses.

English as the Second Field with Speech as the Core Subject (31 credits)

Engl 22, 23, 55, 56, 73, 74, and 165, Comp 27, 28

Note—Students receiving a grade of A or B in Comp 27 may elect an English course numbered over 74 or Spch 109 instead of Comp 28.

Speech

Speech as the Core Subject (42-3 credits)

Spch 5 or 2 and 6—Fundamentals of Speech (5)

Th 11—Introduction to the Theatre (3)

Th 12—Introduction to the Theatre (laboratory) (1)

Th 21—Beginning Acting (3)

Spch 61—Introduction to Speech and Language in Human Behavior (3)

Spch 67—Phonetics (3) or SSPA 99—Introduction to Speech Pathology, Audiology

Spch 81—Interpretation (3)

Electives (21)

Electives may be selected from the following courses with not less than 3 credits in each of the four speech areas. For descriptions of these courses and the ones listed under Journalism and Library Science, consult the *College of Liberal Arts Bulletin*.

1. *Communication, Rhetoric, and Public Address*: Spch 51, 52, 62, 65, 97A, 101, 101A, 169, 55 or 56, and 126A or 126B

2. *Speech Science, Pathology, and Audiology*: SSPA 99, 119, 120, 142, 143, 170

3. *Oral Interpretation*: Spch 82, 83

4. *Theatre*: Th 74, 75, 76, 131, 132

Speech as the Second Field with English as the Core Subject (30 credits)

Spch 5 or 2 and 6, 61, 81, Th 11, 12; and 15 credits chosen from one of the two following groups:

Group A: Spch 51, 52, 55 or 56, 65, 67, 101, 101A, 126A or 126B; SSPA 99

Group B: Th 21, 74, 75, 76, 131, 132; Spch 82

Journalism and Library Science

All language arts majors will take Jour 90 (3 credits). In addition they will take 8 to 12 credits in library science chosen from the following courses: Lib 50, 62, 70, 74; or 9 credits in journalism selected from Jour 11, 41, 82, 103, 109-110, 111, and 112.

Professional Education Courses—The student majoring in language arts must take the following courses in education:

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

EdT 75—Student Teaching in Language Arts (9)

- | | |
|---|---|
| HEd 90—The School and Society (3)
EdT 75A—Teaching Language Arts in Secondary Schools (3)
(and) EdT 75B—Teaching English in Secondary Schools (2) | (or) EdT 75C—Teaching Speech in Secondary Schools (2)
EdCI 122A—Teaching Literature in Secondary Schools (3) |
|---|---|

LATIN

Major Adviser: Assistant Professor Erickson

Latin as a Major Subject for Secondary School Teaching

A total of 39 (40) required credits, including:

- | | |
|--|---|
| Ling 55—Linguistics for Foreign Language Teachers (3)
Lat 73—Prose Composition (3)
Lat 101, 102, 103—Structure of Latin (3)
ClPh 115—Introduction to Classical Philology (to be taken in sr yr) (3) | 18 Upper Division credits in Latin literature to be selected with the consent of the adviser
Classics courses
(or) Greek (10) |
|--|---|

Latin as a Minor Subject

A total of 30 required credits, including:

- | | |
|---|---|
| Ling 55—Linguistics for Foreign Language Teachers (3)
Lat 73—Prose Composition (3)
Lat 101, 102, 103—Structure of Latin (3) | 18 Upper Division credits in Latin, including Lat 81, 82, 83
Classics course (3)
EdT 71M—Teaching Latin (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 61-62-63 or Lat 81, 82, 83 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 the permission of the department, take Lat 3 for credit; or they may enter Lat 3X, followed by Lat 4X and Lat 63, or with the consent of the instructor, by Lat 62 and 63. Students entering with 3 or 4 years of Latin may enter Lat 61-62-63 directly.

Highly motivated and gifted students should consider choosing the Honors sequence wherever offered. See the adviser.

The first 2 years are taken in the College of Liberal Arts and students meet the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum, listed in Section I of this bulletin. They should include in their programs the Lower Division courses in Latin prerequisite to registration in Lat 61-62-63.

Professional Education Courses—The student majoring in Latin must take the following courses and meet the minimum requirement of 29 credits in education:

- | | |
|---|---|
| Ed 55A-B—Introduction to Secondary School Teaching (10)
EdT 71—Student Teaching in Latin (9) | EdT 71A-B—Teaching Latin (5)
HEd 90—The School and Society (3) |
|---|---|

LIBRARY SCIENCE

Minor Adviser: Associate Professor Olson

Anyone intending to do library work in elementary or secondary schools should consult an adviser in the Library School, Room 3, Walter Library, before beginning the junior year. The Library School offers two programs for school librarians:

1. A minimum certificate program of 24 credits in library science. A student in the College of Education who completes the program as part of his Bachelor's degree or as study after completing the degree may be employed as a school librarian with minimum qualifications.
2. A fifth-year program leading to the Master's degree. To qualify fully for professional librarianship, a librarian is expected to earn a 4-year Bachelor's degree and a Master's degree in library science.
 - a. For the education graduate who holds a valid teaching certificate, a regular M.A. program.
 - b. For the liberal arts graduate who lacks a teaching certificate, a special M.A. program.

For further information on courses and requirements see the *Library School Bulletin*.

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 102, 103, 104, 113, 114, 194, 195 and 197. EdCI 105 is recommended.

MATHEMATICS

Major Advisers: Professors Loud, Storvick; Associate Professor Miracle;
Assistant Professors Fristedt, Fuhrken, Joichi, Wilde

Students take the first 2 years in the College of Liberal Arts and meet the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum, listed in Section I of this bulletin. They should include in their programs the courses prerequisite to Math 42, and as much as possible of the Math 42-43-44 sequence. 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 the Independent Study Department, or (c) by the public school system of Minneapolis in individualized instruction for adults at West High School.

Mathematics as a Major Subject

Math 15—College Algebra (5)	3 additional credits in geometry
Math 42-43-44—Analytic Geometry and Calculus I, II, III (15)	3 additional credits in probability and/or mathematical statistics
Math 60—Synthetic Metric Geometry (3)	3 elective credits to be earned in Upper Division courses
6 additional credits in analysis	
6 additional credits in algebra	

The additional credits must be chosen from the following:

Analysis: 55, 71, 80A, 112, 125A-B	Probability and Statistics: Stat 90, Math 131-132-133, 178A-B-C
Algebra: 63, 80B, 109, 119, 131A-B	
Geometry: 80C, 115A, 117A-B-C	

Mathematics as a Minor Subject

Math 15—College Algebra (5)	3 additional credits in algebra
Math 42-43-44—Analytic Geometry and Calculus I, II, III (15)	3 additional credits in analysis
Math 60—Synthetic Metric Geometry	3 additional credits

Professional Education Courses—The student majoring in mathematics must take the following courses and meet the minimum requirement of 29 credits in education:

Ed 55A-B—Introduction to Secondary School Teaching (10)	EdT 67A-B-C—Teaching Secondary School Mathematics (5)
EdT 67—Student Teaching in Mathematics (9)	HED 90—The School and Society (3)

Programs Leading to the Master of Education Degree

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. The program is open only to persons holding a regular teaching certificate for public school teaching in mathematics, currently valid. Recent teaching experience is required, with a minimum of 1 year of full-time successful public school teaching; except that the program may be open to students wishing to complete work for the M.Ed. immediately following their Bachelor's degree studies, provided that a year's successful full-time teaching experience is completed before the awarding of the M.Ed. degree.

Prerequisite to admission is an undergraduate major in mathematics equivalent to the mathematics major required for the bachelor of science degree in the College of Education, University of Minnesota. In some cases, where the requirements are nearly satisfied, a student may be admitted with certain prerequisite courses to be completed.

Approval of admission is unlikely if the course work in mathematics at the Upper Division level is below a B average.

Admission procedure requires clearance by the College of Education and the Mathematics Department, 207 Main Engineering. Students apply through the Office of Admissions and Records for admission to the M.Ed. program in the College of Education with a major in mathematics.

Curricula

Required Program

1. A total of 45 credits in courses numbered 100 or higher with an average of 2.80 for the 45 credits, including a minimum of 24 credits in mathematics with at least a 2.80 grade point average, including 6 credits in analysis, such as advanced calculus, critical reasoning in mathematical analysis, methods of applied mathematics, etc.
2. Related academic field or fields—9 credits
3. Education courses—12 credits, including at least one course in the area of mathematics teaching and an expository paper on some mathematical topic of particular suitability for a secondary school teacher.

Final Examination

Major field examination, either written or oral, or both.

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.

MATHEMATICS EDUCATION

Major Advisers: Professor Donovan A. Johnson; Associate Professors Robert Jackson, James Stochl; Assistant Professors David C. Johnson, Thomas Post

Graduate students interested in curriculum and instruction in mathematics education may work toward an M.A. degree in this field. For a statement of the general program and requirements leading to the M.A. degree, see the *Graduate School Bulletin*. Students who plan to major or minor in mathematics education should apply for admission to the Graduate School and plan their program in consultation with one of the advisers listed above.

MUSIC EDUCATION

Major Advisers: Professor Caswell; Associate Professors Borg, Turrentine; Assistant Professor Roehmann

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

Students normally enter the College of Education following completion of 1 year in the College of Liberal Arts. For admission to the College of Education, the student must have completed 45 credits (including music theory, 9 credits; applied music, 6 credits; and performing organization, 3 credits) from the 4-year curriculum listed below with a grade average of at least C (2.00).

For graduation, students must earn 186 credits with an overall grade average of C (2.00). They must earn 24 credits in applied music (Mus 11-27 and 61-77) including a minimum of 18 in the major applied medium and 6 in a

second applied medium other than the major. Students not majoring in piano must take 1 year of piano (Mus 11 or 11A, B, C or 11E), 2 credits per quarter. Students not majoring in voice must take 1 year of voice (Mus 12 or 12A, B, C or 12E), 2 credits per quarter. It is recommended that the applied music requirements be met by the end of the junior year, but additional applied music credits are encouraged of all students.

In addition to the practical and theoretical studies in music, this curriculum includes courses in communication and languages, physical and biological sciences, man and society, 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 or a vocal-general music instructor. Each student, however, chooses one of the two concentrations offered.

Observation and student teaching are arranged in the Minneapolis, St. Paul, and suburban area schools.

A major grade average of C+ (2.50) is required, based on the following courses:

MuEd 4-5-6-7-8-9-10, 50A, 50B, 53, 59, 68, 69

Mus 1T through 6T, 34, 35, 36

Applied music major—Mus 11-27 and 61-77, up to 18 credits

Applied music minor—Mus 11-27, up to 6 credits

Admission to student teaching requires a C+ (2.50) average in all of these courses taken prior to the senior year, also the successful completion of MuEd 50A, 50B, 53 and Ed 55A-B for the vocal-general major and MuEd 68 and Ed 55A-B for the instrumental major.

Courses in Applied Music

A student may not register for a course in applied music (Mus 11-27 and 61-77, 100) for credit until he has passed the required applied entrance examination. Students may not take special examinations in applied music for work done elsewhere while in residence at the University.

Courses numbered 11 through 27 and 61 through 77 carry either 2 credits (minimum of 10 private half-hour lessons) per quarter or 4 credits (minimum of 10 hour lessons) per quarter.

All music education majors are required to attend Music Hour, held weekly in Scott Hall Auditorium, and are required to attend a minimum of five concerts per quarter sponsored by the Music Department.

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.

Curricula

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 techniques 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

1. Liberal Education Courses

Freshman English requirement (9 credits); Engl 1-2-3, or Comp 1-2-3, or Engl A-B-C, or Comm 1-2-3, or Engl 10H-11H-12H, or exemption
Foreign language (10)
(or) Spch 5, 6—Fundamentals of Speech (and) Spch 67—Phonetics (11)
Physical and/or Biological Sciences (9)
Hist 1, 2, 3—Introduction to Modern European History (9)

(or) Hist 11, 12, 13—Medieval and Renaissance (9)
(or) SSci 1, 2, 3—Personality, Work, Community (9)
Soc 1—Man in Modern Society (3)
Psy 1, 2—General Psychology (6) (prereq to Ed 55A)
PubH 5 or 50 (3)
Physical education (3)

2. Professional Education Courses

Ed 55A-B—Introduction to Secondary School Teaching (10) (prereq to student teaching)

HEd 90—The School and Society (3) (taken in sr yr)
Education elective (3)

3. Music and Music Education Courses

Instrumental Concentration

Mus 1T-6T—Music Theory (21)
MuEd 4-5-6-7-8-9-10—Instrumental Techniques (14)
Mus 11A-B-C—Class Piano (6)
Mus 12A-B-C—Class Voice (6)
(or) Mus 12 or 12E—Applied Voice (6)
Mus 11-27 and 61-77—Applied Music (18)
MuEd 20—Educators' Chorus (3) (prereq to MuEd 53 and 59)
Mus 34, 35, 36—Music History (9)
Mus 40, 41, 42—Orchestra (6)
(or) Mus 46, 47, 48—Band (6)

Mus 53 or 54 or 55—Instrumental Ensemble (2)
MuEd 53—Teaching Music in Secondary Schools (3)
MuEd 59—Choral Literature and Conducting (1)
MuEd 61—Student Teaching (9)
MuEd 65—Instrumentation (3)
MuEd 68—Teaching Instrumental Music (3)
MuEd 69—Instrumental Literature and Conducting (4)
Mus 84—Form and Analysis (3)

Vocal-General Concentration

- Mus 1T-6T—Music Theory (21)
- MuEd 4, 7—Instrumental String Techniques (4)
- Mus 11A-B-C—Class Piano (if vocal major) (6)
- (or) Mus 11 or 11E—Applied Piano (if vocal major) (6)
- Mus 12A-B-C—Class Voice (if piano major) (6)
- (or) Mus 12 or 12E—Applied Voice (if piano major) (6)
- Mus 11-27 and 61-77—Applied Music (18)
- MuEd 20—Educators' Chorus (6) (3 cr; prereq to MuEd 53 and 59)
- Mus 34, 35, 36—Music History (9)
- Mus 39—Women's Glee Club (6)
- (or) Mus 43—University Chorus (6)
- (or) Mus 49—Men's Glee Club (6)
- (or) Mus 56, 57, 58—Chamber Singers (12)
- MuEd 50A—Teaching Music in Primary Grades (3) (prereq to MuEd 50B)
- MuEd 50B—Teaching Music in Intermediate and Junior High Grades (3) (prereq to MuEd 53)
- MuEd 53—Teaching Music in Secondary Schools (3)
- MuEd 59—Choral Literature and Conducting (4)
- MuEd 61—Student Teaching (9)
- MuEd 65—Instrumentation (3)
- MuEd 69—Instrumental Literature and Conducting (1)
- Mus 84—Form and Analysis (3)
- Mus 112, 113, 114—History of Vocal Art (6)
- (or) Mus 115, 116, 117—Vocal Literature (6)

Minor in Music Education

Approval by an adviser is required before the student begins course work in the minor.

A minimum of 25 credits in music and music education from the following three groups:

- Mus 1T, 2T, 3T—Music Theory (6-9)
- Mus 11-27—Applied Music (2-6)
- Mus 31, 32, 33—Music Literature (2-4)
- Mus 1—Introduction to Music (5)
- (or) Mus 50—Introduction to Music (5)
- (or) Mus 51, 52—History of Musical Styles (2-4) (prereq Mus 50)

Music Education Methods (2-4) selected from the following:

- MuEd 50A—Teaching Music in Primary Grades (3)
- MuEd 50B—Teaching Music in Intermediate and Junior High Grades (3)
- MuEd 55—Teaching Music (2) (for recreation majors only)
- MuEd 56—Teaching Music in Elementary Schools (3 cr; prereq Mu 4 or exemption)

The remaining credits selected from the following:

- MuEd 4-5-6-7-8-9-10—Applied Instrumental Techniques (2-4)
- Mus 11A-B-C—Class Piano (2-6)
- Mus 12A-B-C—Class Voice (2-6)
- MuEd 20—Educator's Chorus (2-6)
- Mus 39—Women's Glee Club (3)
- Mus 40, 41, 42—Orchestra (3-6)
- Mus 43—University Chorus (3-6)
- Mus 46, 47, 48—Band (3-6)
- Mus 49—Men's Glee Club (3-6)
- Mus 53, 54, 55—Instrumental Ensemble (2)
- Mus 56, 57, 58—Chamber Singers (2-6)

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

Curricula

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, usually, 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 average requirements for the 4-year curriculum, a grade average of B (3.00) must be attained in the minimum 45 credits of the fifth-year work. The work of the fifth year must be in courses numbered 100 or over, selected in consultation with the adviser, following the pattern given below:

Music Education (10)
Music (12)

Education (6)
Electives in closely related academic fields
(9-17)

Note—Written and/or oral examinations are required upon successful completion of the above course work.

NURSING EDUCATION

Major Advisers: Professors Fritz, Harris; Assistant Professor Sarosi

A 2-year master of science degree program in nursing is offered in the Graduate School and provides an option for preparation in clinical teaching in the second year. Refer to bulletins of the Graduate School and School of Nursing.

SCHOOL OF PHYSICAL EDUCATION

The School of Physical Education offers the following professional programs of instruction: physical education for men, physical education for women, dance education, recreation and park administration, camping and outdoor education, and school health education. In addition, physical education activity courses are offered for all University students who may elect such courses as a part of their general education in accordance with the regulations of the particular college in which they are enrolled. The courses offered by the Department of Physical Education for Men are listed as PEM, and by the Department of Physical Education for Women as PEW. Many sections of these courses are coeducational, while others are for men only or women only. Students should consult the *Class Schedule* published each quarter for this information as well as for the health activity rating required as a prerequisite for each activity class.

Physical Education for Men

Major Advisers: Professors Donnelly, McAdam, Piper, Richardson; Associate Professors Alexander, Ostrander; Assistant Professors Bird, Mowerson, Torpey;
Instructors Walker, Walsh

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

1. Four-year curriculum leading to the bachelor of science degree with a major in physical education
2. Advanced offerings leading to:
 - a. M.Ed. degree administered by 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 on physical education in the Graduate School
3. Curriculum for a teaching minor in physical education
4. Curriculum for the Minnesota Public Secondary School Athletic Coaching Certificate

These curricula have been designed for men who desire to prepare for teaching, coaching, research, and administrative positions in the field of physical education. Completion of the undergraduate major curriculum entitles a student to the B.S. degree and the endorsement of the College of Education for a Minnesota High School Standard Special Certificate. Students planning a major or minor in physical education or preparation for the Minnesota Athletic Coaching Certificate should consult one of the major advisers in Cooke Hall.

Four-Year Curriculum in Physical Education for Men

The following requirements must be met by students desiring a bachelor of science degree in physical education and a Minnesota High School Standard Special Certificate:

1. The prescribed physical education curriculum listed below which includes liberal education requirements.
2. A total of 29 credits in education including Ed 55A-B, HEd 90 and PEMP 52, 75A-B, 76A-B.
3. A total of 186 credits.
4. An average of C+ (2.50 grade points per credit) in all PE and PEMP courses except student teaching.
5. An average of C (2.00 grade points per credit) in the minor, if selected, and in all courses taken outside the major during the junior and senior years.

Curricula

FRESHMAN AND SOPHOMORE YEARS

A. Liberal Education—59 credits

Category I—Communication, Language, Symbolic Systems (18)

Engl 1-2-3 (9) (or) Comm 1-2-3 (12)
Speech and electives (6-9)

Category II—The Physical and Biological Sciences (20)

GeCh 4-5—General Chemistry (10)
Biol 1-2 (10)

Category III—Man and Society (12)

Psy 1-2—General Psychology (6)
6 credits, 3 of which must be in sociology or anthropology

Category IV—Artistic Expression (9)

9 credits selected from art, dance, music, humanities, literature, theatre arts

B. Physical Education—14-15 credits

1. Required of all:

PEM 14A—Ballroom Dance (1)
PEMP 4—Conditioning and Tactics (1)
PEMP 5—Gymnastics (1)
PEMP 8—Track and Field (1)
PEMP 10—Basketball (1)
PEMP 13—Soccer (½)
PEMP 14—Volleyball (½)
PEMP 15—Games and Elementary School Activities (1)
PEMP 16—Fundamental Movement (1)
PEMP 17—Folk Dance (1)
PEMP 32—Orientation and Appraisal (1)
Ability to swim 100 yards
Clinics in selected sports

2. Select two courses:

PEMP 9—Baseball (1)
PEMP 11—Football (1)
PEMP 12—Ice Hockey (1)

3. Select one course:

PEM 7A—Water Safety Instructor (2)
PEMP 3—Wrestling (1)

4. Select one course:

PEMP 6—Golf (1)
PEMP 7—Racket Sports (1)

C. Other Required Courses—6-9 credits

PubH 5—Individual and Public Health (3)
(or) PubH 50—Personal and Community Health (3)

School of Physical Education

- Hlth 25—American Red Cross First Aid: Standard, Advanced (2)
(or) Current American Red Cross First Aid Card
- Anat 27—Anatomy for Physical Education Students (4)
(or) PEMP 50—Human Anatomy (3)

D. General Electives—10-14 credits

JUNIOR AND SENIOR YEARS

A. Professional Education—29 credits

- Ed 55A-B—Introduction to Secondary School Teaching (10)
- Hed 90—The School and Society (3)
- PEMP 52—Human Growth and Physical Development (3)
- PEMP 75A—Student Teaching: Elementary (4-6)
- PEMP 75B—Student Teaching: Secondary (4-6)
- PEMP 76A—Student Teaching Methods (2)
- PEMP 76B—Student Teaching Methods (1)

B. Physical Education—33-35 credits

1. Required of all (25)

- PEMP 54—Motor Learning (3)
- PEMP 60A—Prevention and Care of Injuries (3)
- PEMP 60B—Athletic Training Laboratory (1)
- PEMP 63—Administration of Physical Education (3)
- PEMP 65—Adapted Physical Education (3)
- PE 51—Mechanics of Movement (3)
- PE 91—History and Principles of Physical Education (3)
- PE 97—Testing in Physical Education (3)
- PE 102—Curriculum (3)

2. Area of Emphasis or Electives (8-10)

Each student must complete one of the following areas:

a. Adapted Physical Education (9)

- Select 3 credits with consent of area head (3)
- EPsy 182—Education of Exceptional Children (3)
- PEMP 78—Supervised Practical Experience (3)

b. Advanced Study Preparation (9)

- With consent of the adviser and the department head, the student is assigned to a professor to study an area or areas in depth as motor learning, history, mechanics of movement, or research.
- PEMP 99—Independent Study (1-9)

c. Aquatics (10)

- PEM 2A—Diving, Springboard (1)
- PEM 3A—Scuba and Skin Diving (1)
- PEM 7A—Water Safety Instructor (2)
- PEMP 2—Aquatics (1)
- PEMP 78—Supervised Practical Experience (3)
- Rec 43—Camp Aquatics (2)

d. Intramurals-Extramurals (9)

- PEMP 64—Programming Intramural-Extramural Sports (3)
- PEMP 66—Sports Officiating and Supervision (3)
- PEMP 78—Supervised Practical Experience (3)

Curricula

e. Coaching (8-9)

Coaching emphases are available for baseball, basketball, football, golf, gymnastics, ice hockey, swimming, tennis, track and field, and wrestling. Each area will consist of the following:

The professional activity course for the sport selected (1)

The coaching course for the sport selected (2)

PEMP 77—Student Teaching: Coaching (3)

(or) PEMP 99—Independent Study (3) (may be selected by varsity squad members in place of PEMP 77)

PEMP 78—Supervised Practical Experience (3)

f. Electives in Professional Physical Education Courses (9)

C. Other Requirements

PubH 91-92—Physiological Hygiene (8)

D. Any regular minor offered in the College of Education or electives necessary to complete a total of 186 credits, at least 12 of which must be completed in Upper Division courses in one department outside the College of Education.

Minor in Physical Education for Men

A total of from 28 to 32 credits

A. Required of all (15-16)

Anat 27—Anatomy for Physical Education Students (4)

(or) PEMP 50—Human Anatomy (3)

PEMP 60A—Prevention and Care of Injuries (3)

(or) PE 160—Practicum: Prevention and Care of Athletic Injuries (3)

PEMP 63—Administration of Physical Education (3)

PEMP 71—Physiological Application to Sports (3)

PE 51—Mechanics of Movement (3)

B. Select Area of Emphasis or Activities Specialization

1. Area of Emphasis (15-16)

a. Select one area of emphasis with the exception of Advanced Study Preparation as listed in the PEM major. Student teaching is recommended but not required.

b. Select 4 credits:

PEMP 4—Conditioning and Tactics (1)

PEMP 5—Gymnastics (1)

PEMP 8—Track and Field (1)

PEMP 10—Basketball (1)

PEMP 13—Soccer (½)

PEMP 14—Volleyball (½)

PEMP 15—Games and Elementary School Activities (1)

c. Select one course:

PEMP 9—Baseball (1)

PEMP 11—Football (1)

PEMP 12—Ice Hockey (1)

School of Physical Education

d. Select one course:

- PEM 7A—Water Safety Instructor (2)
- PEMP 3—Wrestling (1)

e. Select one course:

- PEMP 6—Golf (1)
- PEMP 7—Racket Sports (1)

2. Activities Specialization (13-14)

a. All required:

- PEM 14A—Ballroom Dance (1)
- PEMP 4—Conditioning and Tactics (1)
- PEMP 5—Gymnastics (1)
- PEMP 8—Track and Field (1)
- PEMP 10—Basketball (1)
- PEMP 13—Soccer (½)
- PEMP 14—Volleyball (½)
- PEMP 15—Games and Elementary School Activities (1)
- PEMP 16—Fundamental Movement (1)
- PEMP 17—Folk Dance (1)

b. Select two courses:

- PEMP 9—Baseball (1)
- PEMP 11—Football (1)
- PEMP 12—Ice Hockey (1)

c. Select one course:

- PEM 7A—Water Safety Instructor (2)
- PEMP 3—Wrestling (1)

d. Select one course:

- PEMP 6—Golf (1)
- PEMP 7—Racket Sports (1)

Minnesota Public Secondary School Athletic Coaching Certification

A teacher in a Minnesota public secondary school who is head coach in baseball, basketball, football, hockey, track, or wrestling may be certified either by completion of the major or minor in physical education or by the following special coaching preparation program. Students who successfully complete this program will receive the endorsement of the University for athletic coaching in Minnesota public secondary schools. A total of 22-23 credits from groups A, B, and C is required.

A. All required (15-16)

- Anat 27—Anatomy for Physical Education Students (4) (or) PEMP 50—Human Anatomy (3)

Curricula

- PEMP 60A—Prevention and Care of Injuries (3) (or) PE 160—Practicum: Prevention and Care of Athletic Injuries (3)
PEMP 71—Physiological Application to Sport (3)
PEMP 77—Student Teaching: Coaching (3) (or) PEMP 99—Independent Study (3)
(for those having public school coaching experience)
PE 91—History and Principles of Physical Education (3)

B. Select one (3)

- PEMP 63—Administration of Physical Education (3)
PEMP 54—Motor Learning (3)
PE 51—Mechanics of Movement (3)

C. Select two from the following (4)

- PEMP 80—Baseball Coaching (2)
PEMP 81—Basketball Coaching (2)
PEMP 82—Football Coaching (2)
PEMP 83—Golf Coaching (2)
PEMP 84—Gymnastics Coaching (2)
PEMP 85—Ice Hockey Coaching (2)
PEMP 86—Swimming and Diving Coaching (2)
PEMP 87—Tennis Coaching (2)
PEMP 88—Track and Field Coaching (2)
PEMP 89—Wrestling Coaching (2)
PEMP 99—Independent Study (2)

Physical Education for Women

Major Advisers: Professors Jaeger, Slocum, Wilson; Assistant Professors Cato, Hauptfuehrer, Stoner; Instructors Plack, Shick, Young

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

1. Four-year curriculum leading to the bachelor of science degree with a major in physical education.
2. Advanced offerings leading to:
 - a. M.Ed. degree administered by 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 on physical education in the Graduate School.
3. Curriculum for a teaching minor in physical education at the elementary or secondary levels.
4. Curriculum for a teaching minor in dance education.

These curricula have been designed for women who desire to prepare for teaching, research, and administrative positions in the field of physical education. Completion of the undergraduate major curriculum entitles a student to the B.S. degree and the endorsement of the College of Education for a Minnesota High School Standard Special Certificate. Students wishing to register for

School of Physical Education

one of the professional curricula should consult one of the major advisers. Inquire at 101 Norris Gymnasium for Women for assignment to an 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:

1. The prescribed physical education curriculum listed below which includes liberal education requirements.
2. A total of 29 credits in education including Ed 55A-B, HEd 90, and PEWP 90A-B-C-D.
3. An average of C+ (2.50 grade points per credit) in all PE and PEWP courses.
4. A teaching minor.
5. An average of C (2.00 grade points per credit) in the minor and in all courses taken outside the major during the junior and senior year.
6. A total of 186 credits.

FRESHMAN YEAR

A. Liberal Education

Category I**—Communication, Language, Symbolic Systems

Engl 1-2-3 (9) (or) Comm 1-2-3 (9)

Category II—Physical and Biological Sciences

Biol 1-2 (10)

Category III**—Man and Society

Soc 1—Man in Modern Society (3) (or) Soc 3—Social Problems (3)

Category IV**—Artistic Expression

Mu 4—Fundamentals of Music for Nonmajors (2)

B. Physical Education

PEWP 20A-B-D, 21A-B-C, 22C, 40A-C, 41A, 42A (11)

C. Additional Course Requirements

PubH 5—Individual Public Health (3)

D. General Electives (4-10)

** In addition to the required courses listed above, a minimum number of elective credits must be selected from the following categories: I (3-4), III (3), IV (3); for appropriate courses see *College of Liberal Arts Bulletin*.

Curricula

SOPHOMORE YEAR

A. Liberal Education

Category I**—Communication, Language, Symbolic Systems

Spch 5 (5) (or) Spch 2 and 6 (6)

Category II—Physical and Biological Sciences

GeCh 4-5—General Principles of Chemistry (10)

Category III**—Man and Society

Psy 1-2—General Psychology (6)

Category IV**—Artistic Expression

PEW 16B—Intermediate Modern Dance (1-1½)

B. Physical Education††

PEWP 21D, 22A-B-D, 40D (5)

PEWP 44—Physical Education for the Elementary School (3)

PEWP 46—Water Safety Instructor's Course (2)

C. Additional Course Requirements

Anat 27—Anatomy for Physical Education Students (4)

Students failing to complete PEWP 41A, Advanced Aquatics (1 credit), 42A, Senior Life Saving (1 credit), or 46, Water Safety Instructor's Course (2 credits) are required to make up credit deficiencies in other appropriate physical education courses. Students meeting PEWP course requirements through proficiency examinations are required to elect appropriate physical education courses as a means of meeting credit deficiencies.

D. General Electives—8 credits

JUNIOR YEAR

A. Liberal Education

Category IV—Artistic Expression

PEWP 80—History and Trends in Dance (3)

B. Physical Education

PE 51—Mechanics of Movement (3)

PEWP 55—Teaching Individual and Team Sports (3)

** In addition to the required courses listed above, a minimum number of elective credits must be selected from the following categories: I (3-4), III (3), IV (3); for appropriate courses see *College of Liberal Arts Bulletin*.

†† In addition to the required courses listed above, 1 credit in individual sports and 1 credit in team sports are to be selected from the following: (a) archery, bowling, fencing, intermediate badminton, golf, tennis from PEW; (b) PEWP 40B, Officiating Field Hockey, Volleyball; 41B, Officiating Basketball; or PEWP 42A, Lacrosse.

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- PEWP 56—Teaching of Folk Dance (3)
- PEWP 57—Teaching of Posture, Exercise, and Gymnastics (3)
- PE 91—History and Principles of Physical Education (3)

C. Additional Course Requirements

- Hlth 25—American Red Cross First Aid: Standard, Advanced (2)
- Ed 55A-B—Introduction to Secondary School Teaching (10)
- PubH 91-92—Physiological Hygiene (8)
- (or) Phsl 51—Physiology (6)

D. General Electives—7-9 credits

SENIOR YEAR

A. Liberal Education (complete requirements)

B. Physical Education

- PEWP 58—Intramural-Extramural-Interschool Sports Program (3)
- PEWP 90B-C-D—Student Teaching in Physical Education (9)
- PEWP 95—Administration of Physical Education (3)
- PE 97—Testing in Physical Education (3)
- PE 102—Curriculum (3)

C. Additional Course Requirements

- HEd 90—The School and Society (3)

D. General Electives—to complete a total of 186 credits

The Minor in Physical Education for Women with a Major in a Secondary Education Field

A minimum of 33 credits distributed as follows:

1. A maximum of 3 credits may be allowed for credits earned in fulfilling the regular physical education requirement in nonprofessional classes. Courses selected under 1 cannot be duplicated under 2.
2. A minimum of 7 credits must be taken in the professional skills courses listed below. Choice of courses should lead to a distribution in four of the five skill areas:

Aquatics

- PEWP 20D—Beginning Aquatics (1)
- PEWP 41A—Advanced Aquatics (1)
- PEWP 42A—Senior Life Saving (1)

Posture and Self Testing Activities

- PEWP 21D—Posture and Functional Exercise (1)
- PEWP 40C—Tumbling, Free Exercise, and Trampoline (1)
- PEWP 40D—Apparatus (1)

Dance

- PEWP 21C—Rhythmic Analysis (1)
- PEWP 22A—Folk Dance (1)
- PEWP 40A—Modern Dance (1)

Curricula

Team Sports

- PEWP 20B—Field Hockey and Volleyball (1)
- PEWP 21A—Basketball (1)
- PEWP 22D—Speedway and Softball (1)
- PEWP 40B—Officiating Field Hockey and Volleyball (1)
- PEWP 41B—Officiating Basketball (1)

Individual Sports

- PEWP 20A—Badminton (1)
- PEWP 22B—Golf (1)
- PEWP 22C—Tennis (1)

3. Required Courses—15 credits

- PEWP 21B—Fundamental Movement (1)
- Hlth 25—American Red Cross First Aid: Standard, Advanced (2)
- PEWP 55—Teaching Individual and Team Sports (3)
- PE 91—History and Principles of Physical Education (3)
- PEWP 93—Student Teaching: Physical Education for Minors (3)
- PE 102—Curriculum (3)

4. A minimum of 8 credits selected from:

- PEWP 46—Water Safety Instructor's Course (2)
- PE 51—Mechanics of Movement (3)
- PEWP 56—Teaching of Folk Dance (3)
- PEWP 57—Teaching of Posture, Exercise, and Gymnastics (3)
- PEWP 58—Intramural-Extramural-Interscholar Sports Program (3)
- PEWP 80—History and Trends in Dance (3)
- PEWP 90A—Orientation to Student Teaching (pre-fall experience) (2-3)
- PE 97—Testing in Physical Education (3)
- Hlth 103—Role of the School Health Educator in Health Appraisal (3)
- PE 104—Teaching Physical Education for the Handicapped Child (3)

Note—Strongly recommended: PEWP 56, 57, 58, and 90A.

The Minor in Physical Education for Women with a Major in Elementary Education

A minimum of 31 credits distributed as follows:

1. A maximum of 5 credits may be given for credits earned in fulfilling the regular physical education requirement in nonprofessional classes. Suggested courses are: stunts and tumbling, modern dance, folk and square dance, posture and individual exercise, and courses in team sports of special interest to the minor. Courses selected under 1 cannot be duplicated under 2.
2. A minimum of 3 credits must be taken in the professional skills courses listed below.

Dance

- PEWP 21C—Rhythmic Analysis (1)
- PEWP 22A—Folk Dance (1)
- PEWP 40A—Modern Dance (1)

Posture and Self Testing Activities

- PEWP 21D—Posture and Functional Exercise (1)
- PEWP 40C—Tumbling, Free Exercise, and Trampoline (1)
- PEWP 40D—Apparatus (1)

School of Physical Education

Team Sports

- PEWP 20B—Field Hockey, Volleyball (1)
- PEWP 21A—Basketball (1)
- PEWP 22D—Speedaway, Softball (1)

3. Required Courses—15 credits

- PEWP 21B—Fundamental Movement (1)
- Hlth 25—American Red Cross First Aid: Standard, Advanced (2)
- PEWP 44—Physical Education Activities for the Elementary School (2)
- PEWP 70—Teaching Health and Physical Education in the Elementary School (3)
- PEWP 93—Student Teaching (3)
- PE 91—History and Principles of Physical Education (3)

4. A minimum of 8 credits required:

- PEWP 55*—Teaching Individual and Team Sports (3)
- PEWP 56*—Teaching of Folk Dance (3)
- PEWP 57*—Teaching of Posture, Exercise, and Gymnastics (3)
- PEWP 76—Teaching of Creative Dance for Children (3)
- PEWP 90A—Student Teaching (pre-fall experience) (2-3)
- PE 97—Testing in Physical Education (3)
- PE 102—Curriculum (3)
- PE 104—Teaching Physical Education for the Handicapped Child (3)
- Hlth 103—Role of the School Health Educator in Health Appraisal (3)

Note—One of the above starred courses (***) must be taken: PEWP 55, 56, 57. Permission to complete this minor must be obtained from the major adviser.

Dance Education Minor

The following sequence of courses in dance is open to all students in the College of Education who are particularly interested in the teaching of dance as a minor field. A minimum total of 27 credits is required. Consultation should be held with the dance adviser as early as possible in order to plan for individual needs.

Lower Division Courses, Physical Education for Women

A minimum of 5 credits is required which may be fulfilled in the non-professional program, PEW. Skills courses should include experience in all dance forms and may be selected from the courses listed below:

- | | |
|--------------------------|-----------------------------------|
| PEW 16A—Modern Dance (1) | PEW 14A—Ballroom Dance (1) |
| PEW 16B—Modern Dance (1) | PEW 14B—Ballroom Dance (1) |
| PEW 16C—Modern Dance (1) | PEW 15A—Folk and Square Dance (1) |
| PEW 16D—Modern Dance (1) | |

Upper Division Courses, Physical Education for Women

Required Courses:

- PEWP 56—Teaching of Folk Dance (3)
- PEWP 80—History and Trends in Dance (3)

Electives—a minimum of 7 credits to be selected from the courses listed below:

- | | |
|---|-------------------------------|
| PE 51—Mechanics of Movement (3) | PEWP 87—Dance Composition (2) |
| PEWP 78—Teaching of Creative Dance for Children (3) | PEWP 88—Dance Composition (2) |
| | PEWP 89—Dance Production (3) |

Curricula

Electives in Speech and Theatre Arts, Music, and Art—a minimum of 9 credits selected from two of the three areas listed below:

Speech and Theatre Arts

Th 11—Introduction to the Theatre Arts (3)

Th 12—Laboratory Section: Introduction to the Theatre Arts (1)

Th 23—Beginning Acting: Technique (3)

Th 74—Play Production in the Secondary School (3)

Th 131—Creative Dramatics (3)

Th 174-175-176—History and Techniques of Stage Movement (3)

Mus 50—Introduction to Music (5)

Mus 51—History of Musical Styles I (2)

Mus 52—History of Musical Styles II (2)

Mus 53—History of Musical Styles III (2)

Art (any one of the following):

Art 1—Principles of Art (5)

Art 50—Visual Arts (3)

Art 78—Modern Art—The 20th Century (3)

Art 20—Basic Drawing (3)

Music

Mus 4—Fundamentals of Music (2)

Mus 12A—Voice (2)

Recreation and Park Administration

Major Advisers: Professors Anderson, Chapman, Donnelly; Associate Professor Giles, Ostrander; Instructors Schultz, Scott

The Department of Recreation and Park Administration offers the following curricula:

1. Four-year curriculum leading to the bachelor of science degree with a major in recreation and park administration
2. Advanced offerings leading to:
 - a. M.Ed. degree administered by the College of Education
 - b. M.A. degree with a major in recreation and park administration in the Graduate School
 - c. Ph.D. degree with a major in education and an emphasis on recreation and park administration in the Graduate School
3. Curriculum for a minor in recreation and park administration
4. Curriculum for a minor in camping and outdoor education

Undergraduate professional preparation in recreation and park administration involves 4 years of work, leads to the B.S. degree, and is open to men and women. The program includes courses in liberal education, basic professional theory, recreation skills, practical field experience, and the selection of an undergraduate specialization or option from the following:

Option I—Recreation Program Leadership—Emphasis on developing activity leadership skills and techniques for those interested in pursuing a career where direct involvement with program participants is a major portion of the work.

Option II—Public Recreation and Parks—Emphasis on preparing individuals for supervisory and beginning administrative positions in governmental tax-supported agencies.

Option III—Therapeutic Recreation—Emphasis on preparing individuals for work with the ill and disabled in hospitals, institutions, and community agencies.

School of Physical Education

Option IV—Voluntary and Youth-Serving Agencies—Emphasis on the preparation of individuals to assume positions in YMCA's, YWCA's, scouting, boys' clubs, and other youth-serving agencies.

All of the general requirements of the College of Education govern admission and graduation from the program. Students who graduate from the major program in recreation and park administration are qualified to receive certification from the State Board of Education to direct recreation programs in public school facilities in Minnesota. This program does not culminate in a teaching certificate; however, a student may prepare for teaching in the many other programs outlined elsewhere in this bulletin.

FRESHMAN AND SOPHOMORE YEARS

A. Liberal Education—74 credits

Category I—Communication, Language, Symbolic Systems (23)

Comm 1-2-3—Communication (or) Engl 1-2-3—Freshman English (or) Comp 1-2-3—Freshman Composition (or) Engl A-B-C—Freshman Composition and Literature (9-15)

Spch 5—Fundamentals of Speech (5)

Jour 11—Reporting for Nonmajors (3)

Up to 6 credits from the following: Soc 45 (5), Phil 2 (5), mathematics, foreign languages

Category II—The Physical and Biological Sciences (15)

15 credits from: anatomy, astronomy, biology, botany, chemistry, geology, natural science, physics, physiology, zoology

Category III—Man and Society (27)

Psy 1-2—General Psychology (6)

PubH 5—Individual and Public Health (or) PubH 50—Personal and Community Hygiene (3)

Soc 1-2-3—Man in Modern Society, American Community, Social Problems (or) SSci 1-2-3—Personality, Work, Community (9)

At least three additional courses from the following fields: anthropology, classics, economics, geography, history, humanities, philosophy, political science, social science, sociology (9)

Category IV—Artistic Expression (9)

Mus 4—Fundamentals of Music (2)

Th 11-12—Theatre Arts, Theatre Arts Lab (4)

Art 10—Photography (or) Art 45—Ceramic Processes (or) PEW 16A-B-C-D-E-F-G (3)

B. Recreation—20 credits

1. Professional (10)

Rec 20—Introduction to Recreation and Parks (2)

Rec 45—Camp Craft (2)

Curricula

- Rec 47—Leadership in Social Activities (3)
- Rec 49—Social Aspects of Leisure (3)

2. Related (10)

- Hlth 25—ARC First Aid: Standard, Advanced (2)
- ArEd 19C—Experiences with Functional Design, Crafts (or) Ind 1—Elementary Handicrafts (3)
- 5 credits to be selected from: PEM 1-46 (or) PEW 1-46 (at least one course in aquatics required)

JUNIOR AND SENIOR YEARS

A. Education—19 credits

- Ed 55A-B—Introduction to Secondary School Teaching (10)
- EdCI 104—Adult Education (3)
- EdCI 105—Audio-Visual Materials in Education (or) PE 155—Instructional Aids in Health, Physical Education, and Recreation (3)
- HEd 90—The School and Society (3)

B. Skill Techniques—14 credits

1. Drama (3)

- Th 21—Beginning Acting: Creative Approach (or) PE 155—Instructional Aids (or) Th 132—Children's Theatre (3)

2. Music (2)

- MuEd 55—Music for Recreational Leadership (2)

3. Outdoor Recreation (3)

- Rec 64—Leadership in Nature Recreation (3)

4. Speech (3)

- Spch 51—Advanced Public Speaking (or) Spch 101 or 102 or 103—Argumentation and Persuasion (or) Spch 106—Discussion (3)

5. Physical Education (3)

- PEMP 16 (or) PEWP 21B—Fundamental Movement (or) PEMP 17 (or) PEWP 22A—Folk Dance (1)
- PEMP 64—Programming Intramural-Extramural Sports (3) (or) PEWP 58—Intramural-Extramural-Interscholar Sports (3)

C. Recreation Core Theory—13 credits

- Rec 101—Recreation in Community Organizations (3)
- Rec 111—Recreation and Park Areas and Facilities (3)
- Rec 112—Recreation Program Planning (3)
- Rec 113—Methods in Recreation and Park Leadership (2)
- Rec 160—Principles of Recreation and Park Administration (2)

D. Professional Options—25-27 credits

School of Physical Education

Note—The student, in consultation with a major adviser, is to select *one* of the following four major areas of concentration:

Option I—Recreation Program Leadership (25)

1. Eleven (11) credits to be selected from:
 - Rec 43—Camp Aquatics (2)
 - Rec 46—Camp Leadership (2)
 - Rec 107—Camp Administration (3)
 - Rec 131—Industrial Recreation (3)
 - Rec 132—Commercial Recreation (3)
 - Rec 137—Readings: Recreation (3)
 - Rec 141—Introduction to Therapeutic Recreation (3)
 - Rec 144—Recreation for the Mentally Retarded (3)
 - Rec 145—Recreation for the Aging (3)
 - Rec 151—School Recreation (3)
 - Rec 160A—Administrative Practices in Public Recreation and Parks (2)
 - Rec 160B—Administrative Practices in Therapeutic Recreation (2)
 - Rec 160C—Administrative Practices in Voluntary and Youth-Serving Agencies (2)
2. Eight (8) credits to be selected from the following departments with approval of major adviser: art, art education, theatre arts, physical education, music, industrial education
3. Six (6) credits to be selected from related disciplines with approval of major adviser.

Option II—Public Recreation and Parks (27)

1. Rec 160A—Administrative Practices in Public Recreation and Parks (2)
2. For 143—Management of Recreational Lands (3)
3. Hort 76—Landscape Construction (3)
4. Hort 116—Principles of Recreational Design (4)
5. Soc 106—Planning (3)
6. Acct 24—Beginning Accounting (3)
7. Two courses from Pol 116—Introduction to Community Politics (3) (or) Pol 117—Community Power Structures (3) (or) Pol 118—Metropolitan Government and Politics (3)
8. One course from:
 - Rec 107—Camp Administration (3)
 - Rec 131—Industrial Recreation (3)
 - Rec 137—Readings: Recreation (3)
 - Rec 141—Introduction to Therapeutic Recreation (3)
 - Rec 151—School Recreation (3)
 - For 157—Recreational Land Policy (3)

Option III—Therapeutic Recreation (25-26)

1. Rec 141—Introduction to Therapeutic Recreation (3)
2. Rec 143—Programming in Therapeutic Recreation (3)
3. Rec 160B—Administrative Practices in Therapeutic Recreation (2)
4. One course to be selected from:
 - Rec 107—Camp Administration (3)
 - Rec 137—Readings: Recreation (3)
 - Rec 144—Recreation for the Mentally Retarded (3)
 - Rec 145—Recreation for the Aging (3)

Curricula

5. Soc 120—Social Psychology (3)
6. CPsy 80—Child Psychology (3)
7. Jour 150—Institutional Public Relations (3)
8. Five (or) six credits to be selected from:
 - Soc 90—American Social Welfare (5)
 - CPsy 127—Social Behavior of Children (3)
 - EPsy 125—Social Psychology of Education (3)
 - EPsy 159—Personality Development and Mental Hygiene (3)

Option IV—Voluntary and Youth Serving Agencies (27)

1. Rec 43—Camp Aquatics (or) Rec 46—Camp Leadership (2)
2. Rec 107—Camp Administration (3)
3. Rec 160C—Administrative Practices in Voluntary and Youth-Serving Agencies (2)
4. One course to be selected from:
 - Rec 137—Readings: Recreation (3)
 - Rec 141—Introduction to Therapeutic Recreation (3)
 - Rec 144—Recreation for the Mentally Retarded (3)
 - Rec 145—Recreation for the Aging (3)
5. Fourteen (14) credits to be selected from:
 - Soc 90—American Social Welfare (5)
 - Soc 91—Introduction to Social Work (3)
 - Soc 120—Social Psychology (3)
 - Soc 122—Sociology of Conflict (3)
 - Soc 140—Social Organization (3)
6. Three credits to be selected from:
 - Psy 75—Introduction to Psychology of Learning (3)
 - Soc 95—Introduction to Public Welfare (3)
 - Soc 102—Adult Parole (3)
 - Soc 121—Advanced Social Psychology (3)

E. Field Experience—9 credits

Rec 90—Field Experience (1-9 ar)

F. Electives—Selected in consultation with major adviser to complete a total of 186 credits

Graduation Requirements—For students majoring in recreation and park administration, an overall grade point average of 2.00 (C) must be maintained. In addition, a grade point average of 2.00 (C) must be maintained in all courses taken having a "Rec" prefix.

Minor in Recreation and Park Administration

Minor Adviser: Associate Professor Giles

The minor in recreation and park administration is designed to prepare individuals for part-time and volunteer work of a general recreation nature.

School of Physical Education

This is a nonteaching minor and cannot be used to meet minor requirements in any curriculum.

- Hlth 25—ARC: Standard Advanced First Aid (2)
- Rec 90—Field Experience (3)
- Recreation theory (12) (courses to be selected in consultation with recreation adviser)
- Skill techniques (12) (to be selected in consultation with minor adviser)
- Elective—one course to be selected from the following:
 - Psy 140—Social Psychology (3)
 - EdCI 104—Adult Education (3)
 - EdCI 169—Student Activity Programs in Secondary Schools (3)

Minor in Camping and Outdoor Education

Minor Adviser: Associate Professor Ostrander

The minor in camping and outdoor education is designed to prepare individuals for work in camps and other outdoor settings. It 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. A total of 36 credits is required for this minor.

- Rec 43—Camp Aquatics (2)
- Rec 45—Camp Craft (2)
- Rec 46—Camp Leadership (2)
- Rec 47—Leadership in Social Activities (3)
- Rec 64—Leadership in Nature Activities (3)
- Rec 107—Camp Administration (3)
- Rec 113—Methods in Recreation and Park Administration (2)
- CPsy 81—Adolescent Psychology (3)
- ArEd 19C—Experience with Functional Design, Crafts (or) Ind 1—Elementary Handicrafts (3)
- Hlth 25—ARC: Standard, Advanced First Aid (2)
- MuEd 55—Music for Recreation Leadership (2)
- 3 credits to be selected from:
 - PEM 1-46 or PEW 1-46
 - Th 11—Theatre Arts (3)
 - Rec 90—Field Experience (3) (to be taken in a camp leadership position during the summer)

School Health Education

Adviser: Professor Slocum

The student may take an undergraduate minor or a program leading to an M.Ed. degree with a major in school health education in the College of Education. The Graduate School offers an M.A. in physical education, or a Ph.D. in education with a concentration in school health. Students who seek 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.

Curricula

School Health Education as a Minor Subject

The minor in school health education requires 31 to 38 credits in addition to the basic background courses.

Basic Background Courses—11-20 credits required

- Biol 1-2—General Biology (10)
(or) GC 10A-B—Human Biology (6)
(or) NSci 1-2-3—Orientation in Natural Sciences (15)
PubH 5—Individual, Public Health (3)
- (or) PubH 50—Personal and Community Health (3)
Hlth 25—American Red Cross First Aid: Standard, Advanced (2)

Minor Sequence—31-38 credits required

- EPsy 159—Personality Development and Mental Hygiene (3)
(or) PubH 133—Mental Hygiene (3)
Hlth 59—Instructor's Course in First Aid (3)
HE 31—Nutrition (3)
(or) HE 72—Nutrition (2)
(or) PubH 95—Human Nutrition (3)
Hlth 82—Curriculum in School Health Education (3)
Hlth 83—Methods and Materials of School Health Education (3)
(or) Hlth 117B—Advanced Instruction in School Health for Secondary Schools (3)
Hlth 103—Role of School Health Educator in Health Appraisal (3)
- Hlth 114—Administration of School Health Education (3)
FamS 1—Dynamics of Dating, Courtship, and Marriage (3)
(or) FamS 1A—Dynamics of Dating, Courtship, and Marriage (3)
Anat 27—Anatomy for Physical Education Students (4)
(or) PEMP 50—Anatomy (3)
PubH 91-92—Physiological Hygiene (8)
(or) Phsl 51—Human Physiology for Nursing, Physical Therapy Students (5)
Hlth 94—Student Teaching in School Health Education (2)
(or) Equivalent included in PEWP 90A-B-C or PEMP 75B

Advanced Study in the School of Physical Education

Fifth-Year Programs Leading to the Master of Education Degree

In the School of Physical Education, fifth-year programs leading to an M.Ed. degree are available in (1) physical education, (2) recreation and park administration, and (3) school health education. Students who wish to enroll in one of these M.Ed. programs should make application to the Office of Admission and Records for admission to the College of Education specifying their major field of interest. The programs for physical education and for school health education are for certified teachers; for recreation and park administration the student must have interest and experience in that field. The following transfer regulations govern all three of the M.Ed. programs outlined below:

1. Transfer from outside the University will not reduce 45-credit residence requirement. No credits earned in the field of education may be transferred.
2. Transfer within the University:
 - a. No transfer of correspondence courses.
 - b. Transfer of 12 credits of extension courses permissible by petition.
 - c. No more than 18 credits may be transferred from the Graduate School of the University of Minnesota.

- d. Only credits earned in the first academic quarter or one summer term (SS I or SS II, not both) as an adult special or summer student at the University of Minnesota may be transferred.
- e. Graduate School regulations on transfer of credit earned in senior year shall apply.

All work submitted for the M.Ed. degrees in physical education, or in recreation, or in school health education must be initiated and concluded within 7 years. This ruling is not retroactive.

Master of Education in Physical Education

The College of Education administers and awards the master of education degree with a major in physical education to students who satisfactorily complete the requirements outlined below. The M.Ed. program in physical education is based on and is an extension of the undergraduate major in physical education. The program below, known as Plan I, is for experienced certified teachers.

A. Admission Requirements

- 1. Graduation from an accredited college with an undergraduate major in physical education or an equivalent background with departmental approval
- 2. Possession of a teaching certificate
- 3. Undergraduate overall grade point average generally not less than 2.50
- 4. Departmental and college approval

B. Program and Graduation Requirements

- 1. A total of 45 quarter credits in courses numbered 100 or above, taken in residence, with a grade point average of 2.80 or higher in courses in physical education
- 2. At least 1 year of full-time teaching experience before degree is granted or departmental substitution of an internship (preferably paid). Students having less than 1 full year of teaching experience will be required to take an internship which will supplement but not repeat previous teaching or student teaching experience.
- 3. College of Education Graduate Test Battery required to provide information for advisers.
- 4. The 45 credits in courses numbered 100 and above must be distributed as follows:
 - a. Physical Education—24 credits
 - b. Education—12 credits, including PE 128E and exclusive of internship

Curricula

- c. Electives (courses outside physical education)—Sufficient to complete 45 credits
- d. A 3-credit paper (PE 128E) in the form of a problem or project approved by the departmental M.Ed. advisers, which will integrate learnings from a course or several courses in education with physical education learnings.
- e. An internship will be required for all students having less than 1 full year of teaching experience which will supplement but not repeat past teaching and/or student teaching experience. Students register for the internship experience. Students register for the internship in EdCI 199E. This is in addition to the 45-credit requirement if the student is NOT an experienced teacher.

Master of Education in Recreation

The College of Education administers and awards the master of education degree with a major in recreation to students who satisfactorily complete the requirements as outlined below. This program, known as Plan II, is for professional workers in fields not certified for teaching. The student has a choice of these five areas of concentration: Industrial Recreation; Outdoor Recreation; Public Park and Recreation Administration; Therapeutic Recreation; Voluntary and Youth-Serving Agencies.

A. Admission Requirements

1. A Bachelor's degree from an accredited institution in recreation or other appropriate background subject to approval by the department
2. An undergraduate overall grade point average generally not less than 2.50
3. Completion of undergraduate courses in psychology, sociology, and science
4. Twenty-six quarter hours of skill techniques in art, dramatics, music, nature recreation, physical education, and social recreation. Demonstrated proficiency may be substituted for this requirement or for parts of it, with the consent of the major adviser. Those who do not meet this requirement may be held for undergraduate skill courses on the advice of the major adviser.
5. Qualifying interest and experience in the field of recreation
6. Departmental and college approval

B. Program and Graduation Requirements

1. Forty-five credits in courses numbered 100 and above with a grade point average of 2.80 in courses in the major

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2. College of Education graduate test battery required to provide information to advisers.
3. The 45 credits in courses numbered 100 and above must be distributed as follows:
 - a. Recreation and Park Administration—24-30 credits
 - b. Education—9-12 credits including a practicum (internship) and the written report thereof; students register for the practicum (internship) in Rec 251 or Rec 252
 - c. Electives—6-12 credits selected in consultation with the adviser
4. A comprehensive examination administered by the Department of Recreation and Park Administration

Master of Education in School Health Education

The College of Education administers and awards the master of education degree with a major in school health education to students who satisfactorily complete the requirements as outlined below. This program, known as Plan I, is for experienced certified teachers.

A. Admission Requirements

1. Graduation from an accredited college and possession of a teaching certificate
2. Minor in school health education or departmental approval of equivalent background with major in physical education, health education, home economics or biological sciences, or broad major in health and physical education
3. Undergraduate overall grade point average generally not less than 2.50
4. Departmental and college approval
5. Special requirements:

The transcript of any prospective Master's candidate must include the areas or equivalents listed below. Areas of deficiency may be fulfilled at the Master's level where courses numbered 100 or over are available.

Health: Personal health, first aid, nutrition

Science: Human anatomy, human physiology, biology, chemistry, and bacteriology or microbiology

Social Science: Sociology

Education: A minimum of 18 credits

Experience: The candidate should have had classroom teaching experience in health or related sciences

Curricula

B. Program and Graduation Requirements

1. A total of 48 quarter credits in courses numbered 100 or above, taken in residence, with a grade point average of 2.80 or higher in courses in school health education and public health
2. At least 1 year of full-time teaching experience before degree is granted or substitution of internship (preferably paid) which is clearly differentiated from that of the undergraduate student teaching experience
3. College of Education Graduate Test Battery required to provide information for advisers
4. As this curriculum is designed on an interdisciplinary approach with the School of Public Health, the 48-credit allocation is as follows:
 - a. School Health Education—18 credit minimum
 - b. Public Health—15 credit minimum
 - c. Education—12 credits, including Hlth 128E and exclusive of internship
 - d. Problem requirement—3 credit minimum

Hlth 118E—Problems—School Health Education (3)
(or) EdCI 199E—Internship (cr ar)
 - e. The major grade point average requirement of 2.80 will be based on both school health education and public health courses.
5. A 3-credit paper (Hlth 128E) in the form of a problem or project over and above the problem requirement indicated in B4d above, approved by the departmental M.Ed. advisers, which will integrate learnings from a course or several courses in education with school health education learnings
6. A comprehensive examination administered by the faculty in school health education

Graduate Study in Health, Physical Education, and Recreation

Programs of graduate study leading to the M.A. and Ph.D. degrees are offered by the departments in the School of Physical Education. Majors at the Master's level are available in recreation and park administration and in physical education. For the latter major, a student may emphasize either physical education or school health education in selecting courses for his major. The Ph.D. major is education with special emphasis upon the student's particular area of interest. For requirements and course offerings for these degrees consult the *Graduate School Bulletin*. Application for admission should be made to the dean of the Graduate School.

POLITICAL SCIENCE

Major Adviser: Associate Professor Backstrom

A student who majors in political science registers in the College of Liberal 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 also meets the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum, listed in Section I of this bulletin. Completion of Spch 5 is advisable. The student should be proficient in typing before he reaches his senior year. He must maintain an overall 2.50 grade point average in all social science courses.

Political Science as a Major Subject

Pol 1-2—American Government and Politics (6)

Pol A-B—State in the Modern World (6)

Pol 25—World Politics (3)

Pol 40—Contemporary Political Ideologies (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 122) and 6 credits must be taken either in the field of international relations (in courses numbered between 175 and 189) or in the field of comparative government (in courses numbered 141 to 159)

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); Hist 23-24 (8); Hist 120F (3); and Hist 149E (3). Other history courses may be substituted for Hist 120F and 149E if other social science courses on Soviet Union and the Far East are taken.

Geog 1 or 4 (5)

20 credits of economics, sociology, and anthropology including:

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

Soc 1 or 3 (3)

Anth 2A (5) or 100 (3)

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

Professional Education Courses—The major in political science must take the following courses and meet the minimum requirement of 29 credits in education:

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

EdT 69J—Student Teaching: Social Studies Juniors (1) (prereq jr, ¶55A)

EdT 69—Student Teaching in the Social Studies (9 during sr yr)

EdT 69A-B—Teaching Social Studies in the Secondary School (5)

HEd 90—The School and Society (3)

PSYCHOLOGICAL FOUNDATIONS

Major Advisers: Professors Collier, Corcoran, Hewer, Hoyt, Merwin, Wilk; Associate Professors Armstrong, Burris, Hively, MacEachern, Neale, Terwilliger; Assistant Professors D. Anderson, Giese, D. Johnson, P. Johnson, Murray, Samuels

The Psychological Foundations program in educational psychology provides graduate level study as preparation for research and teaching in this field. Majors in the program are expected to achieve broad competence in the foundations studies and a specialized background in one such field: human learning, personality, social psychology, intellectual development, measurement, statistics, or research design.

The Psychological Foundations program also provides a basic background offering of psychology as applied to education for majors in other and related fields.

ROMANCE LANGUAGES

Major Advisers: *French*—Professor Renaud; Associate Professor Mantini; *Spanish*—Associate Professor Floripe; Assistant Professor Sullivan

Students wishing to major in French or Spanish take the first 2 years in the College of Liberal Arts and meet the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum, listed in Section I of this bulletin. Their programs should include the prerequisite courses and the following Upper Division courses:

French as a Major Subject—Fren 30 and 45 Upper Division credits in courses numbered above Fren 54, including:

Ling 55—Linguistics for Foreign Language Teachers (3)	Fren 65, 66, 67—Survey of French Literature (9)
Fren 55—French Conversation (3)	Fren 107, 108, 109—Structure of Modern French (9)
Fren 57—Advanced Composition (3)	Fren 114—Romance Philology (3)
Fren 58—Advanced Conversation (3)	
Fren 60, 61, 62—Civilization, Culture (12)	

In addition, at least 1 more quarter of the Fren 107-108-109 sequence is recommended, or Clas 56.

French as a Minor Subject—27 college credits in courses numbered 54 and above, including:

Fren 30—Introduction to Literary Texts (3)	Fren 58—Advanced Conversation (3)
Fren 54—Composition (3)	Fren 60, 61, 62—Culture, Civilization (12)
Fren 55—Conversation (3)	EdT 70M—Teaching Foreign Languages (3) except for majors in other foreign languages
Fren 57—Advanced Composition (3)	

In addition, Ling 55, The Structure of Modern Languages for Teachers (3), is strongly recommended.

Spanish as a Major Subject—45 Upper Division credits in courses numbered above Span 54, including:

Ling 55—Linguistics for Foreign Language Teachers (3)	Span 55—Conversation (3)
	Span 57—Advanced Composition (3)

Span 58—Advanced Conversation (3)
Span 60, 61, 62—Spanish Civilization, Culture (12)
(or) Span 60-63, 64—Latin-American Civilization, Culture (12)
Span 65, 66, 67—Survey of Spanish Literature (9)

(or) Span 74, 75, 76—Survey of the Literature of Spanish America (9)
Span 107, 108, 109—The Structure of Modern Spanish (9)
Span 114—Romance Philology (3)

It is recommended that the student also take Span 109 (3 credits) or Clas 56 (3 credits).

Spanish as a Minor Subject—27 college credits in courses numbered 54 and above, including:

Span 30—Introduction to Literary Texts (3)
Span 54—Composition (3)
Span 55—Conversation (3)
Span 57—Advanced Composition (3)
Span 58—Advanced Conversation (3)

One of the following sequences:
Span 60, 61, 62—Spanish Civilization, Culture (12)
Span 60-63, 64—Latin-American Civilization Culture (12)
EdT 70M—Teaching Foreign Languages (3) except for majors in other foreign languages

In addition, Ling 55, Linguistics for Foreign Language Teachers (3), is strongly recommended.

Professional Education Courses—The student majoring in French or Spanish must take the following courses and meet the minimum requirement of 29 credits in education:

Ed 55A-B—Introduction to Secondary School Teaching (10)
EdT 70—Student Teaching in Modern Languages (3 cr on campus, 6 cr off campus, total 9 cr)

EdT 70A-B—Teaching Modern Languages (5)
HEd 90—The School and Society (3)

Note—Each student's proficiency in listening, speaking, reading, and writing will be tested before entrance into EdT 70 and EdT 70A.

RUSSIAN

Major Advisers: Professor Birkmaier; Instructor Donchenko

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

A student wishing to obtain a major in Russian registers for the first 2 years of work in the College of Liberal Arts and there meets the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum, listed in Section I of this bulletin, as well as all prerequisites for Upper Division courses in Russian. These prerequisites are Russ 1, 2, and 3 (15 credits); 4, 5, and 6 (12 credits)—a total of 27 credits. The 2 years of work remaining will be taken in the College of Education.

Curricula

Russian as a Major Subject—51 Upper Division credits, including:

- Ling 55—Linguistics for Foreign Language Teachers (3)
- Russ 50, 51—Introduction to Literary Analysis (6)
- Russ 56, 57, 58—Russian Conversation (9)
- Russ 61, 62, 63—Russian Composition (6)
- Russ 71, 72, 73—Survey of Russian Literature (9)
- Russ 75, 76, 77—Russian Civilization and Culture (9)
- Russ 107, 108, 109—Structure of Modern Russian (9)

Russian as a Minor Subject—30 Upper Division credits, including:

- Russ 50-51, 56-57-58, 61-62-63, 75-76-77
- EdT 70M—Teaching Foreign Languages (3) except for majors in other foreign languages

Professional Education Courses—The student majoring in Russian must take the following courses and meet the minimum requirement of 29 credits in education:

- Ed 55A-B—Introduction to Secondary School Teaching (10)
- EdT 70—Student Teaching in Modern Languages (3 cr on campus, 6 cr off campus, total 9 cr)
- EdT 70A-B—Teaching Modern Languages (5)
- HEd 90—The School and Society (3)

Note—Each student's proficiency in listening, speaking, reading, and writing will be tested before entrance into EdT 70 and EdT 70A.

SCHOOL PSYCHOLOGY TRAINING PROGRAM

Major Advisers: Associate Professors Duker, Hall

The University of Minnesota offers training in school psychology at two levels: a 2-year graduate program leading to the specialist certificate in school psychological services and a 4-year graduate program leading to the Ph.D. degree. The program provides unique opportunities for interdepartmental interchange among faculty and students. Faculty are drawn from the three participating departments. Cooperating in the program are such specialized facilities as the Child Development Clinic, the Psycho-Educational Clinic, and the University Hospitals. In addition to these on-campus facilities, the larger metropolitan area offers a variety of training opportunities, including practicum and internship placements in the Minneapolis Public Schools, in a number of suburban school systems, in several special school settings, and in various state and community agencies. Applicants for the School Psychology Training Program must fulfill all general standards and requirements of the Graduate School and those of one of the cooperating departments. An interview with representatives of the cooperating departments may be scheduled upon completion of application forms and necessary tests.

The School Psychology Training Program prepares psychologists for work in school settings. The curriculum includes courses in learning, personality, child development, learning difficulties, diagnostic and remedial procedures, statistics and measurement, specialized research techniques, curriculum and instruction, and practicum.

SCHOOL SOCIAL WORK

Training to be a school social worker (or visiting teacher) is offered at the graduate level in the School of Social Work. Generally the M.S.W. degree in social work is required for this field of service. Students interested in this field should consult an adviser in the School of Social Work, 909 Social Sciences Building.

SCIENCE

Advisers: Professor Boeck; Assistant Professor Gennaro

For registration, students should consult with the appropriate subject adviser.

Students seeking to teach science in Minnesota high schools will be qualified to receive endorsement for certification upon completion of one of the four programs of teacher preparation below.

Registration for this first 2 years will be in the College of Liberal Arts. During this period the student will complete the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum, listed in Section I of this bulletin. Early consultation with an appropriate subject adviser during this period is recommended.

Upon admission to the College of Education, the student will complete the major, a minor or related sciences, and the following professional courses and credits:

Ed 55A-B—Introduction to Secondary School Teaching (10)	EdT 68—Student Teaching in Science (9)
EdT 68A-B-C—Teaching Secondary School Science (5)	HEd 90—The School and Society (3)
	Elective in education (2)

Earth Science Major

Adviser: Associate Professor Rapp

Students completing this program will be qualified to receive endorsement for Minnesota certification to teach earth and general science courses full time in junior and senior high schools.

Requirements:

1. Completion of the courses and credits, with a grade point average of 2.50 in the field of concentration as follows:

Geo 11, 22—Introductory Physical and Historical Geology (10)	Geo 101—Regional Field Geology (2)
Geo 62—Mineralogy and Lithography (5)	Electives—9 credits from Geo 66, 105, 115, 116, 155, 140
Geo 63—Structural Geology (4)	Ast 11—Descriptive Astronomy (5)
Geo 64—Sedimentology and Stratigraphy (4)	Elective course in meteorology (3-5)

Curricula

2. Completion, with a grade point average of 2.00, of the following courses and credits in related sciences:

Biol 1, 2—Biology (10)

GeCh 4, 5—General Principles of Chemistry (10)

Phys 1, 2, 3 and 1A or 2A or 3A—Physical Science (10)

It is recommended that those who seek credits in the earth science major beyond the above requirements should take mathematics (through Math 40A) and physics (Phys 4, 5, 6).

Biological Sciences Major

Advisers: *Zoology*—Assistant Professor Williams; *Botany*—Professor J. Hall, Assistant Professor Soulen; *Biochemistry*—Professor Jenness; *Genetics*—Assistant Professor Snustad

Students completing the program will be qualified to receive endorsement for Minnesota certification to teach biological and general sciences full time in junior and senior high schools.

Requirements:

1. Completion of a field concentration, with an average of 2.50. This field will be planned with the advice and consent of an adviser in the field and will consist of 45 credits with courses from each of the following: biology, botany, genetics, microbiology, physiology, and zoology.
2. Completion, with an average of 2.00, of the following courses and credits in related sciences:

GeCh 4, 5—General Principles of Chemistry (10)

OrCh 61—Elementary Organic Chemistry (5)

Geo 1—Physical Geology (4)

Ast 11—Descriptive Astronomy (5)

Phys 1, 2, 3—Physical Science (9)

Chemistry Major

Adviser: Professor Boeck

Departmental representative: Professor O'Connor

Students completing the program will be qualified to receive endorsement for Minnesota certification to teach chemistry and physical science full time and for part-time teaching in the selected minor.

Requirements:

1. Completion, with an average of 2.50, of the following courses and credits in the major:

GeCh 4, 5—General Principles of Chemistry (10)

GeCh 6—Solution Chemistry (4)

AnCh 57A, 57B—Quantitative Analysis (5)

OrCh 61, 62—Elementary Organic Chemistry (10)

PCh 107, 108—Elementary Physical Chemistry (6)

2. Completion of 15 credits, with an average of 2.00 in related physics:

Phys 7, 8, 9—General Physics (15)

3. Completion of a minor, with an average of 2.00 in either physics or mathematics.

Physics Minor:

Phys 7, 8, 9—General Physics (15)

Phys 50, 50A, 51, 51A—Intermediate Physics (10)

Mathematics Minor: Credits in mathematics as described in the mathematics section of this bulletin.**

Physics Major

Adviser: Professor Freier

Students completing the program will be qualified to receive endorsement for Minnesota certification to teach physics and physical science full time and for part-time teaching in the selected minor.

Requirements:

1. Completion, with an average of 2.50, of the following courses and credits in the major.

Phys 7, 8, 9—General Physics (15)

Phys 50, 50A, 51, 51A—Intermediate Physics (10)

Phys 133—Physical Optics (3)

Ast 51—Astronomy (3)

Electives selected from Phys 100, 123, 144, or 165 (4)

2. Completion of 15 credits of related chemistry with an average of 2.00

GeCh 4, 5—General Principles of Chemistry (10)

OrCh 61—Elementary Organic Chemistry (5)

3. Completion of a minor, with an average of 2.00, in either chemistry or mathematics

Chemistry Minor:

GeCh 4, 5—General Principles of Chemistry (10)

GeCh 6—Solution Chemistry (4)

OrCh 61—Elementary Organic Chemistry (5)

(or) OrCh 16, 17—Carbon Compounds (5)

PCh 107, 108—Elementary Physical Chemistry (6)

Mathematics Minor: Credits in mathematics as described in the mathematics section of this bulletin.**

Science Minors

Students with majors other than science may elect science minors in earth science, biological science, chemistry, or physics. Completion of the minor quali-

** Since single subject teaching assignments are uncommon, it is recommended that those minorng in mathematics enroll in the minor methods course and student teaching EdT 67M and EdT 67.

Curricula

fies the student to receive endorsement for Minnesota certification to teach half time or less in the minor field in junior and senior high schools.

Requirements:

1. Completion with an average of 2.00 of the courses and credits in the minor field as outlined below.
2. Completion of EdT 68M (3 credits), and EdT 68 (3 credits), a course in science teaching methods and student teaching in science.

Earth Science

Geo 11, 22—Introductory Physical and Historical Geology (10) Elective course in meteorology (3-5)
Geo 62—Mineralogy and Lithography (5) Electives in geology from courses required in the major (5)
Ast 11—Descriptive Astronomy (5)

Biological Science

Twenty-seven credits planned with the advice and consent of a field adviser including courses from the fields of biology, botany, zoology, physiology, and microbiology.

Chemistry

See chemistry minor described with physics major.

Physics

See minor described with the chemistry major.

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 some science areas. For specific information confer or correspond with the major adviser of the specific science area of interest.

SOCIAL STUDIES

Minor Adviser: 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

26 credits of history, including Hist 1-2-3 or 53-54-55; Hist 23-24; and 9 additional credits in courses numbered 50 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

Total—52 credits in social science

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

SOCIOLOGY

Major Advisers: Professors Haurek, Hill, Johnson, Straus

A student who majors in sociology registers in the College of Liberal Arts for his first 2 years. His program during this time should include the first three requirements listed below under the sociology major. He also meets the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum listed in Section I of this bulletin. He should be proficient in typing before he reaches his senior year. Completion of Spch 5 is advisable. The student must maintain an over-all 2.50 grade point average in all social science courses.

Sociology as a Major Subject

Soc 1—Man in Modern Society (3)	Elective courses in sociology—at least 13
Soc 3—Social Problems (3)	additional credits in courses numbered 50
Soc 45—Social Statistics (5)	or above
Soc 53—Elements of Criminology (3)	Total—30 credits in sociology
Soc 180—Methods of Social Research (3)	

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 23-24 (8)

5 credits in geography—Geog 1 or 4

26 credits in political science, economics, and anthropology, including:

Pol 1-2 (8)

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 nonsocial science area in order to improve their chances of obtaining teaching positions.

All sociology majors must take one course on Russia and one on the Far East. These courses may be taken in any of the social sciences and will count toward credit requirements in those fields.

Professional Education Courses—The major in sociology must take the following courses and meet the minimum requirement of 29 credits in education:

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

EdT 69J—Student Teaching: Social Studies Juniors (1) (prereq jr, §55A)

EdT 69—Student Teaching in the Social Studies (9 during sr yr)

EdT 69A-B—Teaching the Social Studies in the Secondary School (5)

HEd 90—The School and Society (3)

SPANISH

(See Romance Languages)

SPECIAL EDUCATION

Major Advisers: Professors Balow, Deno, Reynolds; Associate Professors Force, Weatherman, Wilderson; Assistant Professors Gallistel, Moores, Rynders, Turnure, Wood

While several of the programs in the Special Education Department require graduate status, in other programs a student may complete all or a significant part of the coursework within a 4-year program in elementary or secondary education. Students interested in teaching crippled, mentally retarded, or hearing-impaired children are particularly urged to consult an adviser as early as possible, preferably before the beginning of the junior year. In these three programs EdT 53A, Teaching Handicapped Children, sometimes may be substituted for the second quarter of regular student teaching (EdT 54B) by students enrolled in the IA elementary curriculum.

Students who hold regular teaching certificates and who have teaching experience do not usually take a program as outlined below. They should consult an adviser for a special program to meet certification requirements. Any such student must apply for admission to the Special Education Department before any departmental recommendation for certification will be considered.

Teaching Visually Handicapped Children

Students wishing endorsement for a special certificate to teach the blind and partially seeing complete a regular curriculum leading to certification for 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 required for the special certification.

A selection of courses relating to the education of visually handicapped children is offered each year. The complete sequence of courses which qualifies students for certification is offered in a cycle covering several years.

Teaching Mentally Retarded Children

Advisers: Rynders, Turnure

A minimum of 23 credits is required for completion of a program to teach mentally retarded children. This program may be completed at either the undergraduate, adult special, or graduate level. Required in this curriculum are four basic courses (EPsy 182, CPsy 143, EPsy 184, and EdCI 179 or EdCI 180) plus EdT 53A. The latter course may be substituted for part of the student teaching requirements in certain other curricula.

EPsy 182—Education of Exceptional Children (3)

EPsy 184—Introduction to Education of the Mentally Retarded (3)

Special Education

- CPsy 143—Problems of Mental Deficiency (3) (or) EdCI 180—Education of Mentally Retarded Children in the Secondary School (3)
- EdCI 179—Education of Mentally Retarded Children in the Elementary School (3) EdT 53A—Teaching Handicapped Children (mentally retarded) (6)

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

- EdT 50—Junior Practicum in Special Education (3) EPsy 110—Educational Measurement in the Classroom (3)
- EdCI 145—Reading Difficulties (3) EPsy 188—Education of the Culturally Disadvantaged Child (3)
- CPsy 80—Child Psychology (3) Ind 1 or 12—Handicrafts or Craftwork (or) ArEd 19C—Functional Arts and Crafts in Elementary Education (3)
- CPsy 81—Adolescent Psychology (3)
- CPsy 89—Psychology of Parent-Child Relationships (2)
- CPsy 140—Behavior Problems (3)
- CPsy 179—Clinical Procedures with Children (3)

Teaching Crippled Children

Adviser: Force

Students wishing to teach crippled children take a minimum of 23 credits from the courses listed below, selected in consultation with the adviser. This program may be completed at either the undergraduate or graduate level. Required in this program are the courses listed below. EdT 53A may sometimes be substituted for part of the student teaching requirements in other curricula.

- EPsy 182—Education of Exceptional Children (3) EPsy 190—Educational Problems of the Neurologically Impaired (3)
- EPsy 187—Education of Crippled Children (3) EdT 53A—Teaching Handicapped Children (crippled children) (6)

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

- EdT 50—Junior Practicum in Special Education (3) CPsy 142—Psychology of Handicapped Children (3)
- Anat 27—Anatomy for Physical Education Students (4) EdCI 179—Education of Mentally Retarded Children in the Elementary School (3)
- CPsy 143—Problems of Mental Deficiency (3) EPsy 160—Diagnosis and Remediation of Learning Disability I (3)
- EPsy 184—Introduction to Education of the Mentally Retarded (3) EPsy 161—Diagnosis and Remediation of Learning Disability II (3)
- PE 51—Mechanics of Movement (3)
- PEMP 65—Adapted Physical Education (3)
- PE 104—Teaching Physical Education for the Handicapped Child (3)

Teaching Hearing-Impaired Children

Adviser: Moores

The preparation sequence for students wishing to teach hearing-impaired children is a cooperative program of the College of Education and the Depart-

Curricula

ment of Speech, Communication, and Theatre Arts. Students may take some of the special courses during the junior and senior years, but the major portion of the course work will generally be taken at a post-baccalaureate level. Most students will wish to use course work completed in this program toward the requirements for the Master's degree.

The following courses comprise the minimum program for preparation of teachers of hearing-impaired children. Additional and specialized courses may be required. Student teaching in a special class may sometimes be substituted for other student teaching requirements.

- | | |
|---|---|
| SSPA 119—Fundamentals of Sound (3) | SSPA 171—Audiometry I (4) |
| (or) SSPA 120—Anatomy and Physiology of the Speech and Hearing Mechanisms (3) | SSPA 172—Communication Problems of the Hearing Impaired (3) |
| SSPA 180—Auditory Training (3) | EPsy 177—Childhood Language Development: Classroom Implications (3) |
| SSPA 181—Speech for the Hearing Impaired (3) | EPsy 182—Education of Exceptional Children (3) |
| SSPA 183—Language for the Hearing Impaired (3) | EPsy 288—Practicum in Special Education (9) |
| EdCI 127—Methods of Teaching School Subjects to the Hearing Impaired (3) | (or) EdT 53A-B—Teaching Handicapped Children (12) |
| EdCI 128—Introduction to the Education of Hearing-Impaired Children (3) | |

Teaching Gifted Children

Adviser: Reynolds

The University of Minnesota offers a variety of opportunities for students wishing to specialize in education of the gifted, including formal courses, research programs, curriculum projects, and various types of internships. No formally differentiated program for training teachers of the gifted is provided; all programs are individually arranged.

Supervision and Administration of Special Education Programs

Adviser: Weatherman

Through the Special Education Department, the Graduate School offers a program which leads to the certificate "Specialist in Education—Special Education" (Ed.S.) and the doctorate, with a major emphasis in special education administration. This program combines course work in general school administration and supervision with specialized courses and internships or other practical experiences for students who plan to serve as directors, coordinators, supervisors, or consultants in programs for handicapped and gifted children. Admission to this program requires completion of M.A. requirements, special certification, and experience in some area of special education.

Teaching Disadvantaged Children and Youth

Adviser: Wood

Graduate level courses on the education of low-income and minority group children and youth are offered through the Department of Special Education,

Speech, Communication, and Theatre Arts

and assistance in program planning is available to graduate students wishing to specialize in this area. There is no formally differentiated program for training teachers of disadvantaged children and youth; all programs are individually arranged.

Teaching Children With Learning Disabilities

Advisers: Deno, Gallistel

A 33-credit sequence provides the professional training necessary to function as a general resource teacher. This program may be taken as an adult special student in education without admission to the Graduate School or may be included in a graduate program of preparation for work with learning disabled children.

EPsy 110—Educational Measurement in the Classroom (3)

CPsy 100—Processes of Socialization of Children (3)

EPsy 186—Education of Emotionally Disturbed and Socially Maladjusted Children (3)

EPsy 177—Childhood Language Development: Classroom Implications (3)

EdCI 145—Reading Difficulties (3)

EPsy 148—Clinical Diagnosis of Reading Difficulties (3)

EPsy 160—Diagnosis and Remediation of Learning Disability I (3)

EPsy 160A—Practicum in Diagnosis and Remediation of Learning Disability I (3)

EPsy 161—Diagnosis and Remediation of Learning Disability II (3)

EPsy 161A—Practicum in Diagnosis and Remediation of Learning Disability II (3)

EPsy 165—Seminar: Problems and Issues in the Education of Learning Disabled Children (3)

Teaching Emotionally Disturbed and Socially Maladjusted Children

Advisers: Balow, Wilderson, Wood

Course work leading to certification in this field is available at the graduate level only. However, undergraduates who are interested in teaching disturbed children should consider taking EdT 50 and are invited to discuss the selection of undergraduate elective courses with the advisers.

SPEECH, COMMUNICATION, AND THEATRE ARTS

Major Advisers: Professors Josal, Moulton; Associate Professors Adey, Fredricks; Assistant Professors Brock, Piché

Students majoring in speech, communication, and theatre arts register for the first 2 years in the College of Liberal Arts, there meeting the Lower Division requirements for admission to the junior year in the Academic Secondary Curriculum listed in Section I of this bulletin. The 2 years of work remaining will be taken in the College of Education.

Students interested in the language arts or speech pathology curriculums, see index.

Curricula

Speech, Communication, and Theatre Arts as a Major Subject—51-52 credits.

1. All students must complete the following core of 24-25 credits:

- Spch 2—Communication in the Modern World (interpersonal communication) (3)
(and) Spch 6—Fundamentals of Speech (3)
(or) Spch 5—Fundamentals of Speech (5)
Spch 4—Communication in the Modern World (performing arts) (3)
(or) Spch 65—Introduction to Broadcast Production (3)
Spch 51—Advanced Public Speaking (3)
- Spch 52—Discussion and Conference Methods (3)
(or) Spch 103—Argumentation (3)
Spch 61—Process of Interpersonal Communication (3)
Spch 81—Interpretative Reading (3)
Spch 67—Phonetics (3)
(or) SSPA 99—Introduction to Speech Pathology and Audiology (3)
Th 11 and 12—Introduction to the Theatre (3) and Lab (1)

2. Students select one of the following curricula with the aid of an adviser:

Curriculum I—27 credits

- Spch 82 (or) 83—Interpretative Reading (3)
(or) Th 21—Beginning Acting (3)
Spch 97A—Intercollegiate Debate and Oratory (3)
Spch 125—Introduction to Rhetorical Criticism (3)
Spch 169—Speech and Language in Human Behavior (3)
Th 74 and 75—Play Production (6)
9 elective credits from speech or theatre, with approval of the adviser

Curriculum II—27 credits

- Th 21—Beginning Acting (3)
Th 34—Stagecraft (3)
Th 90—Stage Costuming or Stage Design (3)
Th 92—Stage Lighting (3)
Th 111—Stage Direction (3)
Spch 82 or 83—Interpretative Reading (3)
9 elective credits from theatre or speech, with approval of the adviser

Professional Education Courses—The student majoring in speech, communication, and theatre arts must take the following courses in professional education and meet the minimum requirement of 29 credits.

- Ed 55A-B—Introduction to Secondary School Teaching (10)
EdT 75A-B—Teaching Language Arts in Secondary Schools (5)
- EdT 75—Student Teaching in Language Arts (9)
HEd 90—The School and Society (3)

Speech, Communication, and Theatre Arts as a Minor Subject—29-31 credits

Students minoring in speech, communication, and theatre arts must complete all credits indicated in Group A or B:

Group A—29-31 credits

- Spch 5 (or) 2 and 6
Spch 4 (or) 65
Spch 51, 52, 81, 97A
SSPA 99 (or) Spch 67
6 or 7 credits from Spch 82, 83, 125, 169, Th 11, Th 12

Group B—31 credits

- Th 11, 12, 21, 74, 75
Spch 2, 4 (or) 65
Spch 6, 67 or SSPA 99
Spch 81
3 credits from the following: Th 76, 131, 132, Spch 51, 52

Additional Requirements

Because of the close relationship between English and speech in Minnesota high schools, students majoring in speech must have a minor in English. Modification of the minor requirement may be made on recommendation of

the departmental adviser with the approval of the Committee on Student Scholastic Standing, but all students majoring in speech must complete Comp 27 or 28 and Engl 165.

All students majoring or minoring in speech are expected to participate in one or more cocurricular activities such as debate, theatre, radio, public reading, and public speaking.

Students majoring in speech will register in their senior year in EdT 75A-B, Teaching of Language Arts, and in EdT 75, Student Teaching in the Language Arts. Students minoring in speech with an English major will register in EdT 75A-B and EdT 75. Students minoring in speech with a major other than English will register for EdT 76C.

SPEECH PATHOLOGY

Advisers: Professor Starr, Associate Professor McDermott

The speech pathology curriculum is designed for students interested in clinical work with persons having speech and language disorders. The B.S. degree is awarded upon the completion of the 4-year undergraduate program. Those entering professional positions in schools or other agencies are urged to proceed, if possible, with the M.A. program in the Graduate School.

Students interested in this field should consult the major adviser and take advantage of opportunities to observe clinical and laboratory activities.

For the first 2 years, students enroll in the College of Liberal Arts and complete the requirements listed below. During the winter or spring quarter of the sophomore year, they should apply for admission to the College of Education, and plan to begin the speech pathology curriculum during fall, spring, or summer sessions.

FRESHMAN AND SOPHOMORE YEARS

1. Communication, Language, Symbolic Systems

Freshman English requirement: Engl 1-2-3
or Comm 1-2-3 or Engl 10H-11H-12H or
exemption (0-12)

Spch 5—Fundamentals of Speech (5)
(or) Spch 2—Communication in the Modern
World (interpersonal communication) (3)

(and) Spch 6—Fundamentals of Speech
(3)

Phil 2—Logic (5)

Math 10—College Algebra and Analytic
Geometry (5)

2. The Physical and/or Biological Sciences (9 credits)

3. Man and Society

Psy 1-2—General Psychology (6)
Psy 4-5—Introduction to Laboratory Psy-
chology (4)

9 credits in the analysis of social, economic,
and political institutions or in the de-
velopment of civilization

4. Artistic Expression—9 credits in literature or the arts

5. Physical Education—3 credits

6. Electives—to complete the total of 90 credits

Curricula

JUNIOR YEAR

- SSPA 99—Introduction to Speech Pathology and Audiology (3)
SSPA 119—Fundamentals of Sound (3)
SSPA 120—Anatomy and Physiology of the Speech and Hearing Mechanisms (3)
SSPA 121—Phonetics (3)
SSPA 140—Diagnosis and Evaluation of Speech Disorders (4)
SSPA 141—Stuttering (3)
SSPA 142—Voice Disorders (3)
SSPA 143—Articulation Disorders (3)
- SSPA 170—Hearing Disorders (3)
CPsy 80—Child Psychology (3)
EPsy 116—Introduction to Statistical Methods (3) or equivalent
Psy 75—Introduction to Psychology of Learning (3) or equivalent
Ed 75B—Introduction to Elementary School Teaching (3)
(or) Ed 55A—Introduction to Secondary School Teaching (5)

SENIOR YEAR

- SSPA 122—Voice Science (3)
Three of the following four courses:
SSPA 144—Neuromuscular Disorders (2)
SSPA 145—Aphasia (2)
SSPA 146—Cleft Palate (2)
SSPA 147—Rehabilitation of the Laryngectomized (2)
SSPA 171—Audiometry I (4)
- SSPA 172—Communication Problems of the Hearing Impaired (3)
EdCI 174-175—Clinical Methods, Practice in Speech Pathology (6)
HEd 90—The School and Society (3)
Electives to complete the 4-year total of 186 credits (consult adviser)

The required C+ (2.50) average is based on all the SSPA courses of the junior and senior years.

Section III. Description of Courses

This section contains descriptions of the courses offered in the College of Education and 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 *Agriculture Bulletin*, *Forestry Bulletin*, and the *Home Economics Bulletin*. Other courses representing general requirements, majors and minors in the high school subjects, and general electives are described in the *College of Liberal Arts Bulletin*.

The *Class Schedule*, published just before the registration period each quarter, contains the days and hours when classes meet, the place of meeting, quarter offered, and the name of the instructor. Students should 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 the minimum class standing when there is an exception. Courses designated with a capital "E" are at 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.

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 courses listed after section mark.

¶ Concurrent registration is required in course listed after paragraph mark.

Consent of instructor is required.

△ Consent of department offering course is required.

AGRICULTURAL EDUCATION (AgEd)

- 1. Introduction to Agricultural Education.** Orientation to employment and services; qualifications of teachers, survey of preparatory offerings; the program in Minnesota. (1 cr; prereq #)
- 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; coordination of the school with non-school educational agencies. (3 cr, §120)
- 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. Teaching Agriculture in the Secondary School.** Fundamentals of teaching agriculture to high school students; use of the home, farm, and community in

Description of Courses

structuring courses of study; Future Farmers of America, Vo-Ag Planning and Summary Book; building and utilizing teaching units. (4 cr; prereq Ed 55B and §)

91. **Student Teaching in Agriculture.** Instruction in developing individual farming programs, contacting parents, program analysis of community needs, conducting classes, community activities, F.F.A. and case studies. (6 cr; prereq sr, 81, Ed 55B, and §)
101. **Young Farmer in Agriculture.** Developing and organizing a continuing program of educational activities for farm youth not in school and not established in an occupation; coordinating community resources, determining needs, deriving goals and individual plans of procedure for establishment in farming and related occupations; observation of young farmer programs. (4 cr)
103. **Adult Education in Agriculture.** Systematic instruction for established farmers; analysis of the agricultural situation; adoption of appropriate management practices; determining needs of production, marketing, credit, conservation; developing a continuing program; observation of adult education programs. (4 cr)
104. **Planning Programs.** Agricultural education program development in a community school; integration with total school program; administrative relationships and professional improvement. (3 cr; prereq §)
- 120.* **Rural Education and Community Leadership.** Role of school in rural community; coordination of school with nonschool educational agencies; responsibility for community leadership. (3 cr, §20; prereq §)
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 §)
141. **Supervised Farm Practice in Vocational Agriculture.** Selection, planning, supervising, and summarizing of individual farming programs; adaptation to needs of high school F.F.A. students, young farmers, and adults. (3 cr per qtr, total of 9 cr; prereq 10 cr in education or §)
144. **Supervised Occupational Experiences in Agriculture.** Organization and administration of an occupation experience program in agriculture for high schools and area schools. (3 cr)
145. **High School Curriculum in Agriculture.** Philosophy, organization, and administration of instruction in agriculture departments in secondary schools. (3 cr; prereq 10 cr in education)
151. **Organization and Management.** Administrative structure and function of sub-collegiate programs of agriculture education. (3 cr; prereq §)
- 156.* **Rural Education Through Extension Methods.** Role of Agricultural Extension Service; methods and techniques of instruction in nonschool educational programs; special problem required. (3 cr, §56; prereq grad or §)
166. **Techniques of Instruction in Rural Electrification.** Developing a program of instruction in electricity and rural electrification; teaching aids, units of instruction, job sheets, demonstration facilities, and materials for adult, young farmer, and high school classes. (3 cr; prereq MeAg 130 or equiv)
171. **Procedures in Teaching Agriculture.** New developments in methodology; assessment of innovations and procedures; consideration of various levels of instruction. (3 cr; prereq §)
- 199E. **Internship.** (Cr ar)

FOR GRADUATE STUDENTS ONLY
(Description in *Graduate School Bulletin*)

- 221. Field Problems
- 232.° Research in Agricultural Education
- 250. Supervision of Vocational Agriculture
- 283. Organization and Administration of Educational Programs in Agriculture
- 286. Current Issues in Agricultural Education
- 291. Seminar: Agricultural Education

ART EDUCATION (ArEd)

- 10C. Survey of Art Activities. Introduction to pictorial expression, design, and the function of art in the social environment. (3 cr)
- 14. Introduction to Art Education. For art education majors, a preview of career opportunities, basic problems of teaching, professional qualifications, and use of University educational resources. (2 cr)
- 17C. Experiences with Pictorial Expression. Materials, techniques, and ideas important in art expression; relationship between adult expression, child expression, and art history. (3 cr)
- 18C. Experiences with Design and Materials. Projects in invention, arrangement, and decoration; color, lettering, posters, bulletin board displays. (3 cr)
- 19C. Experiences with Functional Design and Crafts. Projects related to clothing, architecture, and interior design, community planning, commercial and industrial design, puppetry, dramatics, intercultural relations. (3 cr)
- 53C. Introduction to Weaving. Equipment, design, setting up, and operation of table and floor looms. (3 cr)
- 54C. Advanced Weaving. Multiharness floor looms, warp beams, draft studies, design, finishes. (3 cr)
- 56, 57, 58. 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)
- 60C. Contemporary Crafts. Materials, equipment, design criteria, and techniques for textile, wood, metal, and ceramics. (3 cr)
- 61C. Puppetry. Construction, manipulation, and stage technique for basic puppet types. (3 cr)
- 64. Teaching Art in the Elementary School. Place and content of art in the curriculum. (2 cr; prereq 10C or 6 cr from 17C, 18C, 19C)
- 64A. Teaching Art in the Elementary School. Materials, projects, and methods for students without previous background in art. (3 cr; enrollment limited to IIIA registrants)
- 65. Art for Integration in Secondary Education. Using art to further the objectives of instruction in secondary school subjects. (3 cr)
- 66, 67, 68.† Student Teaching and Supervision of Art. Observation, participation, student teaching, and supervisory experiences with various types and levels of

Description of Courses

- art classes. (3 cr per qtr [9 cr required]; prereq sr art education, 56-57, Ed 55A-B, ¶86A or ¶87A or ¶88A)
- 86A, 87A, 88A.† Teaching and Supervision of Art.** Planning and methods for art education in the schools. (2 cr per qtr [6 cr required]; prereq sr art education, 56-57, Ed 55A-B, ¶86, ¶87, ¶88)
- 151-152-153.‡ Curriculum Building in Art Education.** Selection, evaluation, and organization of material for teaching units and projects. 151: Critical survey. 152: Innovations. 153: Programs for exceptional children. (3 cr per qtr)
- 156. Intercultural Education Through Art.** Approaches to international understanding 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 compared with practices in American art education. (3 cr)
- 184. Improving Art Programs in the Elementary School.** Evaluating research findings; introducing new materials; developing cooperation 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; 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

(Description in *Graduate School Bulletin*)

- 284. Research in Art Education**
- 295.° Problems: Art Education**
- 296. Seminar: Art Education**

BUSINESS EDUCATION (BsEd)

- 130. Instruction in Business Data Processing.** Teaching electronic data processing in the business education program. (3 cr)
- 131. Advanced Teaching of Technical Business Subjects.** Recent research and trends. (3 cr, §EdCI 131)
- 132. Teaching the Basic Business Subjects.** Recent trends and developments in teaching general business, economic geography, marketing, business law, and consumer education. (3 cr, §EdCI 132)
- 133. Consumer Education in the Schools.** Objectives, content, and curriculum organization at elementary and secondary levels. (3 cr, §EdCI 133)
- 139. Coordination Techniques.** Problems of coordinators in the cooperative part time program; guidance and selection; placing students in work stations, assisting job adjustments, developing the training program. (3 cr, §EdCI 139)

Child Psychology

142. **Business and Distributive Programs for Adults.** Selection and training of evening school instructors; planning and promoting evening school distributive education classes. (3 cr, §EdCI 142)
148. **Post-Secondary Business and Distributive Education.** Determining needs, curriculum, facilities, admission practices, placement, and follow-up of students, teacher qualifications, interorganizational relations in junior college and area technical school programs. (3 cr, §EdCI 148)
156. **Trends in Business Education.** Historical development of business education; trends in philosophy, curriculum, and teaching procedures. (3 cr, §EdCI 156)
157. **Organization and Supervision of Business Education.** Examination of evaluative criteria for business education departments, teacher selection and supervision, organization of business education. (3 cr, §EdCI 200; prereq §)
158. **Materials and Methods in Office and Stenographic Procedures.** Recent research and developments in teaching office practice, clerical practice, and office machines. (3 cr, §EdCI 158)
161. **Curriculum Construction in Business Education.** Curriculum problems; organization and preparation of teaching units. (3 cr, §EdCI 161; prereq EdCI 113)
167. **Economic Education Programs.** Conceptual framework of economic education through analyzing its research, objectives, philosophy, scope, and curricular sequence. (3 cr, §EdCI 167; prereq Econ 2 or equiv or §)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

237. **Seminar: Research in Business, Distributive, and Economics Education**
- 239.* **Problems: Business Education**

CHILD PSYCHOLOGY (CPsy)

- 39H. **Independent Study.** Independent reading, tutorial or research. (Cr ar; prereq §)
80. **Child Psychology.** Introduction to the science of child behavior; emphasis on a critical review of theories and research in child psychology. (3 cr; prereq Psy 2)
- 80H. **Honors Course: Child Psychology.** Students attend lectures in CPsy 80 and meet with the lecturer in a 2½-hour seminar each week. (3 cr; prereq Psy 2 and §)
81. **Adolescent Psychology.** Social, physical, mental, emotional, and personality development during adolescence. (3 cr; prereq Psy 2)
88. **Children in Society.** Historical, socio-economic, cross-cultural influences, and social changes in child development. (3 cr; prereq 80 and §)
89. **Psychology of Parent-Child Relationships.** Discussion of parent-child relationships and evaluation of relevant research literature. (3 cr; prereq 80)
100. **Processes of Socialization of Children.** Processes of social learning covering topics such as identification, imitation, reward and punishment, internalization, and object choice. (3 cr; prereq 80 or grad)

Description of Courses

125. **Experimental Research with Children.** Supervised research experience; design and conduct of experiments on child behavior in controlled laboratory situations. (3 cr; prereq 80, §)
126. **Case Study of Children.** Supervised intensive study of the intellectual, personality, and social development and functioning of individual normal children. (3 cr; prereq 80, §)
127. **Social Behavior of Children.** Behavior of children in groups; supervised observation and experience. (3 cr; prereq 80, §)
132. **Adolescent Development.** Growth; mental, social, emotional, and personality development. (3 cr, §81; prereq sr, 12 cr in psychology, child psychology, or educational psychology)
140. **Behavior Problems.** Types, origin, development, and treatment of behavior difficulties in normal children. (3 cr; prereq 80 or equiv)
142. **Psychology of Handicapped Children.** Research related to sensory, speech, language, and physical disabilities of children. (3 cr; prereq 80 or equiv)
143. **Problems of Mental Deficiency.** Diagnosis, care, training; social and vocational problems. (3 cr; prereq 80 or equiv)
144. **Psychology of the Gifted Child.** Psychology and development of high intellectual ability and of special talents. (3 cr; prereq 80 or equiv)
179. **Clinical Procedures with Children.** Survey of methods of clinical psychology; basic concepts and research problems in clinical work with children. (3 cr; primarily for students not majoring in clinical psychology or child psychology; prereq 12 cr in psychology, educational psychology, sociology, or child psychology)
180. **Personality Development.** Psychoanalytic and behavior theory formulations and related research literature. (3 cr; prereq 100)
181. **Peer Relationships.** Peer influences; social interactions and social relations; developmental changes. (3 cr; prereq 100)
183. **Language Development.** Development of structure and function of language; methodological problems; speech and language development; language scales; theories of language development. (3 cr; prereq 80)
184. **Sensory and Motor Development.** Development of sensory and perceptual processes; simple and complex motor skills. (3 cr; prereq 80)
186. **Cognitive Development.** Development of cognitive processes; theories of intelligence and intellectual functioning; related research literature. (3 cr; prereq 80 or equiv)
188. **Children in Society.** Historical, socio-economic, cross-cultural influences, and social changes in child development. (3 cr; prereq 100, and §)
189. **Psychology of Parent-Child Relationships.** Discussion of parent-child relationships and evaluation of relevant research literature. (3 cr; prereq 100)
190. **Topics: Child Psychology.** Independent reading or research. (Cr ar; prereq §)

Note—For child psychology courses at the 200 level consult the *Graduate School Bulletin*.

CURRICULUM AND INSTRUCTION (EdCI)

General Courses

- 100A. Workshop: Education of Trainable Retarded Children.** Curriculum and materials for teaching trainable mentally retarded children. (6 cr; prereq #)
- 100B. Workshop: Education of Educable Retarded Children.** Curriculum and materials for teaching educable mentally retarded children. (6 cr; prereq #)
- 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 classroom use of audio-visual materials of nonprojected and projected types. Practice in operation of audio-visual equipment. (3 cr; prereq sr)
- 106. Coordinating an Audio-Visual Education Program.** Criteria for equipment, facilities, and materials; in-service training of teachers; problems in schools or industry. (3 cr; prereq 105 or #)
- 107. Radio and Television in Education.** Production, techniques of classroom use, selection of equipment, teaching appreciation, and administration of radio and television in the schools. (3 cr; prereq 9 cr in education)
- 108. Nonprojected Audio-Visual Materials and Equipment Laboratory.** Planning and making nonprojected materials for audio-visual education; use of materials and equipment. (3 cr; prereq 105 or ¶105)
- 109. Projected Audio-Visual Materials and Equipment Laboratory.** Planning and making projected materials for audio-visual education; use of materials and equipment. (3 cr; prereq 105 or ¶105)
- 115. Introduction to Education of Visually Handicapped Children.** Educational programs, services, and resources for blind and partially seeing children; historical background; philosophy; sociological and psychological problems. (3 cr; prereq #)
- 116. Braille I.** Mastery of literary Braille code and introduction to use of mathematics and music codes; analysis of specialized equipment and 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)
- 118. Methods of Teaching Visually Handicapped Children.** Principles of preparation, selection, and effective use of instructional materials; adaptation of school environment; utilization of family, school, and community resources. (3 cr)
- 126. Orientation and Mobility for Blind Children.** Provides techniques to help blind children gain skill in orientation and mobility; lectures and demonstrations; practice in basic techniques, conferences on psychological and physical factors in mobility; discussions of cane, dog guide, and related methods of travel. (3 cr; prereq #)
- 127. Methods of Teaching School Subjects to the Hearing Impaired.** Adaptation of materials and teaching methods for hearing-impaired children in reading, mathematics, social studies, and science. (3 cr; prereq SSPA 183, #)

Description of Courses

128. **Introduction to the Education of Hearing-Impaired Children.** Educational programs, services, and resources; historical background; philosophy; sociological and psychological problems. (3 cr; prereq §)
145. **Reading Difficulties.** Causes, prevention, and correction. Remedial practices useful to the classroom teacher, school counselor, and reading specialist. (3 cr; prereq 143A or 144)
151. **Diagnosis and Treatment of Learning Difficulties.** Evaluation of the results of teaching; diagnosis of pupil difficulty; development and prevention; tests as aids to teaching; following up a testing program. (3 cr)
170. **Programs and Procedures of Curriculum Development.** Leadership in procedures, operational processes; major considerations in planning and organizing; interpersonal relationships; and evaluation of improvement programs. (3 cr, §170A-B; prereq 113 or 119)
173. **Preparation of Curriculum Materials.** Selecting and organizing units, courses of study, curriculum guides, and writing materials individually and in groups. (3 cr, §173A-B; prereq 113 or 119)
- 174-175-176. **Clinical Methods and Practices in Speech Pathology.** Case histories and analysis; testing and diagnosis of speech defects; techniques and work programs; practical clinical work. (Cr ar; prereq SSPA 141, 142, 143, and §)
- 174A. **Clinical Practicum in Speech Correction: Cleft Palate.** Supervised clinical experience in the diagnosis and treatment of speech problems associated with cleft palates. Students will spend approximately 4 hours per week in clinical activities. (1 cr; prereq SSPA 146, §)
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 visual screening, visual efficiency, aids. Field trips, films, observations. (3 cr; prereq §)
185. **Advanced Course in the Teaching of Modern Languages.** New curricula, classroom procedures; use of language laboratory and other media and evaluation techniques. Open to teachers of modern languages and registrants in language institutes. (3 cr)
189. **Materials and Curriculum Construction in Modern Languages.** Curriculum development, preparation of units, testing techniques; materials for classroom, language laboratory, televised instruction, and programmed learning. (3 cr; prereq 185 and §)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

- 201.° **Problems: Teaching Social Studies**
203. **Supervision and Administration of Special Education**
- 205.° **Problems: Audio-Visual Education**
- 207.° **Problems: Radio-Television Education**
- 227.° **Problems: Rural Education**
240. **Workshop: Improvement of Instruction**
241. **Seminar: Advanced Study in Supervision and Curriculum Development**
242. **Field Practicum in Supervision and Curriculum Development**

- 243A. Research Foundation for Reading Instruction
- 243B. Recent Research in Reading
- 243C. Seminar: Reading Instruction
- 271.* Problems: Curriculum Construction
- 273.* Problems: Reading
- 288.* Seminar: Research in Modern Language Learning
- 296.* Problems: Teaching English
- 297. Research in English and Speech Education

Elementary Education

- 56. Nursery School-Kindergarten Curriculum I. Objectives of the kindergarten; use of literature; appropriate creative activities in the areas of art, dramatics, music, planning of learning activities. (3 cr)
- 57. Nursery School-Kindergarten Curriculum II. Additional expansion and clarification of the methods and materials (beyond the EdCI 60 sequence) in the areas of mathematics, reading, science, and social studies. (3 cr)
- 59. Social Learning in Early Childhood Education. Directed observations of nursery school children and procedures. (3 cr; prereq CPsy 80)
- 60. Teaching 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. Teaching Social Studies in the Elementary School. Content and philosophy of the social studies program; methods of instruction and problems. (3 cr; prereq Ed 75A)
- 62. Teaching 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 75A, Math 5A-B)
- 63. Children's Literature. Materials for children's reading in the elementary school program. (3 cr)
- 64. Teaching 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, Engl 60)
- 65. Teaching 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 at the elementary school level; emphasis on arithmetic, reading, and other language arts. (3 cr; prereq 60, 62, 1 student tchg)
- 102. Teaching 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)
- 103. Teaching Science in the Elementary School. Resources, materials, and their application in elementary grades. (3 cr; prereq sr, Ed 75B or tchg exper)

Description of Courses

110. **Practicum: Laboratory School Teaching (K-6).** Experience in teaching and/or research. (Cr ar; prereq elementary student tchg or elementary school tchg exper or #)
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)
121. **Literature for the Elementary School.** Evaluative survey of books for children; research related to children's reading interests; selection of literature. (3 cr)
123. **Speech in the Elementary School.** Lectures; discussion; individual projects; role of the elementary teacher in promotion of good speech; prevention of speech problems; handling of speech defects. Projects related to the teacher's own teaching situation. (3 cr; prereq sr)
- 143A. **Teaching and Supervision of Reading in the Elementary School.** Objectives, materials, and teaching procedures; current practices and curricula; class and individual projects; observation of reading techniques and materials in the demonstration school. (3 cr; prereq 9 cr in education)
- 143B. **Materials and Instructional Techniques of Elementary Reading.** Analysis and evaluation of materials for reading instruction; consideration of programmed, basal, linguistic, and other types of materials; laboratory projects and demonstrations of techniques of instruction; criteria for selection of materials and techniques for students with special needs. (3 cr; prereq 60 or 143A or #)
- 143C. **Instructional Leadership in Elementary Reading.** Survey of formal and informal procedures for evaluating reading instruction; demonstration teaching as instructional leadership; grouping procedures in improvement of reading programs. Intended for supervisors and principals. (3 cr; prereq 143A or #)
150. **Supervision and Improvement of Instruction.** Functions and duties of a supervisor; techniques; analysis of classroom activities. (3 cr; prereq 9 cr in education)
153. **Teaching and Supervision of English in the Elementary Schools.** Improvement of instruction; study of trends in English education. (3 cr; prereq 64 or elementary school tchg exper)
- 153A. **Materials Laboratory for Teaching English in Elementary Schools.** Examination and evaluation of textbooks, programmed materials, and audio-visual resources for language arts instruction. (3 cr; prereq 64 or elementary school tchg exper)
- 155A. **Materials Laboratory for Elementary Social Studies Teachers.** Printed, audio-visual, and other materials; investigation and evaluation of teaching materials and devices. (3 cr, \$155; prereq 61 or 102 or #)
166. **Current Trends, Kindergarten Education.** Continuing needs of children in our changing culture; current kindergarten practices and recent research. (3 cr; prereq tchg exper primary, kindergarten, or nursery school or #)
179. **Education of Mentally Retarded Children in the Elementary School.** Curriculum content, materials, and methods of instruction for educable mentally retarded children; preparation of units and development of teaching aids. (3 cr; prereq EPsy 184)
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)

Curriculum and Instruction

FOR GRADUATE STUDENTS ONLY

Description in *Graduate School Bulletin*)

- 06. Curriculum Construction in Elementary Social Studies
- 08. Research in Elementary Social Studies
- 09. Seminar: Elementary Social Studies Education
- 13.° Research Foundations of Elementary School Science Teaching
- 26. Seminar: Elementary School Problems
- 57. Research in English Composition in Elementary Schools
- 58. Research in Skill Development in Spelling, Handwriting, and Listening
- 31.° Problems: Improvement of Instruction
- 64. Research in Educational Diagnosis

Secondary Education

- 5. Introduction to Business and Distributive Education. Survey of the field at the secondary, junior college, and adult levels. (3 cr)
- 8. Materials and Methods in Beginning Typewriting and Related Office Machines. Emphasis on correct typewriting techniques; letter styles; composition; manuscripts; simple tabulation; proofreading; skill development in the use of various copying and duplicating machines. (1 cr)
- 7. Materials and Methods in Intermediate Typewriting and Related Office Machines. Speed and accuracy building; carbons; tabulations; manuscripts; rough drafts; records management; office systems and procedures. (1 cr; prereq 46 or speed of 30 wpm)
- 8. Materials and Methods in Beginning Shorthand. Gregg shorthand theory, speed building on familiar material, typewritten transcription; introduction of new matter dictation. (3 cr; prereq 46 or equiv)
- 9. Materials and Methods in Intermediate Shorthand. Emphasis on building speed on new matter dictation and typewritten transcription. (3 cr; prereq 47, 48, or equiv)
- Distributive Occupational Experience. Observation and practice in distributive businesses combined with weekly seminars on application to the teaching and guidance of high school and post-high school students. (3-9 cr; for distributive education majors only; prereq jr, sr, #)
- 1A. Driver Education I. Materials and methods of driver education, building a plan for driver education for a specific school; behind-the-wheel training. Valid Minnesota Driver's License required. (4 cr, §101; prereq Δ)
- 1B. Driver Education II. (4 cr; prereq 101 or 101A and Δ)
- 2. Family Life Education. Sources and types of materials available, techniques of family life education, preparation and evaluation of instructional materials. (3 cr)
- 3. Principles of Secondary School Curriculum. Fundamental principles; curricular concepts, special services, student activity programs, instructional instruments, administrative systems, and future trends. (3 cr; prereq Ed 55B or equiv)

Description of Courses

114. **Interdisciplinary Approaches to Curriculum.** Rationale, status and trend design, operation and evaluation of the core curriculum. (3 cr)
- 122A. **Teaching Literature in Secondary Schools.** Background for guidance reading of secondary school students; services of information and theory in development of program of instruction in literature. (3 cr; prereq Ed 55B or jr-high school tchg exper)
- 122B. **Teaching Rhetoric and Composition in Secondary Schools.** Contemporary directions in rhetorical theory and analysis of recent curriculum developments bearing on the teaching of oral and written composition. (3 cr)
124. **Foundations of Career Development.** Vocational theory and career development research; occupational analysis and industrial structure; methods of classifying the world of work; analysis of labor force and employment trends; basic concepts and principles for effective work in educational and vocational planning and development. (3 cr)
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 #)
129. **Trends and Issues in Secondary Curriculum.** Research findings and analysis of current proposals at the national, state, and local levels. (3 cr; prereq 11 or equiv)
135. **Group Procedures in Guidance.** Content and materials for home room group occupations units, and other guidance courses in junior and senior high school. (3 cr; prereq 9 cr in education, EPsy 133 or #)
140. **Teaching of Speech.** Methods and techniques of teaching speech in the high school classroom; social framework of spoken communication and responsibility of the individual speaker. (3 cr; prereq Spch 5 or 2 and 6 or #)
144. **Teaching Reading in Secondary Schools.** Procedures, objectives, and materials for teaching reading in subject-matter fields. (3 cr; prereq 9 cr in education)
155. **Materials Laboratory for Social Studies Teachers.** Printed and audio-visual materials useful in social studies classes. (3 cr; prereq #)
167. **Economic Education Programs.** Conceptual framework of economic education through analyzing its research, objectives, philosophy, scope, and curriculum sequence. (1-3 cr; prereq Econ 2 or equiv or #)
168. **Current Developments in the Social Studies.** Contemporary literature, curricular trends, and developments in methods. (3 cr; prereq grad or #)
169. **Student Activity Programs in Secondary Schools.** Values, purposes, and practices in organizing, sponsoring, and evaluating student activity programs. (3 cr; prereq Ed 55B)
171. **Workshop: Curriculum Laboratory Practice.** Analysis and construction of units, courses of study and curricula according to needs, interests, level, and specialization. (0-3 cr per qtr; prereq 113 or 119, #)
172. **Supervision of Secondary Instruction.** Achievement of appropriate teaching expectations focusing on problems of personnel responsible for their improvement. (3 cr; prereq 113)
177. **Directing Secondary School Speech Activities.** Philosophy, organization, and administration of extemporaneous speaking, oratory, interpretative reading, and debate. (3 cr; prereq Spch 5 or 2 and 6 or #)

Curriculum and Instruction

180. **Education of the Mentally Retarded in the Secondary Schools.** Curriculum, materials, and methods of instruction for the educable mentally retarded students. Philosophy, administration, vocational and personal guidance, parent consultation, and work programs. Field trips when possible. (3 cr; prereq EPsy 184)
190. **Current Developments in Secondary School Science Teaching.** Curricula, methods, materials of instruction, evaluation. (3 cr; prereq EdT 68B-C or 68M, equiv undergrad courses or exper in science tchg)
- 193A. **Methods and Materials for Teaching Physical Science.** Individualized instruction in laboratory techniques and equipment with applications to classroom use. (3 cr; prereq EdT 68C or 68M or equiv)
- 193B. **Methods and Materials for Teaching Biological Sciences.** Individualized instruction in laboratory techniques and equipment with applications to classroom use. (3 cr; prereq EdT 68C or 68M or equiv)
- 193C. **Methods and Materials for Teaching Earth Sciences.** Individualized instruction in laboratory techniques and equipment with applications to classroom use. (3 cr; prereq EdT 68C or 68M or equiv)
- 195A. **Curriculum Development in Secondary English and Speech.** Analysis and evaluation of curricula and trends; emphasis on articulation. (3 cr; prereq EdT 75C or equiv)
- 195B. **Sources for Curriculum Development in English and Speech.** Implications from anthropology, sociology, psychology, rhetoric, dialectology and dialect geography, mathematical linguistics, logic, and semantics. (3 cr; prereq 195A or #)
- 199E. **Internship.** (Cr ar; available for M.Ed. students)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

204. **Social Studies Curriculum**
222. **Seminar: Secondary Curriculum and Instruction**
- 225.° **Problems: Secondary School Supervision**
- 287.° **Research Foundations of Secondary School Science Teaching**
294. **Strategies and Problems of Instruction in English**
295. **Readings in English and Modern Language Education**

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

(Description in *Graduate School Bulletin*)

- 228.° **Problems: Higher Education and Teacher Education**
250. **Higher Education in the United States**
251. **Curriculum Trends in American Colleges**

Description of Courses

- 252. Effective College Teaching
- 253. Seminar: Improvement of College Instruction
- 253A. Seminar: Materials and Methods in Marriage Education
- 254. Directed Experience in College Instruction
- 284.° Problems: Student Teaching
- 285-286. Professional Education of Teachers

DISTRIBUTIVE EDUCATION (DE)

- 136. **Organization and Administration of Distributive Education.** Principles, practices, and legislation followed in developing cooperative part-time and adult programs under federal vocational acts. Basic course for teacher-coordinators and vocational administrators. (3 cr, §EdCI 136)
- 137A. **Materials and Methods in Cooperative Part-time Classes.** For cooperative part-time distributive, office, miscellaneous trades, and diversified occupations classes. (3 cr, §EdCI 137A)
- 138. **Training Store and Office Supervisors.** Conducting short unit courses for store and office supervisors and improving on-the-job training in cooperative part-time programs. (3 cr, §EdCI 138)
- 139. **Coordination Techniques.** Problems of coordinators in the cooperative part-time program; guidance and selection; placing students in work stations; assisting job adjustments; developing the training program. (3 cr, §EdCI 139)
- 141. **Cooperative Occupational Education Programs.** Planning, organizing, curriculum building, plant and equipment, promoting and evaluating cooperative part-time distributive, office, miscellaneous trades, and diversified occupations programs. (3 cr, §EdCI 141)
- 142. **Business and Distributive Programs for Adults.** Selection and training of evening school instructors; planning and promoting evening school distributive education classes. (3 cr, §EdCI 142)
- 146. **Issues and Trends in Distributive Education.** Identification, analysis, and discussion of recent issues and trends; review and synthesis of research. (3 cr; prereq sr or grad, and #)
- 147. **Workshop: Teaching Display.** Materials and methods; practice in using equipment. (3 cr, §EdCI 147; prereq #)
- 148. **Post-Secondary Business and Distributive Education.** Determining needs, curriculum, facilities, admission practices, placement, and follow-up of students, teacher qualifications, interorganizational relations in junior college and area technical school programs. (3 cr, §EdCI 148)
- 159. **Materials Laboratory, Secondary School Distributive Education.** Development of specific related vocational materials for distributive occupations, cooperative classes. (3 cr, §EdCI 159; prereq 137A or EdT 90C or #)
- 160. **Materials Laboratory, Occupational Relations.** Development of general related vocational materials for all types of cooperative part-time classes. (3 cr, §EdCI 160; prereq 137A, EdT 90C or #)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

237. Seminar: Research in Business, Distributive, and Economics Education
238.* Problems: Distributive Education

EDUCATION (Ed)

- 55A. Introduction to Secondary School Teaching. Secondary education; purposes, history, organization, curriculum, pupils; organization of instructional units; teaching profession. Lecture, discussion section, and individual youth leadership project. (5 cr; prereq Psy 2)
- 55B. Introduction to Secondary School Teaching. Individual differences and educational measurement; statistics, standardized tests, teacher-made tests, marking and promotion, educational research; psychology of learning and human development. Lecture, discussion section, and individual youth leadership project. (5 cr; prereq 55A)
- 75A-B. Introduction to Elementary School Teaching
- 75A. Educational Psychology. Child growth and development during elementary school years; principles of learning; adjustment. (5 cr; prereq Psy 2)
- 75B. Introduction to Elementary School Teaching. Curriculum and organization patterns; unit instruction; reporting, promotion and nonpromotion, classroom management; the control and support of public education. (3 cr; prereq 75A, §EdT 54A)

EDUCATIONAL ADMINISTRATION (EdAd)

101. Public School Administration. Organization, administration, and general support of public schools in state and local school districts. (3 cr; not open to majors in educational administration; prereq 9 cr in education)
128. Workshop: Educational Administration. Laboratory approach provides opportunities for experienced educational administrators to concentrate their study on common administrative and supervisory problems. (1-6 cr; prereq practicing educational administrator or §)
167. Junior High School. Sources of the movement; purposes, functions, and limitations; fundamental problems, types, and curricular implications of reorganization. (3 cr; prereq 9 cr in education)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

201. Foundations of Educational Administration
202. Foundations of Educational Administration
203. The Community School
210. Public School Finance
211. School Business Management
215. Elementary School Principalship
216. Recent Research in Elementary School Administration

Description of Courses

- 217. Seminar: Elementary School Administration
- 218. Seminar: Secondary School Administration
- 220-221.† Analysis of Administrative Problems
- 222. Administrative Information Systems
- 224. Legal Aspects of Public School Administration
- 226. School Plant Planning
- 227. Public School Personnel Programs
- 228.° Problems: Educational Administration
- 230. School Community Relations
- 231. Practicum in School-Community Relations
- 233. Practicum in Junior High School Administration
- 235. Seminar: Educational Administration
- 236. Field Study
- 237. Seminar: Educational Law
- 238. Seminar: Research and Theory
- 239. Laboratory in Decision Making
- 241. Seminar: Internship in Educational Administration
- 242. Administrative Organization and Staffing of School Systems
- 244-245-246.† Seminar: Administering Public Education in Metropolitan Areas
- 253. Administration in Higher Education
- 264. The Secondary School Principalship
- 265. Administering the High School Program
- 270A.* Problems: Elementary School Administration
- 270B.* Problems: Secondary School Administration
- 274. The Junior College
- 275. Junior College Administration
- 290. Financing Higher Education
- 291. Public Relations for Colleges and Universities

EDUCATIONAL PSYCHOLOGY (EPsy)

General Courses

- 60. **Introduction to Measurement and Statistics.** Measures of central tendency, variability, and correlation; principles of test construction. (2-3 cr; prereq 6 cr in psychology)
- 100. **Individual Appraisal for Counseling.** Analysis of 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)

Educational Psychology

- 116. Introductory Statistical Methods.** Basic statistical techniques; comprehension of literature using elementary concepts and methods. Not equivalent to EPsy 216, 216A. (3 cr)
- 116A. Introductory Statistical Methods—Laboratory.** (2 cr; prereq ¶116)
- 117. Basic Principles of Measurement.** Principles underlying construction of achievement examinations: developments in educational and psychological measurement; theory and practice related to statistical methods; types and uses of derived scores; factors influencing reliability and validity. (3 cr; prereq 116 or 216 or Psy 70 or equiv)
- 125. Social Psychology of Education.** Concepts and theories in areas of socialization, group dynamics, social perception, conflict resolution, organizational behavior, and social change. Laboratory sessions to make applications and develop skills in group behavior. (3 cr)
- 126. Analysis of Behavior in Groups.** Laboratory experimentation; individual projects with class help. (3 cr; prereq 125)
- 133. Introduction to Guidance.** Philosophy, principles, and practices in development and operation of pupil personnel services; role of counselor, teacher, principal, and specialized personnel; guidance techniques and case studies. (3 cr; prereq 9 cr in education)
- 134. Counseling Procedures.** For persons whose professional work includes counseling and interviewing, not for persons seeking certification as school counselors. Emphasis on counseling relationship and principles of interviewing; utilizes case studies, role playing, and demonstration. (3 cr)
- 140. Instruments and Techniques of Measurement.** Measuring intelligence, achievement, interests, attitudes, and personality traits and use in educational guidance, personnel work, administration, and supervision. (3 cr; prereq 110 or 117)
- 141. Computer Programming.** Computer as a tool for research in the behavioral sciences. Computer systems, language, and the development of specific programs that demonstrate computer characteristics. Laboratory experience. (3 cr; prereq sr)
- 148. Clinical Diagnosis of Reading Difficulties.** Relationship to psychological factors and 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 #)
- 152. Introduction to School Psychological Services.** Relationship of the psychologist to teachers, administrators, parents, and the community. Problems of normal children; diagnosis and treatment of educational and psychological disabilities. (3 cr)
- 159. Personality Development and Mental Hygiene.** Fall: for seniors and first-year graduate students only—elementary and secondary classroom conditions. Spring: for graduate students only—basic theory, group and individual procedures in treatment. (3 cr)
- 160. Diagnosis and Remediation of Learning Disability I.** Survey, demonstration, and evaluation of special techniques for diagnosis and remediation of severe learning deficits appearing in reading and written language (including dyslexia) and basic quantitative concepts. (3 cr; prereq 110, EdCI 145, or #)

Description of Courses

- 160A. **Practicum: Diagnosis and Remediation of Learning Disability I.** Clinical practice in prescriptive teaching using a selected range of techniques presented in EPsy 160. (3 cr; prereq ¶160 or §)
161. **Diagnosis and Remediation of Learning Disability II.** Survey, demonstration, and evaluation of special techniques for amelioration of deficits in perceptive, integrative, and expressive processes. (3 cr; prereq 160, 160A or §)
- 161A. **Practicum: Diagnosis and Remediation of Learning Disability II.** Clinical practice in prescriptive teaching using a selected range of techniques presented in EPsy 161. (3 cr; prereq ¶161 or §)
165. **Seminar: Problems and Issues in the Education of Learning Disabled Children.** Exploration of issues involved in design and conduct of services for learning disabled children. (3 cr; prereq exper or professional responsibility in the SLD field and §)
170. **Psychology of the Intellect I: Cognition and Pedagogy.** Overview and introduction to intellectual structure and functioning and implications for pedagogy. (3 cr; prereq sr)
171. **Psychology of Intellect II.** Psychological and logical models of curricula; research methods; characteristics of children's physical, biological, mathematical, logical, and social concepts. (3 cr; prereq 170)
177. **Childhood Language Development: Classroom Implications.** Recent trends and findings in the study of language acquisition; classroom implications for the education of exceptional children. (3 cr)
182. **Education of Exceptional Children.** Introduction to field of special education for classroom teachers and other school personnel. (3 cr)
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. **Introduction to Education of the Mentally Retarded.** Issues which relate to educational practices; community planning; educational philosophy, administration and organization, and programming. (3 cr; prereq 182)
185. **Education of the Auditorially Handicapped Child.** Group and individual observation of classes for auditorially handicapped children; individual and small group conferences. (3 cr)
186. **Education of Emotionally Disturbed and Socially Maladjusted Children.** Discussion and evaluation of curricula, materials, and methods for instruction of disturbed and delinquent children in hospital, training school, and public school settings. (3 cr; prereq grad or §)
187. **Education of Crippled Children.** Characteristics and abilities; methods and materials for training; observation of teaching situations involving these groups. Personal consultation scheduled in addition to class hours. (3 cr; prereq 182 or §)
188. **Education of the Culturally Disadvantaged Child.** Educational needs of children handicapped by behavior related to deficiencies of physical and/or cultural environment; adaptations of educational programs. (3 cr; prereq 12 cr in psychology, educational psychology, or sociology)
190. **Educational Problems of the Neurologically Impaired.** Problems in development, learning, and adjustment produced by neurological impairment; study and development of materials to meet educational needs; observations of teaching and personal conferences. (3 cr; prereq 182 or §)

- 192. Introduction to Learning and Cognition.** History, models, and theories; research methods of educational psychology; conditioning, learning, and cognition. (3 cr)
- 193. Psychological Analysis of Instruction.** Use of psychological concepts and principles in analysis of instructional problems and development of teaching strategies; consideration of behavior modification; behavioral objectives; task analysis. (3 cr)
- 194-195. Experimental Analysis of Instruction.** Introduction to programmed instruction and behavior modification with emphasis on methodological and theoretical foundations. (3 cr per qtr; no prereq for 194, 194 for 195)
- 196-197. Behavior Theory and Knowledge Acquisition.** Acquisition of skills, knowledge, and attitudes which form the content of the school curriculum; influence of motivational variables. (3 cr per qtr; prereq sr for 196, 196 for 197)
- 198. Behavior Theory and Social Learning.** Application of behavior theories to the development of social behavior patterns; modeling; social reinforcement acquisition of attitudes and their role in school learning. (3 cr; prereq 194-195 or 196-197)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

- 200.° Seminar: Guidance**
- 207. Research Practicum**
- 208.° Methods in Educational Research**
- 209. Seminar: Research Planning**
- 210. Individual Mental Testing**
- 211. Advanced Individual Mental Testing**
- 212. Personality Appraisal in Children and Adolescents**
- 216-217-218. Statistical Methods**
- 216A-217A-218A. Statistical Methods—Laboratory**
- 219. Design and Analysis of Experiments**
- 219A. Design and Analysis of Experiments—Laboratory**
- 220-221. Advanced Theory of Measurement**
- 222. Correlation and Regression Methods**
- 223. Multivariate Correlational Methods**
- 225.° Counseling Theory and Procedure I**
- 226.° Counseling Theory and Procedure II**
- 233.° Problems: Guidance and Personnel Work**
- 234. Seminar: Counseling Theory and Research**
- 236. Group Counseling: Principles and Procedures**
- 237. Practicum in Group Counseling**
- 238. Seminar: Research in Group Counseling**
- 239. Psychological Aspects of Counseling Supervision**

Description of Courses

- 240.° **Problems: Measurement**
- 241. **Seminar: Developing Computer Applications**
- 242. **Computer Application to Statistical Analysis**
- 243.° **Problems: Statistics for Students in Education and Psychology**
- 244. **Research in Special Education**
- 248. **Seminar: School Psychology**
- 249A-B-C. **Seminar: Research in School Psychology**
- 253.° **Research Problems**
- 257. **Clinical Practice in Educational Diagnosis**
- 259. **Personality Theory in Mental Hygiene**
- 260. **Seminar: Educational Psychology**
- 261. **Survey of Theory and Research in Mental Retardation**
- 262. **Functional Analysis of Behavior in Mental Retardates**
- 263. **Design and Interpretation of Behavioral Research with Mentally Retarded**
- 264. **Assessment of the Handicapped**
- 265. **Theories of Educating Disturbed Children**
- 266. **Research in Education of Disturbed Children**
- 267. **Research Designs in Education of Disturbed Children**
- 268. **Seminar: The Culturally Disadvantaged**
- 270. **Seminar: Cognition, Curriculum, and Pedagogy**
- 271. **Psychological Analysis of Verbal Learning and Reading**
- 277. **Language Acquisition and Learning Theory**
- 279. **Psychology of Conflict Resolution**
- 280. **Practicum in Group Leadership**
- 286. **Advanced Course: Education of Emotionally Disturbed and Socially Maladjusted Children**
- 287. **Practicum: School Psychological Services**
- 288. **Practicum: Special Education**
- 289. **Survey of Special Education Problems**
- 292. **Recent Literature in Educational Psychology**
- 293. **Seminar: Classic Literature in Educational Psychology**
- 295. **Research Practicum in Programmed Instruction and Behavior Modification**
- 297.° **Seminar: Psychology of Knowledge Acquisition**
- 298.° **Psychological Theories of Teaching**
- 299.° **Seminar: School Learning**

History and Philosophy of Education

Higher Education

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

- 250. College Student Personnel Work—Foundations and Scope
- 251A. College Student Personnel Work
- 251B. College Student Personnel Work
- 251C. College Student Personnel Work
- 252. Seminar: The College Student
- 254.* Measurement and Evaluation in Higher Education
- 255. Diagnosis and Treatment of College Learning Difficulties
- 256. Clinical Practice in Diagnosis and Treatment of College Learning Difficulties
- 281. Practice in Personnel Work
- 282. Counseling Practicum: Introductory
- 283. Counseling Practicum: Intermediate
- 284. Counseling Practicum: Advanced

HISTORY AND PHILOSOPHY OF EDUCATION (HEd)

- 90. **The School and Society.** Readings in social science and philosophy give the student an opportunity to integrate points of view in thinking about the role of the school in present-day society. (3 cr; prereq sr)
- 101. **Historical Foundations of Modern Education.** Background course for all other courses in the history and philosophy of education. Analysis and interpretation of important elements in modern education derived from the Greeks, Romans, the Middle Ages, and the Renaissance. (3 cr)
- 110. **Intercultural Education.** Racial, religious, and nationality problems; their importance for the schools. (3 cr)
- 131. **Comparative Education.** 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)
- 149-150-151.† **Social History of American Education.** Impact of education on social and institutional developments in America from the colonial period to the present. Although schools, both private and public, will receive continuous attention, education will be defined broadly to include the work of the family, the religious congregation, the popular press, clubs, and other private associations. (3 cr per qtr, §Hist 139E, 140E, 141E)
- 155. **History of Western Educational Thought.** Examination of the major educational classics of Western civilization: Plato, Cicero, Locke, Rousseau, Dewey, and others. (3 cr)
- 156. **History of Ideas in American Education.** Readings in American political, economic, and social development; reference to the emerging system of public education. Recommended as background for 170. (3 cr)

Description of Courses

- 170. American Pragmatism and Education.** Analysis and interpretation of the educational philosophy of pragmatism (experimentalism). Readings from Dewey, Kilpatrick, Bode, Counts, Childs, and others. (3 cr)
- 182. Comparative Philosophies of Education.** Examination of competing philosophies of education. (3 cr)
- 190. Sociology of Education.** Advanced studies in the social aspects of education including the school as a socialization process, the social structure of education, the role of school in social change. (3 cr, §Soc 195)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

- 241.* Problems: History and Philosophy of Education**
- 242. Seminar: Educational Philosophy**
- 296-297-298.† Seminar: American Social and Educational History**

HOME ECONOMICS EDUCATION (HEEd)

- 49. Introduction to Home Economics Education.** Nature of the home economics teacher's work; means for developing necessary competencies. (2 cr; prereq soph, Psy 2)
- 60. Curriculum in Home Economics Education.** Selection and organization of content of curriculum at secondary level. (3 cr; prereq 49, Soc 1 or 1A, Ed 55B or ¶Ed55B)
- 61. Methods of Teaching Home Economics.** Teaching procedures; materials of instruction. (3 cr; prereq 60, ¶62)
- 62. Evaluation in Home Economics.** Techniques for measuring progress. (3 cr, §192; prereq 60, ¶61)
- 63. Supervised Teaching in Home Economics.** Observation, participation, and teaching under supervision. (9 cr, §93-94; prereq 61, 62, HE 4, 21, 41)
- 64. Adult Education in Home Economics.** Objectives; problems affecting community and family life; methods of helping adults and out-of-school youth in solving problems in home living. (3 cr, §194A; prereq 60)
- 65. Colloquium in Home Economics Education.** Significant issues. (2 cr; prereq 63)
- 90. Child Development.** Growth and development of children and problems in training; emphasis on the pre-school child; observations of children. (3 cr; prereq soph, Psy 2)
- 90A. Practicum in Child Development.** Observation and experience with children as a method of teaching child development in the home economics program. (1 cr; prereq 90 or ¶90)
- 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 will be required. (6 cr; prereq 49, Δ and consent of the director of agricultural extension)

Home Economics Education

- 160A. Home Economics Curriculum.** Examination of research and literature; development of units of study and programs at the elementary and secondary level; production and evaluation of materials. (3 cr, §193A; prereq 63 or #)
- 160B. Home Economics Curriculum: College Level.** Examination of research and literature; course and program development in higher education; analysis of current college programs; production and evaluation of curriculum materials. (3 cr, §193B; prereq #)
- 161. Method in Teaching Home Economics: Theory and Technology.** Derivation of theory for educational method from relevant research; application to the educational objectives of home economics; analysis of technology related to teaching method. (3 cr, §191; prereq 61, 63, or #)
- 162. Evaluation: Theoretical and Technical Aspects.** Collecting and interpreting evidences related to achievement of objectives; emphasizing higher levels of cognition and affective behaviors. (3 cr, §292; prereq 62 and #)
- 163. Practicum: Adult Education.** Individual field assignments under supervision. (3 cr; prereq #)
- 164. Adult Education in Home Economics.** Planning a community program; teaching procedures; special problems. Planned for teachers and supervisors of adult education. (3 cr, §194B; prereq 64 or #)
- 165. Proseminar: Home Economics Education.** Relation of the processes and standards of rational thought to professional competence and the goals of a graduate program of study. (2 cr; required of all new grad students)
- 166. Trends in Home Economics Education.** Current status; purposes, programs, content emphasis, research, problems, and issues in the field. (3 cr, §243; prereq 160A or 160B)
- 190. Readings in Home Economics Education.** Independent study under tutorial guidance. (1-3 cr; prereq #)
- 195. Space, Equipment, Furnishings, and Materials for Home Economics Departments.** Remodeling old and planning new departments, and equipping and furnishing them. Review of research; investigation of problems. (3 cr; prereq 61, 63, HE 49)
- 196. Home Experiences and the Extended Program.** Place and procedures in directing home experiences in the high school program; effective use of the period of extended employment of homemaking teachers in the vocational program. (3 cr)
- 196A. Workshop: Home Planning and Furnishing.** Problems at high school and adult levels; use of new materials and techniques; group and individual projects to meet the needs and interests of experienced teachers. (4 cr; prereq grad)
- 196B. Workshop: Child Development and Human Relations.** Recent emphasis on growth and guidance of individuals; materials and techniques for high school and adult levels to attain better understanding. (4 cr; prereq grad)
- 196C. Workshop: Foods and Nutrition.** Problems in teaching at high school and adult levels; use of new materials and techniques; group and individual projects for experienced teachers. (4 cr; prereq grad)
- 196D. Workshop: Materials for Instruction.** Problems in selection and use of new materials for instruction in home economics. (4 cr; prereq grad)
- 196E. Workshop: Adult Education.** Procedures in teaching adults; planning the program; use of new materials and techniques; group and individual problems for experienced teachers. (4 cr; prereq grad)

Description of Courses

196F. Workshop: Home Experience and Extended Employment. Methods of using the extended period of employment effectively; techniques for selection, execution, and evaluation of home experiences; group or individual problems for experienced teachers. (4 cr; prereq grad)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

200A. Research Methods

200B. Research Methods

201.° Problems: Home Economics Education

260. Seminar: Curriculum Development

263. Seminar: Supervision of Student Teaching

264. Seminar: Improvement of Instruction in Adult Education

265. Seminar: Teacher Education

266. Seminar: History and Philosophy of Home Economics Education

267. Seminar: Administration and Supervision of Home Economics Programs

295.° Seminar: Home Economics Education

INDUSTRIAL EDUCATION (Ind)

The letter in parentheses (A, B, C, or D) following the course title designates laboratory block to which the course is assigned.

- 1. Elementary Handicrafts.** (3 cr, for majors in elementary, art, special, and recreation education)
- 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; prereq 2 or #)
- 4. Wood Processing III (A).** Building construction practices. (3 cr; prereq Δ)
- 6. Introduction to Industrial Arts Teaching.** 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: 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 in building construction. (3 cr; prereq 7)
- 10. Advanced Drafting (B).** (3 cr; prereq Δ)
- 12. Craftwork (A).** Projects in craft media 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)

Industrial Education

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 television 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; laboratory work. (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. (3 cr; prereq Δ)
26. **Metal Processing II (D)**. Machine shop 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 (A)**. 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)
31. **Automotive Mechanics I (A)**. (3 cr; prereq Δ)
32. **Automotive Mechanics II (A)**. (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; 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; objectives; course organization in selected fields. (3 cr)
44. **Equipment and Management**. Planning, evaluating, and management of industrial education shop and laboratory facilities. (3 cr; prereq 6 or 40 or $\#$)
50. **Industrial Practices and Processes**. An organized series of field trips to representative industrial plants, preceded by classroom study and investigation. (3 cr; prereq 35)
55. **Teaching Industrial Arts**. Laboratory in study and practice. (3 cr; prereq Ed 55A or \S 55A)
- 60A-B-C. **Student Teaching**. (3 cr each [9 required]; prereq 6 and 55 or 6 and 100, Δ)
- 60D. **Student Teaching**. Elective course. (3 cr; prereq Δ)
- 60S. **Student Teaching Seminar**. (1-3 cr; prereq \S 60A, B, C, D)
70. **Drafting, Technical Specialty I (B)**. (3 cr; prereq Δ)
71. **Drafting, Technical Specialty II (B)**. (3 cr; prereq Δ)

Description of Courses

72. **Graphic Arts, Technical Specialty I (B).** (3 cr; prereq Δ)
73. **Graphic Arts, Technical Specialty II (B).** (3 cr; prereq Δ)
74. **Power Mechanics, Technical Specialty I (A).** (3 cr; prereq Δ)
75. **Power Mechanics, Technical Specialty II (A).** (3 cr; prereq Δ)
76. **Metals, Technical Specialty I (D).** (3 cr; prereq Δ)
77. **Metals, Technical Specialty II (D).** (3 cr; prereq Δ)
78. **Electronics, Technical Specialty I (C).** (3 cr; prereq Δ)
79. **Electronics, Technical Specialty II (C).** (3 cr; prereq 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.** Lectures only. 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 #)
106. **Industrial Education Workshop.** Areas of concentration vary with each successive offering. (3 or 6 cr; prereq tchg exper, #)
107. **Coordination.** Duties and responsibilities of coordinators in trade schools, part-time programs, and comprehensive 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 students 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 experience 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)
- 155. **Critical Issues in Industrial Education.** Identification, analysis, and discussion of major current problems in the field. (3 cr)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

- 200.* **Research Problems**
- 205. **Seminar: Industrial Education**
- 250. **Literature of Industrial Education**
- 251. **Research in Industrial Education**

Off-campus courses. Services in conference leader training, instructor training programs, foremanship, and supervision.

MATHEMATICS EDUCATION (MthE)

- 111. **Teaching and Supervision of Mathematics in the Elementary School.** Present practices and trends in methods, evaluation and diagnosis; objectives, psychology, and philosophy related to improvement of instruction. (3 cr, §EdCI 149A; prereq EdCI 62 or ‡)
- 112. **Teaching and Supervision of Mathematics in the Secondary School.** Methods, materials, and curriculum development; principles of learning; review of research; preparation and evaluation of tests, units, and materials of instruction. (3 cr, §EdCI 191)
- 121. **Materials Laboratory for Elementary School Mathematics Instruction.** Printed and programmed materials, audio-visual aids, community resources; laboratory projects and techniques of using mathematical devices and instruments. (3 cr, §EdCI 149B; prereq 111 or EdCI 62 or ‡)
- 122. **Materials Laboratory for Secondary School Mathematics Instruction.** Sources and types of materials, laboratory projects and techniques of using mathematical devices and instruments, visual aids, and community resources. (3 cr, §EdCI 192 or §EdCI 192A; prereq grad or tchg exper)
- 131. **Current Developments in Elementary School Mathematics Instruction.** Contemporary literature, trends and experimentation with content; criteria for program evaluation. (3 cr, §EdCI 149C; prereq 111 or EdCI 62 or ‡)
- 132. **New Content and Methods in Secondary School Mathematics Instruction.** Trends and experimentation with content; special programs for the gifted and slow learner; methods in mathematics; program evaluation. (3 cr, §EdCI 194; prereq mathematics tchg exper)
- 145. **Mathematics for Gifted Children.** Curriculum and methods of instruction for academically talented children; development of enrichment units; source material for teachers. (3 cr, §EdCI 165A; prereq 111 or EdCI 62 or ‡)

Description of Courses

155. **Mathematics for Slow Learning Children.** Units of instruction emphasizing mathematical concepts essential for vocational competence; experimental materials and methods designed to improve performance of low achievers. (3 cr, §EdCI 165B; prereq 111 or EdCI 62 or ‡)
166. **Computer Assisted Mathematics Instruction.** Role of the computer in a mathematics department; its contribution to learning concepts, problem solving, and computational skill; consideration of various types of equipment and languages, programming of problems, instructional materials. (3 cr, §EdCI 192B; prereq 112 or EdT 67 or ‡)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

200. **Theory and Classical Research in Mathematics Education**
201. **Research in Elementary School Mathematics Education**
- 202.° **Research in Secondary School Mathematics Education**
- 280.° **Problems: Mathematics Education**
290. **Seminar: Mathematics Education**

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 63; Ind 60A-B-C-D; MuEd 60-61; PEMP 75A-B, 77; PEWP 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; for practice in personnel work, see EPsy 282, 283, 284; for graduate practicum in special education, see EPsy 288; and for internship, see EdCI 199E.

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.** Supervised teaching for students wishing to elect credits in student teaching in addition to regular requirements. (Cr ar)
- 53A-B.°° **Teaching Handicapped Children.** Observing work with special classes; teaching under direction. Conducted in cooperation 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)

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

Methods and Student Teaching

55. **Teaching in Inner City Schools.** Lectures, observation, and participation directed toward understanding the child, his family, and the community in a low socio-economic area. (3 cr; prereq ¶elementary student tchg and #)
- 77.°° **Student Teaching in the Nursery School.** Twelve hours each week in supervised classroom participation. (6 cr)
- 78.°° **Student Teaching in the Kindergarten.** Five half-days each week in supervised classroom participation in public or private 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. (2-6 cr; prereq Lib 62, 70, 113, 171, 172 or #, 197, sr)
- 67.†°° **Student Teaching in Mathematics.** (1 or 3 or 6 cr; prereq sr, Math 60 or ¶Math 60, EdT 67A-B-C during same yr; satisfactory completion of each qtr's work necessary for continuation)
- 67A-B-C.†°° **Teaching 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 for 2 qtrs)
- 67M. **Teaching Secondary School Mathematics.** (3 cr; prereq minor only)
- 68.†°° **Student Teaching in Science.** (1 or 3 or 6 cr; prereq sr, and ¶68A-B-C; satisfactory completion of each qtr's work necessary for continuation)
- 68A-B-C.†°° **Teaching 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 for 2 qtrs)
- 68M. **Teaching Secondary School Science.** (3 cr; prereq minors only)
- 69.†°° **Student Teaching in the Social Studies.** (3 cr on-campus sr yr, 6 cr off-campus sr yr; prereq ¶69A-B; satisfactory completion of each qtr's work necessary for continuation)
- 69A-B.†°° **Teaching Social Studies in the Secondary School.** (3 cr for A, 2 cr for B; prereq sr and ¶69 for A, ¶69 and A for B)
- 69J. **Student Teaching: Social Studies Juniors.** (1 cr; prereq Ed55A or ¶55A)
- 69M. **Teaching Social Studies in the Secondary School.** (3 cr; prereq minor only)
- 70.†°° **Student Teaching in Modern Languages.** Approval of students for this course will involve an examination of proficiency in the language. (3 cr on-campus, 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.†°° **Teaching Modern Languages.** Procedures in selecting and organizing materials and in teaching modern languages. (3 cr for A, 2 cr for B; prereq sr and ¶70 for A, ¶70 and A for B)
- 70M. **Teaching Modern Languages.** (3 cr; prereq minors only)

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

Description of Courses

- 71.†** **Student Teaching in Latin.** (3-9 cr, total 9 cr [all off-campus]; prereq sr, and 71A-B-C during same yr; satisfactory completion of each qtr's work necessary for continuation)
- 71A-B.†** **Teaching Latin.** Procedures in selecting and organizing materials and in teaching Latin. (3 cr for A, 2 cr for B; prereq sr and ¶71 for A, ¶70 and A for B)
- 71M. **Teaching Latin.** (3 cr; prereq minor only)
- 72.†** **Student Teaching in Distributive Education.** Required of all students majoring in distributive education. (3-9 cr, total 9 cr; prereq Ed 55B or ‡)
- 73.†** **Student Teaching in Business Subjects.** Required of all students majoring in business education. (3-9 cr, total 9 cr; prereq Ed 55B or ‡)
74. **Teaching Journalism.** Methods and techniques of presenting journalism to students below 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 on-campus, 6 cr off-campus, total 9 cr; prereq 75A and 75B or C; satisfactory completion of each qtr's work necessary for continuation)
- 75A. **Teaching Language Arts in Secondary Schools.** Required of all majors in speech, English, and language arts. Required for admission to student teaching in language arts and ordinarily completed during the quarter immediately preceding the first quarter of student teaching. The course considers issues of philosophy, content, and method of teaching language arts. (3 cr; prereq Ed 55B)
- 75B. **Teaching English in Secondary Schools.** Required of all majors in English and language arts (English core). Materials and instructional strategies, especially as they appear in the student teaching assignments. (2 cr; prereq 75A and ¶1st qtr of 75)
- 75C. **Teaching Speech in Secondary School.** Required of all majors in speech and language arts (speech core). Materials and instructional strategies, especially as they appear in the student teaching assignments; curriculum development and coordination in speech and related cocurricular activities. (2 cr; prereq 75A and ¶1st qtr of 75)
- 75G. **Teaching Language Arts in Secondary Schools.** Methods and content in secondary school English and speech. (3 cr; prereq minors in English or language arts with major in fields other than speech)
- 76C. **Teaching Language Arts in Secondary Schools.** Methods and content in secondary school speech and related cocurricular activities. (3 cr; prereq minor in speech with major in fields other than English)
80. **Teaching Typewriting and Office Procedures.** Methods and content in developing typewriting, adding, calculating, and transcribing machine skills; organization and methods in office procedures. (2-4 cr; prereq jr, EdCI 47 or equiv, Ed 55B or ¶55B)
81. **Teaching Shorthand.** Skill building and classroom methods in shorthand and transcription. (2-4 cr; prereq jr, EdCI 49 or equiv, Ed 55B or ¶55B)

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

82. **Teaching Basic Business Subjects.** Developments in content and method of teaching nonvocational business subjects. (2 cr; prereq Ed 55B or ¶Ed 55B)
83. **Teaching Bookkeeping and Data Processing.** Methods, materials, curriculum, and principles of learning pertinent to secondary school bookkeeping and data processing. (2 cr; prereq jr, Ed 55B or ¶55B)
- 90A-B-C.† **Teaching Distributive Education Subjects.** Methods of teaching distributive education subjects in high schools and junior colleges. (2 cr per qtr; prereq ‡)

MUSIC EDUCATION (MuEd)

Note—For courses in music see *College of Liberal Arts Bulletin*.

- 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. (2 cr each; prereq music education major or ‡...4 is prereq for 7 only)
8. **Instrumental Technique.** Theory and technical development of the percussion instrument. Elementary instruction and accomplishment with emphasis begin (a) snare drum, (b) timpani, and (c) other percussion instruments. (2 cr; prereq music education major or ‡)
- 9A-B, 10A-B. **Instrumental Technique.** Elementary instruction and accomplishment on two of the following instruments as selected by the instructor: oboe, flute, bassoon, French horn, cornet, tuba. (2 cr each; prereq 5 for 9A-B, 6 for 10A-B)
20. **Music Educators' Chorus.** Performance of music suitable for secondary school at concerts in conjunction with all-day student teaching visits to public schools in Minnesota. Other music performed in rehearsal until stylistically correct. Additional music sightread for repertory purposes. The chorus sings for and with visiting high school choruses, a capella and accompanied music for mixed chorus; serves as a demonstration group for materials and methods taught in music education course work. (1 cr; prereq full acceptance in College of Education undergrad music education major or minor sequence)
- 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; appreciation, classroom instruments, materials. (3 cr; prereq ‡)
- 50B. **Teaching Music in Intermediate and Junior High Grades.** Music methods in grades 4-9; note reading, part singing, changing voices, voice testing, appreciation, classroom instruments, integration. (3 cr; prereq 50A, ‡)
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 3T, MuEd 20, 59, ‡)
55. **Music for Recreational Leadership.** Directing and working with students in musical performing groups, rhythmic activities, singing, musical instruments, and listening. (2 cr; prereq Mus 4)
56. **Teaching Music in the Elementary School.** For nonmusic majors. Methods and materials in teaching singing, rhythm, music reading, creativity, classroom

Description of Courses

- instruments, fundamentals, appreciation in K-6. (3 cr; prereq Mus 4 or exemption)
59. **Choral Literature and Conducting.** Intimate contact with vocal materials; practice in conducting. (2 cr for sr, 1 cr for others; prereq 20)
- 60-61. **Student Teaching and Supervision of Music.** Experience in carrying forward, under supervision, the music activities of elementary, junior and senior high school teachers. (2 or 3 cr for 60, 3 to 12 cr for 61; prereq sr, 53, Ed 55B, #)
64. **Band Organization.** Organization, promotion, curriculum, administration, equipment, problems of the school band. (3 cr; prereq Mus 6T, #)
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 the various instruments. (3 cr; prereq sr, Mus 6T)
68. **Teaching Instrumental Music.** Teaching and directing of school instrumentalists, band and orchestra ensembles, survey of school music materials. (3 cr; prereq #)
69. **Instrumental Literature and Conducting.** Intimate contact with instrumental materials; practice in conducting. (2 cr for final qtr, 1 cr other qtrs)
101. **Philosophies of Music Education.** Analysis and interpretation of philosophies in music and education; objectives, trends, curriculum, evaluation. (3 cr)
102. **General Music in Elementary and Junior High Schools.** Open to music education and nonmusic majors. Methods, materials, problems in teaching general music classes; emphasis on music literature. (3 cr; prereq 56 or #)
103. **Psychological Foundations.** Analysis and interpretation of psychologies of music and education as applied to the teaching of music. (3 cr; prereq #)
104. **Advanced Topics: Vocal Music.** 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 #)
105. **Advanced Topics: Instrumental Music.** Application of formal and stylistic characteristics represented in selected wind chamber music to the teaching of instrumental music on the precollegiate level. (3 cr; prereq #)
114. **Reading and Stylistic Interpretation of Choral Music.** Defining means of teaching choristers to read and interpret music of representative periods and styles of compositions. (3 cr; prereq 104 or #)
115. **Advanced String Instrument Techniques.** Research reports, lecture-demonstrations; performance by class members and by school-age laboratory groups. (3 cr; prereq B.S. in music education or #)
118. **Advanced Wind and Percussion Techniques.** Research reports, practical performances, and lectures. (3 cr; prereq B.S. in music education or #)
121. **Music for Exceptional Children.** Trends; methods and materials for a functional program of singing, playing, rhythm, listening, and creative activities for mentally and physically handicapped and gifted pupils. (3 cr; prereq 56 or #)
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 Materials.** Analytical survey of wind instrument literature from the 18th century to the present and a comparative analysis of transcriptions for modern band. (3 cr; prereq sr)

Physical Education for Men

151. **Supervision and Administration of Elementary Music.** Analysis and evaluation of instructional techniques; supervisory and administrative techniques; readings; new trends. (3 cr; prereq major or minor in music or music education)
152. **Supervision and Administration of Junior High Music.** Evaluation of instructional techniques and materials for the required and elective courses; supervisory and administrative practices; readings; new trends. (3 cr; prereq major or minor in music or music education)
153. **Supervision and Administration of High School Music.** Materials, scheduling, and teaching of performance ensembles; courses in theory and literature; individual and class lessons; extracurricular activities. (3 cr; prereq major or minor in music or music education)
170. **Recent Research and Literature.** Current research; evaluation of teaching materials; appraisal of techniques. (3 cr)
194. **Advanced Selection, Conducting of Choral Materials.** Criteria for selecting choral music for school groups; analysis of selections of varying degrees of difficulty; application of advanced rehearsal and conducting techniques with the class as a performing choral group for student directors. (3 cr; prereq 124)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

224.* Research Problems

251-252-253. Seminar: Curriculum Development

PHYSICAL EDUCATION FOR MEN (PEM and PEMP)

Nonprofessional Courses (PEM)

Note—In the following courses, A represents a first level course; no prerequisite is required.

ADAPTED

- IA. Adapted Activities. (1 cr)
- IB. Adapted Activities. (1 cr)
- IC. Adapted Activities. (1 cr)
- ID. Adapted Activities. (1 cr)
- IE. Adapted Activities. (1 cr)
- IF. Adapted Activities. (1 cr)

AQUATICS

- 2A. Diving, Springboard. (1 cr; prereq 5A or equiv)
- 2B. Diving, Springboard. (1 cr; prereq 5A or equiv)
- 2C. Diving, Springboard. (1 cr; prereq 5A or equiv)
- 3A. Scuba and Skin Diving. (1 cr; prereq 5B or equiv)
- 4A. Senior Lifesaving. (1 cr; prereq ability to swim 440 yds)

Description of Courses

5A. Swimming. (1 cr)

5B. Swimming. (1 cr; prereq ability to swim 100 yds)

7A. Water Safety Instructor. (2 cr; prereq current American Red Cross Senior Life-saving Certificate)

COMBATIVES

8A. Judo. (1 cr)

8B. Judo. (1 cr; prereq 8A or equiv)

9A. Karate. (1 cr)

9B. Karate. (1 cr; prereq 9A or equiv)

10A. Wrestling. (1 cr)

10B. Wrestling. (1 cr; prereq 10A or equiv)

CONDITIONING

11A. Conditioning. (1 cr)

12A. Weight Training. (1 cr)

DANCE

14A. Ballroom. (1 cr)

14B. Ballroom. (1 cr; prereq 14A or equiv)

15A. Folk and Square. (1 cr, §PEMP 17)

15B. Folk and Square. (1 cr; prereq 15A or equiv)

16A. Modern. (1 cr)

16B. Modern. (1 cr; prereq 16A or equiv)

16C. Modern. (1 cr; prereq 16B or equiv)

16D. Modern. (1 cr; prereq 16C or equiv)

16E. Modern—Composition. (2 cr; prereq 16C or equiv)

16F. Modern—Composition. (2 cr; prereq 16E or equiv)

16G. Modern—Production. (2 cr; prereq 16C or #)

16H. Rhythmic Analysis. (1 cr; prereq 18A or #)

FOUNDATIONS OF PHYSICAL ACTIVITY

17A. Foundations of Physical Activity. (2 cr)

FUNDAMENTALS OF MOVEMENT

18A. Fundamentals, Movement. (1 cr, §PEMP 16)

GYMNASTICS

19A. Apparatus. (1 cr)

19B. Apparatus. (1 cr; prereq 19A or equiv)

20A. Tumbling, Floor Exercises, and Trampoline. (1 cr)

20B. Tumbling, Floor Exercises, and Trampoline. (1 cr; prereq 20B or equiv)

INDIVIDUAL AND DUAL SPORTS

- 22A. Angling. (1 cr)
- 22B. Angling. (1 cr; prereq 22A)
- 23A. Archery. (1 cr)
- 24A. Badminton. (1 cr)
- 24B. Badminton. (1 cr; prereq 24A or equiv)
- 25A. Bowling. (1 cr)
- 25B. Bowling. (1 cr; prereq 25A or 125 avg)
- 25C. Bowling. (1 cr; prereq 160 avg)
- 26A. Camping. (1 cr)
- 27A. Physical Education for Family Living. (1 cr)
- 28A. Fencing. (1 cr)
- 28B. Fencing. (1 cr; prereq 28A or equiv)
- 29A. Golf. (1 cr)
- 29B. Golf. (1 cr)
- 29C. Golf. (1 cr)
- 30A. Hunting. (1 cr)
- 31A. Paddleball—Handball. (1 cr)
- 33A. Skating, Ice. (1 cr)
- 33B. Skating, Figure. (1 cr; prereq 33A or equiv)
- 33C. Skating, Figure. (1 cr; prereq 33B or equiv)
- 33D. Skating, Ice Dancing. (1 cr; prereq 33B or equiv)
- 34A. Skiing. (1 cr)
- 34B. Skiing. (1 cr; prereq 34A or equiv)
- 35A. Squash Racquets. (1 cr)
- 36A. Tennis. (1 cr)
- 36B. Tennis. (1 cr; prereq 36A or equiv)
- 36C. Tennis. (1 cr; prereq 36B or equiv)
- 37A. Track and Field. (1 cr)
- 37B. Track and Field. (1 cr; prereq 37A or equiv)

TEAM SPORTS

- 38A. Basketball. (1 cr)
- 38B. Basketball. (1 cr; prereq 38A or equiv)
- 39A. Curling. (1 cr)
- 40A. Field Hockey. (1 cr)
- 41A. Hockey, Ice. (1 cr; prereq 33A or equiv)
- 43A. Officiating, Football-Basketball. (1 cr)

Description of Courses

- 43B. Officiating, Hockey-Basketball-Volleyball. (1 cr)
- 43C. Officiating, Swimming-Wrestling-Softball-Track. (1 cr)
- 44A. Soccer. (1 cr, §PEMP 13)
- 44B. Soccer. (1 cr; prereq 44A or equiv)
- 45A. Softball, Slow Pitch. (1 cr)
- 45B. Softball, Fast Pitch. (1 cr; prereq 45A or equiv)
- 46A. Volleyball. (1 cr)
- 46B. Volleyball. (1 cr; prereq 46A or equiv)

FRESHMAN AND VARSITY SPORTS

- 48A. Freshman Baseball. (1 cr; prereq #)
- 48B. Freshman Basketball. (1 cr; prereq #)
- 48C. Freshman Cross Country. (1 cr; prereq #)
- 48D. Freshman Football. (1 cr; prereq #)
- 48E. Freshman Golf. (1 cr; prereq #)
- 48F. Freshman Gymnastics. (1 cr; prereq #)
- 48G. Freshman Hockey. (1 cr; prereq #)
- 48H. Freshman Swimming. (1 cr; prereq #)
- 48J. Freshman Tennis. (1 cr; prereq #)
- 48K. Freshman Track and Field. (1 cr; prereq #)
- 48L. Freshman Wrestling. (1 cr; prereq #)
- 49A. Varsity Baseball. (1 cr; prereq #)
- 49B. Varsity Basketball. (1 cr; prereq #)
- 49C. Varsity Cross Country. (1 cr; prereq #)
- 49D. Varsity Football. (1 cr; prereq #)
- 49E. Varsity Golf. (1 cr; prereq #)
- 49F. Varsity Gymnastics. (1 cr; prereq #)
- 49G. Varsity Hockey. (1 cr; prereq #)
- 49H. Varsity Swimming. (1 cr; prereq #)
- 49J. Varsity Tennis. (1 cr; prereq #)
- 49K. Varsity Track and Field. (1 cr; prereq #)
- 49L. Varsity Wrestling. (1 cr; prereq #)

Professional Courses (PEMP)

- 2. Aquatics. Advanced swimming, diving, lifesaving. (1 cr, §6C; prereq swim 50 yds in 45 sec)
- 3. Wrestling. (1 cr, §7B; prereq PEM 10A or equiv)

Physical Education for Men

4. **Conditioning and Tactics.** Participation in and understanding of various methods of physical conditioning; physiological basis and methods of evaluation; methods of moving and organizing large and small groups. (1 cr, §5A)
5. **Gymnastics.** Stunts on the buck, side horse, long horse, parallel bars, rings, trampoline, mats, stall bar exercises, rope climbing, and pyramid building. (1 cr, §5B; prereq PEM 19A or equiv)
6. **Golf.** (1 cr, §8; prereq PEM 29A or equiv)
7. **Racket Sports.** (1 cr, §8; prereq PEM 24A or 36A or equiv)
8. **Track and Field.** Demonstrations and practice in all events. (1 cr, §4C; prereq PEM 37A or equiv)
9. **Baseball.** (1 cr, §5C)
10. **Basketball.** Demonstrations and practice, individual and team offensive and defensive tactics. (1 cr, §4B; prereq PEM 38A or equiv)
11. **Football.** Demonstrations and practice in fundamentals for all positions on a team. (1 cr, §4A)
12. **Ice Hockey.** (1 cr, §6B; prereq PEM 33A or equiv)
13. **Soccer.** (½ cr, §6A)
14. **Volleyball.** (½ cr, §6A; prereq PEM 46A or equiv)
15. **Games and Elementary School Activities.** Types of games; guided movement-experiences; movement education content. (1 cr, §7A)
16. **Fundamental Movement.** Basic steps and folk dances. (1 cr, §9A)
17. **Folk Dance.** Instruction in circle, line, square, mixer, and couple dances; square dance calling. (1 cr, §9B)
32. **Orientation and Appraisal.** Rationale underlying the course of study, advising procedures, Minnesota credential requirements; vocational considerations; philosophical and professional aspects; sports competency and physical fitness testing. (1 cr)
50. **Human Anatomy.** Emphasizes bone, nerves, and muscles and their significance in physical education. (3 cr)
52. **Human Growth and Physical Development.** Synthesis of research and materials bearing on individual growth patterns of physique and organic systems; implications and applications for physical education. Pre-student teaching experience. (3 cr)
54. **Motor Learning.** Perception, motivation, emotion, and learning, as factors in physical activity; competition, reaction time, and coordination in motor performance. (3 cr)
- 60A. **Prevention and Care of Injuries.** Policies for conditioning athletes in interscholastic and intercollegiate sports; safety controls. (3 cr; prereq 50 or Anat 27)
- 60B. **Athletic Training Laboratory.** Thirty hours of practical experience in the training room under supervision. (1 cr; prereq 60A)
63. **Administration of Physical Education.** Problems of organization and supervision in the instructional program, intramural sports, and interscholastic athletics. (3 cr)
64. **Programming Intramural-Extramural Sports.** Study of the basic ingredients required for administering intramural-extramural sports program. (3 cr, §96)

Description of Courses

65. **Adapted Physical Education.** Philosophy, principles, and techniques of adapting the program to meet the needs of handicapped pupils. (3 cr; prereq PE 51, Anat 27)
66. **Sport Officiating and Supervision.** Philosophy, principles, and problems of officiating athletic contests; interpreting game rules, officiating procedures, and participant relationships in a variety of sports. (3 cr)
71. **Physiological Application to Sports.** Consideration of muscular contraction for strength development programs; contributions of training programs to endurance, speed, and skill acquisition; influence of training on the cardiovascular system; fatigue and recovery; early season training, pregame meals and ergogenic aids in athletics. Required for the physical education minor and the Minnesota coaching certificate. (3 cr, §PubH 91, §PubH 92; prereq 50 or Anat 27)
- 75A. **Student Teaching: Elementary.** Student teaching in physical education in grades 1-6 in public schools. (4-6 cr, §75; prereq 52, ¶76A or B)
- 75B. **Student Teaching: Secondary.** Student teaching in physical education in grades 7-12 in public schools. (4-6 cr, §76; prereq 52, ¶76A or B)
- 76A. **Student Teaching Methods.** Methods and techniques of instruction in elementary or secondary school physical education; general information on teaching process; should be elected when enrolling in the first student teaching experience. (2 cr; prereq 52 and ¶75A or B)
- 76B. **Student Teaching Methods.** Methods and techniques of instruction in elementary or secondary school physical education; should be elected with the second student teaching experience. (1 cr; prereq 52 and ¶75A or B)
77. **Student Teaching: Coaching.** May be elected by physical education major students; required of candidates for coaching credential only for men without public school coaching experience. (3 cr; prereq Ed 55B)
78. **Supervised Practical Experience.** On-the-job experience under a specialist in the particular area of study. A written report shall be completed resulting from the experience. (3 cr; prereq ‡)
80. **Baseball Coaching.** Techniques of playing each position, batting, coaching runners, and team play; study of rules; officiating methods and practice; organization of practices. (2 cr, §72; prereq 9)
81. **Basketball Coaching.** Techniques, styles of offense and defense, conditioning, and handling of players. (2 cr, §68; prereq 10 or ‡)
82. **Football Coaching.** Techniques and orientation, strategy, generalship, styles of offense and defense, methods of organizing practices and handling players. (2 cr, §67; prereq 11 or ‡)
83. **Golf Coaching.** Techniques for organizing the squad, selecting the team, and conducting tournaments; principle of the golf swing, practice routines, rules and strategy of play. (3 cr; prereq 6 or ‡)
84. **Gymnastics Coaching.** Analysis of elementary through advanced stunts in tumbling-floor exercise and on trampoline, side horse, parallel bars, still rings, and long horse; emphasis on teaching and techniques. Aspects of legal liability, budget, scheduling, regulations, training, research; purchase and care of equipment and constructing gymnastics gymnasiums. (2 cr; prereq 5 or ‡)
85. **Ice Hockey Coaching.** Techniques and orientation to coaching high school hockey; planning and conducting practices, team offense and defense; drills to develop individual skills; conditioning. (2 cr, §81; prereq 12 or ‡)

Physical Education for Women

86. **Swimming and Diving Coaching.** Instruction in and practice of the basic techniques used in competitive swimming and diving; rules and regulations governing staging of competition. (2 cr; prereq 2 and #)
87. **Tennis Coaching.** Techniques and orientation, methods and organization; emphasis on high school and college level; coverage of coaching techniques, analysis of strokes, and organization of practice sessions. (2 cr; prereq 7 or #)
88. **Track and Field Coaching.** Technique of performance in all standard events; methods of coaching; organization of track meets; study of rules; officiating methods and practice. (2 cr, §69; prereq 8 or #)
89. **Wrestling Coaching.** Analysis of the moves, combinations, and sequence; training, safety, and health features; administrative responsibilities of the coach; review of the literature. (2 cr; prereq 3 or #)
99. **Independent Study.** Self-directed study preceded by classroom study and possession of basic competence. (1-9 cr; prereq Δ)

PHYSICAL EDUCATION FOR WOMEN (PEW and PEWP)

Nonprofessional Courses (PEW)

Students should check the *Class Schedule* to be sure their Activity Rating is acceptable for the class in which they register. Activity Permit Cards may be secured at 101 Norris Gymnasium. A student forfeits her place in class if she is absent the first day the class meets unless she notifies 101 Norris Gymnasium (373-3403) that she is unable to attend. If a class is closed at the time of registration, the student should report to the first class meeting for possible cancellations.

Note—In the following courses, A represents a first level course; no prerequisite is required.

ADAPTED

- 1A. **Adapted Activities.** (1 cr; prereq #)
- 1B. **Adapted Activities.** (1 cr; prereq #)
- 1C. **Adapted Activities.** (1 cr; prereq #)

AQUATICS

- 2A. **Diving, Springboard.** (1 cr; prereq 5E or equiv)
- 3A. **Scuba and Skin Diving.** (1 cr; prereq 5C or equiv)
- 4A. **Senior Lifesaving.** (1 cr, §PEWP 42A; prereq ability to swim 440 yds)
- 5A. **Swimming.** (1 cr)
- 5B. **Swimming.** (1 cr; prereq 5A or equiv)
- 5C. **Swimming.** (1 cr; prereq 5B or equiv)
- 5D. **Swimming.** (1 cr; prereq 5C or equiv)
- 5E. **Swimming and Diving.** (1 cr; prereq 5C or equiv)
- 6A. **Synchronized Swimming.** (1 cr; prereq 5C or equiv)

Description of Courses

7A. Water Safety Instructor. (2 cr, §PEWP 46; prereq current American Red Cross Lifesaving Certificate)

COMBATIVES

8A. Judo. (1 cr)

9A. Karate. (1 cr)

CONDITIONING

11A. Conditioning. (1 cr)

13A. Posture and Individual Exercise. (1 cr)

DANCE

14A. Ballroom. (1 cr)

14B. Ballroom. (1 cr; prereq 14A or equiv)

15A. Folk and Square. (1 cr, §PEWP 22A)

15B. Folk and Square. (1 cr; prereq 15A or equiv)

16A. Modern. (1 cr, §PEWP 40A)

16B. Modern. (1 cr; prereq 16A or equiv)

16C. Modern. (1 cr; prereq 16B or equiv)

16D. Modern. (1 cr; prereq 16C or equiv)

16E. Modern—Composition. (2 cr, §PEWP 87; prereq 16C or equiv)

16F. Modern—Composition. (2 cr, §PEWP 88; prereq 16E or equiv)

16G. Modern—Production. (2 cr, §PEWP 89; prereq 16C or #)

16H. Rhythmic Analysis. (1 cr, §PEWP 21C; prereq 18A or #)

FUNDAMENTAL MOVEMENT

18A. Fundamental Movement. (1 cr, §PEWP 21B)

GYMNASTICS

19A. Apparatus. (1 cr, §PEWP 40D)

19B. Apparatus. (1 cr; prereq 19A or equiv)

19C. Apparatus. (1 cr; prereq 19B or equiv)

20A. Tumbling, Floor Exercise, and Trampoline. (1 cr)

20B. Tumbling, Floor Exercise, and Trampoline. (1 cr; prereq 20A or equiv)

20C. Tumbling, Floor Exercise, and Trampoline. (1 cr; prereq 20B or equiv)

INDIVIDUAL AND DUAL SPORTS

22A. Angling. (1 cr)

22B. Angling. (1 cr; prereq 22A or equiv)

Physical Education for Women

- 23A. Archery. (1 cr)
- 23B. Archery. (1 cr; prereq 23A or equiv)
- 24A. Badminton. (1 cr, §PEWP 20A; prereq 20A)
- 24B. Badminton. (1 cr; prereq 24A or equiv)
- 25A. Bowling. (1 cr)
- 25B. Bowling. (1 cr; prereq 120 avg)
- 26A. Camping. (1 cr)
- 27A. Physical Education for Family Living. (1 cr)
- 28A. Fencing. (1 cr)
- 28B. Fencing. (1 cr; prereq 28A or equiv)
- 29A. Golf. (1 cr, §PEWP 22B)
- 29B. Golf. (1 cr; prereq 29A or equiv)
- 29C. Golf. (1 cr; prereq 29B or equiv)
- 30A. Hunting. (1 cr)
- 32A. Riflemarksmanship. (1 cr)
- 33A. Skating, Ice. (1 cr)
- 33B. Skating, Figure. (1 cr; prereq 33A or equiv)
- 33C. Skating, Figure. (1 cr; prereq 33B or equiv)
- 33D. Skating, Ice Dancing. (1 cr; prereq 33B or equiv)
- 34A. Skiing. (1 cr)
- 34B. Skiing. (1 cr; prereq 34A or equiv)
- 35A. Squash Racquets. (1 cr)
- 36A. Tennis. (1 cr, §PEWP 22C)
- 36B. Tennis. (1 cr; prereq 36A or equiv)
- 36C. Tennis. (1 cr; prereq 36B or equiv)
- 37A. Track and Field. (1 cr)
- 37B. Track and Field. (1 cr; prereq 37A or equiv)

TEAM SPORTS

- 38A. Basketball. (1 cr, §PEWP 21A)
- 38B. Basketball. (1 cr; prereq 38A or equiv)
- 39A. Curling. (1 cr)
- 40A. Field Hockey. (1 cr)
- 42A. LaCrosse. (1 cr)
- 43A. Officiating Basketball-Volleyball. (1 cr; prereq 38A and 46A or equiv)
- 45A. Softball. (1 cr)
- 46A. Volleyball. (1 cr)
- 46B. Volleyball. (1 cr; prereq 46A or equiv)

Description of Courses

Professional Courses (PEWP)

- 20A. Badminton. (1 cr, §PEW 24A)
- 20B. Field Hockey-Volleyball. (1 cr)
- 20D. Beginning Aquatics. (1 cr)
- 21A. Basketball. (1 cr, §PEW 38A)
- 21B. Fundamental Movement. (1 cr, §PEW 18A)
- 21C. Rhythmic Analysis. (1 cr, §PEW 16H; prereq 21B)
- 21D. Posture and Functional Exercise. (1 cr)
- 22A. Folk Dance. (1 cr, §PEW 15A; prereq 21B)
- 22B. Golf. (1 cr, §PEW 29A)
- 22C. Tennis. (1 cr, §PEW 36A)
- 22D. Speedaway-Softball. (1 cr)
- 40A. Modern Dance. (1 cr, §PEW 16A)
- 40B. Officiating Field Hockey-Volleyball. (1 cr; prereq 20B)
- 40C. Tumbling, Free Exercise, and Trampoline. (1 cr)
- 40D. Apparatus. (1 cr, §PEW 19A)
- 41A. Advanced Aquatics. (1 cr)
- 41B. Officiating Basketball. (1 cr; prereq 21A)
- 42A. Senior Life Saving. (1 cr, §PEW 4A; prereq 41A)
- 44. Physical Education Activities for the Elementary School. Analysis of basic skills, observations, and laboratory experience in teaching activities. (3 cr, §PE 44; prereq soph, physical education major)
- 45. Physical Education Activities for the Elementary School. Laboratory course for PEW 70. Experience with graded activities; problems of organization and teaching progressions considered. (2 cr; prereq soph)
- 46. Water Safety Instructor's Course. 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, §PEW 7A; prereq current American Red Cross Certificate)
- 55. Teaching Individual and Team Sports. General methods of teaching sports; techniques for class organization; skill analysis; individual and group guidance; evaluation; application of methods to badminton, golf, tennis, fall team sports, volleyball, basketball, and softball; observations and practical experience. (3 cr; prereq 20A, 20B, 21A, 22B, 22C, 22D)
- 56. Teaching of Folk Dance. Methods in the teaching of creative rhythmic activities, singing games, folk and ballroom dance; an approach to children's rhythm and modern dance. (3 cr; prereq 21B, 21C, 22A)
- 57. Teaching of Posture, Exercise, and Gymnastics. 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; prereq 21D, 40C, 40D)

Physical Education for Men and Women

58. **Intramural-Extramural-Interscholar Sports Program.** Objectives, principles, policies, procedures, and personnel involved in the planning of sports programs for girls and women. (3 cr; prereq jr, physical education major or minor)
62. **Teaching 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 and park administration majors)
70. **Teaching Health and Physical Education in the Elementary School.** Methods of instruction for elementary education majors. (3 cr, §Hlth 70)
76. **Teaching of Creative Dance for Children.** Theory and practice of folk dance with emphasis on national and racial origins and the relationship of dance to other folk arts. (3 cr; prereq 40A)
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)
80. **History and Trends in Dance.** History and philosophy of dance; relation to allied arts. (3 cr; prereq #)
87. **Dance Composition.** Principles of composition with practical application. (2 cr; prereq advanced modern dance or dance techniques or equiv)
88. **Dance Composition.** Advanced theory and practice including various approaches to dance composition. (2 cr; prereq 87 or equiv)
89. **Dance Production.** Various phases of dance production in schools and colleges; dance recital and demonstration of stagecraft and costuming. (3 cr; prereq #)
- 90A. **Orientation to Student Teaching.** Program and problems of organization and management; begins with fall semester opening of public schools. (3 cr; prereq #)
- 90B. **Student Teaching: Junior High School.** (3 cr; prereq ¶90C, Ed 55A-B, major in physical education)
- 90C. **Student Teaching: Senior High School.** (3 cr; prereq ¶90B, Ed 55A-B, major in physical education)
- 90D. **Student Teaching: Elementary School.** (3 cr; prereq Ed 55A-B, major in physical education)
- 90E. **Advanced Student Teaching.** Optional for those who have done superior work in 90B-C-D. (3 cr; prereq #)
93. **Student Teaching: Physical Education for Minors.** (3 cr; prereq Ed 55A-B, minor in physical education)
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)

51. **Mechanics of Movement.** Structure of the body, principles and mechanics of bodily movements. (3 cr; prereq Anat 27)
91. **History and Principles of Physical Education.** Influence of societal factors such as geography, culture, politics, religion, education, and technology in the de-

Description of Courses

- velopment of physical education; principles and application of various disciplines. (3 cr, §61, 82)
97. **Testing in Physical Education.** Selection, evaluation, construction, and administration of tests; administration of sports skill and motor ability tests for elementary and secondary school levels. (3 cr; prereq Ed 55B)
101. **Foundations of Physical Education.** Establishment of guide lines for individual and group professional action; examination of pertinent social forces, educational philosophies, and general ethics. (3 cr; prereq grad or MEd student)
102. **Curriculum.** For students without previous experience in curriculum; objectives, content, organization, evaluation, and trends. (3 cr; prereq sr)
104. **Teaching Physical Education for the Handicapped Child.** Selection and organization of appropriate activities for students with physical disabilities; program planning at all levels; observations, demonstrations, special lectures. (3 cr; prereq #)
106. **Curriculum Development.** Trends, issues, and problems at selected levels of interest: elementary, secondary, junior college. (3 cr; for experienced tchrs; prereq 102 or equiv)
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 #)
- 118E. **Problems.** Focus on teaching of physical education. (Cr ar; prereq MEd candidate, #)
123. **Advanced Methods of Teaching Physical Education.** Teaching procedures and methods at all levels; research results. (3 cr; prereq #)
124. **Supervision of School Health and Physical Education.** Functions; adaptations of accepted procedures for observation, guidance, and training of teachers. (3 cr, §Hlth 124; prereq #)
- 128E. **Integrating Paper.** Independent paper integrating learnings from a course or courses in education with learnings in physical education. (3 cr, §Hlth 128E)
130. **Contributions of Basic Science to Physical Education.** Recent research; applications in selected areas. (3 cr; prereq #)
135. **Tests and Measurements in Physical Education.** Place and limitations of measurement; construction and interpretation of evaluative procedures. (3 cr; prereq grad or MEd, #)
136. **Introduction to Research.** Methods and design for research in health, physical education, and recreation. (3 cr; prereq #)
137. **Readings: Physical Education.** Independent study under tutorial guidance. (1-3 cr; prereq sr honor, grad, #)
155. **Instructional Aids in Health, Physical Education, and Recreation.** Evaluation, construction, and use of materials stressing audio-visual aids. (3 cr)
160. **Practicum: Prevention and Care of Athletic Injuries.** Overview of problems (recognition, principles, responsibilities) related to athletic injuries in secondary and college programs. Demonstration and practice in training techniques and familiarity with use of instruments for athletic rehabilitation. (3 cr; prereq #)
171. **Applied Physiology.** Lectures and laboratory problems demonstrating the physiological bases for objectives and content. (3 cr; prereq PubH 92 or Phsl 51 or equiv)

Recreation and Park Administration

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

- 202. Professional Preparation of Physical Education Teachers**
- 221. Seminar: Physical Education**
- 224A.* Research Problems**
- 224B.* Research Problems**
- 233. Administration of the Physical Education Program in Secondary Schools**
- 236. Laboratory Research Techniques**
- 238. Administration of Physical Education in Colleges and Universities**
- 261A. Seminar: Contemporary Problems in Physical Education**

RECREATION AND PARK ADMINISTRATION (Rec)

- 20. Introduction to Recreation and Parks.** Examination of the history and development of park and recreation movement; professional and service organizations; orientation to the professional field. (2 cr)
- 43. Camp Aquatics.** Administration of camp waterfront program; 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 camping and outdoor education for prospective counselors. (2 cr)
- 47. Leadership in Social Activities.** Techniques of leadership in social games, parties, dances, outings. (3 cr, §52)
- 49. Social Aspects of Leisure.** Sociological consideration of leisure and recreation as parts of our total socio-economic structure. (3 cr)
- 64. Leadership in Nature Recreation.** Identity and scope of nature recreation field; classwork and field trips. (3 cr, §64A-B; prereq 15 cr in physical and biological sciences)
- 90. Field Experience.** (1-9 cr, §84-85; prereq sr, recreation and park administration major or minor...9 cr req for majors, 3 cr req for minors)
- 100. Foundations of Recreation.** Investigation of the historical, sociological, and educational bases of the recreative use of leisure in contemporary society. (3 cr; prereq grad)
- 101. Recreation in Community Organizations.** Agencies and their interrelationships. (3 cr, §116; prereq 20 or §)
- 105. Conservation of Natural Resources.** Importance and relation to recreation and outdoor education. (2 cr; prereq 64)
- 107. Camp Administration.** Prepares qualified personnel for responsibilities. (3 cr; prereq 46 or §)
- 111. Recreation and Park Areas and Facilities.** Orientation, design, planning, and standards. (3 cr; prereq 20 or §)
- 112. Recreation Program Planning.** Principles of program planning for an organized offering of recreation opportunities. (3 cr; prereq 20 or §)

Description of Courses

- 113. Methods in Recreation and Park Leadership.** Leadership methodology in all aspects of recreation. (2 cr, §121; prereq 20 or #)
- 118E. Problems.** Focus on conduct of recreation programs. (Cr ar; prereq M.Ed. candidate, #)
- 131. Industrial Recreation.** History, scope, place, and relationship of management-employee recreation. (3 cr; prereq #)
- 132. Commercial Recreation.** Survey of the scope and development of profit-making recreation agencies, facilities and services, consideration of standards, business procedures, financing and legal status. (3 cr; prereq 111 or #)
- 136. Introduction to Research.** Basic techniques, emphasis on social research methodology; survey of present status of recreation and park research. (3 cr, §PE 136)
- 137. Readings: Recreation.** Independent study under tutorial guidance. (1-3 cr; prereq #)
- 141. Introduction to Therapeutic Recreation.** General field as background for the recreation leader, hospital administrator, and other personnel. (3 cr; prereq #)
- 143. Programming: Therapeutic Recreation.** Planning programs for hospital patients. (3 cr; prereq #)
- 144. Recreation for the Mentally Retarded.** Characteristics and special needs in relation to recreation program; consideration of skills and techniques for work with retarded persons in institutions and in the community. (3 cr; prereq 141, 143 or #)
- 145. Recreation for the Aging.** Examination of the leisure problems of the aging citizen; modification of program activities; investigation of community resources; trends and developments in recreation planning. (3 cr; prereq #)
- 151. School Recreation.** Principles of organizing and conducting school-sponsored recreation programs. (3 cr)
- 160. Principles of Recreation and Park Administration.** Introduction to the management and direction of recreation and park agencies; managing authorities; legal basis; fiscal aspects; the personnel and staffing processes. (2 cr; prereq 111, 112, 113 or #)
- 160A. Administrative Practices in Public Recreation and Parks.** Organization, structure, and legal status of government agencies; financial aspects; liability. (2 cr; prereq 160)
- 160B. Administrative Practices in Therapeutic Recreation.** Organization and supervision of recreation programs in hospitals, institutions, and nursing homes. (2 cr; prereq 160)
- 160C. Administrative Practices in Voluntary and Youth-Serving Agencies.** Organization and structure of organizations; legal status, fund raising, and other financial aspects; community relations, personnel standards; recruitment, selection, and training of volunteers. (2 cr; prereq 160)

FOR GRADUATE STUDENTS ONLY

(Description in *Graduate School Bulletin*)

210. College Unions

211. Park Planning and Design

224A.* Research Problems

School Health Education for Men and Women

224B.° Research Problems

231. Seminar: Administrative Problems in Therapeutic Recreation

232. Seminar: Administrative Problems in Recreation and Parks

250. Practicum: College Unions

251. Practicum: Therapeutic Recreation

252. Practicum: Public Recreation and Parks

SCHOOL HEALTH EDUCATION FOR MEN AND WOMEN (Hlth)

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

59. Instructor's Course in First Aid. Preparation to teach the standard course in first aid. (3 cr; prereq American Red Cross Standard Certificate, age 20)

70. Teaching Health and Physical Education in the Elementary School. Methods of instruction for the elementary education major. (3 cr, §PEW 70)

82. Curriculum in School Health Education. Content included in education units for the secondary schools. (3 cr; prereq PubH 5 or 50, school health education minor)

83. Methods and Materials of School Health Education. Methods, materials, problems, and evaluation in preparation for health teaching; allocation and graduation of subject matter. (3 cr; prereq 82)

94. Student Teaching in School Health Education. (2 cr; prereq sr, 83, #)

103. Role of the School Health Educator in Health Appraisal. Role of school medical and dental advisers, nurse, teachers, health educator, and other school personnel in protection and maintenance phases. (3 cr; prereq sr, #)

114. Administration of School Health Education. Coordination 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 83, PubH 50 or equiv, or #)

117B. Advanced Instruction in School Health for Secondary Schools. Instructional and individual problems. (3 cr; prereq 83 or #)

118E. Problems. Focus on teaching of health education. (Cr ar; prereq M.Ed. candidate, #)

119. Safety Education. Scope and nature of the accident problem in our society; study of curricular areas leading to accident prevention. (4 cr; prereq sr)

124. Supervision of School Health and Physical Education. Functions; adaptations of accepted procedures for observation, guidance, and training of teachers. (3 cr, §PE 124; prereq #)

128E. Integrating Paper. Independent paper integrating learnings from a course or courses in education with learnings in school health education. (3 cr, §PE 128E)

Description of Courses

137. Readings: Health Education. Independent study under tutorial guidance. (1-3 cr; prereq sr honor, grad, ‡)

FOR GRADUATE STUDENTS ONLY
(Description in *Graduate School Bulletin*)

224A.° Research Problems

224B.° Research Problems

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Minnesota, hail to Thee!
Hail to Thee our college dear!
Thy light shall ever be
A beacon bright and clear.
Thy sons and daughters true
Will proclaim thee near and far
They will guard thy fame and adore thy name,
Thou shalt be their northern star.

Like the stream that bends to sea,
Like the pine that seeks the blue;
Minnesota, still for thee
Thy sons are strong and true.
From thy woods and waters fair,
From the prairies waving far,
At thy call they throng with their shout and song
Hailing thee their Northern Star.

Truman Rickard —'04

Arthur Upson —'05

UNIVERSITY OF MINNESOTA

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See list of graduate advisers on page 22

Volume LXXI, Number 20

August 26, 1968

UNIVERSITY OF MINNESOTA BULLETIN

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The contents of this bulletin and of other University bulletins, publications or announcements are subject to change.

Continuing Education Classes

(Late Afternoon and Saturday Morning Classes)

GENERAL INFORMATION

The following program of late afternoon and Saturday morning classes is arranged by the College of Education for teachers in service. Many of the offerings are subjects required in the regular curricula for high school and elementary teachers, or in the specialized curricula. 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 \$8.25 per credit for residents of the state and \$23.50 per credit for non-residents. If 6 or more credits are taken, an incidental fee of \$37.00 is also required.

The fee in the Graduate School for 6 credits or less or thesis only is \$52.00 for residents and \$140.00 for nonresidents. Graduate students taking more than 6 credits pay \$104.00 (resident) and \$280.00 (non-resident). The incidental fee of \$37.00 is required of all students in the Graduate School except teachers in service taking less than 6 credits.

Other fees include a \$1.00 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 373-2234.

Registration

Teachers in service are expected to register during the advanced registration period (alphabetical control) or during the week before classes begin. Early registration is advised for classes which are limited in size.

Teachers who find it impossible to come in during the regular registration period may register from Monday through Friday of the first week of the quarter but should report to register an hour before class begins so that they will not miss the first class session.

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; (b) those not so registered should report to the Office of Admissions and Records, Window 4, in Morrill Hall (Administration Building).

Special arrangements will be made for registering graduate and undergraduate students taking *only* Saturday classes and who find it *impossible* to register during the regular registration period. These students may report to register at 206 Burton Hall on Saturday morning of the first week of classes (fall quarter, September 28). Since advisers are not usually available on Saturday morning, students who register this late should make prior arrangements for advising. Veterans registering under Public Laws 815 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 then should be presented to that office as early as possible, and certainly before registration. Only those credits earned *in the first quarter* of adult special registration may be transferred to a Graduate School record. Adult special students are not permitted to take courses numbered 200 or above as these courses are reserved for students who have been admitted to the Graduate School.

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 apply *early in 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, Morrill Hall. See the *College of Education Bulletin* 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. All application papers for admission, including transcripts, must be filed *at least 4 weeks* before the opening of the quarter for which the student hopes to register. (See deadline dates in Calendar, page 21). If the application is not completed by that date, or if the Graduate School has not acted on it by the opening of the quarter, the applicant may register as an adult special student, transferring the credits earned in *that 1 quarter* to his graduate record if he is later admitted.

A student previously registered in the Graduate School but not enrolled during the past 2 years must reapply for admission. Those admitted for M.A. programs who now wish to pursue studies leading to the Specialist Certificate or the Ph.D. degree also should reapply, specifying the advanced program and major in which they are interested.

Evening and Independent Study Offerings

Additional courses are available through evening and special classes and independent study. 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, Minnesota 55455.

No graduate credit is allowed for courses completed through independent study. Graduate students wishing to take evening classes appropriate to their programs will register jointly in the General Extension Division and the Graduate School.

Research Problems

In all major areas, research problems courses (with credits and hours arranged) are available for students who are candidates for the M.A. degree, Plan B. These courses are listed in the *Graduate School Bulletin* and in each quarter's *Class Schedule*. The candidate should consult his graduate adviser concerning registration for research problems.

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.* A nominal fee is required for each placement season during which service is desired. The bureau receives a great many requests for teachers, both experienced and inexperienced. The office of the Bureau of Recommendations is located at 400-12th Avenue S.E., Minneapolis, Minnesota 55414.

Summary of Class Schedules

At the back of this bulletin is a summary of class schedules by quarters, days, and hours of offerings.

Symbols

The following symbols and explanations are used throughout the course description section which does not carry page footnotes:

° Courses through which it is possible for graduate students to prepare Plan B papers.

† To receive credit, a student must complete all courses listed after dagger.

‡ 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."

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 quarterly *Class Schedule* for building abbreviations. A *Class Schedule* will be given to each student with his registration material.

Hours and Days

Class hours identified by Roman numerals begin at the times shown below:

I	II	III	IV	V	VI	VII	VIII	IX	X
8:15	9:15	10:15	11:15	12:15	1:15	2:15	3:15	4:15	5:15

A class listed IX-X TTh meets the ninth through the tenth hours Tuesday and Thursday, the hyphen always indicating "through." The days of the week are abbreviated M, T, W, Th, F, S.

PROGRAM OF COURSES

FALL QUARTER, 1968

See page 4 for explanation of symbols

ADULT SPECIALS: Only those credits earned *in the first quarter* of adult special registration may be transferred to a Graduate School record. Courses numbered 200 or above are not open to adult special students.

Please check the current *Class Schedule* for revisions in course listings.

Agricultural Education (AgEd)

Persons interested in courses in agricultural education should write directly to the Department of Agricultural Education, University of Minnesota, St. Paul, Minnesota 55101.

Art Education (ArEd)

- 152 Curriculum Building in Art Education. (3 cr, †151-152-153; prereq 151) I-II S, WuH 110, Ar
- 184 Improving Art Programs in the Elementary School. (3 cr; prereq tchg exper or #) III-IV S, WuH 220, Olson
- 296 Seminar: Art Education. (1 cr) IX-X T, WuH 230, Gayne

Business Education (BsEd)

- 157 Organization and Supervision of Business Education. (3 cr, §EdCI 200; prereq #) III-IV S, PeikH 255, Driska
- 161 Curriculum Construction in Business Education. (3 cr; prereq EdCI 113) I-II S, PeikH 255, Price

Curriculum and Instruction (EdCI)

- 62 Teaching Mathematics in the Elementary School. (3 cr; limited to 48 students; prereq Ed 75A, Math 5A-B) Sec 4, 4:15-5:30 MW, Pt 111, Post
- 63 Children's Literature. (3 cr; limited to 50 students) Sec 5, IX-X W, Bu 120, Biesbrock

- 102 Teaching Social Studies in the Elementary School. (3 cr; prereq Ed 75B or equiv) III-IV S, 1 hr ar, Pt 214, Ellis
- 105 Audio-Visual Materials in Education. (3 cr; prereq sr) I-II S, 1 hr ar, NH 211, Pearson
- 106 Coordinating an Audio-Visual Education Program. (3 cr; prereq 105 or #) IX-X T, WeH 206, Pearson
- 109 Projected Audio-Visual Materials and Equipment Laboratory. (3 cr; limited to 15 students; prereq 105 or ¶105) Lect IX-X M, WeH 206, Pearson; lab, sec 2, IX-X Th
- 112 Family Life Education. (3 cr; limited to 30 students) 4:15-6:00 W, NH 207, Hey
- 113 Principles of Secondary School Curriculum. (3 cr; prereq Ed 55B or equiv) III-IV S, PeikH 165, Hill
- 114 Interdisciplinary Approaches to Curriculum. (3 cr) IX-X Th, PeikH 275, Kimpston
- 115 Introduction to Education of Visually Handicapped Children. (3 cr; prereq #) IX-X W, Pt 214, Martin
- 119 Elementary School Curriculum. (3 cr; prereq Ed 75B) IX-X W, 1 hr ar, CD 218, Goossen
- 121 Literature for the Elementary School. (3 cr) IX-X T, 1 hr ar, Bu 123, Odland
- 122A Teaching Literature in Secondary Schools. (3 cr; prereq Ed 55B or jr-sr high school tchg exper) IX-X T, Pt 214, Caddy, Kemp
- 124 Foundations of Career Development. (3 cr; limited to 45 students) IX-X T, NH 216, Borow
- 129 Trends and Issues in Secondary Curriculum. (3 cr; prereq 113 or equiv) IX-X T, PeikH 165, Hill
- 135 Group Procedures in Guidance. (3 cr; prereq 9 cr in education, EPsy 133 or #) IX-X TTh, Bu 125, L Hansen
- 143A Teaching and Supervision of Reading in the Elementary School. (3 cr; prereq 9 cr in education) IX-X T, 1 hr ar, Pt 110, Olson
- 144 Teaching Reading in Secondary Schools. (3 cr; prereq 9 cr in education) III-IV S, 1 hr ar, Bu 123, Chase
- 145 Reading Difficulties. (3 cr; prereq 143A or 144) IX-X T, 1 hr ar, Pt 215, Schreiner
- 150 Supervision and Improvement of Instruction. (3 cr; prereq 9 cr in education) III-IV S, 1 hr ar, Bu 120, Curtin
- 151 Diagnosis and Treatment of Learning Difficulties. (3 cr) IX-X Th, 1 hr ar, Pt 215, Schreiner
- 153 Teaching and Supervision of English in the Elementary Schools. (3 cr; prereq 64 or elem school tchg exper) IX-X T, 1 hr ar, Bu 120, Chase
- 155 Materials Laboratory for Social Studies Teachers. (3 cr; limited to 30 students; prereq #) 4:15-6:10 M, PeikH 165, Gardner

- 184 Supervision of Student Teaching. (3 cr; prereq 15 cr in education or #) III-IV S, Pt 102, Mork
- 185 Advanced Course in the Teaching of Modern Languages. (3 cr) I-II S, PeikH 225, Birkmaier
- 195A Curriculum Development in Secondary English and Speech. (3 cr; prereq EdT 75C or equiv) IX-X Th, PeikH 245, Piche
- 222 Seminar: Secondary Curriculum and Instruction. (1 cr per qtr, total 3 cr; prereq 113) IX-X W, PeikH 325, Kimpston
- 226 Seminar: Elementary School Problems. (No cr) 4:00-5:00 Th, PeikH 165, Ar
- 241 Seminar: Advanced Study in Supervision and Curriculum Development. (1 cr per qtr, total 3 cr; prereq 113, 170 or 172) IX-X M, PeikH 225, Birkmaier, Hill
- 243A Research Foundations for Reading Instruction. (3 cr; prereq 143A, #) IX-X W, 1 hr ar, PeikH 165, Manning
- 250 Higher Education in the United States. (3 cr; prereq 1 yr grad study in any field or 18 cr in education) 3:45-5:00 TTh, J 4, Eckert
- 251 Curriculum Trends in American Colleges. (3 cr; prereq 18 cr in education or 1 yr grad study in any field) I-II S, Bu 123, Eckert, Moen
- 284 Problems: Student Teaching. (3-9 cr; prereq #) Sec 1, limited to 10 students, IX-X W, J 5, Mork

Distributive Education (DE)

- 136 Organization and Administration of Distributive Education. (3 cr, §EdCI 136) 4:15-6:30 W, PeikH 275, Klaurens, Meyer
- 147 Workshop: Teaching Display. (3 cr, §EdCI 147; prereq #) 4:15-6:30 M, PeikH 275, Klaurens

Educational Administration (EdAd)

- 167 The Junior High School. (3 cr; prereq 9 cr in education) IX-X T, Pt 102, Popper
- 201 Foundations of Educational Administration. (3 cr) IX-X M, Bu 120, Ammentorp, Sederberg
- 210 Public School Finance. (3 cr) I-II S, Bu 120, Domian
- 215 The Elementary School Principalship. (3 cr; prereq 201 and 202 or #) IX-X T, Pt 111, Cross, Weatherman
- 224 Legal Aspects of Public School Administration. (3 cr) IX-X W, Pt 215, Hooker
- 227 Public School Personnel Programs. (3 cr) IX-X Th, Pt 102, Davis
- 264 The Secondary School Principalship. (3 cr) III-IV S, PeikH 155, Nickerson
- 274 The Junior College. (3 cr) IX-X W, J 2, Ar

Educational Psychology (EPsy)

- 110 Educational Measurement in the Classroom. (3 cr) IX-X W, Pt 110, Ar
- 133 Introduction to Guidance. (3 cr; limited to 40 students; prereq 9 cr in education) IX-X W, 1 hr ar, Bu 125, Tennyson
- 148 Clinical Diagnosis of Reading Difficulties. (3 cr; limited to 45 students; prereq EdCI 145) IX-X M, Pt 214, Ar
- 182 Education of Exceptional Children. (3 cr) III-IV S, Pt 110, Force
- 187 Education of Crippled Children. (3 cr; prereq 182 or #) IX-X Th, Pt 214, Force
- 188 Education of the Culturally Disadvantaged Child. (3 cr; prereq 12 cr in psychology, educational psychology, or sociology) IX-X Th, Pt 111, Wood
- 209 Seminar: Research Planning. (1 cr per qtr; limited to 15 students) IX-X W, Bu 330, Hoyt
- 244 Research in Special Education. (1 cr per qtr, total 3) IX-X M, Pt 110, Balow
- 282 Counseling Practicum: Introductory. (1-3 cr, total 6, §282A; limited to 10 students; prereq #) I-IV S, Bu 125, Shaffer
- 298 Psychological Theories of Teaching. (3 cr; limited to 15 students; prereq 6 cr in learning and cognition or #) IX-X TTh, CD 105, Neale

History and Philosophy of Education (HEd)

- 141 Critical Issues in Contemporary Education. (3 cr) IX-X W, Bu 120, Beck
- 155 History of Western Educational Thought. (3 cr) IX-X M, Bu 123, 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, Minnesota 55101.

Industrial Education (Ind)

- 100 Industrial Instruction. (3 cr; prereq 40, Ed 55B, #) IX-X W, PeikH 45, Moss
- 101 Tests in Industrial Subjects. (3 cr; prereq Ed 55B) IX-X M, PeikH 155, Pucel
- 107 Coordination. (3 cr; prereq 35 or 125 or #) IX-X Th, PeikH 155, Miletich
- 110 Vocational Guidance. (3 cr; prereq Ed 55B) IX-X W, PeikH 155, Nelson

Mathematics Education (MthE)

- 111 Teaching and Supervision of Mathematics in the Elementary School. (3 cr, §EdCI 149A; prereq EdCI 62 or #) 4:15-5:30 MW, Pt 102, Stochl
- 112 Teaching and Supervision of Mathematics in the Secondary School. (3 cr, §EdCI 191) IX-X M, PeikH 315, Donovan Johnson
- 166 Computer-Assisted Mathematics Instruction. (3 cr, §EdCI 192B; prereq 112 or EdT 67 or #) 4:15-6:45 Th, PeikH 315, Ar
- 290 Seminar: Mathematics Education. (0-3 cr, §EdCI 233; prereq #) IX-X T, PeikH 315, Jackson, Donovan Johnson, Post, Stochl

Music Education (MuEd)

- 104 Advanced Topics: Vocal Music. (3 cr; prereq #) IX-X M, ScH 104, Caswell
- 105 Advanced Topics: Instrumental Music. (3 cr; prereq #) IX-X Th, ScH 104, Turrentine
- 170 Recent Research and Literature. (3 cr) IX-X W, ScH 104, Turrentine
- 251 Seminar: Curriculum Development. (3 cr per qtr; prereq MA in music or music education) IX-X T, ScH 2, Borg, Caswell, Turrentine

Professional Physical Education Courses for Men and Women (PE)

- 104 Teaching Physical Education for the Handicapped Child. (3 cr; prereq #) 4:00-6:00 M, NGW 4, 1 hr ar, Cato
- 124 Supervision of School Health and Physical Education. (3 cr, §Hlth 124; prereq #) III-IV S, NGW 3, 1 hr ar, Slocum
- 136 Introduction to Research. (3 cr; prereq #) 4:00-5:15 TTh, NGW 4, Wilson
- 140 Analysis of Movement in Gymnastics. (3 cr; prereq 51, PEMP 84 or PEWP 57 or #) I-II S, CH 214, 1 hr ar, Bird
- 261A Seminar: Contemporary Problems in Physical Education. (3 cr; prereq 136 and #) 4:00-6:00 W, CH 214, 1 hr ar, McAdam

Recreation and Park Administration (Rec)

- 100 Foundations of Recreation. (3 cr; prereq grad) 4:30-6:00 Th, CH 214, Ruhe

School Health Education (Hlth)

- 124 Supervision of School Health and Physical Education. (3 cr, §PE 124; prereq #) III-IV S, NGW 3, 1 hr ar, Slocum

WINTER QUARTER, 1969

See page 4 for explanation of symbols

ADULT SPECIALS: Only those credits earned *in the first quarter* of adult special registration may be transferred to a Graduate School record. Courses numbered 200 or above are not open to adult special students.

Please check the current *Class Schedule* for revisions in course listings.

Agricultural Education (AgEd)

Persons interested in courses in agricultural education should write directly to the Department of Agricultural Education, University of Minnesota, St. Paul, Minnesota 55101.

Art Education (ArEd)

- 284 Research in Art Education. (3 cr) III-IV S, Ar
296 Seminar: Art Education. (1 cr) IX-X T, Gayne

Business Education (BsEd)

- 130 Instruction in Business Data Processing. (3 cr, §EdCI 130) III-IV S, Hopkins
132 Teaching the Basic Business Subjects. (3 cr, §EdCI 132) IX-X T, Price
158 Materials and Methods in Office and Stenographic Procedures. (3 cr, §EdCI 158) IX-X Th, Driska

Curriculum and Instruction (EdCI)

- 103 Teaching Science in the Elementary School. (3 cr; prereq sr, Ed 75B, or tchg exper) IX-X MW, Humphreys
105 Audio-Visual Materials in Education. (3 cr; prereq sr) IX-X T, 1 hr ar, Pearson
107 Radio and Television in Education. (3 cr; prereq 9 cr in education) IX-X M, Pearson
113 Principles of Secondary School Curriculum. (3 cr; prereq Ed 55B or equiv) IX-X T, Kimpston

- 119 Elementary School Curriculum. (3 cr; prereq Ed 75B or equiv) III-IV S, 1 hr ar, Goossen
- 121 Literature for the Elementary School. (3 cr) I-II S, 1 hr ar, Odland
- 125 Occupational Information Laboratory. (3 cr; prereq #) IX-X Th, Hansen
- 143A Teaching and Supervision of Reading in the Elementary School. (3 cr; prereq 9 cr in education) IX-X W, 1 hr ar, Olson
- 143B Materials and Instructional Techniques of Elementary Reading. (3 cr; prereq 60 or 143A or #) IX-X W, 1 hr ar, Manning
- 145 Reading Difficulties. (3 cr; prereq 143A or 144) IX-X M, 1 hr ar, Schreiner
- 153A Materials Laboratory for Teaching English in Elementary Schools. (3 cr; prereq 64 or elem school tchg exper) IX-X W, 1 hr ar, Dykstra
- 155A Materials Laboratory for Elementary Social Studies Teachers. (3 cr, §155; prereq 61 or 102 or #) IX-X Th, 1 hr ar, Ryan
- 169 Student Activity Programs in Secondary Schools. (3 cr; prereq Ed 55B or equiv) IX-X Th, Hill
- 170 Programs and Procedures of Curriculum Development. (3 cr, §170A-B; prereq 113 or 119) III-IV S, Kimpston
- 178 Structure and Function of the Eye — Educational Implications. (3 cr; prereq #) III-IV S, Fink, Martin
- 189 Materials and Curriculum Construction in Modern Languages. (3 cr; prereq 185 and #) I-II S, Birkmaier
- 208 Research in Elementary Social Studies. (3 cr; prereq 102 or #) IX-X M, 1 hr ar, Ryan
- 222 Seminar: Secondary Curriculum and Instruction. (1 cr per qtr, total 3 cr; prereq 113) IX-X W, Hill
- 226 Seminar: Elementary School Problems. (No cr) 4:00-5:00 Th, Ar
- 241 Seminar: Advanced Study in Supervision and Curriculum Development. (1 cr per qtr, total 3 cr; prereq 113, 170 or 172) IX-X M, Kimpston
- 243B Recent Research in Reading. (3 cr; prereq #) IX-X T, 1 hr ar, Manning
- 251 Curriculum Trends in American Colleges. (3 cr; prereq 1 yr grad study in any field or 18 cr in education) 3:45-5:00 TTh, Moen
- 252 Effective College Teaching. (3 cr; prereq 1 yr grad study in any field or 18 cr in education) I-II S, Williams
- 257 Research in English Composition in Elementary Schools. (3 cr; prereq 153 or equiv) I-II S, 1 hr ar, Chase
- 284 Problems: Student Teaching. (3-9 cr; limited to 10 students; prereq #) Sec I, IX-X W, Mork
- 285 Professional Education of Teachers. (3 cr per qtr; prereq 15 cr in education incl 184 and 250 or HED 182 or EPsy 250 or #) III-IV S, Mork, Woestehoff
- 287 Research Foundations of Secondary School Science Teaching. (3 cr) I-II S, Boeck

Distributive Education (DE)

- 137A Materials and Methods in Cooperative Part-Time Classes. (3 cr, §EdCI 137A) 4:15-6:30 T, Meyer
- 139 Coordination Techniques. (3 cr, §EdCI 139) 4:15-6:30 W, Klaurens, Ashmun
- 146 Issues and Trends in Distributive Education. (3 cr, §EdCI 146; prereq sr or grad and #) 4:15-6:30 M, Klaurens, Meyer

Educational Administration (EdAd)

- 103 Supervision and Administration of Special Education. (3 cr, §EdCI 203; prereq #) IX-X Th, Weatherman
- 202 Foundations of Educational Administration. (3 cr) III-IV S, Ammentorp, Sederberg
- 203 The Community School. (3 cr, §118) IX-X T, Popper
- 211 School Business Management. (3 cr; prereq 210 or #) IX-X W, Mueller
- 216 Recent Research in Elementary School Administration. (3 cr; prereq 215) III-IV S, Alkire, Curtin
- 218 Seminar: Elementary School Administration. (3 cr, §200; prereq 216 or #) IX-X Th, Lambert
- 242 Administrative Organization and Staffing of School Systems. (3 cr; prereq #) IX-X M, Davis
- 253 Administration in Higher Education. (3 cr; prereq EdCI 250) I-II S, Ammentorp
- 265 Administering the High School Program. (3 cr) IX-X W, Nickerson

Educational Psychology (EPsy)

- 159 Personality Development and Mental Hygiene. (3 cr; limited to 50 students) IX-X MW, Ar
- 183 Education of Gifted Children. (3 cr; prereq Ed 55B or 75B or equiv) IX-X T, Feldman
- 184 Introduction to Education of the Mentally Retarded. (3 cr; prereq 182) IX-X W, Bruinicks
- 188 Education of the Culturally Disadvantaged Child. (3 cr; prereq 12 cr in psychology, educational psychology, or sociology) IX-X Th, Wood
- 194 Experimental Analysis of Instruction I. (3 cr; prereq 192 or #) IX-X TTh, Hively
- 209 Seminar: Research Planning. (1 cr per qtr; limited to 10 students) IX-X W, Hoyt
- 236 Group Counseling: Principles and Procedures. (3 cr; prereq 133 or 250, and 125 or 225) IX-X MW, A Anderson

- 244 Research in Special Education. (1 cr per qtr, total 3) IX-X M, Weatherman
- 283 Counseling Practicum: Intermediate. (1-3 cr, total 6, §282B; limited to 10 students; prereq 282 and #) I-IV S, Shaffer
- 286 Advanced Course: Education of Emotionally Disturbed and Socially Maladjusted Children. (3 cr; limited to 10 students; prereq #) IX-X T, Duker, Hall

History and Philosophy of Education (HEd)

- 131 Comparative Education. (3 cr) IX-X W, Beck
- 156 History of Ideas in American Education. (3 cr) IX-X T, Bagley
- 190 Sociology of Education. (3 cr, §Soc 195) IX-X M, Harkins

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, Minnesota 55101.

Industrial Education (Ind)

- 105 Administration of Industrial Education. (3 cr; prereq 35 or #) IX-X Th, Van Tries
- 109 Conference Leading for Industry. (3 cr; prereq #) IX-X M, Miletich
- 125 Philosophy and Practice of Industrial Education. (3 cr, §35) IX-X W, Miletich
- 135 Industrial Course Construction. (3 cr, §40) IX-X T, Ar
- 155 Critical Issues in Industrial Education. (3 cr) IX-X W, Moss
- 250 Literature of Industrial Education. (3 cr; prereq #) IX-X T, Nelson

Mathematics Education (MthE)

- 121 Materials Laboratory for Elementary School Mathematics Instruction. (3 cr, §EdCI 149B; limited to 28 students; prereq 111 or EdCI 62 or #) II-IV S, Post
- 122 Materials Laboratory for Secondary School Mathematics Instruction. (3 cr, §EdCI 192 or 192A; prereq grad or tchg exper) 4:15-6:45 Th, Donovan Johnson
- 155 Mathematics for Slow Learning Children. (3 cr, §EdCI 165B; prereq 111 or EdCI 62 or #) IX-X M, 1 hr ar, Jackson
- 200 Theory and Classical Research in Mathematics Education. (3 cr, §EdCI 230; prereq 111 or 112 or #) IX-X M, 1 hr ar, Stochl

- 202 Research in Secondary School Mathematics Education. (3 cr, §EdCI 291; prereq 112) IX-X M, 1 hr ar, Donovan Johnson
- 290 Seminar: Mathematics Education. (0-3 cr, §EdCI 233; prereq #) IX-X T, Jackson, Donovan Johnson, Post, Stochl

Music Education (MuEd)

- 125 Selection of Instrumental Materials. (3 cr; prereq sr) IX-X Th, Turrentine
- 252 Seminar: Curriculum Development. (3 cr per qtr; prereq MA in music or music education, 251) IX-X T, Borg, Caswell, Turrentine

Professional Physical Education Courses for Men and Women (PE)

- 101 Foundations of Physical Education. (3 cr; prereq grad or MEd student) 4:00-6:00 T, McAdam
- 130 Contributions of Basic Science to Physical Education. (3 cr; prereq #) I-II S, Wilson
- 224A Research Problems. (3 cr; prereq 136, EPsy 116 or #) 4:00-6:00 Th, Ar
- 238 Administration of Physical Education in Colleges and Universities. (3 cr; prereq PEM 63 or #) III-IV S, Richardson

Recreation and Park Administration (Rec)

- 160A Administrative Practices in Public Recreation and Parks. (2 cr; prereq 160) III-IV S, Ruhe

SPRING QUARTER, 1969

See page 4 for explanation of symbols

ADULT SPECIALS: Only those credits earned in the first quarter of adult special registration may be transferred to a Graduate School record. Courses numbered 200 or above are not open to adult special students.

Please check the current *Class Schedule* for revisions in course listings.

Agricultural Education (AgEd)

Persons interested in courses in agricultural education should write directly to the Department of Agricultural Education, University of Minnesota, St. Paul, Minnesota 55101.

Art Education (ArEd)

296 Seminar: Art Education. (1 cr) IX-X T, Gayne

Business Education (BsEd)

- 131 Advanced Teaching of Technical Business Subjects. (3 cr, §EdCI 131 III-IV S, Driska)
- 156 Trends in Business Education. (3 cr, §EdCI 156) IX-X T, Price

Curriculum and Instruction (EdCI)

- 63 Children's Literature. (3 cr; limited to 50 students) Sec 4, IX-X T, Biesbrock
- 102 Teaching Social Studies in the Elementary School. (3 cr; prereq Ed 75B or equiv) IX-X T, 1 hr ar, Ryan
- 105 Audio-Visual Materials in Education. (3 cr; prereq sr) IX-X T, 1 hr ar, Pearson
- 108 Nonprojected Audio-Visual Materials and Equipment Laboratory. (3 cr; prereq 105 or ¶105) Lect IX-X M; lab, sec 2, limited to 15 students, IX-X Th
- 113 Principles of Secondary School Curriculum. (3 cr; prereq Ed 55B or equiv) IX-X Th, Kimpston

- 118 Methods of Teaching Visually Handicapped Children. (3 cr; prereq 115 or #) IX-X W, Martin
- 122A Teaching Literature in Secondary Schools. (3 cr; prereq Ed 55B or jr-sr high school tchg exper) III-IV S, Fitterer
- 125 Occupational Information Laboratory. (3 cr; prereq #) IX-X Th, L Hansen
- 128 Introduction to the Education of Hearing-Impaired Children. (3 cr; prereq #) IX-X Th, Moores
- 143A Teaching and Supervision of Reading in the Elementary School. (3 cr; prereq 9 cr in education) IX-X T, 1 hr ar, Olson
- 143C Instructional Leadership in Elementary Reading. (3 cr; prereq 143A or #) IX-X M, 1 hr ar, Manning
- 144 Teaching Reading in Secondary Schools. (3 cr; prereq 9 cr in education) IX-X M, 1 hr ar, Chase
- 145 Reading Difficulties. (3 cr; prereq 143A or 144) IX-X Th, 1 hr ar, Schreiner
- 150 Supervision and Improvement of Instruction. (3 cr; prereq 9 cr in education) III-IV S, 1 hr ar, Curtin
- 151 Diagnosis and Treatment of Learning Difficulties. (3 cr) III-IV S, 1 hr ar, Schreiner
- 153 Teaching and Supervision of English in the Elementary Schools. (3 cr; prereq 64 or elem school tchg exper) IX-X W, 1 hr ar, Dykstra
- 172 Supervision of Secondary Instruction. (3 cr; prereq 113) I-II S, Hill
- 173 Preparation of Curriculum Materials. (3 cr, §173A-B; prereq 113 or 119) IX-X T, Kimpston
- 184 Supervision of Student Teaching. (3 cr; prereq 15 cr in education or #) IX-X W, Mork
- 190 Current Developments in Secondary School Science Teaching. (3 cr; limited to 25 students; prereq EdT 68B-C or 68M, equiv undergrad courses or exper in science tchg) I-II S, Gennaro
- 204 Social Studies Curriculum. (3 cr; limited to 20 students) 4:15-6:10 W, Gardner
- 206 Curriculum Construction in Elementary Social Studies. (3 cr; prereq 61 or 102 or #) IX-X T, 1 hr ar, Ellis
- 213 Research Foundations of Elementary School Science Teaching. (3 cr; prereq 103 or #) IX-X Th, 1 hr ar, Goossen
- 222 Seminar: Secondary Curriculum and Instruction. (1 cr per qtr, total 3; prereq 113) IX-X W, Birkmaier, Kimpston
- 226 Seminar: Elementary School Problems. (No cr) 4:00-5:00 Th, Ar
- 241 Seminar: Advanced Study in Supervision and Curriculum Development. (1 cr per qtr, total 3; prereq 113, 170 or 172) IX-X M, Birkmaier, Hill
- 243C Seminar: Reading Instruction. (0-3 cr; prereq #) IX-X W, 1 hr ar, Manning

- 250 Higher Education in the United States. (3 cr; prereq 1 yr grad study in any field or 18 cr in education) I-II S, Eckert
- 252 Effective College Teaching. (3 cr; prereq 1 yr grad study in any field or 18 cr in education) 3:45-5:00 TTh, Eckert
- 286 Professional Education of Teachers. (3 cr; prereq 285 or #) III-IV S, Mork, Woestehoff
- 288 Seminar: Research in Modern Language Learning. (3 cr; prereq 185 and #) I-II S, Birkmaier
- 294 Strategies and Problems of Instruction in English. (3 cr; prereq EdT 75C or equiv) IX-X Th, Kemp, Piche

Distributive Education (DE)

- 141 Cooperative Occupational Education Programs. (3 cr, §EdCI 141) 4:15-6:30 W, Klaurens, Meyer
- 142 Business and Distributive Programs for Adults. (3 cr, §EdCI 142) 4:15-6:30 M, Ashmun

Educational Administration (EdAd)

- 202 Foundations of Educational Administration. (3 cr) IX-X Th, Ammentorp, Sederberg
- 215 The Elementary School Principalship. (3 cr; prereq 201 and 202, or #) IX-X T, Cross
- 226 School Plant Planning. (3 cr) IX-X M, Alkire, Sederberg
- 230 School Community Relations. (3 cr) IX-X W, Popper
- 264 The Secondary School Principalship. (3 cr) IX-X T, Nickerson
- 274 The Junior College. (3 cr) IX-X Th, Ar
- 290 Financing Higher Education. (3 cr; prereq #) I-II S, Ammentorp

Educational Psychology (EPsy)

- 110 Educational Measurement in the Classroom. (3 cr) IX MWF, Ar
- 125 Social Psychology of Education. (3 cr; limited to 50 students) 4:15-5:30 TTh, David W Johnson
- 165 Seminar: Problems and Issues in the Education of Learning-Disabled Children. (3 cr; limited to 40 students; prereq exper or professional responsibility in the SLD field and #) IX-X M, Deno
- 186 Education of Emotionally Disturbed and Socially Maladjusted Children. (3 cr; prereq grad or #) IX-X T, Wilderson
- 193 Psychological Analysis of Instruction. (3 cr) IX-X T, Samuels

- 195 Experimental Analysis of Instruction. (3 cr; limited to 30 students; pre-req 192 or Psy 117 or #) IX-X TTh, Hively
- 209 Seminar: Research Planning. (1 cr per qtr; limited to 15 students) IX-X W, Hoyt
- 244 Research in Special Education. (1 cr per qtr, total 3) IX-X M, Rubin
- 268 Seminar: The Culturally Disadvantaged. (3 cr; prereq #) IX-X Th, Wood
- 284 Counseling Practicum: Advanced. (1-3 cr, total 6, \$290; limited to 10 students; prereq 283 and #) I-IV S, Duker, Hall
- 289 Survey of Special Education Problems. (3 cr; prereq 182 or exper and #) IX-X T, Weatherman

History and Philosophy of Education (HEd)

- 131 Comparative Education. (3 cr) IX-X W, Beck
- 182 Comparative Philosophies of Education. (3 cr) IX-X T, Beck

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, Minnesota 55101.

Industrial Education (Ind)

- 101 Tests in Industrial Subjects. (3 cr; prereq Ed 55B) IX-X M, Pucel
- 110 Vocational Guidance. (3 cr; prereq Ed 55B) IX-X W, Nelson
- 115 Supervision of Industrial Education. (3 cr; prereq 35 or 105) IX-X M, Miletich
- 135 Industrial Course Construction. (3 cr, \$40) IX-X Th, Ar

Mathematics Education (MthE)

- 132 New Content and Methods in Secondary School Mathematics Instruction. (3 cr, \$EdCI 194; prereq math tchg exper) IX-X M, Donovan Johnson
- 290 Seminar: Mathematics Education. (0-3 cr, \$EdCI 233; prereq #) IX-X T, Jackson, Donovan Johnson, Post, Stochl

Music Education (MuEd)

- 102 General Music in Elementary and Junior High Schools. (3 cr; prereq 56 or #) IX-X M, Borg
- 103 Psychological Foundations. (3 cr; prereq #) IX-X Th, Turrentine

- 114 Reading and Stylistic Interpretation of Choral Music. (3 cr; prereq 104 or #) IX-X M, Caswell
- 118 Advanced Wind and Percussion Techniques. (3 cr; prereq BS in music education or #) IX-X W, Turrentine
- 253 Seminar: Curriculum Development. (3 cr per qtr; prereq MA in music or music education, 252) IX-X T, Borg, Caswell, Turrentine

Professional Physical Education Courses for Men and Women (PE)

- 106 Curriculum Development. (3 cr; prereq 102 or equiv) 4:00-6:00 T, Torpey
- 171 Applied Physiology. (3 cr; prereq PubH 92 or Phys 51 or equiv) III-IV S, Alexander

School Health Education (Hlth)

- 114 Administration of School Health Education. (3 cr; prereq 83, PubH 50, or equiv or #) 4:00-6:00 M, Slocum

CALENDAR 1968-69

FALL QUARTER

September

- 2 Holiday (Labor Day)
- 12 Fall quarter fees due for students registered through September 6
- 20 Last day for registration and payment of fees for undergraduates
- 23 Fall quarter classes begin
- 26 Opening Convocation; IV hour classes excused
- 27 Last day for registration and payment of fees for the Graduate School and for teachers in service

October

- 12 Holiday (Columbus Day)
Homecoming Day
- 31 Senate meeting, 3:30 p.m.

November

- 11 Holiday (Veterans Day)
- 28 Holiday (Thanksgiving Day)
- 29-30 Classes excused (except Medical School and College of Veterinary Medicine)

December

- 1 Last day to file application for winter quarter admission to the undergraduate colleges or for change of college within the University
- 5 Deadline for application for admittance to Graduate School, winter quarter
Senate meeting, 3:30 p.m.
- 6 Review begins
- 7-13 Final examination period
- 14 Fall quarter closes
Commencement, 7:30 p.m.

WINTER QUARTER

December

- 25 Holiday (Christmas Day)
- 26 Last day for payment of winter quarter fees for students in residence fall quarter
- 30-31 Registration resumes; winter quarter fees due for new students in all undergraduate colleges

January

- 1 Holiday (New Year's Day)
- 3 Winter quarter classes begin

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

February

- 6 Senate meeting, 3:30 p.m.
- 12 Holiday (Lincoln's Birthday)
- 21 Graduate School application deadline for spring quarter
- 22 Holiday (Washington's Birthday)
- 23-March 1 University of Minnesota Week
- 27 Charter Day Convocation; IV hour classes excused

March

- 6 Senate meeting, 3:30 p.m.
- 7 Review begins
- 8-14 Final examination period
- 13 Spring quarter fees due for students in residence winter quarter in undergraduate colleges
- 15 Winter quarter closes
Commencement, 7:30 p.m.

SPRING QUARTER

March

- 17-21 Registration and payment of fees for new students in all undergraduate colleges
- 24 Spring quarter classes begin
- 28 Last day for registration and payment of fees for Graduate School and for teachers in service

April

- 4 Holiday (Good Friday)
- 24 Senate meeting, 3:30 p.m.

May

- 19 Graduate School application deadline for first term, Summer Session
- 22 Senate meeting, 3:30 p.m.
Cap and Gown Day Convocation; IV hour classes excused
- 30 Holiday (Memorial Day)
Review begins
- 31-June 6 Final examination period

June

- 7 Spring quarter closes
Commencement, 7:30 p.m.

GRADUATE ADVISERS**

Inquiry about the selection of an adviser from the following list should be made in the department concerned. For advisers in Child Psychology, not listed, inquire in 102 Child Development Building.

<i>Adviser</i>	<i>Field</i>	<i>Office</i>
Alexander, John F.	PEM	400 Cooke
Ammentorp, William	EdAd and Higher Ed	221 Burton
Anderson, Alan R.	EPsy (Couns Ed)	247 Burton
Anderson, Douglas H.	EPsy (Found)	330 Burton
Anderson, Jackson M.	Rec and Park Adm	204 Cooke
Ashmun, Richard	BsEd	270 Peik
Bagley, Ayers L.	Hist and Phil of Ed	139 Burton
Balow, Bruce E.	EPsy (Spec Ed)	109 Pattee
Bear, W. Forrest	AgEd	200 Ag Eng (StP)
Beck, Robert H.	Hist and Phil of Ed	139 Burton
Birkmaier, Emma M.	EdCI (Sec Lang)	224 Peik
Boeck, Clarence H.	EdCI (Sec Sci)	370 Peik
Borg, Robert L.	MuEd	214 Scott
Borow, Henry	EPsy (Couns Ed)	30 Nicholson
Brown, Marjorie M.	HEEd	121 McNeal (StP)
Burriss, Russell W.	EPsy (Found)	400 Ford
Caswell, Arnold F.	MuEd	214 Scott
Chapman, Frederick M.	Rec and Park Adm	204 Cooke
Chase, Naomi C.	EdCI (Elem)	130 Burton
Collier, Raymond O.	EPsy (Found)	330 Burton
Cross, W. Ray	EdAd (Elem)	211 Burton
Curtin, James R.	EdCI and EdAd (Elem)	250 Burton
Davis, Donald E.	EdAd (Gen)	203 Burton
Deno, Evelyn	EPsy (Spec Ed)	209 Pattee
Domian, Otto E.	EdAd (Gen)	205 Burton
Donnelly, Richard J.	PEM	220 Cooke
Duker, Jan D.	EPsy (School Psy)	226 CD
Dykstra, Robert	EdCI (Elem)	136 Burton
Eckert, Ruth E.	Higher Ed	226 Burton
Edson, William H.	EPsy (Couns Ed)	210 Burton
Force, Dewey G., Jr.	EPsy (Spec Ed)	12 Pattee
Ford, Roxana R.	HEEd	212 McNeal (StP)
Gallistel, Elizabeth R.	EPsy (Spec Ed)	211 Pattee
Gardner, William E.	EdCI (Sec Soc St)	130 Peik
Gayne, Clifford A.	Art Ed	135 Wulling
Gennaro, Eugene D.	EdCI (Sec Sci)	370 Peik
Glotzbach, Charles J.	EPsy (Couns Ed)	206 Burton
Goossen, Carl V.	EdCI (Elem)	201 Pattee
Hagenah, Theda	EPsy (Couns Ed)	101 Eddy
Hall, Marian D.	EPsy (School Psy)	226 CD
Hansen, Lorraine S.	EPsy (Couns Ed)	152 Peik
Hewer, Vivian H.	EPsy (Couns Ed)	101 Eddy
Hill, Richard L.	EdCI (Sec)	345 Peik
Hively, Wells, Jr.	EPsy (Found)	330 Burton
Hooker, Clifford P.	EdAd (Gen)	203 Burton
Hoyt, Cyril J.	EPsy (Found)	330 Burton
Humphreys, Alan H.	EdCI (Elem)	105 Pattee
Jackson, Robert L.	Math Ed and Elem	250 Burton
Jaeger, Eloise M.	PEW	101 Norris
Johnson, David W.	EPsy (Found)	330 Burton
Johnson, Donovan A.	Math Ed (Sec)	130 Peik
Johnson, Paul E.	EPsy (Found)	330 Burton
Kegler, Stanley B.	EdCI (Sec Eng)	Morrill Hall
Kellogg, Theodore E.	EPsy (Found)	6 Morrill

** Undergraduate students may consult the graduate adviser appropriate for the major, or inquire in 206 Burton Hall.

<i>Adviser</i>	<i>Field</i>	<i>Office</i>
Kimpston, Richard D.	EdCI (Sec)	345 Peik
Kingsley, G. Gordon	EPsy (Couns Ed)	106 Nicholson
Klaurens, Mary K.	DE	270 Peik
Lambert, Ronald T.	EdCI and EdAd (Elem)	254 Burton
Lange, Dale L.	EdCI (Sec Lang)	152 Peik
Lewis, Darrell R.	EdCI (Sec Econ Ed)	1169 B.A. (WB)
MacEachern, Donald	EPsy (Found)	330 Burton
Manning, John C.	EdCI (Elem)	136 Burton
McAdam, Robert E.	PEM	205 Cooke
McCune, George H.	EdCI (Sec Soc St and Higher Ed)	418 Johnston
McFarland, Keith N.	AgEd	215 Coffey (StP)
McMillion, Martin B.	AgEd	208 Horticulture (StP)
Merwin, Jack C.	EPsy (Found)	102 Burton
Meyer, Warren	DE	254 Peik
Moores, Donald F.	EPsy (Spec Ed)	106 Pattee
Mork, Gordon M. A.	Teacher Ed	101 Burton
Moss, Jerome, Jr.	Ind Ed	125 Peik
Mueller, Van Dyck	EdAd (Gen)	211 Burton
Murray, Frank B.	EPsy (Found)	330 Burton
Neale, Daniel C.	EPsy (Found)	330 Burton
Nelson, Clifford L.	AgEd	208 Horticulture (StP)
Nelson, Howard F.	Ind Ed	125 Peik
Nickerson, Neal C.	EdAd (Sec)	203 Burton
Odland, R. Norine	EdCI (Elem)	136 Burton
Parker, Clyde A.	EPsy (Couns Ed)	249 Burton
Pearson, Neville P.	EdCI (Audio-Visual)	206 Wesbrook
Persons, Edgar A.	AgEd	312 Horticulture (StP)
Peterson, Milo J.	AgEd	208 Horticulture (StP)
Piche, Gene L.	EdCI (Sec Lang Arts)	350 Peik
Piper, Ralph A.	PEM	217 Cooke
Popper, Samuel H.	EdAd (Gen and Sec)	203 Burton
Post, Thomas R.	Math Ed (Elem)	258 Burton
Price, Raymond G.	BsEd	254 Peik
Pucel, David J.	Ind Ed	125 Peik
Randleman, Robert R.	Ind Ed	125 Peik
Raygor, Alton L.	EPsy (Couns Ed)	101 Eddy
Reynolds, Maynard C.	EPsy (Spec Ed)	101 Pattee
Richardson, Deane E.	PEM	220 Cooke
Rynders, John E.	EPsy (Spec Ed)	101 Pattee
Salome, Richard A.	Art Ed	135 Wulling
Samuels, S. Jay	EPsy (Found)	330 Burton
Schmidt, Lyle D.	EPsy (Couns Ed)	255 Burton
Sederberg, Charles H.	EdAd (Gen)	211 Burton
Slocum, Helen M.	PEW and Hlth	158 Norris
Smith, Arthur E.	EPsy (Couns Ed)	101 Eddy
Snoke, Martin L.	EPsy (Couns Ed)	200 Eddy
Stedman, Louise A.	HEEd	200 McNeal (StP)
Stochl, James E.	Math Ed and Elem	530 Johnston
Swanson, Gordon I.	AgEd	208 Horticulture (StP) and 129 Burton
Tennyson, W. Wesley	EPsy (Couns Ed)	259 Burton
Terwilliger, James S.	EPsy (Found)	330 Burton
Torpey, James E.	PEM	221 Cooke
Turnure, James E.	EPsy (Spec Ed)	14 Pattee
Turrentine, Edgar M.	MuEd	332 Scott
Weatherman, Richard E.	EPsy (Spec Ed) and EdAd	101 Pattee
Whiteford, Enma B.	HEEd	107 McNeal (StP)
Wilderson, Frank B.	EPsy (Spec Ed)	107 Pattee
Wilk, Roger E.	EPsy (Found)	330 Burton
Williams, Howard Y.	Higher Ed	103 Burton
Wilson, Marjorie U.	PEW	108 Norris
Woestehoff, Arnold S.	Teacher Ed	400-12th Ave S.E.
Wood, Frank H.	EPsy (Spec Ed)	103 Pattee
Zander, Donald R.	EPsy (Couns Ed)	Clay School (WB)

	Saturday (I-II)	Saturday (III-IV)	Monday (IX-X)	Tuesday (IX-X)	Wednesday (IX-X)	Thursday (IX-X)
FALL QUARTER	ArEd 152	ArEd 184	EdCI 62**	ArEd 296	EdCI 62**	EdCI 109
	BsEd 161	BsEd 157	EdCI 109	EdCI 106	EdCI 63	EdCI 114
	EdCI 105	EdCI 102	EdCI 155§§	EdCI 121	EdCI 112††	EdCI 135
	EdCI 185	EdCI 113	EdCI 241	EdCI 122A	EdCI 115	EdCI 151
	EdCI 251	EdCI 144	DE 147¶¶	EdCI 124	EdCI 119	EdCI 195A
	EdAd 210	EdCI 150	EdAd 201	EdCI 129	EdCI 222	EdCI 226†
	EPsy 282 (I-IV)	EdCI 184	EPsy 148	EdCI 135	EdCI 243A	EdCI 250°
	PE 140	EdAd 264	EPsy 244	EdCI 143A	EdCI 284	EdAd 227
		EPsy 182	HEd 155	EdCI 145	DE 136¶¶	EPsy 187
		EPsy 282 (I-IV)	Ind 101	EdCI 153	EdAd 224	EPsy 188
		PE 124	MthE 111**	EdCI 250°	EdAd 274	EPsy 298
		Hlth 124	MthE 112	EdAd 167	EPsy 110	Ind 107
			MuEd 104	EdAd 215	EPsy 133	MthE 166***
			PE 104¶	EPsy 298	EPsy 209	MuEd 105
			MthE 290	HED 141	PE 136§	
			MuEd 251	Ind 100	Rec 100†††	
			PE 136§	Ind 110		
				MthE 111**		
				MuEd 170		
				PE 261A¶		
WINTER QUARTER	EdCI 121	ArEd 284	EdCI 103	ArEd 296	EdCI 103	BsEd 158
	EdCI 189	BsEd 130	EdCI 107	BsEd 132	EdCI 143A	EdCI 125
	EdCI 252	EdCI 119	EdCI 145	EdCI 105	EdCI 143B	EdCI 155A
	EdCI 257	EdCI 170	EdCI 208	EdCI 113	EdCI 153A	EdCI 169
	EdCI 287	EdCI 178	EdCI 241	EdCI 243B	EdCI 222	EdCI 226†
	EdAd 253	EdCI 285	DE 146¶¶	EdCI 251°	EdCI 284	EdCI 251°
	EPsy 283 (I-IV)	EdAd 202	EdAd 242	DE 137¶¶	DE 139¶¶	EdAd 103
	MthE 121 (II-IV)	EdAd 216	EPsy 159	EdAd 203	EdAd 211	EdAd 217
	PE 130	EPsy 283 (I-IV)	EPsy 236	EPsy 183	EdAd 265	EPsy 188
		MthE 121 (II-IV)	EPsy 244	EPsy 194	EPsy 159	EPsy 194
		PE 238	HED 190	EPsy 286	EPsy 184	Ind 105
		Rec 160A	Ind 109	HED 156	EPsy 209	MthE 122***
			MthE 155	Ind 135	EPsy 236	MuEd 125
			MthE 200	Ind 250	HED 131	PE 224A¶
		MthE 202	MthE 290	Ind 125		
			MuEd 252	Ind 155		
			PE 101¶			
SPRING QUARTER	EdCI 172	BsEd 131	EdCI 108	ArEd 296	EdCI 118	EdCI 113
	EdCI 190	EdCI 122A	EdCI 143C	BsEd 156	EdCI 153	EdCI 125
	EdCI 250	EdCI 144	EdCI 144	EdCI 63	EdCI 184	EdCI 128
	EdCI 288	EdCI 150	EdCI 241	EdCI 102	EdCI 204§§	EdCI 145
	EdAd 290	EdCI 151	DE 142¶¶	EdCI 105	EdCI 222	EdCI 213
	EPsy 284 (I-IV)	EPsy 284 (I-IV)	EdAd 226	EdCI 143A	EdCI 243C	EdCI 226†
		PE 171	EPsy 110	EdCI 173	DE 141¶¶	EdCI 252°
			EPsy 165	EdCI 206	EdAd 230	EdCI 294
			EPsy 244	EdCI 252°	EPsy 110	EdAd 202
			Ind 101	EdAd 215	EPsy 209	EdAd 274
			Ind 115	EdAd 264	HED 131	EPsy 125**
			MthE 132	EPsy 125**	Ind 110	EPsy 195
			MuEd 102	EPsy 186	MuEd 118	EPsy 268
			MuEd 114	EPsy 193		Ind 135
		Hlth 114¶	EPsy 195		MuEd 103	
			EPsy 289			
			HED 182			
			MthE 290			
			MuEd 253			
			PE 106¶			

Key

° 3:45-5:00	†† 4:15-6:00
† 4:00-5:00	§§ 4:15-6:10
§ 4:00-5:15	¶¶ 4:15-6:30
¶ 4:00-6:00	*** 4:15-6:45
** 4:15-5:30	††† 4:30-6:00