

1980-82
UNIVERSITY
OF MINNESOTA
BULLETIN

COLLEGE OF EDUCATION



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College of Education

UNIVERSITY OF MINNESOTA

Equal Opportunity Statement

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, creed, color, sex, national origin, or handicap. In adhering to this policy, the University abides by the requirements of Title IX of the Education Amendments of 1972, by Section 504 of the Rehabilitation Act of 1973, and by other applicable statutes and regulations relating to equality of opportunity.

Inquiries regarding compliance may be directed to Lillian H. Williams, Director, Office of Equal Opportunity and Affirmative Action, 419 Morrill Hall, 100 Church Street S. E., University of Minnesota, Minneapolis, Minnesota 55455, (612) 373-7969, or to the Director of the Office of Civil Rights, Department of Health, Education, and Welfare, 330 Independence Avenue S.W., Washington, D.C. 20201.

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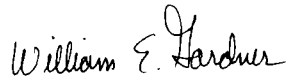
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LETTER FROM THE DEAN

Publication of this edition of the College of Education Bulletin marks the 75th year in the history of the College of Education. Instruction in pedagogy had been offered at the University during the 19th century, and in 1905 the Board of Regents created the College of Education, one of the earliest professional schools of education founded at a major university in the United States. Over its 75-year history, the faculty and students of the college have been involved in and provided leadership for each of the major developments in American education.

Throughout these years, the college has been dedicated to the land grant philosophy. It is a professional school that has sought to unite knowledge and practical skills for the benefit of Minnesota's citizens. The courses and special resources described in this bulletin represent this long established commitment to meeting the educational needs of students through undergraduate, graduate, and continuing education programs.

Students preparing for careers in education today will find opportunities to explore fields of study and research unimagined by the college's founders and first students. Through the training and resources provided by the faculty, institutes, and laboratories of the college, today's students can look forward to becoming professionally prepared to meet a great diversity of career goals and assume positions of leadership in education—not only as teachers, but as administrators, researchers, decision makers, and educators in the broadest sense of the term.



William E. Gardner
Dean

College of Education

I. GENERAL INFORMATION

The College

MISSION AND GOALS

The College of Education, established by the Board of Regents in 1905, prepares individuals for roles at all levels of professional education. Its statement of mission identifies three basic goals—to contribute ideas for the improvement of educational theories and processes, to provide high quality programs for present and future members of the education professions, and to provide leadership in applying tested insights to the problems of schools and universities. The college seeks to achieve these goals by encouraging scholarly faculty activity in research, writing, and field services and by offering instructional programs in a wide range of majors. The college provides educational leadership and service not only to the large urban community of Minneapolis and St. Paul but also to the entire Northwest.

ORGANIZATION AND RESOURCES

The basic unit of organization in the college is the department. Departments exercise considerable authority over decisions about curriculum, personnel, and budget matters, with final review made by appropriate all-college committees and the Dean's Office. Because departments are responsible for the management of licensure programs, students should become acquainted with departmental officers and advisers.

GOVERNANCE OF THE COLLEGE

The policymaking body of the college is an elected student/faculty group called the College of Education Senate. The Senate meets monthly during the academic year, and its meetings are open to the public. Two faculty/student standing committees—Educational Policy, and Personnel Policy—report to the Senate on policy changes that are needed.

EDUCATION STUDENT BOARD

Students in the College of Education play a significant role in governing the college through the Education Student Board (ESB). Members of the board are elected on a proportional basis from the departments of the college. Ten members of the ESB are also elected by that body to serve as representatives on the College of Education Senate and thus become involved in all-college decision making. The ESB sets its own agenda and carries on its own program of activities. Students interested in election to ESB or in ESB activities should consult with officers of the board in 227R Burton Hall.

Education Career Development Office

The first stop for any student seeking direction or information is the Education Career Development Office (ECDO), 1425 University Avenue S.E. (373-2268). This office provides special facilities and staff to help students plan professional goals and meet personal needs, and maintains a relationship with students from the time of initial contact through placement in educational careers. The office coordinates admission, enrollment, counseling, record keeping, field experiences (student teaching), information services, and job

General Information

placement for past, present, and future students, as well as for faculty members and administrators of the College of Education. Resources provided by the Education Career Development Office are available to all students in the College of Education as well as persons who are considering a career in education.

Student Assistance—*Information advisers* are available full time in the Education Career Development Office to answer questions about transfer and college programs, policies, and procedures, and to provide referral information on other University services. *Counselors* are available to provide special information and experienced help in assessing professional goals, dealing with personal problems, or developing personal skills. *Student Progress Committee representatives* can help students adjust their programs to their individual needs through exemption, substitution, or examination.

All education students new to the Twin Cities campus are invited and encouraged to attend the orientation-registration program of the College of Education. Coordinated by the Education Career Development Office, orientation is especially planned to help new students complete their first registration, meet with faculty advisers, and explore opportunities available at the University.

Field Experiences—Student teaching, with assignment to schools and agencies in Minneapolis, St. Paul, suburban communities, and other areas of the state, is coordinated by Field Experiences in the Education Career Development Office. Procedures and Practices in section II of this bulletin gives information about application and registration for student teaching.

Placement—The placement services of the Education Career Development Office are available to all students and alumni of the College of Education and the Graduate School of the University. The office prepares credentials for registrants and publishes a weekly *Vacancy Bulletin* listing positions open in schools and colleges. It also conducts a training program to help degree candidates prepare résumés, prepare for interviews, and develop other job search skills. All graduating seniors (except majors in music therapy, and recreation, park, and leisure studies) are required to register with the placement service, or secure an official exemption from ECDO. The placement fee entitles a registrant to placement services during a one-year period from October 1 through September 30.

Employment Outlook—In recent years there has been considerable publicity concerning the supply and employability of teachers. Elementary and secondary school populations have been declining (and will continue to decline until about the mid-1980s), and this decline has been reflected in a reduction in overall demand for beginning teachers. At the same time that overall declines have been registered, there has been a stable or increased demand for teachers in particular fields or with particular specialties. Moreover, placement rates for College of Education graduates have remained fairly constant throughout this period. Most recent figures show that 93 percent of those seeking jobs are employed full or part time, with 73 percent of those employed placed in education or education-related professions. Graduates accepting employment outside of education professions are represented in a broad range of occupational fields including sales and merchandising, social welfare, and administration and management. For further information about employment opportunities, contact the Education Career Development Office.

Faculty Advisers—In addition to the assistance and services offered by the Education Career Development Office, each student is assigned a faculty adviser who teaches in the student's major field. Faculty advisers are the student's main resource in planning a program, in preparing for registration each quarter, and for general academic questions.

Special Resources

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

MPS/UM Teacher Center—The Minneapolis Public Schools and the University of Minnesota have established a Teacher Center as a vehicle for the preparation and renewal of educational personnel. The center conducts a variety of programs in both preservice and in-service teacher education. New cooperative relationships between the college and the Minneapolis Public Schools can be facilitated through center staff and resources. The center also serves as an information and dissemination vehicle for many programs within the state of Minnesota and the nation.

Education-Psychology-Library Science (EPLS) Library—Located on the second floor of Walter Library, this library is the principal reference and research resource for students and faculty of the College of Education, the Department of Psychology, and the Library School. Its research collections, which include comprehensive retrospective journal holdings, monographs, and the complete ERIC microfiche file, are considered to be excellent in both quality and scope. The library's reference staff provides assistance to students in learning basic research methodology and offers bibliographic instruction to groups and individuals. Other services include document delivery and computer searches of a range of data bases in education and related subjects, including ERIC, Psychological Abstracts, the Comprehensive Dissertation Index, the National Technical Information Service (NTIS), Exceptional Child Education Resources, and others. A companion facility, the Walter Library Learning Resources Center, maintains class assigned studies on audiotape, videotape, slides, and film.

Instructional Systems Laboratory (ISL)—The major purpose of this educational development and research resource center is to facilitate the application of educational technology in the instructional programs of the College of Education. In addition, the ISL is involved in such activities as the design and development of prototype instructional systems, support of teacher education programs, research dealing with variables and conditions associated with instruction, and dissemination of research findings and prototype systems. The ISL offers course work to meet state media licensure requirements. The curricular and instructional systems graduate program sponsors interdisciplinary areas of study in instructional design, curricular design, instructional technology, staff development, curriculum and instruction research, and computer-based education.

Minnesota Research and Development Center (MRDC)—This center is cooperatively sponsored by the College of Education and the Minnesota State Board for Vocational Education to enhance the quality and quantity of vocational education-related research efforts in the state. Its four functions are to stimulate and facilitate research, disseminate information, increase the number and improve the competence of researchers, and create knowledge and useful products having the potential for long-range improvement of vocational education. The unit is a noninstructional activity of the Department of Vocational and Technical Education. It provides services to career and vocational educators in the state and nation.

Center for Early Education and Development (CEED)—This interdisciplinary unit is a consortium composed of faculty members and students from various instructional units of the College of Education including Curriculum and Instruction, Educational Administration, the Institute of Child Development, the School of Physical Education, and the psychology in the schools and special education program areas in Psychoeducational Studies. In addition to college faculty and students, staff members from public and private schools, day care centers, community child care agencies, local government agencies, and other

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interested groups participate in CEED activities. The center's purposes include facilitation of interdepartmental communication about research in early development and education, dissemination of research that has direct application to programs for young children and their families, and coordination and expansion of early childhood training for University students and community professionals.

Institute of Child Development—The Institute of Child Development 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 College of Education and the Graduate School. The institute's research programs deal with personality and social development, language and cognitive development, perceptual development, psychophysiological processes, genetics and ethology, and learning and motivation in children. The institute operates a laboratory nursery school for observation, research, and the training of nursery school teachers, and is administratively responsible for the University Child Care Center.

Education Planning and Development Office (EPDO)—This administrative office has college-wide planning and informational responsibilities. Its functions include assisting in college planning activities, maintaining a planning information base, developing approaches to program evaluation, facilitating the acquisition of external funding, facilitating communication within the college and between the college and external groups, and maintaining liaison with University offices having related functions.

Special Learning Opportunities

RESERVE OFFICERS' TRAINING CORPS

Reserve officers' training programs in military science, air science, and naval science are open to students in the College of Education as well as in other colleges of the University (see the *Army, Navy, Air Force ROTC Bulletin*).

YOUTH STUDIES COLLATERAL

The Center for Youth Development and Research, an administrative unit of the College of Home Economics, offers the Youth Studies Collateral, a group of undergraduate and graduate courses for students interested in work with or research about youth. The Youth Studies Collateral is a 3-quarter, 24-credit sequence of interdisciplinary courses, seminars, and direct work experience for selected upper division students. The collateral is not a degree program; it is designed to support existing degree programs within the various colleges of the University. For further information, contact the Coordinator, Center for Youth Development and Research, 48 McNeal Hall, 1985 Buford Avenue, University of Minnesota, St. Paul, Minnesota 55108.

Financial Aids

Students seeking financial assistance should direct inquiries to the Office of Student Financial Aid, 210 Fraser Hall, 106 Pleasant Street S.E., University of Minnesota, Minneapolis, Minnesota 55455. To obtain aid beginning in fall quarter, applications should be filed during the preceding winter quarter to receive priority consideration. Graduate students should also consult the *Graduate School Bulletin* for information about assistantships, fellowships, and scholarships. Students who are interested in special education programs should consult the office of that unit, 101A Pattee Hall, about possible traineeships and fellowships.

How to Use This Bulletin

This bulletin has been prepared to acquaint students with the programs and activities of the College of Education and to help them as they plan their programs. Section I of the bulletin contains information about the goals, organization, and governance of the college, basic activities and services of the college, and special resources. In Section II, each of the undergraduate licensure programs is described in detail. This section also contains the general requirements and procedures to be followed for admission, registration, and graduation, as well as information about advisers and advising in each of the departments. Each of the continuing and graduate education programs of the college is described briefly in section III. This part of the bulletin will be of greatest interest to in-service teachers and administrators. Section IV contains a listing by departments of all courses offered in the college at both the undergraduate and graduate levels. Section V lists the faculty of the college.

Because new programs and courses are constantly being developed and requirements changed, this bulletin cannot serve as the only aid in planning. Students should consult frequently with their advisers or counselors in the Education Career Development Office, 1425 University Avenue S.E. Useful also for undergraduate students are the *General Information Bulletin* and the bulletins of other colleges, particularly the College of Liberal Arts, Institute of Technology, and General College. Graduate and continuing education students will find the *Graduate School Bulletin* and the *Extension Classes Bulletin* very helpful.



II. UNDERGRADUATE PROGRAMS IN THE COLLEGE OF EDUCATION

This part of the bulletin contains descriptions of the undergraduate licensure programs offered by the various units of the college. All students who wish to be recommended for teacher licensure in the state of Minnesota upon graduation from the University of Minnesota (Twin Cities campus) must apply for admission to a teacher education program in the College of Education and must complete the requirements of that program. Upon completion of their chosen programs, students will be awarded the degree of bachelor of science. Students in all majors complete one or two years of preprofessional work in another college before transferring to the College of Education.

Teaching licenses are awarded by the Minnesota State Board of Education, *not* by the University. After completion of an approved program, students are recommended by the college for licensure in their field of specialization. All licensure programs described in this bulletin are approved by the State Board of Teaching and are accredited by the National Council for the Accreditation of Teacher Education.

Detailed information about entrance requirements, University admission procedures, and estimated expenses may be found in the *General Information Bulletin*, available upon request from the information booth in Williamson Hall or from Office of Admissions and Records, 110 Williamson Hall, 231 Pillsbury Drive S.E., University of Minnesota, Minneapolis, Minnesota 55455 (telephone 373-2153).

Liberal Education

The University of Minnesota believes that all of its students, whatever their majors or professional goals, should hold in common the search for a liberal education. Toward this end, the College of Education, together with other units of the University, subscribes to the all-University policy of the Council on Liberal Education, which states the objectives of liberal education and describes the minimum distribution requirements to be completed by all students.

Listed below are the specific credit distributions required for all education students except those majoring in music education and agricultural education. These requirements are similar in nature to those established by the College of Liberal Arts for the B.A. degree and may, of course, be met by selection of a large number of College of Liberal Arts courses. Students are encouraged to take work in areas that will help them to develop interpersonal skills (e.g., speech-communication, child psychology, educational psychology) and to understand racial and cultural diversities in the United States and the world (Afro-American studies, American Indian studies, anthropology, Chicano studies).

Courses that meet the major and minor requirements for programs in the College of Education may usually be applied toward the liberal education distribution requirements. For example, students with a major in social studies may use courses required for that major to fulfill the group C (The Individual and Society) requirement. Students should read the program description of their intended major in this section of the bulletin with care so they may plan their program in the most efficient way possible.

Liberal Education Distribution Requirements—Completion of freshman English or exemption, and, in addition, 48 credits distributed as indicated in the following groups:

Group A. Communication, Language, and Symbolic Systems—8 credits
History and structure of English, foreign language, and communication skill;
linguistics, rhetoric, logic, philosophic analysis; mathematics

Group B. The Physical and Biological Sciences—12 credits

Group C. The Individual and Society—16 credits including Psy 1001

Group D. Literary and Artistic Expression—12 credits
Literature, humanities, art, music, dance

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

Art Education	Recreation, Park, and Leisure Studies
Business Education	Vocational-Industrial Education
Distributive Education	
Industrial Education	
Physical Education	

Students apply for transfer to these programs in the College of Education very early in the third quarter of their freshman year and should check admission requirements for their chosen major in this section of the bulletin.

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

Elementary Education
Music Education
Music Therapy
School Health Education
Secondary Education
Language arts with majors in English, speech-communication, theatre arts
Mathematics
Science with majors in earth science, physical science, life science, broad area science
Second languages and cultures with majors in French, German, Hebrew, Latin, Russian, Spanish
Social studies with emphases in anthropology, economics, geography, history, political science, psychology, sociology

Students apply for transfer to these programs in the College of Education very early in the third quarter of their sophomore year and should check admission requirements for their chosen major in this section of the bulletin.

Admission to the College of Education

The faculty and staff of the College of Education welcome applications from all persons regardless of race, ethnic heritage, sex, creed, handicap, or age. The college is committed to the principle that disadvantaged and minority populations should be fairly represented in its programs.

Admission to the College of Education is granted on the basis of academic standards and an appraisal of other factors related to the preparation of teachers. Admission criteria for each program have been established with attention to the knowledge and skill requirements for the field. Experience in youth work or leadership may be considered, with differing degrees of importance, by each department. Students who plan to enter the College of Education should read carefully the requirements for their chosen program in this section of the bulletin, and should discuss transfer with a counselor in the Education Career Development Office as early as possible in their planning.

Admission to the College of Education

The following general guidelines are applied for admission to the college:

1. Students who apply for admission to the College of Education must satisfactorily complete certain clearance procedures as specified in the instruction sheet issued at the time of application.
2. Students applying for admission must present a record of success in previous academic work. To be considered for admission, a student must have earned at least a C (2.00) average in all previous college work. In addition, a student must have earned at least a C+ (2.50) average in all work completed in the major field prior to admission. In some fields, preference may be given to applicants who surpass these minimum requirements.
3. All fields admit students for initial enrollment in the fall quarter. Each field may accept additional applicants either for winter or spring quarter. Those who wish to transfer in midyear should obtain current information about transfer to their chosen major field. Admission decisions are made during the academic year in the quarter prior to the quarter of proposed entry. Applications should be received in the Office of Admissions very early in the quarter preceding the quarter in which admission is desired.
4. For some fields, the number of applicants that can be accepted each year is limited, based on the resources available to the college (facilities, faculty, and field experience opportunities), the number of students required to plan coherent, systematic, quality programs, and the placement opportunities for graduates.

Continuation in teacher education programs is subject to a review of qualifications before entrance to student teaching, and at other points in the training that may be necessary in individual cases.

ADMISSION OF STUDENTS FROM COLLEGES OUTSIDE OF THE UNIVERSITY

It is the policy of the college to give equal consideration to students applying from within and from outside of the University. Information about transfer may be obtained by writing to the Education Career Development Office, 1425 University Avenue S.E., University of Minnesota, Minneapolis, Minnesota 55455, or by talking with an adviser in that office.

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

ADMISSION OF STUDENTS WITH THREE OR MORE YEARS OF COLLEGE WORK

Students who have completed three or more years of college, including those who already hold the B.A. or B.S. degree, may enter the College of Education for work toward a teacher's license and a B.S. degree from the college. Such students will be expected to earn a minimum of 45 credits while in residence in the College of Education and to fulfill the specific requirements of the curriculum in which they are enrolled. Courses transferred may be used to meet curriculum course requirements upon approval of the Student Progress Committee. The time needed to complete the program will be influenced by the extent and strength of preparation in the major field. Ordinarily, a quarter preceding a September-to-June registration will be needed.

Procedures and Policies in the College of Education

College procedures are described in general in the following paragraphs; more detailed information and help with following specific procedures may be secured at the information desk of the Education Career Development Office, 1425 University Avenue S.E.

ADMISSION PROCEDURES

1. Students applying for transfer to the College of Education from other divisions of the University should apply at the Office of Admissions, 240 Williamson Hall, where they will receive printed instructions. Agricultural education majors apply at 130 Classroom Office Building, Twin Cities campus/St. Paul. Home economics education majors apply at the Office of Admissions and Records, 130 Coffey Hall, Twin Cities campus/St. Paul.
2. Students applying for transfer from other collegiate institutions should write for application materials to the Office of Admissions, 240 Williamson Hall, 231 Pillsbury Drive S. E., University of Minnesota, Minneapolis, Minnesota 55455, and should have a transcript of their previous college work sent to that office from each college they have attended. Students will be notified of the admission decision and receive further instructions by mail.
3. All degree students must complete clearances before or shortly after admission in accordance with printed instructions distributed by the Office of Admissions.
4. Individuals of adult age and experience who wish to take specific courses in the college but are not candidates for degrees should apply at the Office of Admissions for admission to adult special status. Usually such persons already hold the bachelor's degree. An adult special student who wishes to become a candidate for a degree must follow the regular college admission procedures.

Readmission Policy—A student previously admitted to one of the undergraduate degree programs in the College of Education whose day-school registration has been discontinued for two or more consecutive calendar years must apply for readmission at the Education Career Development Office. Applicants will be considered according to the admission criteria in effect at the time of reapplication. Students who are readmitted must meet the graduation requirements in effect at the time of readmission. Prior course work will be evaluated by the student's major department in the college; the student may be required to supplement course work in areas where course content has undergone change since earlier work was completed. Readmission may be granted for any quarter, as appropriate to individual program planning.

Examination for Credit—Credit for studies completed prior to admission or outside of class may sometimes be obtained by special examination. Students who believe that they are as well prepared in the subject matter as students successfully completing a particular course should apply to the Student Progress Committee, 1425 University Avenue S.E., for a special examination. If the request is approved, the department offering the course will appoint a special faculty committee to administer the examination. During the first quarter in University residence, no fee is charged for such examinations; thereafter the fee is \$20 for each examination.

Registration Procedures—Dates for registration in the college and the specific procedures to be followed are published each quarter in the Official Daily Bulletin column of

Procedures and Policies in the College of Education

the *Minnesota Daily*. Students registering in the College of Education for the first time should obtain their admission certificates, registration materials, and instructions at the Education Career Development Office, 1425 University Avenue S.E.

Change of Registration—Students who find it necessary to make program changes should obtain a change in registration ("cancel-add") form at the information desk in the Education Career Development Office. Students may add courses or change to different courses during the first week of the quarter. After this time, written consent of the instructor and approval of the Student Progress Committee are required to add a course. Prior to the end of the sixth week of a quarter, students may cancel their registration in any course. After the sixth week, cancellation of a course will result in a grade of N if the student is doing failing work at the time. Cancel-add forms must be signed by the major adviser.

Students are not permitted to change the grading system for which they have registered in a course after the second week of classes.

Change in Major—Students who wish to change from one major to another within the College of Education should see a counselor in the Education Career Development Office.

Application for a Degree—Students should file their application for a degree at the Registration Center on the second floor of Fraser Hall (150 Williamson Hall for students with mobility impairments) one full year before they expect to graduate. In addition, students whose major or minor fields are art education, English education, recreation, park, and leisure studies, or industrial education must file an approved program with their adviser.

Senior Balance Sheet—The senior balance sheet is mailed to students approximately one quarter after they apply for a degree. It lists the required courses completed, the total number of credits earned, and any deficiencies that must be removed before a student may graduate. It is to be used by students and their advisers as a checklist of completed requirements.

Application and Registration for Student Teaching—All students planning to student teach attend an orientation meeting sponsored by their program area during the third week of the spring quarter prior to the year of student teaching. The orientation meetings are announced in the Official Daily Bulletin. Students planning to student teach during fall quarter must apply through their program area offices during the third week of the quarter prior to student teaching. Student teaching is not available during summer terms.

The curricula listed in this section of the bulletin indicate the courses in which students register for student teaching. Admission to student teaching is subject to final approval by the college coordinator for field experiences. To be admitted to student teaching, students must fulfill the following:

1. Completion of a satisfactory pattern of courses in the major field and the recommendation of the major adviser.
2. An average of C + (2.50) in courses in the major except in agricultural education, which has special requirements, and in elementary education, which requires a C (2.00).
3. Satisfactory progress toward degree requirements of the college, including an average of C (2.00) overall and an average of C (2.00) in courses in the teaching minor.
4. Completion of basic junior courses (SeEd 3150 and 3155 for secondary education majors, and Elem 3100 and 3101 for elementary education majors).

Undergraduate Programs in the College of Education

5. Completion of admission clearances for the College of Education, including psychological tests and a satisfactory Mantoux test taken within one year prior to student teaching.
6. Completion of requirements specified by the program area.

Students may be required at any time to cancel registration in student teaching if they fail to meet the requirements or if their work is unsatisfactory.

Unsatisfactory Progress—Students who are not making satisfactory progress in the curriculum in which they are registered may be placed on probation by the Student Progress Committee. This committee reviews the overall academic performance of students as well as their performance in major courses. Committee representatives are available at 1425 University Avenue S.E. to help students assess their academic status, and counselors will attempt to advise students with respect to their academic progress.

Teaching Licensure—Students who plan to teach in Minnesota are expected to apply for teaching licensure when they register for the final quarter of their senior year. They obtain the application form in the Education Career Development Office, attach a money order for the fee (payable to the Commissioner of Education, State of Minnesota), and submit the application and money order to the College of Education Career Development Office, 1425 University Avenue S.E. All other details are handled by the University, and at the time the degree is awarded, qualified graduates are recommended for the appropriate license to teach in Minnesota schools.

ACCESS TO STUDENT EDUCATIONAL RECORDS

In accordance with regents' policy on access to student records, information about a student generally may not be released to a third party without the student's permission. The policy also permits students to review their educational records and to challenge the contents of those records.

Some student information—name, address, telephone number, dates of attendance, college and class, major, adviser, and degrees earned—is considered public or directory information. To prevent release of such information outside the University while in attendance at the University, a student must notify the records office on his or her campus.

Students are notified annually of their right to review their educational records. The regents' policy, including a directory of student records, is available for review at the information booth in Williamson Hall, Twin Cities campus/Minneapolis, and at the records offices on other campuses of the University. Questions may be directed to the Office of the Coordinator of Student Support Services, 260E Williamson Hall, (612) 373-2106.

GRADUATION REQUIREMENTS

Students who complete the following requirements graduate from the College of Education with a bachelor of science degree and receive, upon application, the recommendation for an appropriate Minnesota teaching license.

Students should read carefully the credit requirements of the curriculum in which they are interested. These requirements are listed in this section of the bulletin.

Amount and Quality of Work—Completion of a minimum of 186 credits (in some specialized curricula, the number of credits is more than 186) with a C (2.00) average, including the specified course work in physical education and public health, is required for graduation. In the teaching major, except in elementary education and agricultural educa-

Procedures and Policies in the College of Education

tion, a grade average of C + (2.50) is required; for elementary education a grade average of C (2.00) is required, and for agricultural education a grade average of 2.30 is required. In the teaching minor, a grade average of C (2.00) is required. These grade averages are based on University of Minnesota work, exclusive of General College courses.

Some departments grant credit for independent study under a specified course number.

S-N Grading—The use of S-N grading is strictly limited by the College of Education. Undergraduates, master of education, and adult special students may register for most College of Education courses on an A-N basis only. In a few courses, S-N grading is permitted; such courses are designated "S-N optional" in the course listings in section IV of this bulletin. Students interested in taking a course on S-N grading should check with the department offering the course.

Professional Requirements—Professional education courses are reserved for students admitted to approved licensure programs. The requirements for these programs are outlined in the curricular descriptions that follow in this section of the bulletin.

Special Requirements—State law requires that all candidates for licensure complete course work in public health, drug education, and physical education. Students in the College of Education must complete these requirements before graduation but need *not* complete them before applying for transfer to the college. The drug education requirement may be met by completing PubH 3004, Basic Concepts in Personal and Community Health (five credits). The physical education requirement of three credits may be met by completing appropriate courses offered by the Division of Physical Education.

A State Board of Teaching regulation requires that all applicants for teacher licensure complete a program in human relations prior to graduation. Undergraduate students in the College of Education meet a portion of this requirement through methods courses and other experiences and the balance by completing PsyF 3380, Introduction to Human Relations (three credits). Postbaccalaureate students who wish to qualify for licensure should register for six credits in PsyF 5305, Workshop in Human Relations.

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 program* must be earned in residence. These are minimum residence requirements for the degree and recommendation for teaching licensure.

The required courses in education are arranged in a sequence for the junior and senior years. Students who do not enter the College of Education by the fall or winter quarter of their junior year may need to enroll in the summer terms preceding their senior year in order to complete the professional sequence.

Degrees and Honors—College of Education graduates receive the bachelor of science degree upon completion of their undergraduate program. If they qualify, they may earn their degree with honors. Graduation with honors is awarded only to students who earn their first four-year degree from this college; those entering with a previously earned bachelor's degree are not eligible.

Eligibility for honors is computed at the time of application for graduation; students need not file a separate application to be considered. To earn the degree with distinction, a minimum of 45 credits must be completed in residence before the final quarter of the senior year; credits and grades for the final quarter of work required for the degree, and any subsequent work, cannot be included in the computation. To graduate with distinction, a minimum grade point average of 3.50 is required for all course work completed at the University and 3.60 for all course work completed in the junior and senior years.

CURRICULA

Child Psychology

Willard Hartup, Director, 196 Child Development

A major in child psychology is offered through the College of Liberal Arts. Students interested in the B.A. degree in this area should consult the *College of Liberal Arts Bulletin*. The College of Education offers a program in nursery school and kindergarten education. For information, see Elementary Education in this section of the bulletin. Students interested in a postbaccalaureate program in child psychology should see the description for that field in section III of this bulletin and consult the *Graduate School Bulletin*.

Curriculum and Instruction

Robert Dykstra, Chairman, 130 Peik Hall

ART EDUCATION

The curriculum in art education prepares students for Minnesota licensure for teaching art in elementary and secondary schools. The curriculum includes basic training in art; an opportunity to specialize, through selection of electives, in an area of particular interest in art; a balanced general education; and professional preparation for teaching.

Students register for courses in liberal arts areas for the first year and apply for admission early in the quarter in which they have completed 45 credits, 15 of which must be in the major field.

The criteria for consideration for admission are (a) completion of clearance procedures; (b) completion of 45 credits including 15 credits in the major; (c) a minimum grade average of C + (2.50) in the major and C (2.00) overall; and (d) faculty review of a portfolio with representative samples of the applicant's work. In addition, the nature and scope of the applicant's prior work with children and assessment of personal characteristics are considered.

In the major, a C+ average, which is also required for admission to the college, admission to student teaching, and graduation, must be earned in all art and art education courses. Students are expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. Appropriate related and major courses may be applied toward these requirements. A minor in a teaching subject, as listed in this bulletin, is recommended. As an alternative, 15 credits at the 3000 and 5000 levels outside both the major field and professional education courses may be chosen. In either case, a C average is required for this part of the program.

Students who major or minor in art education must file an approved program with the art education adviser at least two full quarters prior to their expected date of graduation.

Major in Art Education

Major Courses (minimum 56 credits)

Courses chosen to meet this requirement will be selected with departmental approval to meet the needs of the individual student. A minimum of 12 credits in studio art course work must be taken in residence.

Art History and Theory—minimum of 16 credits

Studio Courses—minimum of 40 credits. A well-balanced program with 12 credits in one area of emphasis is recommended. Suggested are:

- ArEd 3009—Weaving Without a Loom (4)
- ArEd 3010—Introduction to Weaving (4)
- ArEd 3020—Contemporary Crafts (4)
- ArtS 1101—Drawing I (4)
- ArtS 1301—Sculpture (4)
- ArtS 1520—Printmaking: Lithography (4)
- ArtS 1701—Photo Medium (4)
- ArtS 1801—Ceramic Processes (4)
- Dsgn 1525—Two-Dimensional Design I (4)
- Dsgn 1533—Metalsmithing: Introduction to Techniques (4)

Professional Education Courses (minimum 51 credits)

- ArEd 3000—Art of Children (3)
- ArEd 3110—Curriculum Development in Art (3)
- ArEd 3120—Newer Media in Art Curriculum (3)
- ArEd 3130—Community and School Resources in Art Curriculum (3)
- 6 credits in ArEd 3200—Field Experiences in Art Education (3-9)
- 12 credits in ArEd 3600—Student Teaching and Supervision of Art (3, 6, or 12)
- ArEd 3610—Teaching Art in the Schools (3)
- ArEd 3800—Current Trends in Art Education (3)
- Elem 3100—Psychological Foundations of Elementary Education (4)
- Phil 3502—Introduction to Aesthetics (5) (or) ArEd 5389—Application of Aesthetic Theory in Education (3)
- PsyS 3106—Exceptional Students in Regular Classes (2)
- SeEd 3150—Introduction to Secondary School Teaching (5)
- SPFE 3090—The School and Society (3)

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Electives to complete a total of 186 credits. Recommended are the continuation of a language begun in high school, speech and theatre arts, philosophy, history, sociology, psychology, sports, dance, journalism, music, or literature. Electives may be in art courses beyond the minimum requirements.

Minors in Art Education

Minor in Elementary School Art (minimum 29 credits)

Minor Courses

- ArEd 3001—Survey of Art Activities (4)
- ArEd 3020—Contemporary Crafts (4)
- 12 credits from studio art, art history, or design

Professional Courses

- ArEd 3000—Art of Children (3)
- ArEd 3100—Art for Young Learners (3)
- 3 cr in ArEd 3200—Field Experiences in Art Education (3-9)

Note: Completion of 5 additional credits in studio art courses will satisfy the requirement of an academic minor in the elementary education major for undergraduate students.

Undergraduate Programs in the College of Education

Minor in Secondary School Art (minimum 29 credits)

Minor Courses

ArEd 3020—Contemporary Crafts (4)

4 credits in art history and theory

Electives—12 credits including a minimum of 8 in drawing and design

Professional Courses

ArEd 3000—Art of Children (3)

ArEd 3110—Curriculum Development in Art (3)

3 credits in ArEd 3200—Field Experiences in Art Education (3-9)

ELEMENTARY EDUCATION

The curricula outlined below prepare students for recommendation for licensure to teach in elementary schools. Two basic programs are offered for persons of differing backgrounds in education, training, and experience: a major in elementary education for undergraduate students and a major in elementary education for students who already hold a B.A. or B.S. degree. Upon completion of the chosen program, students are eligible for recommendation for licensure to teach grades 1 through 6 in the state of Minnesota. The kindergarten program is offered for those who wish to add this endorsement to an elementary teaching license.

Elementary education programs have a limited enrollment. Applications for these programs must be received in the Office of Admissions no later than the close of the first week of the quarter before entry. Students seeking admission should inquire at the Education Career Development Office, 1425 University Avenue S.E., for current information on admission procedures and assistance in choosing a curriculum. After admission to the College of Education, students will be assigned an adviser in the area of elementary education.

Major in Elementary Education for Undergraduate Students

Students should take liberal arts course work for the first two years and apply for admission to the program early in the quarter in which they will have completed 90 quarter credits. Applications for fall admission must be received by the Office of Admissions no later than the end of the first week of the previous spring quarter; applications for winter admission no later than the end of the first week of fall quarter. Students are not admitted for the spring quarter or summer terms.

The criteria for consideration for admission are:

1. Completion of freshman English and the general psychology requirement.
2. Completion of 90 quarter credits with a grade average of C (2.00). Preference will be given to applicants with a higher grade average.
3. Completion of all but 12 or fewer credits of items 1 through 5 of the Related Course Requirements listed below.

The nature and scope of the applicant's prior work with children and an assessment of personal characteristics are also considered. Students are expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. Appropriate related and major courses may be applied toward these requirements.

Related Course Requirements

1. Spch 1101—Fundamentals of Speech Communication: Oral Communication (4)
(or) Spch 1102—Fundamentals of Speech Communication: Communication Processes (4)
2. Math 1005-1006—Foundations of Arithmetic (3 cr each)
3. 13 credits in science including courses in physical and biological sciences

4. 12 credits chosen from at least two of the following areas: anthropology, economics, geography, history, political science, social science, and sociology
5. Mus 1001—Fundamentals of Music (4)
6. 18 credits in courses at the 3000 and 5000 levels including Engl 3851—The English Language (4). (Students may also apply PubH 3004, any credits in 1000-level courses in physical and biological sciences in excess of the 13-credit requirement, and credits in mathematics courses numbered 1142 or above toward meeting this requirement)
7. A concentration of 30 credits in any one of the following fields: anthropology, art, economics, English, a second language, geography, history, humanities, mathematics, music, philosophy, political science, psychology, science, sociology, speech. Courses from items 1 through 6 may be included.
8. ArEd 3001—Survey of Art Activities (4)

Major and Professional Courses

Elem 3100—Psychological Foundations of Elementary Education (4)

Elem 3101—Introduction to Elementary School Teaching (3)

Basic Methods Courses:

Elem 3300—Children's Literature (3)

Elem 3316—Teaching English in the Elementary School (3)

Elem 3331—Teaching Reading in the Elementary School (3)

Elem 3346—Teaching Science in the Elementary School (3)

Elem 3361—Teaching Social Studies in the Elementary School (3)

Elem 3391—Teaching Mathematics in the Elementary School (3)

Students may apply only two basic methods courses taken outside of the College of Education. Students must complete a minimum of 12 credits of the methods courses prior to the first quarter of student teaching.

6 credits in Elem 3621—Junior Practicum in Elementary Education (1 or 2)

Minimum of 12 credits in student teaching from Elem 3600, 3601, 3603, 3605, 3606, 3607, 3610

ArEd 3000—Art of Children (3)

Hlth 3330—Teaching Health in the Elementary School (3)

MuEd 3011—Teaching Music in the Elementary School (4)

PsyS 3106—Exceptional Students in Regular Classes (2)

SPFE 3090—The School and Society (3)

Special Requirements for All Students

PE 3327—Teaching Physical Education in the Elementary School (3), which completes the physical education requirement

PsyF 3380—Introduction to Human Relations (3)

PubH 3004—Basic Concepts in Personal and Community Health (5)

Electives to complete 186 credits

Quality of Work—For admission to student teaching and for graduation students must earn a C (2.00) average for the total program and C (2.00) average separately for the major and professional education courses.

Major in Elementary Education for Postbaccalaureate Students

Satisfactory completion of this program will culminate in a B.S. degree with a major in elementary education and recommendation by the college for licensure to teach grades 1 through 6 in the state of Minnesota.

A limited number of students are accepted into the program each academic year. Applications are considered for fall quarter admission only and must be received in the Office of Admissions no later than the end of the first week of the previous spring quarter. Criteria for consideration for admission include a baccalaureate degree from an accredited institution with a minimum overall grade average of C+ (2.50).

Undergraduate Programs in the College of Education

The content of the baccalaureate program must meet the minimum liberal education distribution requirements (listed at the beginning of this section of the bulletin) and must include the liberal arts prerequisites for professional education courses; or the student must complete these deficiencies during the summer terms prior to the fall quarter in which he or she enters the program. The liberal arts prerequisites entail completion of one course each in general psychology, foundations of arithmetic, fundamentals of music, and linguistics, as well as one course in public health that will satisfy the licensure requirement of the State Board of Teaching.

Students admitted to this program are required to attend full time and to complete a minimum of 12 credits per quarter with a minimum grade average of C (2.00).

Major and Professional Courses (minimum 45 credits)

- Elem 3100—Psychological Foundations of Elementary Education (4)
- Elem 3101—Introduction to Elementary School Teaching (3)
- Elem 3300—Children's Literature (3)
- Elem 3316—Teaching English in the Elementary School (3)
- Elem 3331—Teaching Reading in the Elementary School (3)
- Elem 3346—Teaching Science in the Elementary School (3)
- Elem 3361—Teaching Social Studies in the Elementary School (3)
- Elem 3391—Teaching Mathematics in the Elementary School (3)
- Minimum of 10 credits in student teaching from Elem 3600, 3601, 3603, 3605, 3606, 3607, 3610
- MuEd 3011—Teaching Music in the Elementary School (4)
- PE 3327—Teaching Physical Education in the Elementary School (3)
- PsyF 3380—Introduction to Human Relations (3)
- PsyS 3106—Exceptional Students in Regular Classes (2)
- Electives to complete the minimum 45 credits

Kindergarten Endorsement Program

Students who wish to be licensed for kindergarten teaching are required to complete the following courses with a grade average of C (2.00) in addition to the major for undergraduate students or the major for postbaccalaureate students as outlined above:

- Elem 3376—Nursery School-Kindergarten Curriculum I (3)
- Elem 3377—Nursery School-Kindergarten Curriculum II (3)
- Elem 3603—Student Teaching in the Kindergarten (6)—substituted for Elem 3601 in the elementary major
- CPsy 1301—Introductory Child Psychology (4)

Teaching Educationally Disadvantaged Children

Elementary education advisers will assist interested students in planning for a special emphasis on the teaching of the disadvantaged, through course selection and student teaching assignment. Such students should consult their advisers as early as possible in their junior year.

Nursery School Licensure

Note: Students who wish to be recommended for Minnesota state nursery school teacher licensure must be admitted to this program. Interested students should consult the program coordinator, 226B Child Development, or call 376-8085. Junior or senior undergraduate students enrolled in any program within the University or students who already have earned a degree may apply to this program, which can be taken in conjunction with a student's undergraduate program or graduate program or under adult special status. The state requirement for course work in the area of human relations must be met by registra-

tion in PsyF 3380, Introduction to Human Relations, offered either on campus or through Continuing Education and Extension in the community; students should consult the program adviser.

Early Childhood Education—15 credits

- Elem 3376—Nursery School-Kindergarten Curriculum I (3)
- Elem 3377—Nursery School-Kindergarten Curriculum II (3)
- Elem 3378—Social Learning in Early Childhood Education (3)
- 6 credits in Elem 3604—Student Teaching in the Nursery School (3-6)

Child Psychology—12 credits

CPsy 1301—Introductory Child Psychology (4)

Two additional courses from List A, or one course from List A and one course from List B:

List A

- CPsy 3302—Infancy (4)
- CPsy 3311 or 5311—Behavioral and Emotional Problems (4 each)
- CPsy 3330—Directed Experiences (1-4)
- CPsy 3331 or 5331—Processes of Socialization of Children (4 each)
- CPsy 3347—Children's Learning and Intellectual Skills (4)
- CPsy 5310—Topics in Child Psychology (1-4)
- CPsy 5329—Genetics, Ethology, and Development (4)
- CPsy 5333—Personality Development (4) (offered alternate years)
- CPsy 5335—Peer Relations (4)
- CPsy 5339—Parent-Child Relations (4) (offered alternate years)
- CPsy 5341—Perceptual Development (4)
- CPsy 5343—Cognitive Development (4)
- CPsy 5345—Language in Children (4)

List B

- Anth 5183—Human Physical Growth and Development (5)
- FSoS 5200—Family Relationships (5)
- Soc 5505—Family Development (5)

SECONDARY EDUCATION

Admission to Secondary Education—Students planning to teach in language arts, second languages, mathematics, science, or social studies must complete two years of preprofessional work in liberal education areas before transferring to the College of Education. Applications for admission must be received by the Office of Admissions early in the quarter preceding that quarter for which admission is sought. Not all major areas admit students each quarter.

Criteria for admission include:

1. Completion of 90 quarter credits, including 25 credits in the major, or 15 credits in the major and 10 credits in a teaching minor.
2. A minimum grade average of C (2.00) overall, C+ (2.50) in major courses, and C (2.00) in minor courses. Since a minor is not required with a major in any of the social studies fields, students in these fields must have completed a minimum of 25 credits in the major and supporting fields with a C+ (2.50) grade average.
3. Completion of general psychology and most of the liberal education distribution requirements.

Requirements for Licensure and Graduation—University students who seek recommendation for Minnesota licensure in a subject area in the secondary schools (grades 7-12) must complete the appropriate program within the College of Education. Students

Undergraduate Programs in the College of Education

planning to teach outside of Minnesota may have their program modified to meet the specific requirements of the state in which they plan to teach. In selecting a major or minor, students should (a) choose from those subjects commonly taught in high schools, with regard to placement opportunities; (b) study the requirements in their chosen field described in this section, noting that some majors require a specific minor; and (c) make the decision as early as possible in their academic career.

Persons presently holding a teaching minor who wish to upgrade the minor to a major should contact an appropriate secondary education adviser in one of the following areas: English education, science education, mathematics education, second language education, or social studies education. The faculty member will help the student to develop a program of study that qualifies for licensure in the major.

English, Speech-Communication, Theatre Arts

Major in English

Students intending to major in English should take course work for the first two years in liberal education areas. During this time they must complete a minimum of 16 credits in English courses beyond freshman English, including Comp 1027 or 3030. Requirements for admission to a secondary education program are listed in this subsection.

English majors have the option of completing a presently defined minor or declaring a supporting area of study developed by the individual student in cooperation with his or her program adviser and approved by the Student Progress Committee.

Students are expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. Appropriate related and major courses may be applied toward these requirements.

Students who major or minor in English must file an approved program with the English education adviser at least two full quarters prior to their expected date of graduation.

Major Courses (minimum 52 credits)

- 8 credits in history and development of English literature: 4 credits at 1000 level and 4 credits at 3000 or 5000 level
- 8 credits in history and development of American literature: 4 credits at 1000 level and 4 credits at 3000 or 5000 level
- 4 credits in the study of a single major English or American literary figure (a course in Shakespeare is strongly recommended)
- 8 credits in the English language: Engl 5851—Structure of Modern English (4) (and) one course from Engl 5815—History of the English Language (4) (or) Engl 5831—American English (4) (or) Engl 5843—American Social Dialects (4)
- 8 credits in composition: 4 credits from Comp 1027—Intermediate Composition (4) (or) Comp 3030—Topics in Advanced Composition (4) (or) Comp 3085—Conference Course in Advanced Composition (1-4) (and) 4 credits from Comp 1027 (or) Comp 3030 (4) (or) Comp 3085 (1-4) (or) any 1000-, 3000-, or 5000-level nonfiction, fiction, or poetry writing course
- 8 credits in speech and theatre: one course from Spch 1101, 1102, 1104 (and) one course from Th 1101, 1504, 3801
- Electives—8 credits in 3000- and 5000-level courses chosen from English; humanities; AmSt 3111, 3112, 3113; Arth 3921

Professional Education Courses (minimum 38 credits)

- SeEd 3150—Introduction to Secondary School Teaching (5)
- SeEd 3155—Psychological Foundations of Secondary Education (5)
- SeEd 3320—Bases for Instruction in Language in Secondary English Curricula (3)
- SeEd 3325—Instructional Practice in English, Speech, and Theatre Arts (4)

- SeEd 3326—Teaching Adolescent Literature (3)
- SeEd 3327—Teaching of Writing in Secondary Schools (3)
- SeEd 3331—Introduction to Teaching Reading in Content Areas (3)
- SeEd 3621—Directed Experience in Teaching English, Speech, and Theatre Arts (6-9)
- PsyS 3106—Exceptional Students in Regular Classes (2)
- SPFE 3090—The School and Society (3)
- Electives—one course from SeEd 5175, 5176, 5320, 5324, 5325, 5326, 5340, 5404

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Note: Students are encouraged to elect enrollment in SeEd 3151—Directed Study to explore problems and issues beyond the scope of required courses. Individual faculty members will advise.

Minor in English

Minor Courses (minimum 32 credits)

- 8 credits in history and development of English literature: 4 credits at 1000 level and 4 credits at 3000 or 5000 level
- 8 credits in history and development of American literature: 4 credits at 1000 level and 4 credits at 3000 or 5000 level
- Engl 5851—Structure of Modern English (4)
- Comp 1027—Intermediate Composition (4) (or) Comp 3030—Topics in Advanced Composition (4)
- Spch 1101—Fundamentals of Speech Communication: Oral Communication (4)
- Th 1101—Introduction to Theatre Arts (4) (or) Th 1504—Elements of Technical Theatre (4) (or) Th 3801—Oral Interpretation of Fiction (4)

Professional Education Courses

One course from two of the following categories:

1. SeEd 3320—Basis for Instruction in Language in Secondary English Curricula (3) (or) SeEd 5404—Language, Culture, and Education (4)
2. SeEd 3326—Teaching Adolescent Literature (3) (or) SeEd 5321—Teaching Literature in Secondary Schools (3)
3. SeEd 3327—Teaching of Writing in the Secondary School (3) (or) SeEd 5322—Teaching Composition and Communication in Junior and Senior High Schools (3)
4. SeEd 3331—Introduction to Teaching Reading in the Content Areas (3) (or) SeEd 5344—Teaching Reading in the Content Areas (3)

Supporting Field in Reading

Students majoring in English may complete a supporting field in reading in lieu of a traditional minor. The supporting field is designed to assist persons who may be teaching slow readers in remedial classes or be teaching below-average, average, and above-average readers in content classes.

The supporting field requires a minimum of 28 credits in reading and related areas. The following courses are required and constitute 21 of the required credits. They are listed in the optimal order for taking them.

Undergraduate Programs in the College of Education

- SeEd 3331—Introduction to Teaching Reading in the Content Areas (3)
Elem 5331—Teaching and Supervision of Reading in the Elementary School (3)
Elem 5334—Reading Difficulties (3)
SeEd 5175—Secondary Remedial Reading Instruction (3)
6 credits in SeEd 5615—Practicum in Secondary Reading: Tutorial Remedial Students (3)
SeEd 5344—Teaching Reading in Content Areas (3)
The remaining courses may be taken in any sequence:
One of the following: CPsy 5303, 5341, 5343, 5345 (and)
One of the following: Elem 5338, 5107; PsyS 5101; SeEd 5320

Correct sequencing of the courses requires that students should carefully plan their supporting field program when they enter the College of Education.

Major in Speech-Communication

Students majoring in speech-communication take course work for the first two years in liberal education areas, completing a minimum of 16 credits in speech, including Spch 1101, and a minimum of 8 credits of English beyond freshman English. Requirements for admission to a secondary education program are listed at the beginning of this subsection.

Students are expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. Appropriate related and major courses may be applied toward these requirements.

A grade average of C+ (2.50) in major courses and C (2.00) in minor courses is required.

Major Courses (minimum 48 credits)

Spch 1101—Fundamentals of Speech Communication: Oral Communication (4)

One class from each of the following areas for a minimum of 28 credits:

1. Theory and practice in advanced public speaking
Spch 3605—Public Speaking (4)
2. Speech science
CDis 3101—Introduction to Speech Pathology and Audiology (4)
3. Theory and practice in the deliberative process
Spch 3641—Discussion and Conference Methods (4) (or) Spch 3601—Approaches to Public Discourse (4) (or) Spch 3615—Argumentation (4)
4. Theory and practice in oral interpretation
Th 3801—Oral Interpretation of Fiction (4)
5. Communication theory, language and human behavior
Spch 3401—Theories of Interpersonal Communication (4) (or) Spch 5404—Language, Culture, and Education (4)
6. Theory and practice in broadcast media
Spch 3201—Introduction to Broadcasting Production (4)
7. Rhetorical theory, history, and criticism of public address
Spch 5611—Classical Rhetoric (4) (or) Spch 5615—Introduction to Rhetorical Criticism (4) (or) Spch 5616—Public Address in Britain and the Commonwealth (4) (or) Spch 5617—History and Criticism of American Public Address (4)

Electives—16 credits from at least two of the above seven areas of study, but not restricted to those specific courses listed above

Professional Education Courses (minimum 35 credits)

- SeEd 3150—Introduction to Secondary School Teaching (5)
- SeEd 3155—Psychological Foundations of Secondary Education (5)
- SeEd 3325—Instructional Practice in English, Speech, and Theatre Arts (4)
- SeEd 3621—Directed Experiences in Teaching English, Speech, and Theatre Arts (6-9)
- SeEd 5340—Teaching Speech and Forensics in Secondary Schools (3)
- PsyS 3106—Exceptional Students in Regular Classes (2)
- SPFE 3090—The School and Society (3)
- Electives—Three courses from SeEd 3320, 3327, 3331, 5175, 5176, 5194, 5320, 5324, 5325, 5326, 5404

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Because of the close relationship between English and speech in Minnesota high schools, *students majoring in speech must minor in English*. Modification of the minor requirement may be made on recommendation of the program area adviser with the approval of the Student Progress Committee, but all speech majors must complete Comp 1027 or 3030 and one course from Engl 5831, 5843, 5851. In addition to the course work listed above, all speech majors are required to participate in one or more activities such as debate, theatre, and broadcasting.

Minor in Speech-Communication

Minor Courses (minimum 28 credits)

- Spch 1101—Fundamentals of Speech Communication: Oral Communication (4)
- 24 credits from six of the seven areas of study listed in the speech-communication major above

Note—English majors who are minoring in speech-communication may count the speech-theatre component of the English major as part of this minor if course work is properly selected. Such students should take Spch 1101, Th 3801, and 4 credits from Spch 3401, 3605, or 3641 to satisfy both major and minor requirements.

Major in Theatre Arts

Students majoring in theatre arts take courses for the first two years in liberal education areas, completing a minimum of 16 credits in the theatre courses listed below and a minimum of 8 credits of English beyond freshman English. Requirements for admission to a secondary education program are listed at the beginning of this subsection.

Students are expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. Appropriate related and major courses may be applied toward these requirements.

A grade average of C+ (2.50) in major courses and C (2.00) in minor and related courses is required. In addition to the course work listed, majors and minors are required to participate in theatre and/or oral interpretation activities.

Major Courses (minimum 46 credits)

- Th 1101—Introduction to Theatre Arts (4)
- Th 1321—Beginning Acting: Creative Approach (4)
- Th 1504—Elements of Technical Theatre (4)
- Th 3311—Voice Production for the Theatre (2)

Undergraduate Programs in the College of Education

- Th 3513, 3515—Technical Theatre Production I, II (4 each)
- Th 3708—Play Production: Secondary School (4) (or) Th 3711—Stage Direction (4)
(or) Th 5711—Stage Direction (4)
- Th 3801—Oral Interpretation of Fiction (4)
- Th 5712—Stage Direction (4)
- Spch 1104—Fundamentals of Speech Communication: The Creative Process and the
Mass Media (4)
- Electives—8 credits in theatre courses selected with CLA and College of Education
theatre advisers

Professional Education Courses (minimum 35 credits)

- SeEd 3150—Introduction to Secondary School Teaching (5)
- SeEd 3155—Psychological Foundations of Secondary Education (5)
- SeEd 3325—Instructional Practice in English, Speech, and Theatre Arts (4)
- SeEd 3621—Directed Experience in Teaching English, Speech, and Theatre Arts (6-
9)
- SeEd 5324—Curriculum Problems and Issues in Teaching Theatre Arts in Secondary
Schools (3)
- PsyS 3106—Exceptional Students in Regular Classes (2)
- SPFE 3090—The School and Society (3)
- Electives—Three courses from SeEd 3320, 3326, 3327, 3331, 5175, 5176, 5194,
5320, 5325, 5326, 5340, 5404

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Because of the close relationship between English and theatre arts in Minnesota high schools, *students majoring in theatre arts must minor in English*. Modification of the minor requirement may be made on recommendation of the program area adviser with the approval of the Student Progress Committee, but all theatre arts majors must complete Comp 1027 or 3030 and one course from Engl 5831, 5843, 5851.

Minor in Theatre Arts

Minor Courses (minimum 28 credits)

- Th 1101—Introduction to Theatre Arts (4)
- Th 1321—Beginning Acting: Creative Approach (4)
- Th 1504—Elements of Technical Theatre (4)
- Th 3708—Play Production: Secondary School (4) (or) Th 3711—Stage Direction (4)
- Th 3801—Oral Interpretation of Fiction (4)
- Spch 1104—Fundamentals of Speech Communication: The Creative Process and the
Mass Media (4)
- One theatre course to be elected

Journalism

Journalism is not presently offered as a teaching major; however, it 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.

Minor in Journalism

Minor Courses (minimum 23 credits)

- Jour 1001—Introduction to Mass Communication (2)
- Jour 1011—Journalistic Techniques for Nonmajors (5)
- Jour 3182—Supervision of School Publications (4)
- Jour 3776—Mass Communications Law (4)
- Jour 5221—Publication Graphics (4)
- One course from Jour 1201, 3301, 5501, 5601

Mathematics

Major in Mathematics

A minimum of three years of high school mathematics that includes a foundation in solid geometry is a prerequisite for both majors and minors in mathematics. Four years of high school mathematics are recommended. Students take course work for the first two years in liberal education areas and meet the requirements for admission to a secondary education major. Mathematics courses prerequisite to Math 1211 (Calculus I) cannot be applied toward the major. Students must select one or more minors from those subjects commonly taught in the high school, or a supporting field chosen with the approval of the mathematics education adviser. Requirements for admission to a secondary education program are listed in this subsection.

Students are expected to complete the liberal education distribution requirements as specified at the beginning of this section of the bulletin. Appropriate major courses may be applied toward these requirements.

Because of the sequential nature of the professional education courses, students ordinarily complete the program in a minimum of five quarters.

Major Courses (minimum 48 credits)

- Math 1211-1221-1231—Calculus I-II-III (5 each) (or) Math 1311-1321-1331—Computer Calculus I-II-III (5 each) (or) Math 1511H-1521H-1531H—Honors Calculus I-II-III (5 each) (or) Math 1611-1621—Accelerated Calculus I-II (5 each)
- Math 3211—Multivariable Calculus (5) (and) Math 3142—Introduction to Linear Algebra (4) (and) Math 3066—Elementary Differential Equations (4) (or) Math 3511-3521-3531—Linear Analysis I-II-III (5 each) (or) Math 3611—Multivariable Calculus (5) (and) Math 3621, 3631—Linear Mathematics (5 each)
- Math 3581—Foundations of Arithmetic (4)
- Math 3582—Foundations of Algebra (4)
- Math 3583—Foundations of Geometry (4)
- CSci 1100, 1101—Introduction to FORTRAN Programming I, II (2 each) (or) CSci 3101—A FORTRAN Introduction to Computer Programming (4) (or) CSci 3104—Introduction to Programming and Problem Solving (4)
- One of the following:
 - Stat 3091, 5121, 5131; Math 5679, 5681, 5701

Professional Education Courses (minimum 36 credits)

- SeEd 3150—Introduction to Secondary School Teaching (5)
- SeEd 3155—Psychological Foundations of Secondary Education (5)
- SeEd 3365—Teaching Secondary School Mathematics (4)
- SeEd 3368—Teaching Secondary School Mathematics (3)
- 12 credits in SeEd 3661—Student Teaching in Mathematics (3-6-9-12)
- 4 credits in SeEd 3152—Practicum: Secondary Education (1-7) (1 credit taken concurrently with each of SeEd 3150 and 3155; 2 credits taken concurrently with SeEd 3365)
- PsyS 3106—Exceptional Students in Regular Classes (2)
- SPFE 3090—The School and Society (3)

Undergraduate Programs in the College of Education

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Minor in Mathematics

Minor Courses (minimum 36 credits)

- Math 1211-1221-1231—Calculus I-II-III (5 each) (or) Math 1311-1321-1331—Computer Calculus I-II-III (5 each) (or) Math 1511H-1521H-1531H—Honors Calculus I-II-III (5 each)
- Math 3211—Multivariable Calculus (5) (or) Math 3511—Linear Analysis I (5) (or) Math 3611—Multivariable Calculus (5)
- Math 3581—Foundations of Arithmetic (4)
- Math 3582—Foundations of Algebra (4)
- Math 3583—Foundations of Geometry (4)
- One other 4-credit course selected from the requirements for the mathematics major

Professional Education Courses

- SeEd 3365—Teaching Secondary School Mathematics (4)
- 6 credits in SeEd 3661—Student Teaching in Mathematics (3-6-9-12)
- 2 credits in SeEd 3152—Practicum: Secondary Education (1-7) (to be taken concurrently with SeEd 3365)

Science

Students planning to teach science in Minnesota secondary schools will be recommended for appropriate licensure upon completion of a major program for junior and senior high school teaching (grades 7-12) in life science, earth science, or physical science; or a broad area science major program for middle and junior high school teaching (grades 5-9 only); or a minor in life science, earth science, chemistry, or physics. Combinations of majors and/or minors are possible through completion of the requirements of the programs involved. The life science-broad area science major is one such combination.

Requirements for admission to a secondary education program are listed at the beginning of this subsection. Early consultation with an undergraduate program coordinator is strongly recommended because required education methods and student teaching courses may not be offered every quarter.

Students are expected to complete the liberal education distribution requirements detailed at the beginning of this section of the bulletin. Appropriate science courses may be applied to meet both these requirements and those of the major or licensure program.

See Professional Education Courses and Special Requirements for All Students following the description of the majors and minors for a listing of additional courses required for certain of the major programs.

Major in Earth Science (Grades 7-12)

Students completing this program will be recommended for Minnesota licensure to teach earth sciences full time in the junior and senior high schools. It is recommended that a course in the history of science be included in group C of the liberal education distribution requirements. Grade averages of C + (2.50) in the earth science courses and C (2.00) in the broad base science courses are required.

Broad Base Science Course Requirements (minimum 38 credits)

- One course in general biology and two additional courses in biological science
- Two courses in general chemistry
- Two courses in general physics with laboratory. A three-quarter sequence of courses is recommended for students planning to elect further work in earth science.
- One elective course in either chemistry or physics

Earth Science Courses (minimum 40 credits)

- One course in each of the following areas selected with consent of an adviser: physical and historical geology, oceanography or limnology, environmental or human-oriented geology, astronomy, soil science, meteorology, plus electives to total 40 credits

Professional Education Courses and Special Requirements for All Students are listed at the end of the major and minor requirements.

Minor in Earth Science (Grades 7-12)

Students completing this program together with another College of Education licensure program or major will be recommended to teach junior and senior high school earth science part time. A grade average of C (2.00) in all science courses is required.

Broad Base Science Course Requirements (minimum 29 credits)

- One course in general biology and one additional course in biological science
- Two courses in general physics with laboratory
- Two courses in general chemistry

Earth Science Courses (minimum 22 credits)

- One course in each of the areas of physical and historical geology, astronomy, meteorology, and soil science

Professional Education Courses (minimum 10 credits)

- SeEd 3357—Teaching Secondary School Science (4) (science majors exempt)
- 6 credits in SeEd 3651—Student Teaching in Science (1-3-6-9-12)

Major in Life Science (Grades 7-12)

Students completing this program will be recommended for Minnesota licensure to teach senior high school life science (biology) full time, junior high school life science full time, and junior high school physical science part time. It is recommended that a course in the history of biology be included in group C of the liberal education distribution requirements. Grade averages of C+ (2.50) in life science courses and C (2.00) in broad base science courses are required.

Broad Base Science Course Requirements (minimum 30 credits)

- Two courses in general physics with laboratory
- Two courses in general chemistry
- One course in geology
- One course in astronomy

Life Science Courses (minimum 50 credits)

- 50 credits selected with the consent of an adviser, to include two courses in biochemistry or organic chemistry and at least one course in each of the following fields: ecology, general biology, general botany or plant biology, general zoology or animal biology, genetics, history of biology, microbiology, and physiology

Professional Education Courses and Special Requirements for All Students are listed at the end of the major and minor requirements.

Undergraduate Programs in the College of Education

Minor in Life Science (Grades 7-12)

Students completing this program together with another College of Education licensure program or major will be recommended to teach junior and senior high school life science part time. A grade average of C (2.00) in life science and broad base science courses is required.

Broad Base Science Course Requirements (minimum 30 credits)

Two courses in general chemistry and two courses in general physics with laboratory
One course in geology and one course in astronomy

Life Science Courses (minimum 29 credits)

29 credits selected with the consent of an adviser from the following fields: general biology, general botany or plant biology, general zoology or animal biology, ecology, physiology, and microbiology

Professional Education Courses (minimum 10 credits)

SeEd 3357—Teaching Secondary School Science (4) (science majors exempt)
6 credits in SeEd 3651—Student Teaching in Science (1-3-6-9-12)

Major in Physical Science (Grades 7-12)

Students completing this program will be recommended for Minnesota licensure to teach senior high school physical science including chemistry and physics full time and physical science full time in the junior high school. It is recommended that a course in the history of science or, preferably, the history of physics be included in group C of the liberal education distribution requirements. Grade averages of C+ (2.50) in either chemistry or physics courses and C (2.00) in all other science courses are required.

Broad Base Science Course Requirements (minimum 21 credits)

One course in each of these areas: physical geology, calculus-based astronomy, and meteorology

One course in general biology and at least one course in biological science

Physical Science Courses (minimum 56 credits)

A three-quarter sequence in general physics with laboratory

Two courses in general chemistry

One course selected with consent of the adviser in each of the following areas: wave concepts, modern physics, solution chemistry, analytical chemistry, organic chemistry, and physical chemistry

Electives in chemistry and physics

Professional Education Courses and Special Requirements for All Students are listed at the end of the major and minor requirements.

Minor in Chemistry (Grades 7-12)

Students completing this program together with another College of Education licensure program or major will be recommended to teach chemistry part time in senior high schools, and junior and senior high school physical science part time. A grade average of C (2.00) in chemistry and broad base science courses is required.

Broad Base Science Course Requirements (minimum 27 credits)

One course in general biology and one additional course in biological science

One course each in geology, astronomy, meteorology

At least two quarters of a three-quarter sequence of general physics with laboratory

Chemistry Courses (minimum 22 credits)

- Two courses in general chemistry
- One course in organic chemistry
- Electives from solution, analytical, or physical chemistry

Professional Education Courses (minimum 10 credits)

- SeEd 3357—Teaching Secondary School Science (4) (science majors exempt)
- 6 credits in SeEd 3651—Student Teaching in Science (1-3-6-9-12)

Minor in Physics (Grades 7-12)

Students completing this program together with another College of Education licensure program or major will be recommended to teach physics part time in senior high schools, and junior and senior high school physical science part time. A grade average of C (2.00) in physics and broad base science courses is required.

Broad Base Science Course Requirements (minimum 27 credits)

- One course in general biology and one course in biological science
- One course in geology and calculus-based astronomy or meteorology
- Two courses in general chemistry

Physics Courses (minimum 23 credits)

- A three-quarter sequence in general physics with laboratory
- One course each in wave concepts and modern physics

Professional Education Courses (minimum 10 credits)

- SeEd 3357—Teaching Secondary School Science (4) (science majors exempt)
- 6 credits in SeEd 3651—Student Teaching in Science (1-3-6-9-12)

Major in Broad Area Science (Grades 5-9 only)

(This program does not prepare students for senior high school teaching in this area)

Students completing this program will be recommended for Minnesota licensure to teach life science, earth science, physical science, junior high science, and general science in middle and junior high schools (all science grades 5-9) full time. It is recommended that a course in the history of science be included in group C of the liberal education distribution requirements. A grade average of C+ (2.50) is required in courses in two of the three fields—life science, earth science, and physical science—and C (2.00) in courses in the third.

Life Science Course Requirements (minimum 24 credits)

- At least one course selected with consent of an adviser in each of the following: ecology, general biology, general botany or plant biology, general zoology or animal biology, microbiology

Earth Science Course Requirements (minimum 22 credits)

- At least one course selected with consent of an adviser in each of the following: astronomy, physical and historical geology, meteorology, soil science or limnology

Physical Science Course Requirements (minimum 30 credits)

- Courses selected with consent of an adviser, to include two courses in general chemistry and one elective course in chemistry, two courses in general physics with laboratory and one elective course in physics

History of Science Course Requirement

- One course in history of science

Major in Life Science (Grades 7-12) and Broad Area Science (Grades 5-9)

Students completing this program will be recommended for Minnesota licensure to teach senior high school life science (biology) full time; and life science, earth science, physical science, junior high science, and general science in middle and junior high schools (all science, grades 5-9) full time. It is recommended that a course in the history of science be included in group C of the liberal education distribution requirements. A grade average of C+ (2.50) is required in courses in the life science field and in courses in one of the two remaining fields of earth science and physical science, with a C (2.00) in courses in the third.

Life Science Course Requirements (minimum 45 credits)

Courses selected with consent of an adviser, to include two courses in biochemistry or organic chemistry, and at least one course in each of the following: ecology, general biology, general botany or plant biology, general zoology or animal biology, genetics, history of biology, microbiology, and physiology

Earth Science Course Requirements (minimum 22 credits)

At least one course selected with consent of an adviser in each of the following: astronomy, physical and historical geology, meteorology, and soil science or limnology

Physical Science Course Requirements (minimum 25 credits)

Courses selected with consent of an adviser to include two courses in general chemistry, two courses in general physics with laboratory, and one elective course in physics

Required of All Students

In addition to those courses listed in the majors above, all students will complete:

Professional Education Courses (minimum 35 credits)

SeEd 3150—Introduction to Secondary School Teaching (5)
SeEd 3155—Psychological Foundations of Secondary Education (5)
SeEd 3356, 3357—Teaching Secondary School Science (2, 4)
12 credits in SeEd 3651—Student Teaching in Science (1-3-6-9-12)
4 credits in SeEd 3152—Practicum: Secondary Education (1-7)
PsyS 3106—Exceptional Students in Regular Classes (2)
SPFE 3090—The School and Society (3)

Special Requirements for All Students

PsyF 3380—Introduction to Human Relations (3)
PubH 3004—Basic Concepts in Personal and Community Health (5)
Physical Education—3 credits

Second Languages and Cultures

The College of Education and the language departments of the College of Liberal Arts offer programs of study for teaching majors in French, German, Hebrew, Latin, Russian, and Spanish; and teaching minors in French, German, Hebrew, Russian, and Spanish. A student intending to major in any one of these areas takes course work in liberal education areas for the first two years. During this time the student should meet requirements for admission to a secondary education program as listed at the beginning of this subsection, as well as all of the prerequisites for courses in the major language taken during the junior and senior years. Sixteen credits in major courses numbered 3000 or above must be completed or in progress at the time of application.

Students are expected to complete the liberal education distribution requirements as specified at the beginning of this section of the bulletin. Appropriate major and related courses may be applied toward these requirements. It is strongly recommended that students take courses in the areas of The Individual and Society and Literary and Artistic Expression that relate to the specific language they are preparing to teach.

All students will meet the Modern Language Association minimum qualifications in language skills as required by the state of Minnesota licensure requirements for modern foreign language teachers.

One or more minors must be selected from those subjects commonly taught in the high school; double majors are suggested when possible to increase employment possibilities. Upon entrance to the College of Education students must plan their program with an adviser in the second languages and cultures program.

Foreign study and experience in the appropriate country are *strongly recommended* before student teaching. The student's proficiency in listening, speaking, reading, writing, culture and civilization, linguistics, and professional preparation will be tested before entrance into SeEd 3334, Teaching Second Languages, and SeEd 3631, Student Teaching in Second Languages.

Major in French

Note: Students may choose to participate in the honors program if they wish. Consult the *College of Liberal Arts Bulletin* for information.

Major Courses (minimum 50 credits)

50 credits of 3000- and 5000-level courses in French to include courses in language, literature, culture, and linguistics. It is suggested that the student complete an introductory linguistics course (Ling 1001 or 3001) prior to taking any French linguistics course. Foreign study is *strongly recommended*.

Professional Education Courses (minimum 38 credits)

SeEd 3150—Introduction to Secondary School Teaching (5)
SeEd 3155—Psychological Foundations of Secondary Education (5)
9 credits in SeEd 3334, 3335—Teaching Second Languages (6, 3)
12 credits in SeEd 3631—Student Teaching in Second Languages (3-6-9-12)
SeEd 5122—Strategies for Teaching Culture in the Second Language Classroom (4)
PsyS 3106—Exceptional Students in Regular Classes (2)
SPFE 3090—The School and Society (3)

Special Requirements for All Students

PsyF 3380—Introduction to Human Relations (3)
PubH 3004—Basic Concepts in Personal and Community Health (5)
Physical Education—3 credits

Minor in French

Minor Courses (minimum 30 credits)

30 credits in 3000- and 5000-level courses in French to include courses in language, literature, and culture. Foreign study is *strongly recommended*.

Professional Education Courses (minimum 13 credits)

SeEd 3334—Teaching Second Languages (6)
3 credits in SeEd 3631—Student Teaching in Second Languages (3-6-9-12)
SeEd 5122—Strategies for Teaching Culture in the Second Language Classroom (4)

Undergraduate Programs in the College of Education

Major in German

Major Courses (minimum 52 credits)

52 credits in 3000- and 5000-level courses in German to include courses in language, literature, culture, and linguistics. It is suggested that the student complete an introductory course in linguistics (Ling 1001 or 3001) prior to taking any German linguistics course. Foreign study is *strongly* recommended.

Professional Education Courses (minimum 38 credits)

SeEd 3150—Introduction to Secondary School Teaching (5)
SeEd 3155—Psychological Foundations of Secondary Education (5)
9 credits in SeEd 3334, 3335—Teaching Second Languages (6, 3)
12 credits in SeEd 3631—Student Teaching in Second Languages (3-6-9-12)
SeEd 5122—Strategies for Teaching Culture in the Second Language Classroom (4)
PsyS 3106—Exceptional Students in Regular Classes (2)
SPFE 3090—The School and Society (3)

Special Requirements for All Students

PsyF 3380—Introduction to Human Relations (3)
PubH 3004—Basic Concepts in Personal and Community Health (5)
Physical Education—3 credits

Minor in German

Minor Courses (minimum 32 credits)

32 credits in 3000- and 5000-level courses in German to include courses in language, literature, and culture. Foreign study is *strongly* recommended.

Professional Education Courses (minimum 13 credits)

SeEd 3334—Teaching Second Languages (6)
3 credits in SeEd 3631—Student Teaching in Second Languages (3-6-9-12)
SeEd 5122—Strategies for Teaching Culture in the Second Language Classroom (4)

Major in Hebrew

Major Courses (minimum 52 credits)

52 credits in 3000- and 5000-level courses in Hebrew and Middle Eastern studies to include courses in language, literature, and culture. It is suggested that students complete an introductory course in linguistics (Ling 1001 or 3001). Foreign study is *strongly* recommended.

Professional Education Courses (minimum 41 credits)

SeEd 3150—Introduction to Secondary School Teaching (5)
SeEd 3155—Psychological Foundations of Secondary Education (5)
SeEd 3220—Teaching and Learning in the Hebrew School (3)
9 credits in SeEd 3334, 3335—Teaching Second Languages (6, 3)
12 credits in SeEd 3631—Student Teaching in Second Languages (3-6-9-12)
SeEd 5122—Strategies for Teaching Culture in the Second Language Classroom (4)
PsyS 3106—Exceptional Students in Regular Classes (2)
SPFE 3090—The School and Society (3)

Special Requirements for All Students

PsyF 3380—Introduction to Human Relations (3)
PubH 3004—Basic Concepts in Personal and Community Health (5)
Physical Education—3 credits

Minor in Hebrew

Minor Courses (minimum 32 credits)

32 credits in 3000- and 5000-level courses in Hebrew and Middle Eastern studies to include courses in language, literature, and culture. Foreign study is *strongly* recommended.

Professional Education Courses (minimum 12 credits)

SeEd 3220—Teaching and Learning in the Hebrew School (3)

SeEd 3334—Teaching Second Languages (6)

3 credits in SeEd 3631—Student Teaching in Second Languages (3-6-9-12)

Major in Latin

Students who have had Latin in high school will be placed in an appropriate level of Latin courses by their major adviser. College credit is given for successful completion of advanced placement programs in high schools. Students who have not had Latin in high school will take Lat 1101, 1102, 1103, 1104, 3105, or Lat 1111H, 1122H, 3051, 3052 before registering in Latin courses numbered 3461 and above.

Related Course Requirements (minimum 16 credits)

16 credits in classics, linguistics, classical civilization, or any other courses approved by the adviser

Major Courses (minimum 33 credits)

Two courses from Lat 3462—Advanced Undergraduate Latin: Livy (5), Lat 3464—Advanced Undergraduate Latin: Catullus (5), Lat 3471—Advanced Undergraduate Latin: Virgil (5)

Lat 5710—Structure of Latin (4)

4 credits in a general course in ancient art or archaeology

15 credits in Latin courses numbered Lat 3460 and above

Professional Education Courses (minimum 34 credits)

SeEd 3150—Introduction to Secondary School Teaching (5)

SeEd 3155—Psychological Foundations of Secondary Education (5)

9 credits in SeEd 3334, 3335—Teaching Second Languages (6, 3)

12 credits in SeEd 3631—Student Teaching in Second Languages (3-6-9-12)

PsyS 3106—Exceptional Students in Regular Classes (2)

SPFE 3090—The School and Society (3)

Special Requirements for All Students

PsyF 3380—Introduction to Human Relations (3)

PubH 3004—Basic Concepts in Personal and Community Health (5)

Physical Education—3 credits

Major in Russian

Major Courses (minimum 50 credits)

Russ 3011, 3012, 3013—Russian Composition (3 each)

Russ 3021, 3022, 3023—Russian Conversation (3 each)

30 credits in 3000- and 5000-level courses in Russian literature, culture, and linguistics. It is suggested that the student complete an introductory course in linguistics (Ling 1001 or 3001) prior to taking any Russian linguistics course. Foreign study is *strongly* recommended. See Russ 5021—Soviet Union Study Tour (12-24).

Undergraduate Programs in the College of Education

Professional Education Courses (minimum 38 credits)

- SeEd 3150—Introduction to Secondary School Teaching (5)
- SeEd 3155—Psychological Foundations of Secondary Education (5)
- 9 credits in SeEd 3334, 3335—Teaching Second Languages (6, 3)
- 12 credits in SeEd 3631—Student Teaching in Second Languages (3-6-9-12)
- SeEd 5122—Strategies for Teaching Culture in the Second Language Classroom (4)
- PsyS 3106—Exceptional Students in Regular Classes (2)
- SPFE 3090—The School and Society (3)

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Minor in Russian

Minor Courses (minimum 32 credits)

- Russ 3011, 3012, 3013—Russian Composition (3 each)
- Russ 3021, 3022, 3023—Russian Conversation (3 each)
- 15 credits in 3000- and 5000-level courses in Russian literature and culture. Foreign study is *strongly* recommended. See Russ 5021—Soviet Union Study Tour (12-24).

Professional Education Courses (minimum 9 credits)

- SeEd 3334—Teaching Second Languages (6)
- 3 credits in SeEd 3631—Student Teaching in Second Languages (3-6-9-12)

Major in Spanish

Major Courses (minimum 50 credits)

50 credits in 3000- and 5000-level courses in Spanish to include courses in language, literature, culture, and linguistics. It is suggested that the student complete an introductory linguistics course (Ling 1001 or 3001) prior to taking any Spanish linguistics course. Foreign study is *strongly* recommended.

Professional Education Courses (minimum 38 credits)

- SeEd 3150—Introduction to Secondary School Teaching (5)
- SeEd 3155—Psychological Foundations of Secondary Education (5)
- 9 credits in SeEd 3334, 3335—Teaching Second Languages (6, 3)
- 12 credits in SeEd 3631—Student Teaching in Second Languages (3-6-9-12)
- SeEd 5122—Strategies for Teaching Culture in the Second Language Classroom (4)
- PsyS 3106—Exceptional Students in Regular Classes (2)
- SPFE 3090—The School and Society (3)

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Minor in Spanish

Minor Courses (minimum 30 credits)

30 credits in 3000- and 5000-level courses in Spanish to include courses in language, literature, and culture. Foreign study is *strongly* recommended.

Professional Education Courses (minimum 13 credits)

6 credits in SeEd 3334—Teaching Second Languages (6)

3 credits in SeEd 3631—Student Teaching in Second Languages (3-6-9-12)

SeEd 5122—Strategies for Teaching Culture in the Second Language Classroom (4)

Social Studies

Majors in social studies should select one of the social sciences for major emphasis and should meet the requirements specified for that emphasis as outlined in the following pages. Because most social studies positions involve teaching in more than one social science field, all majors are expected to complete the supporting field requirements as well as the requirements for the field of emphasis. Programs must be planned with the help of an adviser, since education courses are taken in sequence.

In Minnesota, the State Board of Education requires completion of a competency-based program in social studies education prior to licensure. A description of the program at the University is available in 152 Peik Hall or from the Education Career Development Office, 1425 University Avenue S.E. Successful completion of one of the programs for majors involves demonstration of all required competencies plus completion of either an additional teaching minor or major or demonstration of three additional competencies selected with the approval of an adviser in social studies education. These additional competencies may be demonstrated either in the required program or by completing some additional courses. Completion of the requirements qualifies a student for recommendation for Minnesota licensure to teach social studies full time at the secondary level. Some students (particularly those with majors in other teaching fields) may be able to omit certain parts of the education program by demonstrating that previous experiences have enabled development of some of the competencies required of a major. Consult the undergraduate coordinator in secondary social studies education for information.

Students are expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. Appropriate major courses may be used toward these requirements. A minimum grade average of C+ (2.50) is required in all courses taken in the social sciences.

Anthropology Emphasis

Major Courses (minimum 60 credits)

Area Requirement

A course in anthropology or in any of the other social sciences in one of the following areas: the Soviet Union, Asia, or Africa. The course may count toward credit requirements listed below.

Anthropology—minimum 28 credits including

Anth 1102—Introduction to Social and Cultural Anthropology (5)

Anth 3301—Method and Theory in Archaeology (4) (or) Anth 5145—Anthropology and Education (4)

Anth 5151—Cultural Change and Development (4)

One course in ethnology from group II listed in *CLA Bulletin*

One additional topical course from group I listed in *CLA Bulletin*

One additional course at the 3000 or 5000 level

Supporting Fields—minimum 29 credits including

Hist 1301, 1302—American History (4 each)

Pol 1001—American Government and Politics (5)

One course in each of the areas of economics, geography, history, and sociology.

No additional course in psychology is required since one is required of all education students.

One additional course at the 3000 or 5000 level

Undergraduate Programs in the College of Education

One additional course to meet major requirement of 60 credits. If SPFE 5174 is substituted for Anth 3301, take the additional course from anthropology.

Professional Education Courses and Special Requirements for All Students are listed at the end of the major requirements for the individual areas of emphasis.

Economics Emphasis

Major Courses (minimum 60 credits)

Area Requirement

A course in economics or in any of the other social sciences in one of the following areas: the Soviet Union, Asia, or Africa. The course may count toward credit requirements listed below.

Economics—minimum 32 credits including

Econ 1001—Principles of Macroeconomics (4)

Econ 1002—Principles of Microeconomics (4)

Econ 3101—Microeconomic Theory (4)

Econ 3102—Macroeconomic Theory (4)

One course in each of the following areas as designated in economics listing in *CLA Bulletin*: labor economics, comparative economics, public finance, and either economic development or international economics

Supporting Fields—minimum 26 credits including

Hist 1301, 1302—American History (4 each)

Pol 1001—American Government and Politics (5)

One course in each of the areas of anthropology, geography, and sociology. No additional course in psychology is required since one is required of all education majors.

One additional course at the 3000 or 5000 level

One additional course taken in economics or one of the supporting fields to meet the major requirement of 60 credits

Professional Education Courses and Special Requirements for All Students are listed at the end of the major requirements for the individual areas of emphasis.

Geography Emphasis

Major Courses (minimum 65 credits)

Area Requirement

A course in geography or in any of the other social sciences in one of the following areas: the Soviet Union, Asia, or Africa. The course may count toward credit requirements listed below.

Geography—minimum 35 credits including

Geog 1301—Human Geography (5)

Geog 1401—Physical Geography (5)

Geog 3001—Introduction to Geographic Inquiry (4)

One regional course (4); one course in geographic techniques (4); one additional topic study (4); and two additional courses at the 3000 or 5000 level

Supporting Fields—minimum 30 credits including

Hist 1301, 1302—American History (4 each)

Pol 1001—American Government and Politics (5)

One course in each of the areas of anthropology, economics, and sociology. No additional course required in psychology since one already is required of all education majors.

Professional Education Courses and Special Requirements for All Students are listed at the end of the major requirements for the individual areas of emphasis.

History Emphasis

Major Courses (minimum 61 credits)

Area Requirement

A course in history or in any of the other social sciences in one of the following areas: the Soviet Union, Asia, or Africa. The course may count toward credit requirements listed below.

History—minimum 35 credits including

Hist 1001, 1002, 1003—Introduction to Modern European History (4 each)

Hist 1301, 1302—American History (4 each)

Supporting Fields—minimum 26 credits including

Pol 1001—American Government and Politics (5)

One course in each of the areas of anthropology, economics, geography, and sociology. No additional course required in psychology since one already is required of all education majors.

Professional Education Courses and Special Requirements for All Students are listed at the end of the major requirements for the individual areas of emphasis.

Political Science Emphasis

Major Courses (minimum 60 credits)

Area Requirement

A course in political science or in any of the other social sciences in one of the following areas: the Soviet Union, Asia, or Africa. The course may count toward credit requirements listed below.

Political Science—minimum 30 credits

Pol 1001—American Government and Politics (5)

Pol 1051—Introduction to Political Science (5)

20 credits in courses at the 3000 and 5000 levels, including one in each of the following areas as designated in political science listing in *CLA Bulletin*: political theory, comparative government and politics, international relations, politics and behavior, and American governmental systems and processes

Supporting Fields—minimum 29 credits including

Hist 1301, 1302—American History (4 each)

One course in each of the areas of anthropology, economics, geography, and sociology. No additional course required in psychology since one already is required of all education majors.

Additional social science course to meet major requirement of 60 credits

Professional Education Courses and Special Requirements for All Students are listed at the end of the major requirements for the individual areas of emphasis.

Psychology Emphasis

Major Courses (minimum 60 credits)

Area Requirement

A course in one of the social sciences in one of the following areas: the Soviet Union, Asia, or Africa. The course may count toward credit requirements listed below.

Undergraduate Programs in the College of Education

Psychology—minimum 34 credits including

Psy 1004, 1005—Introductory Laboratory Psychology (4 each)

Psy 3011—Introduction to Psychology of Learning (4)

Psy 3101—Introduction to Personality (4) (or) Psy 3604—Introduction to Abnormal Psychology (4)

Psy 3124—Psychology of Individual Differences (4)

Psy 3201—Introduction to Social Psychology (4)

Psy 3801—Introduction to Measurement and Statistical Methods (4)

CPsy 5303—Adolescent Psychology (4)

Supporting Fields—minimum 26 credits including

Hist 1301, 1302—American History (4 each)

Pol 1001—American Government and Politics (5)

One course in each of the areas of anthropology, economics, geography, and sociology

Professional Education Courses and Special Requirements for All Students are listed at the end of the major requirements for the individual areas of emphasis.

Sociology Emphasis

Major Courses (minimum 60 credits)

Area Requirement

A course in sociology or in any of the other social sciences in one of the following areas: the Soviet Union, Asia, or Africa. The course may count toward credit requirements listed below.

Sociology—minimum 32 credits including

Soc 1001—Introduction to Sociology (4)

One course in each of the following areas as designated in the *CLA Bulletin*: criminology and deviance, social psychology, social change and social movements, social organization, family studies, and minority group relations

One additional course at the 3000 or 5000 level

Supporting Fields—minimum 26 credits including

Hist 1301, 1302—American History (4 each)

One course in each of the areas of anthropology, economics, geography, and political science. No additional course required in psychology since one is required of all education majors.

One additional course at the 3000 or 5000 level

One additional course in sociology or one of the social sciences to meet the major requirement of 60 credits

Professional Education Courses and Special Requirements for All Students are listed below.

Required of All Students

In addition to the requirements for each area of emphasis as detailed above, students must complete the following:

Professional Education Courses (minimum 52 credits)

SeEd 3150—Introduction to Secondary School Teaching (5)

SeEd 3155—Psychological Foundations of Secondary Education (5)

6 credits in SeEd 3152—Practicum: Secondary Education (1-7)

SeEd 3156, 3157—The Social Sciences and Social Studies (3 each)

SeEd 3348, 3349, 3350, 3351—Teaching Social Studies in Secondary Schools (3, 3, 3, 1)

15 credits in SeEd 3641—Student Teaching in Social Studies (3-15)

PsyS 3106—Exceptional Students in Regular Classes (2)

SPFE 3090—The School and Society (3)

Two additional credits in education selected with approval of the adviser

Special Requirements for All Students

PsyF 3380—Introduction to Human Relations (3)

PubH 3004—Basic Concepts in Personal and Community Health (5)

Physical Education—3 credits

Educational Administration

Van D. Mueller, Chairman, 218 Health Service, Twin Cities campus/St. Paul

The Department of Educational Administration offers only postbaccalaureate degree work in the field, but undergraduates may use appropriate courses in the curriculum as part of their professional preparation. See section III of this bulletin or the *Graduate School Bulletin* for information on preparation of elementary and secondary school principals, supervisors, and administrative personnel.

Music Education

There are two undergraduate majors in music education: music education (instrumental or choral/general concentration) and music therapy. Students completing the undergraduate major in music education with either concentration will be awarded the B.S. degree and recommended for the standard special license to teach music in grades K-12 in Minnesota public schools. Those completing the undergraduate program with a major in music therapy will be awarded the B.S. degree and recommended for certification under the provisions of the National Association for Music Therapy. Preparation for later graduate study in the field is included in both programs.

Admission—Students must complete two years of preprofessional work in music and liberal arts areas before transferring to the College of Education. Students are admitted only for fall quarter. Applications should be filed for fall admission by the end of the first week of the previous spring quarter. Criteria for admission are:

1. Completion of 90 quarter credits, including the following:

For Instrumental or Choral/General Program

24 credits in music theory and ear-training¹

15 credits in music history¹

12 credits in applied music, major level¹

6 credits in class piano¹ or exemption

6 credits in music ensembles

5 credits in general psychology

MuEd 1201—Introduction to Music Education (1)

For Music Therapy Program

24 credits in music theory and ear-training¹

15 credits in music history¹

6 credits in applied music, major level¹

6 credits in class piano¹ or exemption

¹A C+ (2.50) grade average is required for these music courses.

Undergraduate Programs in the College of Education

6 credits in music ensembles
5 credits in general psychology
4 credits in abnormal psychology
5 credits in biology
4 credits in physiology
MuEd 1801—Introduction to Music Therapy (1)

2. A minimum grade average of C (2.00) for all courses taken prior to admission.
3. Completion of an interview with a major adviser in music education or music therapy. The interview must be completed before the application can receive final consideration.
4. For off-campus transfer students, completion of the applied music audition and the theory placement and piano placement examinations. The audition and examinations must be completed before May 25 to be assured of consideration for fall admission. Several audition and examination dates are set each winter and spring by the Department of Music.

Applied Music—Courses in applied music carry two credits per quarter for a minimum of 10 private half-hour lessons, or four credits per quarter for a minimum of 10 private one-hour lessons. Students may not register for a course in applied music for credit until they have passed the required applied entrance examination. The examining committee will determine the mode for which a student may register. Consult the Department of Music for information about procedures and audition dates. Specific applied music requirements are listed under each major program.

Students may register for applied music at the 3000 level only after completing 12 credits at the 1000 level on the same instrument and passing a qualifying examination on that instrument. All students are required to complete a minimum of six credits in class piano lessons or obtain piano proficiency exemption before admission to the major program.

REQUIREMENTS COMMON TO ALL MUSIC EDUCATION AND MUSIC THERAPY MAJORS

Students are expected to complete the liberal education distribution requirements as follows:

Completion of freshman English or exemption and, in addition, a total of 28 credits in groups A, B, and C:

- A. Communication, Language, Symbolic Systems (minimum 8 credits) Linguistics, rhetoric, logic, philosophic analysis, mathematics, statistics, second languages
- B. The Physical and Biological Sciences (minimum 12 credits; no laboratory required)
- C. The Individual and Society (minimum 8 credits including Psy 1001)
- D. Literary and Artistic Expression (minimum 12 credits)

Requirements in group D are satisfied by course work in the major.

In addition, all music education and music therapy majors must complete the following requirements:

Mus 1501, 1502, 1503—Theory I, II, III (3 each)
Mus 3501, 3502, 3503—Theory IV, V, VI (3 each)
Mus 1511, 1512, 1513—Ear-Training and Sight-Singing I (1 each)
Mus 1514, 1515, 1516—Ear-Training and Sight-Singing II (1 each)
15 credits from Mus 1602, 1603, 1604, 1605, 1606—History of Western Music

Concentration Requirement—Two undergraduate curricula in music education and one in music therapy are offered to enable students to prepare for that field of teaching for which their training as performers is most suitable. In addition to the common requirements for all majors, each student must complete one of the following programs in the major area of concentration.

Major in Music Education

CHORAL/GENERAL MUSIC EDUCATION CONCENTRATION

This program is designed for vocalists or keyboard performers desiring to teach choral and classroom music in the elementary and secondary schools. Students completing this program meet licensure requirements to teach music in grades K-12 in Minnesota.

Precollege Music Preparation—An extensive background in high school choral ensembles is required. Voice lessons in high school are recommended, but not required. Students who are not pianists should have completed a minimum of two years of recent piano study. Students must meet the Department of Music entrance requirements for performance in one of the following areas of applied music: voice, piano, organ, or classical guitar.

Music Courses (minimum 42 credits)

Major in voice, piano, organ, or guitar (minimum of 22 credits):

12 credits in principal courses (2 or 4 each) from

MusA 1201—Piano MusA 1204—Voice

MusA 1203—Organ MusA 1223—Guitar

10 credits in principal courses (2 or 4 each) from

MusA 3201—Piano MusA 3204—Voice

MusA 3203—Organ MusA 3223—Guitar

Electives in applied music (minimum 6 credits)

For non-voice majors: MusA 1404—Voice: Elective (2 or 4) (or) Mus 1160—Voice: Class Lessons (6)

For non-keyboard majors: Mus 1151, 1152, 1153—Piano: Class Lessons (2 each)

Mus 5377—Adolescent Singing Voice (3)

Ensemble experience, to be selected in consultation with the adviser, is required during every quarter of on-campus study (minimum 11 credits)

Professional Education Courses (minimum 40 credits)

MuEd 3301—Teaching Vocal and General Music, K-4 (4)

MuEd 3302—Teaching Vocal and General Music, Grades 5-12 (4)

MuEd 3322—Techniques of Classroom Instruments (4)

MuEd 3331—Practicum: Music Education (2)

MuEd 3415—Choral Laboratory (4)

12 credits in MuEd 3650—Student Teaching in Music (3-12)

SeEd 3150—Introduction to Secondary School Teaching (5) (or)

Elem 3101—Introduction to Elementary School Teaching (3)

SeEd 3155—Psychological Foundations of Secondary Education (5) (or)

Elem 3100—Psychological Foundations of Elementary Education (4)

PsyS 3106—Exceptional Students in Regular Classes (2)

SPFE 3090—The School and Society (3)

Special Requirements for All Students

PsyF 3380—Introduction to Human Relations (3)

PubH 3004—Basic Concepts in Personal and Community Health (5)

Physical Education—3 credits

Admission to Student Teaching—Students should meet with their major adviser early in the spring quarter of their junior year to plan the student teaching experience. Each applicant must have completed all professional education courses (with the exception of SPFE 3090), all major courses in theory, ear-training, music history, elective piano or voice,

Undergraduate Programs in the College of Education

the adolescent singing voice, and a minimum of nine credits in ensembles with a grade average of C + (2.50) in all major and professional education courses. Grades for ensemble courses are not counted in calculating the grade average. Twelve credits of applied music at the 1000 level and a minimum of six credits at the 3000 level must be completed in the study of the major instrument or voice.

INSTRUMENTAL MUSIC EDUCATION CONCENTRATION

This program is designed to prepare students to teach band, orchestra, and general music in the elementary and secondary schools. Students successfully completing the program will meet licensure requirements to teach music in grades K-12 in Minnesota.

Precollege Music Preparation—An extensive background in at least one band or orchestral instrument, including private lessons on the instrument and performance experience in high school band or orchestra, is required. Study of the piano is recommended. Students must meet the Department of Music entrance requirements for performance on a standard band or orchestral instrument.

Major Courses (minimum 45 credits)

Principal Instrument—Minimum 18 credits in a standard band or orchestral instrument

12 credits in principal courses (2 or 4 each) from

MusA 1205—Violin	MusA 1214—Bassoon
MusA 1206—Viola	MusA 1215—French Horn
MusA 1207—Cello	MusA 1216—Trumpet
MusA 1208—Double Bass	MusA 1217—Trombone
MusA 1209—Flute	MusA 1218—Baritone
MusA 1211—Oboe	MusA 1219—Tuba
MusA 1212—Clarinet	MusA 1221—Percussion
MusA 1213—Saxophone	MusA 1222—Harp

6 credits in principal courses (2 or 4 each) from

MusA 3205—Violin	MusA 3214—Bassoon
MusA 3206—Viola	MusA 3215—French Horn
MusA 3207—Cello	MusA 3216—Trumpet
MusA 3208—Double Bass	MusA 3217—Trombone
MusA 3209—Flute	MusA 3218—Baritone
MusA 3211—Oboe	MusA 3219—Tuba
MusA 3212—Clarinet	MusA 3221—Percussion
MusA 3213—Saxophone	MusA 3222—Harp

Secondary Required Applied Music—Minimum 6 credits (2 to 4 each) from

MusA 1405—Violin	MusA 1414—Bassoon
MusA 1406—Viola	MusA 1415—French Horn
MusA 1407—Cello	MusA 1416—Trumpet
MusA 1408—Double Bass	MusA 1417—Trombone
MusA 1409—Flute	MusA 1418—Baritone
MusA 1411—Oboe	MusA 1419—Tuba
MusA 1412—Clarinet	MusA 1421—Percussion
MusA 1413—Saxophone	MusA 1422—Harp

Students must select one woodwind, one brass, and one stringed instrument as a secondary instrument for group study for one quarter each (2 cr each quarter)

Mus 1151, 1152, 1153—Piano: Class Lessons (2 each)

Ensemble experience, to be selected in consultation with the adviser, is required during every quarter of on-campus study (minimum 9 credits for large ensembles and 3 credits for chamber ensembles):

- 9 credits from Mus 1410—Band (or) Mus 1420—Orchestra (1 each)
3 credits from Mus 5360—Woodwind Ensemble (or) Mus 5380—Brass Choir (or)
Mus 5390—Percussion Ensemble (or) Mus 5440—Ensemble (1 each)

Professional Education Courses (minimum 51 credits)

- MuEd 3302—Teaching Vocal and General Music, Grades 5-12 (4)
MuEd 3501—String Techniques (4)
MuEd 3503—Woodwind Techniques (4)
MuEd 3504—Brass Techniques (4)
MuEd 3505—Percussion Techniques (4)
MuEd 3515, 3516—Instrumental Laboratory I, II (4 each)
12 credits in MuEd 3650—Student Teaching in Music (3-12)
SeEd 3150—Introduction to Secondary School Teaching (5) (or) Elem 3101—Introduction to Elementary School Teaching (3)
SeEd 3155—Psychological Foundations of Secondary Education (5) (or) Elem 3100—Psychological Foundations of Elementary Education (5)
PsyS 3106—Exceptional Students in Regular Classes (2)
SPFE 3090—The School and Society (3)

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
PubH 3004—Basic Concepts in Personal and Community Health (5)
Physical Education—3 credits

Admission to Student Teaching—Students should meet with their major adviser early in the spring quarter of their junior year to plan the student teaching experience. Each applicant must have completed all professional education courses (with the exception of SPFE 3090), all major courses in theory, ear-training, music history, class piano, secondary instruments, and the required minimum credits in ensembles with a grade average of C+ (2.50) in all major and professional education courses. Grades for ensemble courses are not counted in calculating the grade average. Twelve credits of applied music at the 1000 level and a minimum of two credits at the 3000 level must be completed in the study of the major instrument.

Major in Music Therapy

The music therapy program is designed to prepare students to serve in educational and medical environments to influence changes in the behavior of children and adults through music. Upon successful completion of the course of study and the six-month internship, graduates are eligible for licensure and to become registered music therapists through application to the National Association for Music Therapy (NAMT). The minimum number of credits required for licensure and registration in the NAMT is 192.

Precollege Music Preparation—An extensive background in instrumental or vocal music, including high school music ensembles, is required. Instrumental students should have taken private lessons on at least one band or orchestral instrument. It is recommended, but not required, that vocal students complete private voice lessons during high school. Study of the piano is recommended for all students. Students must meet the Department of Music entrance requirements for performance in one of the following areas of applied music: voice, piano, organ, classical guitar, or standard band or orchestral instrument.

Related Course Requirements

- Biol 1011—General Biology (5)
Phsl 1001—Human Physiology (4)
Psy 1001—Introduction to General Psychology (5)
Psy 3604—Introduction to Abnormal Psychology (4)
One course in special education
12 additional credits in the behavioral sciences, social sciences, health sciences, and special education selected in consultation with the major adviser

Undergraduate Programs in the College of Education

Major Courses (minimum 18 credits in applied music or class lessons selected in consultation with the adviser)

Major in a standard band or orchestral instrument (or) voice, piano, organ, or guitar (and) minimum of 6 credits in principal courses (2 or 4 each) from

MusA 1201—Piano	MusA 1213—Saxophone
MusA 1202—Harpisichord	MusA 1214—Bassoon
MusA 1203—Organ	MusA 1215—French Horn
MusA 1204—Voice	MusA 1216—Trumpet
MusA 1205—Violin	MusA 1217—Trombone
MusA 1206—Viola	MusA 1218—Baritone
MusA 1207—Cello	MusA 1219—Tuba
MusA 1208—Double Bass	MusA 1221—Percussion
MusA 1209—Flute	MusA 1222—Harp
MusA 1211—Oboe	MusA 1223—Guitar
MusA 1212—Clarinet	

Mus 1151, 1152, 1153—Piano: Class Lessons (2 each) (or) exemption

Mus 1160—Voice: Class Lessons (6) (or) minimum of 4 credits in MusA 1404—Voice: Elective (2 or 4) (or) voice major

Guitar proficiency

Music ensemble experience, to be selected in consultation with the adviser, is required during every quarter of on-campus study

Professional Education Courses (minimum 58 credits)

- MuEd 1801—Introduction to Music Therapy (1)
- MuEd 3322—Techniques of Classroom Instruments (4)
- MuEd 3415—Choral Laboratory (4)
- MuEd 3501—String Techniques (4)
- MuEd 3503—Woodwind Techniques (4)
- MuEd 3504—Brass Techniques (4)
- MuEd 3505—Percussion Techniques (4)
- MuEd 3515—Instrumental Laboratory I (4)
- MuEd 3800—Observation in Music Therapy (2)
- MuEd 3801, 3802—Psychology of Music I, II (4 each)
- MuEd 3804—Music Therapy Techniques I (4)
- MuEd 3805, 3806—Music Therapy Techniques II, III (3 each)
- MuEd 3850—Field Experiences: Music Therapy (5)
- MuEd 3851, 3852—Internship: Music Therapy (2 each)
- PsyS 3106—Exceptional Students in Regular Classes (2)

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits; courses in dance and dance therapy recommended

Admission to Internship—Students should meet with their major adviser early in the spring quarter of their junior year to plan the internship experience. Each applicant must have completed all course work to be eligible to register for MuEd 3851, 3852. A grade average of C + (2.50) is required in all related courses and professional education courses, and the student must have satisfactorily completed all field experience requirements.

Physical Education, Recreation, and School Health Education

G. Alan Stull, Director, 110 Cooke Hall

The School of Physical Education, Recreation, and School Health Education offers professional programs of instruction in physical education; coaching; dance education; recreation, park, and leisure studies, camping and outdoor education; and school health education. Listed below are requirements for the B.S. degree, minors, and special licensure programs.

Physical activity courses numbered below 1500 are open to any University student who wishes to elect them for general education purposes in accordance with the regulations of the college in which she or he is enrolled. Many courses involve participation requiring a high energy expenditure level and are to be considered high intensity in nature unless otherwise indicated. It is therefore recommended that students know their health status and any limitations on their ability to participate safely in the activities involved in the courses for which they plan to register. Students who have questions about their health status should seek advice from a personal physician. See section IV of this bulletin and the *Class Schedule* for further information about each activity course.

PHYSICAL EDUCATION

The curriculum in physical education prepares students for Minnesota licensure for teaching physical education in elementary and secondary schools. The curriculum includes a balanced general education; basic training in motor skills; opportunity to specialize in coaching, in adapted physical education, or in an area of emphasis in sports or dance skills; principles and theory of physical education; and professional preparation for teaching.

Students should apply for admission to the College of Education *early in the quarter in which they will meet admission requirements*. Applications for fall quarter admission must be received by the Office of Admissions early in the previous spring quarter and applications for winter quarter admission early in the fall quarter. Students are not admitted for spring quarter.

To be considered for admission, students must have: (a) completed 45 credits including freshman English or its equivalent; 4 credits of physics or chemistry (see Related Course Requirements); 4 credits from the list of required sport and dance activities; (b) a minimum grade average of C (2.00) if transferring from a liberal arts or junior college, or a numeric average of 7.00 if transferring from the General College; and (c) a minimum grade average of C+ (2.50) in all courses completed in physical education prior to entrance. Because of the strenuous activity component of the program, it is extremely important that applicants seek the advice of their personal physician in determining their health status and in identifying any limitations on their ability to participate safely in the activities.

Subsequent to admission, a C+ (2.50) average in the major is required for clearance for student teaching and graduation. This average is computed for all courses and credits listed under Major Courses if they have been completed on the Twin Cities campus.

A student completing this curriculum receives the B.S. degree in physical education and recommendation for Minnesota licensure in physical education (grades K-12). A total of 186 credits must be completed with a grade average of C+ (2.50) in the major courses and C (2.00) in the teaching minor.

Students are required to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. Appropriate related and major courses may be applied toward these requirements.

Undergraduate Programs in the College of Education

Major in Physical Education

Related Course Requirements

One course in speech

Chem 1003—The Physical World: Chemistry (5) (or) Chem 1008—The Physical World: Chemistry (4)

Phys 1061—Physics of Human Motion (4) (and) Phys 1065—Human Motion Lab (1)

Psy 1001—Introduction to Psychology (5)

Hlth 1500—American Red Cross Standard First Aid and Personal Safety (2) (or) current Standard American Red Cross First Aid card

Major Courses (minimum 76 credits)

1. Sport and Dance Activities¹—14 credits

Aquatics—2 credits

Dance—2 credits from ballroom, folk and square, or modern dance

Gymnastics—PE 1521, 1522 (1 each)

Individual Sports—3 credits from archery, badminton, conditioning, golf, tennis, combatives (wrestling, judo, karate, or fencing)

Team Sports—3 credits from basketball, field hockey, soccer, softball, touch football, volleyball

Track and Field—1 credit from PE 1059 or 1654.

Electives—1 credit

2. Basic and Applied Sciences—15 credits

Anat 1027—Anatomy for Physical Education Students (4)

PE 3111—Mechanics of Movement (3)

PubH 3385, 3386—Physiological Hygiene (4 each)

3. Theory and Principles of Physical Education—22 credits

PE 1871—Introduction to Physical Education (3)

PE 3100—Adapted Physical Education (3)

PE 3113—Motor Learning and Motor Development (4)

PE 3125—Philosophy of Physical Education and Sport (3) (or) PE 3130—History of Physical Education and Sport (3)

PE 3144—Administration (2)

PE 3150—Introduction to Evaluation (4)

PE 5151—Curriculum (3)

4. Professional Preparation in Physical Education—15 credits

PE 1875—Orientation to Teaching Physical Education (4)

PE 3322—Methods of Teaching Physical Education: Elementary (5)

PE 3323—Methods of Teaching Physical Education: Secondary (5)

PE 3607—Student Teaching: College (1)

5. Area of Emphasis

One specialization to be selected from a, b, or c:

a. Coaching Endorsement (minimum 28 credits)

See Minnesota Public Secondary School Coaching Endorsement for Boys and Girls Interscholastic Sports section for requirements.

b. Adapted Physical Education—10 credits

PE 3625—Supervised Practical Experience (3)

PE 5100—Adapted Physical Education (3)

PsyS 5101—Education of Exceptional Children (4)

¹Students must earn a minimum grade of B in all activity courses numbered below 1500.

Physical Education, Recreation, and School Health Education

c. Skill Emphasis—Select one skill area from the following:

Aquatics—10 credits

PE 1410—Water Safety Instructor (2)

PE 1801—Aquatic Administration (2)

1 credit from PE 1004, 1205, 1309

5 credits from PE 1004, 1204, 1205, 1309, Rec 1530 (and) PE 3176 (or) PE 3900

Dance—10 credits

Dnce 1022—Ballroom Dance (1)

Dnce 1023—Folk and Square (1)

Dnce 1024, 1124, 1224—Modern Dance (1 each)

Dnce 1514—Improvisation (1)

One of the following: Dnce 3321, 3326, 3394 (4 each)

Gymnastics—10 credits

PE 1521, 1522—Gymnastics (1 each)

PE 3174—Coaching Gymnastics (2)

PE 3143—Organization and Management of Sport (3) or completion of Regional Judging Certification through registration in PE 1990

PE 5123—Analysis of Gymnastics Activities (3)

Individual/Dual Sports—10 credits

PE 3143—Organization and Management of Sport (3)

2 credits from PE 1014, 1032, 1038, 1047, 1050 (maximum 1 of these 2 credits may be a combatives course selected from PE 1031, 1033, 1034, 1035, 1039)

2 credits from any individual sport courses that have not been applied to the sport and dance requirements

1 credit from any PE 11xx- or 12xx-level individual sport course that has not been applied to the sport and dance requirements

2 credits in coaching any individual sport

Team Sports—10 credits

PE 3143—Organization and Management of Sport (3)

2 credits from PE 1067, 1069, 1072, 1073, 1074

2 credits from any team sport courses that have not been applied to the sport and dance requirements

1 credit from any PE 11xx- or 12xx-level team sport course that has not been applied to the sport and dance requirements

2 credits in coaching any team sport

Professional Education Courses (minimum 25 credits)

PE 3621—Student Teaching: Elementary (6)

PE 3622—Student Teaching: Secondary (6)

SeEd 3150—Introduction to Secondary School Teaching (5)

SeEd 3155—Psychological Foundations of Secondary Education (5)

PsyS 3106—Exceptional Students in Regular Classes (2)

SPFE 3090—The School and Society (3)

Special Requirements for All Students

PsyF 3380—Introduction to Human Relations (3)

Physical Education—3 credits (satisfied by the major)

PubH 3004—Basic Concepts in Personal and Community Health (5)

The student must also complete 12 credits at the 3000 and 5000 levels outside of the School of Physical Education, Recreation, and School Health Education, or a regular teaching minor in the College of Education

Electives to complete 186 credits

Minnesota Public Secondary School Coaching Endorsement for Boys and Girls Interscholastic Sports

This endorsement is only available to students admitted to a program in the College of Education or to licensed teachers. Before starting the program, prospective students must apply to the Division of Physical Education for admission.

Students who successfully complete this program will be recommended for endorsement for coaching both girls and boys interscholastic sports in Minnesota public secondary schools.

All Required (minimum 28 credits)

- Anat 1027—Anatomy for Physical Education Students (4) (or) PE 3110—Human Anatomy (3)
- Hlth 1500—American Red Cross Standard First Aid and Personal Safety (2) (or) current Standard American Red Cross First Aid card
- PubH 3385, 3386—Physiological Hygiene (4 each) (or) PE 3115—Physiological Application to Sport (3)
- PE 3111—Mechanics of Movement (3)
- PE 3113—Motor Learning and Motor Development (4)
- PE 3114—Prevention and Care of Injuries (3) (or) PE 5620—Practicum: Prevention and Care of Athletic Injuries (3)
- PE 3125—Philosophy of Physical Education and Sport (3) (or) PE 3130—History of Physical Education and Sport (3)
- PE 3143—Organization and Management of Sport (3)
- PE 3624—Student Teaching: Coaching (3)
- 2 credits from PE 3170, 3171, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3625, 5123
- 1 credit from PE 1650, 1651, 1656, 1657, or the equivalent

Required of All

One sport season of participation on an interscholastic, extramural, or intercollegiate team, or equivalent

Dance Minor

The minor in dance requires a minimum of 30 credits and is open to all College of Education students interested in the teaching of dance. Students should consult with a dance adviser as early as possible to plan individual programs.

Minor Courses (minimum 30 credits)

- Dnce 1515, 1615, 1715—Modern Dance Technique and Improvisation I, II, III (2 each)
- Dnce 3390, 3391—Dance Composition (2 each)
- Ten credits from Dnce 1020, 1021, 1022, 1023, 1122, 1123, 1514, 1517, 1518, 1618, 1718, 3181, 3182, 3183, 3321, 3326, 3392, 3394, 3395, 3396, 3397, 3608, 3610, 3611, 3612, 5181, 5700
- Ten credits selected with consent of the dance adviser from two of the following areas: art, music, physical education, psychology, theatre

RECREATION, PARK, AND LEISURE STUDIES

The purpose of this professional degree program is to prepare individuals for assuming leadership, supervisory, or beginning administrative responsibilities in various park, recreation, and leisure service agencies.

Students should apply for admission to the College of Education early in the quarter in

Physical Education, Recreation, and School Health Education

which they will meet admission requirements. Applications for fall admission must be received by the Office of Admissions no later than the end of the first week of the previous spring quarter and applications for spring admission no later than the end of the first week of winter quarter. Students are not admitted for winter quarter or summer terms. Admission will be based on the following criteria:

1. Completion of a minimum of one year of liberal education course work (at least 45 quarter credits) including the freshman English requirement.
2. An overall grade average of at least C (2.00) with preference given to applicants with a higher average.
3. Assessment of personal and professional characteristics through recommendations and interviews; preference is given on the basis of an evaluation of the nature and scope of previous recreation and/or related experience.

The curriculum leads to the B.S. degree. The program is planned individually in consultation with a major adviser. Students must file their program during the second quarter after admission, indicating an area of emphasis within the broad field of recreation, park, and leisure studies. For graduation, the student must complete a minimum of 186 credits and earn a grade average of C+ (2.50) in course work with the Rec prefix. A minor is not required of majors in this program.

Major in Recreation, Park, and Leisure Studies

Related Course Requirements

Students are expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. In addition, Spch 1101 is required in group A, and Soc 1001 and 1002 are required in group C. Students must complete a minimum of 23 credits in group C. The special requirements for graduation from the college also must be completed (see Special Requirements for All Students listed after the major requirements). All majors in the curriculum must complete Hlth 1500 and a minimum of 6 credits at the 3000 or 5000 level in PsyS, SPFE, CPsy, CISy, EdAd, Educ, PsyF, or SeEd courses.

Major Requirements (minimum 92 credits)

- Rec 1520—Orientation to Leisure and Recreation (5)
- 15 credits in Rec 3700—Senior Internship (1-15)
- Rec 3530—Recreation and Park Areas and Facilities (5)
- Rec 3540—Recreation Programming (5)
- Rec 3550—Park and Recreation Administration (5)
- 20 credits in recreation (Rec) courses selected with the consent of the adviser and related to the area of concentration
- 16 credits in nonrecreation (non-Rec) courses at the 3000 and 5000 levels related to the area of concentration
- 21 credits selected in consultation with the adviser; no more than three courses may be at the 1000 level

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- 3 credits in physical education selected from PE 1001 through 1499

Electives to complete 186 credits

Undergraduate Programs in the College of Education

Minor in Camping and Outdoor Education

This minor is designed to prepare individuals for part-time and volunteer work in camping and outdoor education. It is a nonteaching minor and cannot be used to meet minor requirements in any curriculum. Enrollment is limited, and applications and proposed programs must be received by the Division of Recreation, Park, and Leisure Studies no later than May 15 of the year prior to anticipated admittance. A student must be a junior to enter this program.

Thirty credits must be chosen in consultation with a minor adviser, and the program must be approved by the minor adviser, the major adviser, and the Division of Recreation, Park, and Leisure Studies. Required are a minimum of 18 credits in course work with the Rec prefix and a minimum of 12 credits in related electives selected in consultation with the adviser. An example of a proposed minor is shown below:

Minor Courses (minimum 24 credits)

- Rec 1530—Camp Aquatics (2)
- Rec 1540—Camp Counseling (4)
- Rec 1600—Leadership in Social Activities (3)
- Rec 3150—Leadership in Outdoor Recreation (3)
- 3 credits in Rec 3700—Senior Internship (1-15)
- Rec 5170—Camp Administration (3)
- Rec 5300—Foundations of Outdoor Education (3)
- Electives—3 credits in Rec courses

Related Electives (minimum 12 credits)

- CPsy 1301—Introductory Child Psychology (4)
- EBB 3004—Fundamentals of Ecology (4)
- Hlth 1500—American Red Cross Standard First Aid and Personal Safety (2)
- Th 1101—Introduction to Theatre Arts (4)

SCHOOL AND COMMUNITY HEALTH EDUCATION

The major curriculum outlined in this section prepares the student for recommendation for Minnesota licensure for teaching health education full time in the public school and/or serving as a health educator in a community health agency.

Before applying for admission to the College of Education, students must have completed 90 credits in liberal arts areas with at least a grade average of C (2.00) in all previous work and C+ (2.50) in all health and public health courses that will be applied toward the major. Students should consult their major or minor adviser in these programs for requirements that must be met prior to student teaching.

Students are expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. Appropriate related and major courses may be applied toward these requirements.

Requirements for the major in school and community health education are listed below.

Major in School and Community Health Education

Related Course Requirements

- Spch 1101—Fundamentals of Speech Communication: Oral Communication (4) (or)
- Spch 1102—Fundamentals of Speech Communication: Communication Process (4)
- Biol 1011—General Biology (5) (or) EBB 3001—Introduction to Ecology (4) (and) GCB 3022—Genetics (4)

Physical Education, Recreation, and School Health Education

Chem 1004, 1005—General Principles of Chemistry (5 each) (or) Chem 1008—The Physical World: Chemistry (and) Phys 1004—The Physical World: Physics (4 each)

MicB 3103—General Microbiology (5) (or) MicB 1101—Elementary Microbiology (4)

Soc 1001—Introduction to Sociology (4)

Anth 1102—Introduction to Social and Cultural Anthropology (5)

Major Courses (minimum 40 credits)

Hlth 1500—American Red Cross Standard First Aid and Personal Safety (2)

Hlth 3100—Curriculum in School Health Education (3)

Hlth 5069—Community Health Education Practicum for School Health Education Students (6)

Hlth 5072—Introduction to School and Community Health Education (3)

Hlth 5120—Role of the School Health Educator in Health Appraisal (3)

Hlth 5140—Administration of the School Health Program (3)

PubH 3385, 3386—Physiological Hygiene (4 each) (or) Phsl 3051—Human Physiology for Nursing and Physical Therapy Students (5)

PubH 3600—Human Nutrition (3) (or) FScN 1012—Food for Thought (4) (or) FScN 1602—Principles of Nutrition (4)

PubH 5152—Environmental Health (2) (or) PubH 3151—Introduction to Environmental Health (3)

Anat 1027—Anatomy for Physical Education Students (4) (or) PE 3110—Human Anatomy (3)

FSoS 5001—Human Sexual Behavior (4)

PsyF 5162—Personality and Social Development (3) (or) CPsy 5303 (or 3303)—Adolescent Psychology (4)

Professional Education Courses (minimum 34 credits)

Hlth 3300—Instructor's Course in Standard First Aid and Personal Safety (3)

Hlth 3320—Methods and Materials of School Health Education (3)

9 credits in student teaching from Hlth 3601, 3602, 3603; recommended, in addition, Hlth 3600—Pre-Fall Student Teaching (3)

Hlth 5150—Family Life and Sex Education in Secondary Schools (3)

PsyS 5130—Introduction to Guidance (3) (or) PsyS 5110—Counseling Procedures (3)

SeEd 3150—Introduction to Secondary School Teaching (5)

SeEd 3155—Psychological Foundations of Secondary Education (5)

PsyS 3106—Exceptional Students in Regular Classes (2)

SPFE 3090—The School and Society (3)

Special Requirements for All Students

PsyF 3380—Introduction to Human Relations (3)

Physical Education—3 credits

PubH 3004—Basic Concepts in Personal and Community Health (5)

Students are expected to complete 186 credits, including a teaching minor, and earn a grade average of C+ (2.50) in the major courses and C (2.00) overall.

Minor in School Health Education

Related Course Requirements

Biol 1011—General Biology (5) (or) GC 1132—Biological Science: The Human Body (5) (or) EBB 3001—Introduction to Ecology (4) (and) GCB 3022—Genetics (4)

Chem 1004, 1005—General Principles of Chemistry (5 each) (or) Chem 1008—The Physical World: chemistry (and) Phys 1004—The Physical World: Physics (4 each)

Undergraduate Programs in the College of Education

Minor Courses (minimum 28 credits)

- Hlth 1500—American Red Cross Standard First Aid and Personal Safety (2)
- Hlth 3100—Curriculum in School Health Education (3)
- Hlth 5120—Role of the School Health Educator in Health Appraisal (3)
- Hlth 5140—Administration of the School Health Program (3)
- PubH 3385, 3386—Physiological Hygiene (4 each) (or) Phsl 3051—Human Physiology for Nursing and Physical Therapy Students (5) (or) Phsl 1001—Human Physiology (4)
- PubH 3600—Human Nutrition (3) (or) FScN 1012—Food for Thought (4) (or) FScN 1602—Principles of Nutrition (4)
- Anat 1027—Anatomy for Physical Education Students (4) (or) PE 3110—Human Anatomy (3)
- PsyF 5162—Personality and Social Development (3) (or) CPsy 5303 (or 3303)—Adolescent Psychology (4)
- FSoS 5001—Human Sexual Behavior (4)

Professional Education Courses (minimum 12 credits)

- Hlth 3300—Instructor's Course in Standard First Aid and Personal Safety (3)
- Hlth 3320—Methods and Materials in School Health Education (3)
- Hlth 5150—Family Life and Sex Education in the Secondary Schools (3)
- 3 credits in student teaching from Hlth 3601, 3602, 3603

Psychoeducational Studies

Robert H. Bruininks, Chairman, 249 Burton Hall

The Department of Psychoeducational Studies does not offer undergraduate teacher education programs, but junior and senior students are invited to use appropriate courses as part of their professional preparation or in fulfillment of program electives. Courses listed below would be particularly appropriate and useful to students majoring in elementary or secondary education in light of legislation mandating universal educational opportunities for the handicapped and recent emphasis on mainstreaming approaches to special education.

- PsyS 5101—Education of Exceptional Children
- PsyS 5107—Mainstreaming: Issues in Individualizing Instruction
- PsyS 5108—Parent and Professional Planning for Handicapped Students
- PsyS 5112—Education of Learning-Disabled Children
- PsyS 5120—Introduction to Mental Retardation
- PsyS 5123—Methods and Materials for Severely Retarded Preschool and School-Age Pupils
- PsyS 5125—Education of Handicapped Infants and Preschool Children
- PsyS 5190—Education of the Gifted and Talented
- PsyS 5305—Behavior Analysis Procedures With Mildly and Moderately Handicapped People

Undergraduate students are reminded that whether or not they have completed such courses as listed above, they may be admitted to a program *only* after they have completed the baccalaureate degree, submitted an application, and been formally accepted into a special education training sequence.

The counseling and student personnel psychology program area has planned a set of courses specifically for upper division undergraduates and nonmajors. These courses are designed to acquaint students with important general principles and counseling strategies. They focus on psychological concepts in areas relative to the helping process and on self-

development and self-knowledge. The courses involve discussions, small group sessions, and individual laboratory experiences. The courses include:

- PsyS 5110—Counseling Procedures
- PsyS 5111—Counseling Procedures II
- PsyS 5210—Foundations of Career Development
- PsyS 5320—Group Counseling: Principles and Procedures
- PsyS 5550—Seminar: Psychological Education

Social, Psychological, and Philosophical Foundations of Education

Clyde A. Parker, Chairman, 204 Burton Hall

The areas of social and philosophical foundations of education and psychological foundations do not currently offer undergraduate degree programs, but do contribute professional education courses basic to teacher preparation programs. Junior and senior students are encouraged to enroll in appropriate foundations courses as part of their professional preparation or in fulfillment of program electives. Courses listed below would be particularly appropriate and useful to students in light of current standards for teacher accreditation.

- SPFE 3090—The School and Society
- SPFE 5101—Historical Foundations of Modern Education
- SPFE 5102—Education Imagery in Europe and America
- SPFE 5125—Youth in Modern Society (co-listed with Soc 5952)
- SPFE 5141—Critical Issues in Contemporary Education
- SPFE 5171—Anthropology and Education (co-listed with Anth 5145)
- SPFE 5209—Education in Future Social Systems
- PsfF 5110—Introductory Statistical Methods
- PsfF 5120—Educational Measurement in the Classroom
- PsfF 5125—Principles and Methods of Evaluation
- PsfF 5152—Knowing, Learning, and Thinking
- PsfF 5162—Personality and Social Development
- PsfF 5170—Social Psychology of Education
- PsfF 5333—Introduction to Computer Operations: U of M Systems, SPSS

Undergraduate students are reminded that enrollment in any of the above courses does not constitute admission to a foundations graduate program. Students must formally apply through the Graduate School. For information about postbaccalaureate work in foundations fields, refer to section III of this bulletin or to the *Graduate School Bulletin*.

Vocational and Technical Education

Jerome Moss, Jr., Chairman, 145 Peik Hall

AGRICULTURAL EDUCATION

The major in agricultural education, offered jointly with the College of Agriculture, is designed for students who plan to teach agriculture or horticulture in public schools, area vocational-technical institutes, or community colleges in Minnesota. The program provides comprehensive training in agriculture and permits emphasis in animal science, agronomy, agricultural economics, horticulture, soils, and mechanized agriculture for those preparing

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for extension work, other professional careers in the field, or farming. It also offers the special training in education necessary for recommendation for licensure as an instructor of agriculture or horticulture.

Students should apply for admission to the College of Education in the final quarter of their sophomore year. This application may be completed in the Division of Agricultural Education office, 130 Classroom Office Building, Twin Cities campus/St. Paul. Students must complete the application requirements as directed by the agricultural education staff. To be eligible, students must have a grade average of at least C (2.00) for all courses taken at the University of Minnesota, Twin Cities campus.

Transfer students who have completed fewer than two years of college work should apply for admission to the College of Agriculture. These students will then apply to the College of Education in the quarter in which they complete their sophomore year.

Transfer students who have completed two or more years of college work apply for joint admission to the College of Agriculture and the College of Education at the Office of Admissions and Records, 130 Coffey Hall, 1420 Eckles Avenue, University of Minnesota, St. Paul, Minnesota 55108. The College of Agriculture will review the application. Upon acceptance into the College of Agriculture, these students will be accepted by the College of Education.

To be eligible for student teaching, students must have a grade average for courses taken at the University of Minnesota Twin Cities campus of at least 2.00 overall, and at least 2.30 for technical agriculture courses, as follows:

For horticultural education specialization: 2.30 grade average in courses in entomology, forestry, horticulture, mechanized agriculture, plant pathology, agricultural economics, and soils.

For agricultural education specialization: 2.30 grade average in courses in agricultural economics, agronomy, animal science, entomology, food science, forestry, horticulture, agricultural journalism, mechanized agriculture, plant pathology, soils, and veterinary medicine.

Students applying for the agricultural education specialization must have a satisfactory background in agriculture. Those entering the horticultural education specialization must have a satisfactory background in horticulture. The Division of Agricultural Education occupational experience committee evaluates student experience. Both curricula require a minimum of 80 credits in technical agriculture and a total of 192 credits for graduation.

Each student is expected to complete the liberal education distribution requirements as detailed for the agricultural science and industries curriculum in the *College of Agriculture Bulletin*.

COMMON REQUIREMENTS

Related Course Requirements

A. Communication, Language, Symbolic Systems

Math 1111—College Algebra and Analytical Geometry (5)

Rhet 1101, 1102—Communication I, II (4 each)

Rhet 1222—Public Speaking (4)

Rhet 3551—Professional Writing (4) (or) Rhet 3562—Scientific and Technical Writing (4)

B. Physical, Biological, and Analytical Sciences

Biol 1011—General Biology (5)

Biol 1103—General Botany (5) (or) Biol 1106—General Zoology (5)

Phys 1031, 1035—Introductory Physics: Measurement and Applications and Laboratory (4, 1)

Vocational and Technical Education

Select one of the five following chemistry sequences:

Sequence One

Chem 1001—Chemical Principles and Covalent Systems (5)

BioC 1301, 1302—Elementary Biochemistry I, II (5, 3)

Sequence Two

Chem 1001, 1002—Chemical Principles and Covalent Systems (5 each)

BioC 1302—Elementary Biochemistry II (3)

Sequence Three

Chem 1004, 1005—General Principles of Chemistry (5 each)

BioC 1301—Elementary Biochemistry I (5)

Sequence Four

Chem 1004, 1005—General Principles of Chemistry (5 each)

Chem 3301—Elementary Organic Chemistry I (4)

Sequence Five

Chem 1004, 1005—General Principles of Chemistry (5 each)

Chem 3301, 3305—Elementary Organic Chemistry I and Laboratory (4, 2)

Chem 3302, 3306—Elementary Organic Chemistry II and Laboratory (4, 2)

In addition, a student must complete at least two courses, not including laboratories, in the physical, biological, and analytical sciences. These *must* be selected from the following courses or their equivalents. Courses from this list that are applied to the major requirements *cannot* be used to meet this requirement.

AgEc 5002—Applied Linear Programming (4)

AgEn 1030—Introduction to Computer Programming (3)

BioC 1302, 1303—Elementary Biochemistry II and Laboratory (3, 2)

Biol 1103—General Botany (5)

Biol 1106—General Zoology (5)

Biol 3021—Biochemistry (4)

Biol 3041—Ecology (4)

Biol 3033—Genetics (4)

Bot 3109—Plant Anatomy (5)

Chem 1006—Principles of Solution Chemistry (4)

Chem 3100, 3101—Quantitative Analysis and Laboratory (3, 2)

Chem 3301, 3302, 3303—Elementary Organic Chemistry I, II, III (4 each)

EBB 3004—Fundamentals of Ecology (4)

EBB 5014—Ecology of Plant Communities (4)

GCB 3022—Genetics (4)

Geo 1001—Physical Geology (5)

MicB 3103—General Microbiology (5) (or) VPB 3103—General Microbiology (5) (or) Biol 3013—Microbiology (4)

Phys 1032, 1036—Introductory Physics: Measurement and Applications and Laboratory (4, 1)

QA 3053—Quantitative Methods for Administration (4)

Any mathematics course that requires Math 1111 or 1201 as a prerequisite

Any statistics course that requires Math 1111 as a prerequisite

C. The Individual and Society—14 credits minimum

AgEc 1020—Principles of Macroeconomics (5)

AgEc 1030—Principles of Microeconomics (4)

Psy 1001—General Psychology (5)

Major Courses—see specialization chosen

Undergraduate Programs in the College of Education

Professional Education Courses (minimum 36 credits)

- AgEd 1001—Introduction to Agricultural Education (1)
- AgEd 1010—History and Philosophy of Vocational and Community Education (3)
- AgEd 3010—Organization and Direction of FFA Activities (2)
- AgEd 3031—Student Teaching in Agricultural Education (8)
- AgEd 5028—Teaching Methods in Agricultural Education (5)
- AgEd 5049—Agricultural Education for Adults (5)
- AgEd 5061—Program Planning and Evaluation (3)
- AgEd 5071—Supervised Occupational Experiences in Agriculture (3)
- VoEd 5800—Working With Special Needs Students (3) (or, with permission of adviser)
PsyS 3106—Exceptional Students in Regular Classes (2)
- SeEd 3155—Psychological Foundations of Secondary Education (5)
1 credit in supervised occupational experience program from AgEd 3041—Practicum:
Agricultural Education Technology (1-3)

Special Requirements for All Students

- PsfY 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Vocational Agriculture Specialization

In addition to the common requirements listed above, those choosing this option must complete:

Major Courses (minimum 80 credits)

- 3 credits in AgEd 5072—Practicum: Agricultural Business and Industry (1-3)
- AgEc 1020—Principles of Macroeconomics (5)
- AgEc 1030—Principles of Microeconomics (4)
- AgEc 3820—Farm Management Economics (4)
- AgEc 3850—Farm Business Enterprise Analysis (4)
- Soil 1122—Introduction to Soil Science (4)
- Agro 1010—Principles of Agronomy (4)
- Hort 1010—Home Horticulture (4)
- Ent 1005—Economic Entomology (4)
- AnSc 1100—Introduction to Animal Science (5)
- AnSc 1401—Principles of Animal Nutrition (5)
- AgEn 1020—Agricultural Shop-Metalwork (4)
- AgEn 5020—Program Planning and Instructional Methods in Agricultural Mechanics (4)
- Electives—26 credits in technical agriculture

Vocational Horticulture Specialization

In addition to the common requirements listed above, those choosing this option must complete:

Major Courses (minimum 81 credits)

- 3 credits in AgEd 5072—Practicum: Agricultural Business and Industry (1-3)
- AgEc 1020—Principles of Macroeconomics (5)
- AgEc 1030—Principles of Microeconomics (4)
- Soil 1122—Introduction to Soil Science (4)
- PIPa 1001—Introduction to Plant Pathology (5)
- Ent 1005—Economic Entomology (4) (or) Ent 5050—Forest Entomology (4)
- Hort 1100—Biology of Horticultural Production (4)
- Hort 1016—Greenhouse Management (4)
- Hort 1036—Plant Propagation (4)
- AgEn 3205—Power and Power Use (4)
- PIPh 3131—Survey of Plant Physiology (4)
- Electives—18 credits in horticulture and 18 credits in technical agriculture

BUSINESS EDUCATION

Students preparing to teach business subjects will normally register for the first year in a liberal arts or junior college or in the General College. Application for admission to the program should be made early in the quarter in which students will have completed 45 credits. These credits should include courses to meet the liberal education distribution requirements and major course requirements for the program in business education. Students are encouraged to plan programs with a business education adviser.

Students who have had high school courses or experience in bookkeeping/accounting may be exempted from Acct 1050 and admitted to Acct 1051 by passing a placement test. Students who have had previous instruction or experience in typewriting, shorthand, and/or office procedures and machines may take proficiency examinations for credit and/or appropriate placement in the following courses: BDE 1501, 1502, 1503, 1505, 1506, 1507, 1508, 1509 (see Examination for Credit at the beginning of this section of the bulletin). Students who have had related occupational experience sufficient for vocational licensure may have all the credits required in BDE 5359 waived. This matter should be discussed with the major adviser.

All students are expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. Appropriate related and major courses may be applied toward these requirements.

COMMON REQUIREMENTS

Related Course Requirements

3 credits of mathematics

Major Courses (minimum 40 credits)

Econ 1001—Principles of Macroeconomics (4) (and) Econ 1002—Principles of Microeconomics (4)

MIS 3098—Elementary COBOL (1) (or) MIS 3099—Elementary FORTRAN (1)

MIS 5100—Introduction to Computer and Computer Data Processing (4)

GC 3531—Writing for Business and the Professions (4)

Acct 1050, 1051—Principles of Accounting I, II (4 each)

BDE 1501—Beginning Typewriting (3)

BLaw 3058—Introduction to Law, and the Law of Contracts and Agency (4)

Mgmt 3001—Fundamentals of Management (4)

Mktg 3000—Principles of Marketing (4)

Professional Education Courses

BDE 1504—Introduction to Business Education (4)

BDE 3603, 3604, 3605—Student Teaching in Business or Distributive Education (4 each)

SeEd 3150—Introduction to Secondary School Teaching (5)

SeEd 3155—Psychological Foundations of Secondary Education (5)

VoEd 5800—Working With Special Needs Students (3) (or, with permission of adviser)

PsyS 3106—Exceptional Students in Regular Classes (2)

SPFE 3090—The School and Society (3)

Special Requirements for All Students

PsyF 3380—Introduction to Human Relations (3)

PubH 3004—Basic Concepts in Personal and Community Health (5)

Physical Education—3 credits

PROFESSIONAL OPTIONS

In addition to the common requirements listed above, students are required to complete one of the following professional options. Students are encouraged to complete the comprehensive option to improve placement possibilities. Consult with an adviser in

Undergraduate Programs in the College of Education

selecting the electives needed to complete 186 credits. The division recommends that these be in courses at the 3000 and 5000 levels in business administration, economics, instructional media, business education, guidance, psychology of adolescence, social foundations of education, advertising, occupational psychology, office occupational experience, and pre-fall student teaching. A C+ (2.50) grade average in all major and professional courses completed, except SeEd 3150 and 3155, and SPFE 3090, is required for admission to student teaching and for graduation.

Accounting and Data Processing

Major Courses (minimum 39 credits)

Acct 3101, 3102—Accounting Theory and Practice I, II (4 each)

QA 1050—Elementary Managerial Statistics (4)

QA 3053—Quantitative Methods for Administration (4)

MIS 5101—Introduction to Management Information Systems (4)

BFin 3000—Finance Fundamentals (4)

6 credits in BDE 5359—Occupational Experience (1-18)

9 credits at the 3000 and 5000 levels in accounting, data processing, finance, management information systems, or quantitative analysis

Professional Education Courses (minimum 9 credits)

BDE 3303—Teaching Accounting and Data Processing (3)

VoEd 5300—Philosophy and Practice of Vocational Education (3)

3 credits in education courses

Basic Business and/or Economics

Major Courses (minimum 36 credits)

Econ 3101—Microeconomic Theory (4)

Econ 3102—Macroeconomic Theory (4)

Econ 3701—Money and Banking (4)

BLaw 3088—Law of Personal Property, Sales Contracts, Commercial Paper, and Wills and Estates (4)

IR 3002—Industrial Relations Systems: Labor Markets and the Management of Human Resources (4)

Ins 3100—Risk Management and Insurance (4)

12 credits at the 3000 and 5000 levels in economics or business administration, including Mktg 3010

Professional Education Courses (minimum 6 credits)

BDE 3302—Teaching Basic Business Subjects (3)

3 credits in education courses

Comprehensive Business

Major Courses (minimum 47 credits)

BDE 1502—Intermediate Typewriting (3)

BDE 1503—Advanced Typewriting (3)

BDE 1505—Beginning Shorthand (3)

BDE 1506—Intermediate Shorthand (3)

BDE 1507—Advanced Shorthand (3)

BDE 1508—Office Management and Procedures (3)

BDE 1509—Office Machines (3)

6 credits in BDE 5359—Occupational Experience (1-18)

20 credits chosen from economics, agricultural economics, or business administration

Professional Education Courses (minimum 19 credits)

- BDE 3300—Teaching Typewriting (3)
- BDE 3301—Teaching Shorthand and Transcription (3)
- BDE 3302—Teaching Basic Business Subjects (3)
- BDE 3303—Teaching Accounting and Data Processing (3)
- BDE 5157—Materials and Methods in Office Education (4)
- VoEd 5300—Philosophy and Practice of Vocational Education (3)

Comprehensive Business (Without Shorthand)

Students take the same courses as specified for the comprehensive business program, substituting appropriate electives selected with the help of the major adviser to replace BDE 1505, 1506, 1507, and 3301, which are not required.

Vocational Office Education Licensure

In addition to the possession of a bachelor's degree in business education, the state of Minnesota requires that special licensure requirements be met to teach in certain vocational programs at the secondary and postsecondary levels. Information about these specialized vocational licenses should be obtained from the major adviser.

DISTRIBUTIVE EDUCATION

The following curriculum, leading to the B.S. degree, prepares teachers of distributive education (sales and marketing) for the secondary and postsecondary schools. Although not required, a minor may be completed through careful selection of electives. Students normally enter the College of Education after completion of at least 45 credits in liberal arts areas. They may enter later if they satisfy the admission requirements. Major advisers should be consulted as early as possible.

Students who have completed high school courses or experience in bookkeeping may be exempted from Acct 1050 and be admitted to Acct 1051 by passing a placement test.

Students preparing for vocational licensure must have had experience, preferably 1,000 hours, in a distributive occupation prior to admission. The equivalent of 4,000 hours of marketing-related occupational experience is required for graduation. Students who have had practical business experience or have completed a high school or post-high-school cooperative distributive education program may be exempted from part or all of BDE 5359. The extent of this exemption will depend on the quality, amount, and recency of such experience. Students who plan to work part time to complete the occupational experience requirement while enrolled will usually have to attend one or two summer sessions in order to meet graduation requirements.

Students are expected to participate in the student organization for distributive education majors as part of their preparation for becoming advisers to high school or postsecondary vocational student groups.

Students are also expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. Appropriate related and major courses may be applied toward these requirements.

Major in Distributive Education

Related Course Requirements

- 3 credits elected from mathematics courses or those including content in business, financial, or merchandise mathematics
- GC 1534—Practical Law (5) (or) BLaw 3058—Introduction to Law, and the Law of Contracts and Agency (4)

Undergraduate Programs in the College of Education

- GC 1537—Salesmanship (3)
- GC 1553—Marketing: Principles of Management (5) (or) Mgmt 3001—Fundamentals of Management (4)
- Econ 1001—Principles of Macroeconomics (4) (and) Econ 1002—Principles of Microeconomics (4) (and) 3 credits in economics to be elected
- Acct 1050, 1051—Principles of Accounting I, II, (4 each) (or) GC 1540, 1542—Accounting Fundamentals I, II (4 each)
- Mktg 3000—Principles of Marketing (4)
- Mktg 3010—Buyer Behavior and Marketing Analysis (4) (or) GC 1552—Marketing: Sales Promotion (5)
- Mktg 3065—Retail Management (4)
- BDE 1501—Beginning Typewriting (3)
- PsyF 5120—Educational Measurement in the Classroom (4)
- Five courses to be elected from the following: GC 1513, 1535, 1551, 1731; Jour 5251; Psy 5751; IR 3002; Mktg 3020, 3030, 3090; TexC 1641, 3643
- Also recommended (for artistic expression): Dsgn 1521, 1525; Ind 1490; GC 1536

Professional Education Courses (minimum 67 credits)

- BDE 1100—Introduction to Distributive Education (4)
- BDE 3302—Teaching Basic Business Subjects (3)
- BDE 3304, 3305—Methods: Distributive Education (4 each)
- BDE 3603, 3604, 3605—Student Teaching in Business or Distributive Education (4 each)
- BDE 5252—Teaching Merchandise Display (3)
- BDE 5351—Organization and Administration of Business and Distributive Education (4)
- BDE 5352—Coordination Techniques in Business and Distributive Education (4)
- BDE 5353—Curriculum Construction in Business and Distributive Education (4)
- BDE 5354—Postsecondary Business and Distributive Programs for Adults (3) (or) BDE 5355—Business and Distributive Programs for Adults (3)
- 3 credits in BDE 5359—Occupational Experience (1-18)
- SeEd 3150—Introduction to Secondary School Teaching (5)
- SeEd 3155—Psychological Foundations of Secondary Education (5)
- SPFE 3090—The School and Society (3)
- PsyS 5110—Counseling Procedures (3) (or) PsyS 5130—Introduction to Guidance (3)
- VoEd 5300—Philosophy and Practice of Vocational Education (3)
- VoEd 5800—Working With Special Needs Students (3) (or, with permission of adviser) PsyS 3106—Exceptional Students in Regular Classes (2)

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Electives to complete 186 credits should be selected in consultation with an adviser. Recommended are advanced courses in business administration, educational technology (e.g., ClSy 5000, 5001, 5002, 5003, 5004), consumer problems, guidance and counseling, conference leading, psychology of adolescence, social foundations of education, education of the disadvantaged, textiles, design, occupational psychology, vocational psychology, vocational education, and pre-fall student teaching.

A C + (2.50) grade average is required in the following courses for admission to the program, admission to student teaching, and graduation: BDE 1100, 3302, 3304, 3305, 3603, 3604, 3605, 5252, 5351, 5352, 5353, 5354 or 5355, 5359; GC 1537; Mktg 3000, 3065.

Minor in Distributive Education

Minor Courses (minimum 50 credits)

- Econ 1001—Principles of Macroeconomics (4) (and) Econ 1002—Principles of Microeconomics (4) (or) AgEc 1020—Principles of Macroeconomics (5) (and) AgEc 1030—Principles of Microeconomics (4)
- GC 1537—Salesmanship (3)
- Mktg 3000—Principles of Marketing (4) (or) AgEc 1400—Agricultural Marketing and Prices (4)
- Mktg 3065—Retail Management (4) (or) GC 1553—Marketing: Principles of Management (5)
- BDE 1100—Introduction to Distributive Education (4)
- BDE 3304—Methods: Distributive Education (4)
- BDE 3603—Student Teaching in Business or Distributive Education (4)
- BDE 5351—Organization and Administration of Business and Distributive Education (4)
- 3 credits in BDE 5359—Occupational Experience (1-18)
- Electives—12 credits selected in consultation with the adviser

HOME ECONOMICS EDUCATION

The curricula in home economics education, offered jointly by the College of Home Economics and the College of Education, are designed for those who plan to become educators in school or community settings. Satisfactory completion of one or more of the three curricula qualifies students for vocational home economics licensure, which is required for teaching in federally aided schools.

During the first two years, students register in the College of Home Economics. Early in the quarter in which they will complete 90 credits of specified courses at the designated level, and after completion of HEEd 1500 and/or HEEd 1510, students apply for joint admission to the College of Education. To be eligible for admission to the College of Education, students must have a grade average of C (2.00) overall and C+ (2.50) in the major courses. The application form and information about admission procedures should be obtained at the Office of Admissions and Records, 130 Coffey Hall, Twin Cities campus/St. Paul.

Alternate courses may be substituted for specified courses with department approval. Advisers will have information about electives.

Students are expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. The three curricular options, designed to include appropriate courses to satisfy the liberal education distribution requirements, are (1) consumer-homemaking; (2) family life; and (3) occupational education with child care and development, food service, or textiles and clothing clusters.

For admission to clinical experiences students must have a grade average of C+ (2.50) in all major and HEEd courses and C (2.00) overall.

COMMON REQUIREMENTS FOR ALL HOME ECONOMICS EDUCATION CURRICULA

Related Course Requirements

- Rhet 1101, 1102—Communication I, II (4 each)
- Rhet 1222—Public Speaking (4)
- Rhet 3551—Professional Writing (4)
- Psy 1001—General Psychology (5)
- Soc 1001—Introduction to Sociology (4)
- AgEc 1020—Principles of Macroeconomics (5) (and) AgEc 1030—Principles of Microeconomics (4) (or) Econ 1001—Principles of Macroeconomics (4) (and) Econ 1002—Principles of Microeconomics (4)

Undergraduate Programs in the College of Education

- Chem 1001, 1002—Chemical Principles and Covalent Systems (5 each) (or) Chem 1004, 1005—General Principles of Chemistry (5 each)
- GC 1132—Biological Science: The Human Body (5)
- FScN 1020—Introductory Microbiology (4)
- Dsgn 1501—Introduction to Design (3)
- 2 elective credits from courses in group A (Communication, Language, and Symbolic Systems)
- 9 elective credits from courses in group D (Literary and Artistic Expression)

Professional Education Courses (minimum 34 credits)

- SeEd 3150—Introduction to Secondary School Teaching (5)
- SeEd 3155—Psychological Foundations of Secondary Education (5)
- SPFE 3090—The School and Society (3)
- HEEd 1500—Introduction to Home Economics Education (2)
- HEEd 1510—Knowledge and Values in Teaching (4)
- HEEd 3520—Home Economics Curriculum and Instruction: Cognitive Learning (5)
- HEEd 3530—Home Economics Curriculum and Instruction: Affective Learning (4)
- HEEd 3620—Curriculum Management (3)
- VoEd 5300—Philosophy and Practice of Vocational Education (3)
- VoEd 5800—Working With Special Needs Students (3) (or, with permission of adviser)
- PsyS 3106—Exceptional Students in Regular Classes (2)

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Electives to complete 186 credits—recommended is GC 1442

In addition to the above common requirements, students must complete one of the three options that follow:

Consumer-Homemaking Option

Related Course Requirements

- AgEc 5580—Economic Organization of the Household (4) (or) FSoS 5220—Family Economics (3) (or) GC 1534—Practical Law (5) (or) FSoS 3500—The Consumer and the Market System (3)
- CPsy 1301—Introduction to Child Psychology (4)
- CPsy 3303—Adolescent Psychology (4)
- 2 credits in CPsy 3330—Directed Experiences (1-4)

Major Courses (minimum 65 credits)

- HEEd 3331—Children and Parenting: Curriculum Methods and Materials (2)
- 3 credits in HEEd 5407—Family Life Education: Curriculum Methods and Materials (1-3)
- FScN 1212, 1213—Scientific Principles of Food Preparation I, II (4, 3)
- FScN 1602—Principles of Nutrition (4)
- FScN 3472—Principles of Food Purchasing (4)
- Dsgn 1551—Consumer Aspects of Housing and Furnishings (4)
- TexC 1602—Fitting the Human Subject (2)
- TexC 1603—Advanced Principles of Apparel Production (2)
- TexC 3621—Textiles (5)
- TexC 3603—Ready-to-Wear Analysis (3) (or) TexC 5622—Issues and Trends in Textile Consumer Protection (3) (or) TexC 5661—Clothing and Human Behavior (4) (or) TexC 5662—Clothing Consumption Problems (3)

- FSoS 1401—Household Equipment (4)
- FSoS 3260—Home Management Principles (3)
- FSoS 5200—Family Relationships (5)
- Electives from an area within the major selected in consultation with an adviser to meet the 65-credit minimum

Professional Education Courses (minimum 12 credits)

- 9 credits in HEEd 3601—Clinical Experience (3-18)
- HEEd 3611—Fieldwork (3)

Family Life Option

Major Courses (minimum 72 credits)

Group A

- 11 credits in food and nutrition
 - FScN 1212, 1213—Scientific Principles of Food Preparation I, II (4, 3)
 - FScN 1602—Principles of Nutrition (4)
- 8 credits in housing
 - Dsgn 1551—Consumer Aspects of Housing and Furnishing (4)
 - Dsgn 5567—Housing Alternatives for the Family (4)
- 8 credits in child development
 - CPsy 1301—Introduction to Child Psychology (4)
 - 2 credits in CPsy 3330—Directed Experiences (1-4)
 - HEEd 3331—Children and Parenting: Curriculum Methods and Materials (2)
- 6 credits in textiles and clothing selected from
 - TexC 1602—Fitting the Human Subject (2)
 - TexC 1603—Advanced Principles of Apparel Production (2)
 - TexC 3661—Cultural Perspectives on Dress (3)
 - TexC 5662—Clothing Consumption Problems (3)
- 8 credits in family relationships
 - FSoS 5200—Family Relationships (5)
 - HEEd 5407—Family Life Education: Curriculum Methods and Materials (3)
- 6 credits in consumer education selected from
 - FSoS 3260—Home Management Principles (3)
 - FSoS 3500—The Consumer and the Market System (3)
 - FSoS 5220—Family Economics (3)

Group B (minimum 13 credits)—Select one course in each of the following areas

Family structure and function

- FSoS 5202—Introductory Social Psychology With Applications to the Family (5)
- FSoS 5210—The Family in World Perspective (5)
- Anth 3222—Peoples and Cultures of Mid-America (4)
- Soc 5505—Family Development (5)

Parent education

- CPsy 5339—Parent-Child Relationships (4)
- FSoS 5025—Parenting (4)

Human sexuality

- FSoS 5001—Human Sexual Behavior (4)
- 4 credits in YoSt 5130—Special Topics: Youth Studies (3-5)

Group C

- 12 additional credits in courses with an emphasis on the family; suggested are:
Anth 1102 or 5112; CPsy 3303, 3304, 3331, 5333; HEEd 5003; Psy 3101, 5141;
Soc 5505, 5506, 5511; or offerings in youth studies (YoSt)

Professional Education Courses (minimum 12 credits)

- 9 credits in HEEd 3601—Clinical Experience (3-18)
- HEEd 3611—Fieldwork (3)

Undergraduate Programs in the College of Education

Home Economics Occupational Education Option

To qualify for licensure as a teacher in a high school home economics occupational education program in Minnesota, students must select one or more subject matter clusters: child development and care, food service, or textiles and clothing services. In addition to the subject matter preparation, licensure requirements include a specified number of hours of occupational experience in the area of the subject matter cluster.

Related Course Requirements

- CPsy 1301—Introductory Child Psychology (4)
- CPsy 3303—Adolescent Psychology (4)

Major Courses (minimum 32 credits)

- FScN 1212, 1213—Scientific Principles of Food Preparation I, II (4, 3)
- FScN 1602—Principles of Nutrition (4)
- FSoS 1401—Household Equipment (4)
- FSoS 3260—Home Management Principles (3)
- FSoS 5200—Family Relationships (5)
- TexC 1602—Fitting the Human Subject (2)
- TexC 1603—Advanced Principles of Apparel Production (2)
- TexC 3621—Textiles (5)

Cluster Requirements

Food Service Cluster (minimum 19 credits)

- FScN 1700—Introduction to Hospitality and Food Service Management (2)
- FScN 3472—Principles of Food Purchasing (4)
- FScN 3730—Quantity Food Purchasing and Production (5)
- FScN 3740—Design and Layout of Food Services (4)
- Mgmt 3001—Fundamentals of Management (4)

Child Development and Care Cluster (minimum 20 credits)

- 2 credits in CPsy 3330—Directed Experiences (1-4)
- CPsy 3311—Behavioral and Emotional Problems (4) (or) CPsy 5315—Introduction to Mental Retardation (4)
- CPsy 3331—Processes of Socialization of Children (4)
- CPsy 5339—Parent-Child Relations (4)
- Elem 3376—Nursery School-Kindergarten Curriculum (3)
- Elem 3378—Social Learning in Early Childhood Education (3)

Textiles and Clothing Cluster (minimum 13 credits)

- TexC 1641—Introduction to Merchandising (3)
- TexC 3604—Flat Pattern Design (3) (or) TexC 3605—Draping Design and Construction (3) (or) Dsgn 1541—Costume Design I (3)
- TexC 3622—Textiles for Interiors (3)
- TexC 3642—Apparel Industries (4)

Electives may be selected in consultation with an adviser.

Professional Education Courses (minimum 18 credits)

- 3 credits in HEEd 5336—Home Economics Occupational Experience (1-9)
- 9 credits in HEEd 3601—Clinical Experience (3-18)
- HEEd 3611—Fieldwork (3)
- HEEd 5331—Home Economics Occupational Education (3)

Optional Program for Instructor-Coordinator Licensure

Home economics teachers who wish to prepare themselves for positions as coordinators of home economics occupational programs in secondary schools may do so by completing additional occupational experience and 6 additional credits in the following courses:

- HEEd 5106—Coordination Techniques in Home Economics Occupational Education (3)
- HEEd 5301—Curricula, Materials, Methods: Home Economics Occupational Education (3)

INDUSTRIAL EDUCATION

Two undergraduate majors are offered in industrial education: the B.S. degree with a major in industrial education and the B.S. degree with a major in vocational-industrial education. Students completing the specified undergraduate program with a major in industrial education will be awarded the B.S. degree and will be recommended for the standard special license to teach industrial arts in Minnesota public schools. Those completing the specified undergraduate program with a major in vocational-industrial education will be awarded the B.S. degree and will be recommended for licensure under the provisions of the Minnesota State Plan for Vocational Education to teach in secondary and postsecondary vocational schools in Minnesota. Both programs offer preparation for graduate study.

Students applying for admission to either program must have completed 45 quarter credits, including courses in mathematics, physical science, and English, with at least a C (2.00) grade average. Application for admission to the major in vocational-industrial education also requires that students submit verification of occupational experience. This work experience will be evaluated using the standards for licensure at the postsecondary level as stated in the Minnesota State Plan for Vocational Education. In order to be admitted, students in this program must have sufficient occupational experience in the area in which they intend to teach to be eligible for licensure as a vocational-industrial education teacher in a Minnesota area vocational-technical institute.

In addition to the classes scheduled on the campus, industrial education courses are conducted at various centers throughout the state, planned in cooperation with the Minnesota State Board of Education and local school authorities. Services are available to industrial groups, such as supervisors and other personnel with instructional responsibilities, and to public schools. Students may arrange to take a number of laboratory courses at the William Hood Dunwoody Industrial Institute and at metropolitan area vocational-technical institutes without fees other than those paid at the University. Consent of the adviser must be secured prior to registration in any off-campus laboratory course.

Students are expected to complete the liberal education distribution requirements as detailed at the beginning of this section of the bulletin. Appropriate related and major courses may be applied toward those requirements.

Students who major in industrial education and in vocational-industrial education must file an approved program with the industrial education adviser at least two full quarters prior to their expected date of graduation.

Major in Industrial Education

Related Course Requirements

- GC 1452—Trigonometry and Problem Solving (5) (or) Math 1131—Finite Mathematics (5) (or) Math 1111—College Algebra and Analytic Geometry (5)
- Spch 1101—Fundamentals of Speech Communication: Oral Communication (4) (or) GC 1461—Oral Communication: Basic Principles (5)

Undergraduate Programs in the College of Education

Rhet 3551—Professional Writing (4) (or) Rhet 3562—Scientific Technical Writing (4)
Phys 1004—The Physical World: Physics (4) (and) Chem 1008—The Physical World:
Chemistry (4) (or) GC 1163, 1166—Physical Science: Principles of Physics,
Chemistry (5 each)

Minimum of 8 credits to be selected from Econ 1001, 1002, 3501; IR 3002; GC 1232,
1295; SSci 3402; PsyS 5210

Major Courses (minimum 54 credits plus occupational experience)

Ind 1600—Drafting (3)

Ind 1602—Drawing and Design (3)

Ind 1604—Industrial Materials and Measurement (3)

Ind 1606—Introduction to Industrial Processes (3)

6 credits (30 credits total) from each of the five following areas:

Construction:

Ind 1610, 1612—Construction Technology I, II (3 each)

Graphic Communication:

Ind 1620, 1622—Graphic Communication I, II (3 each)

Manufacturing:

Ind 1630, 1632—Manufacturing I (Processes), II (Production) (3 each)

Power and Energy:

Ind 1640—Introduction to Power and Energy (3)

Ind 1642—Power and Energy Systems (3)

Transportation:

Ind 1650, 1652—Transportation I, II (3 each)

Electives to complete the 54-credit minimum to be selected from: Ind 3110, 3111,
3120, 3121, 3130, 3131, 3140, 3141, 3150, 3151, 5100, 5101, 5102, 5103

Graduates completing the minimum requirements described above will be eligible for industrial arts licensure for grades 5-9. To be eligible for licensure to teach industrial arts in grades 9-12, a concentration of at least 15 credits must be completed in one of the five areas above. Ind 5100, 5101, 5102, and 5103 may not be used to complete the 15-credit minimum.

Professional Education Courses (minimum 54 credits)

Ind 1300—Introduction to Industrial Education Teaching (2)

Ind 3160—Industrial Education Instructional Management (3)

Ind 3700, 3702, 3704—Student Teaching (3 each) (and) 1 credit in Ind 3701—Student Teaching Seminar (1-3)

Ind 3750—Industrial Practices and Processes (3)

Ind 5301—Tests in Industrial Subjects (3)

Ind 5303—Instructional Aids (3)

Ind 5320—Vocational Guidance (3)

Ind 5330—Industrial Course Construction (3)

Ind 5360—Industrial Instruction (3)

VoEd 5300—Philosophy and Practice of Vocational Education (3) (or) Ind 5325—Foundations of Industrial Education (3)

VoEd 5800—Working With Special Needs Students (3) (or, with permission of instructor) PsyS 3106—Exceptional Students in Regular Classes (2)

SeEd 3150—Introduction to Secondary School Teaching (5)

SeEd 3155—Psychological Foundations of Secondary Education (5)

SPFE 3090—The School and Society (3)

Hlth 1500—American Red Cross Standard First Aid and Personal Safety (2)

Minimum of 3 credits in Ind 1800, 1801, 1802, 1803, 3801, 3802, 3803, 3804—Career Planning Practicum (1 each)

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Electives to be selected in consultation with adviser to complete 186 credits

Prerequisites for student teaching are:

1. Junior or senior status
2. Completion of at least 30 of the 54 laboratory credits in the major
3. Completion of Ind 1300, 5360; SeEd 3150, 3155
4. A grade average of C + (2.50) for all work in industrial education, including the laboratory courses

Major in Vocational-Industrial Education

Related Course Requirements

77 credits in mathematics, science, language, speech, social science, philosophy, history, sociology, psychology, or child psychology selected with consent of the adviser; must include Math 1008—Trigonometry (3) (and) Math 1111— College Algebra and Analytic Geometry (5)

Major Courses (minimum 45 credits)

Students admitted to this program will be granted the 45 credits on the basis of demonstrated occupational competency. The 45 credits will be awarded after completion of all other degree requirements.

Professional Education Courses (minimum 48 credits)

- Ind 3700, 3702, 3704—Student Teaching (3 each)
- Minimum of 1 credit from Ind 3701, 3703, 3705, 3707—Student Teaching Seminar (1-3 each)
- Ind 3900—Independent Study (3)
- Ind 5301—Tests in Industrial Subjects (3)
- Ind 5303—Instructional Aids (3)
- Ind 5320—Vocational Guidance (3)
- Ind 5325—Foundations of Industrial Education (3)
- Ind 5330—Industrial Course Construction (3)
- Ind 5360—Industrial Instruction (3)
- Hlth 1500—American Red Cross Standard First Aid and Personal Safety (2)
- SPFE 3090—The School and Society (3)
- VoEd 5800—Working With Special Needs Students (3) (or, with permission of instructor) PsyS 3106—Exceptional Students in Regular Classes (2)
- 12 credits to be elected from Ind 1300 or 1301 (3 max), 1302 (3 max), 3706, 3901, 3902, 5305, 5344; SeEd 3150, 3155; Educ 5104; AgEd 5035; BDE 5354; PsyS 5101, 5210; PsyF 3370

Special Requirements for All Students

- PsyF 3380—Introduction to Human Relations (3)
- PubH 3004—Basic Concepts in Personal and Community Health (5)
- Physical Education—3 credits

Electives—9 credits to complete a total of 186 credits

Prerequisites for student teaching are:

1. Junior or senior status
2. Completion of Ind 5360
3. A grade average of C + (2.50) for all work in industrial education



III. ADVANCED STUDY

Postbaccalaureate and graduate programs receive a major emphasis in the College of Education. These programs are designed to continue the development of school personnel and to prepare students for a wide range of specializations. The college offers a professional degree, the master of education (M.Ed.), intended primarily to help teachers and other professionals improve their skills. Programs offered through the Graduate School lead to the M.A., Ph.D., Ed.D. degrees, and to the specialist certificate in school administration, college teaching, counseling, supervision of curriculum and instruction, and other specialized fields.

This section of the bulletin contains basic information about the professional and graduate degrees and brief descriptions of the specific programs. Students interested in a particular program should contact the appropriate department in the college or obtain the *Graduate School Bulletin* for further information.

Master of Education Degree

Programs for the M.Ed. are of two types. Plan I programs are for licensed teachers who wish to pursue advanced professional study; Plan II programs are for professional personnel in fields not requiring teacher licensure. The M.Ed. degree programs are *not* designed to prepare students for initial licensure.

M.Ed. programs are quite flexible. Each student's program is planned with an adviser. All programs require a minimum of 45 credits of study distributed among course work, independent study, seminars, internships, workshops, and school-based experiences.

Applications for admission to all fields except home economics education and agricultural education should be made to the College of Education through the Office of Admissions, Williamson Hall, 231 Pillsbury Drive S.E., University of Minnesota, Minneapolis, Minnesota 55455; College of Education graduates apply at 150 Williamson Hall, and all others apply at 240 Williamson Hall. Students interested in the M.Ed. program in home economics or agricultural education should apply to the Office of Admissions and Records, 130 Coffey Hall, 1420 Eckles Avenue, University of Minnesota, St. Paul, Minnesota 55108. Admission criteria include graduation from an accredited college or university with an appropriate undergraduate major or specialization, departmental approval of the application, and concurrence of the college.

The following master of education degree programs are offered by the College of Education:

Plan I (for licensed teachers):

Agricultural Education
Art Education
Business Education
Distributive Education
Early Childhood Education
Elementary Education
English Education
Home Economics Education
Industrial Education

Mathematics Education
Music Education
Physical Education
School Health Education
Science Education
Second Languages and
Cultures Education
Social Studies Education
Special Education

Plan II (for nonlicensed professional personnel):

Agricultural Education
Home Economics Education
Industrial Education

Recreation, Park, and
Leisure Studies
School Health Education
Science Education

Postbaccalaureate Programs in Education

The following listing is provided to identify areas in which postbaccalaureate programs in education are available. Master of education (M.Ed.) programs are described in detail in this section of the bulletin. Students interested in the master of arts, doctor of education, doctor of philosophy, and specialist degree programs should contact the department indicated and should obtain the *Graduate School Bulletin* for details about admission and program requirements.

In addition to the degree programs listed, the doctor of education (Ed.D.) degree is offered with a major in industrial education, vocational education, or educational administration. Specialist certificate programs are available in the following areas: business education, distributive education, mathematics education, general curriculum supervision (grades 7-12), counseling, psychology in schools training programs, special education, and several levels of educational administration.

<i>Field or Emphasis</i>	<i>M.Ed.</i>	<i>M.A.</i>	<i>Ph.D.</i>
Adult Education	no	Education	Education (Curriculum and Instruction)
Agricultural Education	yes	Agricultural Education or Education	Education (General Education Aspects of the Vocational Field) or Vocational Education
Art Education	yes	Art Education or Education	Education (Curriculum and Instruction)
Business Education	yes	Business Education or Education	Education (General Education Aspects of the Vocational Field) or Vocational Education
Child Psychology	no	Child Psychology	Child Psychology
Community Education	no	Education (Adult) or Educational Administration or Recreation, Park, and Leisure Studies	See field or emphasis
Counseling and Student Personnel Psychology	no	Educational Psychology	Educational Psychology
Curriculum and Instructional Systems	no	Education or Secondary Education	Education (Curriculum and Instruction)
Distributive Education	yes	Distributive Education or Education	Education (General Education Aspects of the Vocational Field) or Vocational Education
Early Childhood Education	yes	See Child Psychology or Elementary Education	See Child Psychology or Elementary Education
Education	no	See field or emphasis	See field or emphasis
Educational Administration	no	Educational Administration	Educational Administration
Educational Psychology	no	See field or emphasis	See field or emphasis
Elementary Education	yes	Elementary Education or Education	Education (Curriculum and Instruction)
English/Reading Education	yes	Education or Secondary Education	Education (Curriculum and Instruction)

<i>Field or Emphasis</i>	<i>M.Ed.</i>	<i>M.A.</i>	<i>Ph.D.</i>
Foreign Languages (see Second Languages)			
Higher Education	no	Education	Education (Higher Education)
Home Economics Education	yes	Home Economics Education or Education	Education (General Education Aspects of the Vocational Field) or Vocational Education
Industrial Education	yes	Industrial Education or Education	Education (General Education Aspects of the Vocational Field) or Vocational Education
Library	no	Library Science	
Mathematics Education	yes	Mathematics Education or Education	Education (Curriculum and Instruction)
Methodology	no	Educational Psychology	Educational Psychology
Music Education	yes	Music Education or Education	Education (Curriculum and Instruction)
Physical Education	yes	Physical Education	Physical Education
Psychological Foundations	no	Educational Psychology	Educational Psychology
Psychology in the Schools Training Programs	no	Educational Psychology	Educational Psychology
Recreation, Park, and Leisure Studies	yes	Recreation, Park, and Leisure Studies	Education (Recreation, Park, and Leisure Studies)
School Health Education	yes	Education	Physical Education
Science Education	yes	Secondary Education or Education	Education (Curriculum and Instruction)
Second Languages and Cultures Education	yes	Secondary Education or Education	Education (Curriculum and Instruction)
Secondary Education	no	See field or emphasis	See field or emphasis
Social and Philosophical Foundations of Education	no	Social and Philosophical Foundations of Education	Education (Social and Philosophical Foundations)
Social Studies	yes	Secondary Education or Education	Education (Curriculum and Instruction)
Special Education	yes	Educational Psychology	Educational Psychology
Teacher Education	yes	Education	Education (Curriculum and Instruction)
Vocational Education	no	See field or emphasis	Vocational Education

Advanced Study

Following admission to an M.Ed. program, the student and her or his adviser design a proposed program suited to the student's needs and interests. The proposed program is then submitted to a departmental committee for approval. The approved program with all necessary documentation is then submitted to the Student Progress Committee in the Education Career Development Office, 1425 University Avenue S.E. No more than one-third of the credits may be completed on S-N grading; no more than 12 credits completed prior to admission may be applied to a program; and, in most instances, a maximum of 12 credits completed in Continuing Education and Extension may be applied. All work submitted for the degree must be concluded within seven years after acceptance into the program. A minimum grade average of 2.80 is required for graduation. Students should apply for graduation at the Registration Center on the second floor of Fraser Hall (150 Williamson Hall for students with mobility impairments) early in the quarter in which they plan to complete work for the degree.

Graduate Study

Graduate programs at the University of Minnesota are administered by the Graduate School. Applications for admission to these programs are made to the Graduate School Office, 306 Johnston Hall, 101 Pleasant Street S.E., University of Minnesota, Minneapolis, Minnesota 55455. Graduate-level courses in education are offered during the regular academic year (a large number are scheduled during late afternoon and Saturday morning hours) and during the summer terms.

Students intending to take graduate work after finishing undergraduate studies should be aware of the policies of graduate schools for evaluating courses taken under S-N and similar grading systems. Most major graduate schools, including that at the University of Minnesota, have adopted special policies for courses taken S-N that are offered in support of an application for admission. The policy of the Graduate School of the University of Minnesota, as approved by its Executive Committee, is as follows:

Applicants who submit undergraduate narrative transcripts or transcripts containing "pass-no credit (P-N)," "credit," or other ungraded notations for a substantial number of courses taken during their junior-senior years must submit the results of the Graduate Record Examination (both the aptitude test and an appropriate advanced test). The Graduate School will also require written evaluations of work taken in all ungraded courses that have a bearing on the applicant's proposed major field. Address all inquiries to the Graduate School.

MASTER OF ARTS DEGREE

Graduate study leading to the M.A. degree is available in most education fields. This degree is offered under two plans: Plan A, involving a thesis; and Plan B, which substitutes additional course work and nine credits of special papers for the thesis. The majority of M.A. degrees in educational fields are taken under Plan B.

A master's degree program ordinarily takes from four to six quarters in residence to complete. The minimum residence requirement for the degree is enrollment at full tuition for three academic quarters, or its equivalent in summer terms (two summer terms—that is, a full summer session—are equivalent to one academic quarter for this purpose). State residents may petition to complete the program in five summer terms, but nonresidents must pay full tuition for the three academic quarters or summer equivalent. It is possible for a student holding the bachelor's degree to complete an M.A. program through registration in summer terms.

After completion of 15 credits, and not later than the third quarter of registration (the second year for the longer programs), students file with the Graduate School the official proposed program for the degree (Plan A or Plan B), listing all course work, completed and proposed, that will be offered in fulfillment of degree requirements. The Graduate School does not require foreign language study, but departments may determine language requirements for specific major programs.

SPECIALIST CERTIFICATE

Programs that lead to the specialist in education certificate are available in a number of fields. These programs require the completion of a minimum of 90 credits. Students will usually complete the requirements for the master's degree with a major in the field of the specialty as the first year of the program. All first-year students must meet regular admission, degree candidacy, and examination requirements for the master of arts degree, and specify as their degree objective the master's degree on the application form. Any decision regarding continuation in a specialist program beyond the master's degree depends on an evaluation of performance in meeting requirements for that degree. The following specialist certificate programs are offered:

General Educational Administration	Psychology in the Schools Training Programs
School Business Administration	Special Education
Intermediate Unit in Educational Administration	Business Education
Secondary School Administration	Distributive Education
Elementary School Administration	Mathematics Education
Counseling	General Curriculum Supervision (Grades 7-12)

Qualifying examinations in specific areas may be required of students who present credits from other institutions.

For details of program requirements, consult the *Graduate School Bulletin*. The two-year program must be completed within a period of 12 years.

DOCTOR OF EDUCATION DEGREE

The University of Minnesota awards the doctor of education (Ed.D.), its highest professional degree in the field of education, in recognition of completion of academic preparation and demonstrated competence for professional activity in the field. The Ed.D. is offered in the following fields: educational administration, industrial education, and vocational education.

Standards and procedures for admission and expectations for performance are, in general, comparable to those for the Ph.D. A major part of the program must be completed in full-time residence, including at least one academic year of continuous registration at advanced stages of the program. Rules and procedures for the Ph.D. governing examinations, degree candidacy, time limits, appointment of committees, and the thesis apply in general to the Ed.D.

DOCTOR OF PHILOSOPHY DEGREE

The degree of doctor of philosophy is granted in recognition of high attainment and ability of candidates in their special fields as demonstrated through required examinations covering both the general and special fields and through the preparation and defense of a thesis.

Candidates for the doctoral degree must register in the Graduate School for at least nine quarters of graduate study in approved subjects and thesis research and writing. Students who transfer work for the degree from other graduate schools must spend the first two years, or the last year, in residence at the University of Minnesota.

There is no minimum number of credits specified for the major by the Graduate School, and frequently, depending upon previous preparation, the types and durations of programs for individual students, even within the same field, may vary considerably.

It is expected that from 18 to 24 credits will be offered in the minor or supporting program. With a traditional minor, this work is in a single field related to the major. For a supporting program, a coherent pattern of courses embracing several disciplines is required. Students electing the supporting program option are expected to take a preliminary written examination in the fields included in the program, but are not expected to attain competency in each of the fields comparable to that required for a traditional minor.

Adult Special

A person who wishes to take courses but who has not been formally admitted to a degree program in the College of Education or the Graduate School may be admitted as an adult special student in the College of Education. Graduates of the College of Education need not apply for admission as an adult special student: they need only secure a permit to register at the Registration Center, on the second floor of Fraser Hall (150 Williamson Hall for students with mobility impairments). All others should obtain the adult special application form in the Office of Admissions, 240 Williamson Hall, and return the application to that office as early as possible before registration. Those who have been admitted as an adult special student and who wish to enroll in a degree program must apply for admission to the specific program. Students should be aware that there is a limit on the number and type of adult special credits that may be transferred to a Graduate School program; contact the Graduate School for information.

Courses numbered 8000 or above are reserved for students who have been admitted to the Graduate School; adult special students are *not* permitted to register for these courses.

CURRICULA

Child Psychology

Graduate study is available in several areas of child psychology. A student interested in the M.A. or Ph.D. degree program should apply for admission to the director of admissions, Institute of Child Development, and to the Graduate School, specifying the major as child psychology. Consult the *Graduate School Bulletin* for details about admission requirements for the M.A. and Ph.D. degree programs. See also the section below for details of the M.Ed. program in early childhood education.

Communication Disorders

The Department of Communication Disorders in the College of Liberal Arts, through the Graduate School, offers graduate programs leading to the master of arts degree with emphasis in either speech pathology or audiology, and to the Ph.D. degree with emphasis in speech pathology, speech science, audiology, or hearing science. Graduate students who complete the M.A. degree in speech pathology or audiology meet the academic and clinical practicum requirements for Minnesota licensure and for the American Speech-Language-Hearing Association Certificate of Clinical Competence.

Community Education

Three program areas within the College of Education cooperate to offer graduate-level study to those interested in the design, implementation, evaluation, and administration of community schools and community education programs. Students may prepare for leadership roles in community education through any of the three areas: adult education, educational administration, or recreation, park, and leisure studies. Students plan programs designed to develop both theoretical and practical competencies. Courses appropriate to community education are drawn from these areas as well as from other areas within the College of Education and other units of the University.

Curriculum and Instruction

This department offers graduate-level study in all of its program areas. See the specific areas for descriptions of advanced programs: adult education; art education; curriculum systems; early childhood education; elementary education; higher education; instructional

systems; mathematics education; remedial reading and reading supervisor endorsement; school library and media licensure; secondary academic fields of English education, mathematics education, science education, second languages and cultures education, and social studies education; and teacher education.

ADULT EDUCATION

Graduate-level study is offered to those interested in the design, implementation, and evaluation of educational programs for adults. Students can prepare for teaching, program development, and administrative roles in a wide variety of institutions and agencies that offer training and education for adults. Students may develop programs within the general area of adult education or may concentrate on one of the following areas: adult basic education, community education, continuing education of the professional, continuing education of older adults, and training and development. Course offerings in this area are listed under the heading Education (Educ) in section IV.

ART EDUCATION

The M.Ed. program in art education is designed to help teachers improve their teaching skills. Secondary teachers applying for the program should have an undergraduate major in art education. Elementary teachers must have completed 27 credits in art and art education for admission to the program. A general description of the master of education degree is detailed at the beginning of this section of the bulletin. All programs are individually planned to meet the needs and interests of the student.

Course Requirements for Licensed Art Teachers in Secondary Schools (minimum 45 credits)

ArEd 5389—Application of Aesthetic Theory in Education (3)

ArEd 5900—Professional Problems (3)

14 credits from studio art, art history, and/or art education

Electives—25 credits selected with the consent of an adviser

Course Requirements for Elementary School Teachers (minimum 45 credits)

36 credits in art, art education, and electives selected with the consent of an adviser

9 credits in education courses outside the major

Students interested in graduate study in art education should see the *Graduate School Bulletin* or contact the Graduate School for details about programs.

CURRICULUM SYSTEMS

Programs leading to the M.A. and Ph.D. degrees and specialist certificate are offered through the Graduate School. These curricula prepare students as college teachers, public school curriculum directors or coordinators, and educational program directors in other institutional settings. Courses are designed for students in all academic and professional disciplines as well as those majoring in education.

EARLY CHILDHOOD EDUCATION

The M.Ed. program in early childhood education is designed for the preschool teacher who wants to acquire a degree of expertise in a number of different curricular areas as well as in child growth and development. A general description of the master of education degree is detailed at the beginning of this section of the bulletin.

Course Requirements (minimum 48 credits)

30 credits from child psychology and elementary education with a minimum of 12 credits in child psychology and 12 credits in elementary education, including Elem 5376, 5377, 5378

18 credits to be selected in consultation with an adviser

ELEMENTARY EDUCATION

The M.Ed. program in elementary education has three primary objectives: (1) to help elementary school teachers improve their teaching skills, (2) to help elementary school teachers develop additional decision-making skills needed to select instructional materials and teaching strategies appropriate to their current teaching situations, and (3) to assist elementary school teachers in functioning effectively in school decision-making and evaluation processes. A general description of the master of education degree is detailed at the beginning of this section of the bulletin.

Course Requirements (minimum 48 credits)

- Elem 5100—Elementary School Curriculum (3)
- Elem 5107—Diagnosis and Treatment of Learning Difficulties (3)
- Elem 5300—Literature for the Elementary School (3)
- Elem 5317—Materials Laboratory for Teaching English in Elementary Schools (3)
- Elem 5337—Beginning Reading Instruction (3) (or) Elem 5338—Teaching Reading in the Intermediate Grades (3)
- Elem 5350—Elementary School Science: Materials and Resources (3)
- Elem 5602—Practicum: Improvement of Teaching (3)
- 3 credits in Elem 5363—Workshop: Curriculum Implementation in Elementary School Social Studies (Cr ar)
- 3 credits in MthE 5101—Workshop: Elementary School Mathematics (1-12)
- One course from Elem 5109, 5120, 5316, 5334, 5347, 5362, 5377; MthE 5321
- 18 credits to be selected in consultation with an adviser

Programs leading to the M.A. and Ph.D. degrees emphasizing areas of study in elementary education are offered through the Graduate School. These graduate programs prepare teachers at an advanced level for classroom work or prepare the several specialists in elementary education such as the supervisor, consultant, principal, teacher educator, or teacher of special classes. Requirements for the M.A. and Ph.D. degree programs are described in the *Graduate School Bulletin*. Applicants should have completed an undergraduate curriculum leading to licensure for elementary school teaching. In applying for admission to the Graduate School, applicants should indicate the specific area of interest within elementary education they wish to emphasize. Classroom teachers, supervisors, consultants, and teacher educators major in elementary education for the M.A. degree or education for the Ph.D. degree. Prospective elementary school principals major in educational administration for the M.A. or Ph.D. degree, and their programs include work in elementary education with special emphasis on the improvement of instruction. Special-class teachers take substantial amounts of work in educational psychology in addition to that required in elementary education.

HIGHER EDUCATION

Graduate study is offered with an interdepartmental major in education (emphasis higher education) at the M.A. or Ph.D. level. The Ph.D. program focuses on the application of knowledge in the sciences of human behavior and organization to key problems in the development and operation of postsecondary educational programs in institutions. An M.A. program is also available for a limited number of students whose professional goals may be met at that level. Courses with a higher education focus are listed under the headings Education (Educ), Educational Administration (EdAd), Psychological Foundations (PsyF), Psychoeducational Studies (PsyS), and Social and Philosophical Foundations of Education (SPFE) in section IV. These courses are designed for specialists in a variety of academic and professional disciplines as well as those whose majors have a higher education emphasis. Program information is available from the Director of Graduate Studies in Higher Education, 221 Burton Hall, 178 Pillsbury Drive S.E., University of Minnesota, Minneapolis, Minnesota 55455.

INSTRUCTIONAL SYSTEMS

Instructional systems draws on the resources of the program areas of computer science, mass communications, psychology, and statistics, as well as those within the College of Education. The courses offered represent a range of content—from general, nontechnical areas to advanced levels of scientific research. Research and its application to the preparation of learning environments is the primary concern of instructional systems. Areas of study defined in the program are instructional administration and management, development, evaluation, psychology, and technical systems.

MATHEMATICS EDUCATION

The M.Ed. program in mathematics education is intended to help teachers improve their ability to operate as skilled professionals in the classroom, to develop skills important in the selection of instructional materials and strategies, and to function effectively in decision-making and evaluation processes within the school and community. Special features of the program include emphasis on improvement of classroom instruction, exposure to current trends and issues in mathematics education, program components designed to accommodate individual needs, and an opportunity for practicum experience in the public schools.

Course Requirements, Secondary Level (minimum 45 credits)

Mathematics education, minimum 18 credits including

MthE 5312—Teaching and Supervision of Mathematics in the Secondary School (3)

MthE 5322—Materials Laboratory for Secondary School Mathematics Instruction (3)

MthE 5332—Current Trends and Issues in Secondary School Mathematics Instruction (3)

3 credits in MthE 5980—Directed Studies (3-9)

Minimum of 12 credits in a supporting field in mathematics

Minimum of 6 credits in a supporting field in secondary education including CISy 5600 or CISy 5610

Electives to complete 45 credits

Course Requirements, Elementary Level (minimum 45 credits)

Mathematics education, minimum 18 credits including

MthE 5311—Teaching and Supervision of Mathematics in the Elementary School (3)

MthE 5321—Materials Laboratory for Elementary School Mathematics Instruction (3)

MthE 5331—Current Developments in Elementary School Mathematics Instruction (3)

3 credits in MthE 5980—Directed Studies (3-9)

Minimum of 12 credits in a supporting field in mathematics

Minimum of 6 credits in a supporting field in elementary education including Elem 5100

Electives to complete 45 credits

Graduate programs leading to the master of arts degree in mathematics education, specialist certificate in mathematics education, and doctor of philosophy degree in education with an emphasis in mathematics education are available. See the *Graduate School Bulletin* for details on admission and program requirements.

REMEDIAL READING AND READING SUPERVISOR ENDORSEMENT

Course work is available at the postbaccalaureate level leading to recommendation as an elementary remedial reading teacher; secondary remedial reading teacher; secondary developmental reading teacher; and reading consultant, supervisor, or coordinator. To be recommended for the endorsement, the student must have a valid Minnesota teaching license, have at least two years of teaching experience at the appropriate level, and complete the requisite course work.

SCHOOL LIBRARY AND MEDIA LICENSURE

The programs in this area, which lead to the master's degree, are designed to prepare graduate students to meet Minnesota State Board of Teaching requirements for endorsement as a school librarian or media generalist for grades K-12. Information about the programs is available from the Library School, 419 Walter Library, or Instructional Systems, 250 Burton Hall.

SECONDARY EDUCATION

M.Ed. program for secondary school teachers are offered in English education, mathematics education, science education, second languages and cultures education, and social studies education. See the specific fields below for program descriptions.

Graduate study is available for those interested in advanced study in the field. A secondary school teacher interested in completing the M.A. degree in secondary education or education should apply for admission to the Graduate School, specifying the major as secondary education with a specific area of interest (e.g., secondary education—science education), or as education if work in a combination of education fields with related work in teaching subjects is desired. For the Ph.D. degree in this field, the major should be specified as education with a specific area of interest indicated. See the *Graduate School Bulletin* for details about admission requirements.

English Education

The M.Ed. program in English education is open to licensed teachers with a major in a language arts area. The program offers a variety of courses designed to benefit teachers in their work in the schools.

Course Requirements (minimum 45 credits)

SeEd 5176—Classroom Research in English Education and Reading (3)

SeEd 5194—English Language Arts Curricula in the Secondary School (3)

Three courses from:

SeEd 5321—Teaching Literature in Secondary Schools (3)

SeEd 5322—Teaching Composition and Communication in Junior and Senior High Schools (3)

SeEd 5344—Teaching Reading in Content Areas (3)

SeEd 5404—Language, Culture, and Education (4)

Electives—30 credits selected with the consent of an adviser

Mathematics Education

An M.Ed. program in mathematics education is offered. See the heading Mathematics Education above for program details.

Science Education

Two M.Ed. programs are offered in science education. The Plan I program is designed for classroom teachers and has as its goal the improvement of instruction. Areas of special emphasis are pedagogical training and the practical application of knowledge in the classroom. The program offers the teacher an opportunity to combine scholarly activity with practical classroom experience.

The Plan II program is designed for individuals who either work or plan to work at nature centers, museums, zoos, or other sites at which science is taught. Individuals entering this program need not be licensed to teach science in elementary or secondary schools.

Course Requirements (minimum 45 credits)

One course in current developments in science teaching

One course in research foundations of science teaching

Electives—39 credits selected with the consent of the adviser from any or all of the following: school-based projects, science, education including science education, other disciplines.

Second Languages and Cultures Education

The M.Ed. program in second languages and cultures education is offered for licensed teachers interested in improving classroom instruction and curricula. The program, which provides a variety of course work as well as school-based experience, is planned with a needs assessment group (NAG) composed of the student's adviser(s), the student's departmental chairperson or school principal, and the student.

Course Requirements (minimum 45 credits)

SeEd 5186—Alternatives in Second Language Education (3)

SeEd 5189—Planning and Assessing Second Language Curriculum (4)

SeEd 5385—Planning and Assessing Second Language Instruction (4)

Minimum of 3 credits in SeEd 5185—School and Professional Based Experiences in Second Languages and Cultures (1-12)

Minimum of 3 credits in other education courses

Minimum of one 4- or 5-credit course in the student's chosen language

Minimum of 3 credits in a liberal arts course or courses

Electives—21 credits selected in consultation with the student's needs assessment group

Social Studies Education

The M.Ed. program in social studies is designed for classroom teachers interested in improving instruction.

Course Requirements (minimum 45 credits)

SeEd 5150—Advanced Methods of Teaching the Social Studies (3)

Minimum of 3 credits in SeEd 5151—School-Based Projects in Social Studies Education (1-12)

SeEd 5152—Techniques of Instruction in Social Studies (3)

One course in general curriculum

3 credits in the social sciences

Electives—27 credits selected with the consent of an adviser

TEACHER EDUCATION

Persons interested in the study and design of training programs for both preservice and in-service teachers can select from a core of course work that addresses this topic. Courses are listed under the heading Education (Educ) in section IV. Related course work is available in adult education, higher education, and curriculum and instructional systems.

Educational Administration

The Department of Educational Administration offers graduate programs designed to prepare personnel for administrative and supervisory positions in the elementary and secondary schools, junior and senior colleges, and graduate schools in both public and private institutions. Other programs include preparation for leadership positions in community education, in regional, state, and federal educational agencies, as well as in local, state, and national professional and union groups. Information about programs offered for the M.A. degree, specialist in education certificate, and Ed. D. and Ph.D. degrees is available in the departmental publication *Advanced Degree Programs in Educational Administration* and in the *Graduate School Bulletin*.

Foundations of Education

This department offers graduate study and professional preparation in several areas leading to the M.A. and Ph.D. degrees in educational psychology: psychology, methodology, as well as social and philosophical foundations of education. Students planning to major or minor in one of these areas should apply for admission to the Graduate School and to the Department of Social, Psychological, and Philosophical Foundations of Education. Program information is available from the departmental office, 204 Burton Hall, 178 Pillsbury Drive S.E., University of Minnesota, Minneapolis, Minnesota 55455.

Social and Philosophical Foundations of Education

The core of this program of graduate study is education as a sociocultural phenomenon. Course offerings and research opportunities focus on concepts and methods for understanding the place of education in society. This view of education is reflective; the study of education is approached through humanistic and social science methodologies. Students may plan programs leading to the M.A. degree in social and philosophical foundations of education, and to the Ph.D. degree in education. Concentrations are available in the history of education, comparative and international education, the philosophy of education, the sociology of education, alternative social and educational futures, and the anthropology of education. Programs include courses specific to the field of concentration in foundations or related disciplines as well as required general foundations courses.

Methodology Foundations

This area of graduate study offers instruction in statistics, research methodology, program evaluation and measurement, as well as instruction and experience in computer usage. Concentrations available in evaluation, measurement, and statistics may contribute to both the M.A. and Ph.D. degree programs in educational psychology. Students are expected to develop a general knowledge of several fields, e.g., learning/instruction, personality theory, and social psychology. Participation in research activities is an integral part of the program, and students are provided opportunities to gain research experience.

Psychology Foundations

This area of graduate study offers instruction in learning, cognition, instructional and social psychology, personality, and human relations. In consultation with a program adviser, the student may develop a specialized concentration in this area contributing to either an M.A. or a Ph.D. degree program in educational psychology. Graduate students are expected to acquire broad competence in educational psychology and specialized knowledge and skills in one of the above areas of concentration. They are encouraged to obtain supervised experience in teaching as well as to complete apprenticeships in laboratories and field settings.

Music Education

The master of education program in this field is designed for teachers who wish to increase their knowledge and strengthen their skills in music and education. The program includes courses in applied music, music theory, music history, music education, and education, selected with the approval of an adviser. A general description of the master of education degree is detailed at the beginning of this section of the bulletin.

Course Requirements (minimum 45 credits)

- 15 credits in music education
- 6 credits in education courses outside the major
- 18 credits in music
- 6 credits of electives

Graduate programs are offered leading to the M.A. and Ph.D. degrees. See the *Graduate School Bulletin* for details.

Physical Education, Recreation, and School Health Education

In the School of Physical Education, Recreation, and School Health Education programs are available leading to the M.Ed. degree in those three fields. Plan I programs are designed for teachers of physical education and school health education. Plan II programs are designed for nonlicensed professional workers in recreation, park, and leisure studies, and in school health education.

The M.Ed. programs in physical education and school health education are based on an extension of the undergraduate major in physical education and undergraduate major and minor in school health education. They provide continuing education for the in-service teacher. Their major objectives are to help the teacher function more effectively in his or her present role; to provide opportunities for both refresher experiences in areas previously studied and retraining in new areas; and to offer a structure wherein a student may work toward a degree and at the same time satisfy requirements for licensure renewal.

Graduate study leading to the master of arts degree is offered with majors in recreation, park, and leisure studies, or in physical education where the emphasis may be either physical education or school health education. The major in recreation, park, and leisure studies also provides for an emphasis in community education. A graduate program leading to the master of arts degree in education with an emphasis in school health education is also available. The Ph.D. degree is offered with a major in physical education with an emphasis available in school health education, or with a major in education with an emphasis in recreation, park, and leisure studies. Application for admission to these programs should be made to the Graduate School. For requirements and course offerings for these degrees, consult the *Graduate School Bulletin*.

PHYSICAL EDUCATION

The M.Ed. program in physical education is designed to improve instructional competencies of the licensed teacher in this area. Two options are available: general preparation or a concentration in physical education for the handicapped. In addition to the general admission requirements, students are expected to have an overall grade average of at least C + (2.50) in undergraduate course work. A general description of the master of education degree is detailed at the beginning of this section of the bulletin.

Course Requirements for General Preparation in Physical Education (minimum 45 credits)
30 credits in physical education including 3 credits in PE 5981—Problems (Cr ar) (and)
PE 5980—Research Methodology (3) (or) PE 5985—Application of Research (3)
Electives—15 credits

Course Requirements for Physical Education for the Handicapped (minimum 45 credits)
24 credits in physical education including PE 5981—Problems (Cr ar)
15 credits in special education
Electives—6 credits

RECREATION, PARK, AND LEISURE STUDIES

The master of education program in recreation is designed for nonlicensed professional workers. Students may concentrate in one of the areas of outdoor recreation, public park and recreation administration, therapeutic recreation, and voluntary and youth-serving agencies. Students are expected to have a baccalaureate degree in recreation or a related area, including appropriate courses in psychology, sociology, and natural sciences. A written statement should be submitted with the application indicating the reason for seeking admission, specifying an area of interest, and stating experience of the applicant in the field of recreation. Adequate skill proficiency in the selected area of concentration is required for admission to the program.

Course Requirements (minimum 45 credits)
24-30 credits in recreation, park, and leisure studies including 3-9 credits in Rec 5630
or 5640
6-9 credits in education courses outside of physical education, recreation, or school
health education offerings
Electives—15 credits selected in consultation with an adviser

SCHOOL HEALTH EDUCATION

The M.Ed. program in school health education is designed for classroom teachers and selected licensed health professionals. In addition to the general admission requirements, students are expected to have an overall grade average of at least C (2.00) in undergraduate work.

Course Requirements (minimum 45 credits)
30 credits in school health education including 3 credits in Hlth 5685—School-Based
Projects in School Health Education (1-12)
Electives—15 credits

Psychoeducational Studies

This department offers graduate and professional programs leading to the M.A. and Ph.D. degrees in several areas in counseling and student personnel psychology (school counseling, counseling psychology, college personnel work), psychology in the schools training programs, and special education. Students who plan a major or minor in one of these areas should apply for admission to the Graduate School and to the appropriate unit within the department, and should plan their program in consultation with an adviser in their chosen area. 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 studies in the foundations area, including research methodology. For specific courses and requirements, see the *Graduate School Bulletin*.

COUNSELING AND STUDENT PERSONNEL PSYCHOLOGY

Graduate study leading to the master's degree, specialist certificate (two-year program), or Ph.D. degree can be taken with a concentration in this area to prepare for professional or administrative positions at the elementary school, secondary school, or college level.

The doctoral program, which is approved by the American Psychological Association, is designed to prepare psychologists for work in educational and community settings. The major is in educational psychology with a minor or related field generally selected from psychology, family social science, education, or sociology. Preparation includes clinical practice and supervised experience in school, college, university, educational, or community programs. It also includes course work in psychology of learning, statistics, personality development, measurement, social psychology, and individual and group counseling. Students are advised to become familiar with curricular and administrative problems at either the public school or higher education level. Doctoral students include advanced courses in statistics and measurement in their programs, complete research projects, and may become involved in instruction.

PSYCHOLOGY IN THE SCHOOLS TRAINING PROGRAMS

Two graduate programs, which are approved by the American Psychological Association, are offered in this area: a two-year program leading to the specialist certificate in school psychological services and a four-year program leading to the Ph.D. degree. A strong interdepartmental emphasis allows doctoral students to choose among majors in child psychology, psychology, and educational psychology. The curriculum prepares psychologists for work in school settings and community agencies, and includes courses in learning, personality, child psychology, learning difficulties, diagnostic and remedial procedures, statistics and measurement, specialized research techniques, special education, and practicum. Applicants seeking admission to the program must fulfill all general standards and requirements of the Graduate School.

SPECIAL EDUCATION

All training programs in special education require admission to the Graduate School, to the M.Ed. program, or to adult special status in the College of Education. In addition, the faculty has its own admission procedure, which may include an interview with prospective students. Inquiries about admission and advising procedures, state of Minnesota licensure requirements, and training sequences should be directed to the special education program admissions office in 101A Pattee Hall.

Students in any college who are at least juniors, may take 5000-level courses such as

Advanced Study

PsyS 5101, Education of Exceptional Children, to obtain an overview of school programs for children with special needs; however, recommendation for state licensure requires that the student be admitted formally to a special education program *after* earning a baccalaureate degree.

While special education programs provide instruction to educators of exceptional children, this unit also gives major emphasis to mainstreaming and other outreach activities. Teaching specialties are organized according to the specificity and severity of children's needs. Students in all programs receive a basic orientation to generic special education, which prepares them for subsequent concentration in the specific licensure programs dealing with persons who are hearing impaired, physically handicapped, and severely mentally retarded, and interrelated licensure programs dealing with persons who have learning disabilities, emotional disturbances, and mild mental retardation. Professional preparation opportunities are also available for special education administrators and for persons working with culturally different and gifted children and youth.

Special Learning and Behavior Problems (SLBP)

Teacher training sequences leading to recommendation for state licensure in learning disabilities (LD) and behavior problems (ED) are offered at the postbaccalaureate level only.

The LD and ED training sequences offer entry-level preparation for persons who are or will be responsible for the instruction of learning disabled and/or emotionally disturbed and socially maladjusted children in a variety of school programs or settings. Prerequisite to admission to these programs is a bachelor's degree and elementary or secondary school teacher licensure. Students may complete an adult special licensure program; an M.Ed. program; or an M.A. program, which may be planned to include either or both of the LD and ED course sequences for state licensure.

LEARNING DISABILITIES (LD)

Required Courses

- PsyS 5112—Education of Learning-Disabled Children
- PsyS 5113, 5114—Diagnosis and Remediation of Learning Disability I, II
- PsyS 5151—Managing Problem Behavior in the Classroom
- PsyS 5305—Behavior Analysis Procedures With Mildly and Moderately Handicapped People
- PsyS 5610, 5611—Practicum: Diagnosis and Remediation of Learning Disabilities I, II

Options

In order to complete the requirements for full licensure in learning disabilities, students must also complete four additional courses (beyond the required seven) in a single area of emphasis such as early childhood education, elementary remedial instruction, secondary remedial instruction, or adult basic education. These courses should be selected in consultation with an adviser.

TEACHING SERIOUSLY EMOTIONALLY DISTURBED STUDENTS (ED)

Students entering this licensure program should have completed course work at the undergraduate or graduate level in introduction to the education of exceptional children (PsyS 5101 or equivalent), developmental reading methods, the psychology of learning and instruction, and child psychology. In addition, the following courses are required:

Psychological Foundations—Complete one course in each area

- A. PsyF 5162—Personality and Social Development
CPsy 5303—Adolescent Psychology
CPsy 5331—Processes of Socialization of Children
- B. PsyF 5170—Social Psychology of Education
PsyF 5172—Structuring Learning: Social Psychological Approaches
- C. CPsy 5311—Behavioral and Emotional Problems
CPsy 5319—Clinical Procedures With Children and Youth
CAPy 5604—Psychopathology of Childhood and Adolescence

Remedial Methods—Complete A or B

- A. PsyS 5113, 5114—Diagnosis and Remediation of Learning Disability I, II
MthE 5355—Mathematics for Slow Learning Children
- B. PsyS 5112—Education of Learning Disabled Children
Elem 5334—Reading Difficulties (or) SeEd 5175—Secondary Remedial Reading Instruction
MthE 5355—Mathematics for Slow Learning Children

Methods for Teaching the Seriously Emotionally Disturbed

- PsyS 5152—Disturbed and Disturbing Students I: Background and Assessment
- PsyS 5153—Disturbed and Disturbing Students II: Program Selection, Operation, Modification, and Evaluation
- PsyS 5305—Behavior Analysis Procedures With Mildly and Moderately Handicapped People

Practicum—6 credits in PsyS 5601—Practicum: Special Education

Electives chosen from PsyS 5104, 5105, 5107, 5108

Educable Mental Retardation (EMR)

Separate from the teacher training sequence in severe profound mental retardation (TMR) is a training sequence for those interested in working with mildly/moderately retarded (EMR) children who often present needs that cut across the learning disabilities and behavior problems areas. To be admitted to this program, applicants must have a bachelor's degree as well as elementary or secondary school teacher licensure. The entry-level sequence may be taken as an adult special or M.Ed. student in the College of Education or as part of a graduate program. It emphasizes a core of special education course work, academic skill development, child development course work, and theories of instructional and supervised practice. Prerequisite for admission is PsyS 5101, Education of Exceptional Children.

Special Education Core— 18 credits

- PsyS 5104—Social and Vocational Development of Handicapped Students
- PsyS 5120 or CPsy 5315—Introduction to Mental Retardation
- PsyS 5305—Behavior Analysis Procedures With Mildly and Moderately Handicapped People
- PsyS 5601—Practicum: Special Education

Academic Skill Development—Minimum of 6 credits; complete A or B

- A. PsyS 5113, 5114—Diagnosis and Remediation of Learning Disability I, II
- B. One course in reading and mathematics instruction chosen from Educ 5201, 5202, 5203; Elem 5107, 5334, 5337; MthE 5355

Child Development and Psychology of Instruction—Minimum of 3 credits from CPsy 5503, 5343; PsyF 5152, 5153, 5182 or equivalent

Electives—Minimum of 6 credits from PsyS 5100, 5107, 5108, 5151; VoEd 5100

Teaching Severely and Profoundly Retarded Pupils

Admission to this program, which usually leads to recommendation for a Minnesota license to teach severely retarded (trainable) pupils, requires admission to the Graduate School as a degree candidate or admission to the College of Education as an M.Ed. or adult special student; it does not require a baccalaureate degree in education. Degrees in related fields such as social work or child psychology are acceptable. Persons wishing to enter this program must apply for admission at the special education programs admissions office, 101A Pattee Hall. Courses listed below represent the core of the sequence required to meet the TMR licensure requirements.

Required

- PsyS 5101—Education of Exceptional Children
- PsyS 5104—Social and Vocational Development of Handicapped Students
- PsyS 5120 or CPsy 5315—Introduction to Mental Retardation
- PsyS 5123—Methods and Materials for Severely Retarded Preschool and School-Age Pupils
- PsyS 5125—Education of Handicapped Infants and Preschool Children
- PsyS 5126—Methods and Materials for Teaching Children With Severe Multihandicapping Conditions
- PsyS 5302—Workshop: Special Education (two registrations required, one focusing on nonvocal communication techniques and one on motor instruction techniques)
- 10 credits in PsyS 5601—Practicum: Special Education (4 credits in prepracticum work and 6 credits in student teaching in the TMR area)

Electives—For students wishing to emphasize the education of mentally retarded infants, severely retarded secondary and adult pupils, or profoundly retarded pupils, a set of additional courses and experiences may be selected in consultation with an adviser.

Teaching Children With Severe Hearing Impairment

Acceptance into this program requires submission of a formal application through the special education programs admissions office in 101A Pattee Hall. While some of the courses may be taken at the undergraduate level, most students will wish to apply course work completed in this area toward the requirements for the master's degree.

For departmental recommendation for state licensure in this area, students must complete a set of courses in general and professional education. The following courses, or their equivalents, compose the preparatory program for teachers of the severely hearing impaired. Additional and specialized courses are required for the master's degree.

- CDis 5302—Anatomy and Physiology of the Speech and Hearing Mechanisms
- CDis 5702—Hearing Measurement
- PsyS 5101—Education of Exceptional Children
- PsyS 5140—Psychosocial and Educational Aspects of Deafness
- PsyS 5141—Methods of Teaching School Subjects to the Hearing Impaired
- PsyS 5143, 5144—Teaching Language to the Hearing Impaired I, II
- PsyS 5145—Teaching Speech to the Hearing Impaired I
- PsyS 5601—Practicum: Special Education

Teaching Gifted Children

Special education offers no prescribed program to prepare for teaching children with outstanding abilities. However, course offerings, research training, and practicum arrangements are available to interested students at undergraduate and graduate levels. Within the Ph.D. program in educational psychology, students may emphasize research concerning outstanding abilities and complete course offerings in special education and psychological foundations of education.

Teaching Physically Handicapped Children

A sequence of courses and practica leading to departmental recommendation for state licensure to teach children with physical impairments or disabilities is offered to students at the postbaccalaureate or master's degree level. Students seeking recommendation for the state license must have clearance from the program adviser. Required for such recommendation is completion of a minimum of 30 credits from the following:

Required—18 credits from

PsyS 5101—Education of Exceptional Children

PsyS 5126—Methods and Materials for Teaching Children With Severe Multi-handicapping Conditions

PsyS 5135—Education of Children With Physical Disabilities

PsyS 5136—Educational Problems of the Neurologically Impaired

PsyS 5601—Practicum: Special Education

Electives—12 credits selected in consultation with an adviser from the following, or other courses:

Anat 1027—Anatomy for Physical Education Students

CPsy 5313—Psychology of Atypical Children

PE 3100—Adapted Physical Education

PE 5100—Teaching Physical Education for the Handicapped

PsyS 5112—Education of Learning Disabled Children

PsyS 5120 or CPsy 5315—Introduction to Mental Retardation

Supervision and Administration of Special Education Programs

The faculties in special education and educational administration, through the Graduate School, offer programs that lead to the specialist certificate in special education or the doctorate in educational administration with a major emphasis in administration of special education programs. These programs combine 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 special education programs. Admission to these programs requires completion of the master's degree, special licensure, and experience in some area of special education.

M.Ed. Degree Programs

A limited number of students are admitted to the M.Ed. program in special education at times announced by the department. Students may choose to emphasize mild/moderate or severe/profound handicapping conditions, or may follow a particular sequence leading to departmental recommendation for state licensure as an area of emphasis. Two years of successful teaching experience are required for consideration for admission to this fifth-year professional program in the College of Education. Information about procedures and program content may be obtained from the special education programs admission office, 101A Pattee Hall.

Vocational and Technical Education

M.Ed. programs are offered in agricultural education, business education, distributive education, home economics education, and industrial education. See the specific fields below for program descriptions.

Advanced Study

Graduate programs offered in the vocational education fields include master's degree programs with majors in agricultural education, business education, distributive education, home economics education, and industrial education; specialist certificate programs with majors in business education and distributive education; Ph.D. degree programs with majors in vocational education and education with emphasis on the general education aspects of the vocational field; and Ed.D. degree programs with majors in vocational education and industrial education.

The Ph.D. and Ed.D. programs in vocational education are designed for persons who wish to prepare for high-level leadership positions: the Ph.D. for curriculum development and research-evaluation specialists and the Ed.D. for administrators and instructional specialists.

See the *Graduate School Bulletin* for details about admission requirements for the graduate programs.

AGRICULTURAL EDUCATION

Two types of M.Ed. programs are available. Plan I is designed for licensed teachers of agriculture. Plan II is designed for nonlicensed professional workers in agricultural education. Students interested in the master of education degree program should submit an application for admission to the Office of Admissions and Records, 130 Coffey Hall, Twin Cities campus/St. Paul.

Course Requirements for Licensed Teachers—Plan I (minimum 45 credits)

- 18 credits in education, with a minimum of 12 credits in agricultural education including
3 credits in AgEd 5095—Integrating Paper
- 23 credits in technical agriculture and appropriate noneducation areas
- Electives—4 credits

The Plan II program, is designed for persons who are not licensed to teach agriculture in public schools but who are engaged in professional activities in agriculture, such as extension workers, employees of public service agricultural agencies, educational directors of agricultural industries, and others whose primary responsibility is agricultural education. Candidates must have at least one year of professional experience in agriculture before the degree is awarded.

Course Requirements for Nonlicensed Professional Workers—Plan II (minimum 45 credits)

- 18 credits in education, with a minimum of 12 credits in agricultural education including
3 credits in AgEd 5095—Integrating Paper
- 23 credits in technical agriculture and other areas selected with the consent of an adviser
- Electives—4 credits

For information about graduate programs, consult the *Graduate School Bulletin* and the director of graduate study in this division.

A master of agriculture program, offered through the College of Agriculture, is designed for teachers who wish to engage in professional development. Students who choose the applied social science specialization may select an agricultural education adviser. Details about requirements for the degree program can be obtained from the College of Agriculture, Twin Cities campus/St. Paul.

BUSINESS EDUCATION

The master of education program in business education provides two options under Plan I. Option I is designed for licensed business teachers who have completed an undergraduate major in business education. Option II is designed for persons who hold a bachelor's degree in a content field such as office administration, accounting, business

administration, economics, or computer science. Option II students are expected to have a full or provisional vocational teaching license in business education before admission to the program. For both options, students are expected to have a grade average of 2.00 overall and 2.25 in the undergraduate major. A grade average of 2.80 is required for graduation.

Course Requirements—Option I (minimum 45 credits)

- BDE 5353—Curriculum Construction in Business and Distributive Education (4)
- Two business education methods courses
- Minimum of 6 credits in BDE 5600—School-Based Projects in Business and Distributive Education (1-12)
- Six additional credits in education, which may include business education courses
- Four credits from business administration or economics
- Electives—20 credits selected with the consent of an adviser

Course Requirements—Option II (minimum 45 credits)

- BDE 5155—Trends and Issues in Business Education (4)
- BDE 5353—Curriculum Construction in Business and Distributive Education (4)
- Four courses from BDE including at least two courses from BDE 5150, 5151, 5152, 5153, 5154, 5156, 5157, 5350, 5352 (and) one course from BDE 5351, 5354, 5355, 5358
- PsyF 5120—Educational Measurement in the Classroom (4)
- 6 credits in BDE 5600—School-Based Projects in Business and Distributive Education (1-12)
- 3 credits in education, which may include business education courses
- Electives—14 credits selected with the consent of an adviser

For information about graduate programs, consult the *Graduate School Bulletin* and the director of graduate study in this division.

DISTRIBUTIVE EDUCATION

Two options for the Plan I master of education degree are available. Option I is designed for licensed distributive education teachers who have completed an undergraduate major in distributive education or a related teaching field. Option II is designed for persons who hold the bachelor's degree in a content field such as marketing, retailing, or business administration and who have had considerable occupational experience in marketing. Students are expected to have a full or provisional vocational teaching license in distributive education before admission to the program and a grade average of 2.00 overall and 2.25 in the undergraduate major. A general description of the master of education degree is detailed at the beginning of this section of the bulletin.

Course Requirements—Option I (minimum 45 credits)

- BDE 5250—Issues and Trends in Distributive Education (3)
- 6 credits in education including BDE 5360—Program Developments in Business and Distributive Education (1-12)
- 6 credits in BDE 5600—School-Based Projects in Business and Distributive Education (1-12)
- One course from BDE 5251, 5255, 5256, 5354
- 6 credits in marketing or marketing-related courses
- Electives—22 credits selected with the consent of an adviser

Course Requirements—Option II (minimum 45 credits)

- BDE 5251—Materials and Methods in Cooperative Vocational Education (4)
- BDE 5351—Organization and Administration of Business and Distributive Education (4)

Advanced Study

- BDE 5352—Coordination Techniques in Business and Distributive Education (4)
- BDE 5353—Curriculum Construction in Business and Distributive Education (4)
- BDE 5355—Business and Distributive Programs for Adults (3)
- 6 credits in education including BDE 5360—Program Developments in Business and Distributive Education (1-12)
- 9 credits in BDE 5600—School-Based Projects in Business and Distributive Education (1-12)
- 3 credits in business administration or liberal arts
- Electives—9 credits

For information about graduate programs, consult the *Graduate School Bulletin* and the director of graduate study in this division.

HOME ECONOMICS EDUCATION

Two types of master of education programs are offered in home economics education. Plan I is designed for licensed home economics teachers. Plan II is designed for nonlicensed professional workers in home economics education. A general description of the M.Ed. degree is detailed at the beginning of this section of the bulletin. Students interested in one of the M.Ed. programs should submit an application for admission through the Office of Admissions and Records, 130 Coffey Hall, Twin Cities campus/St. Paul.

Course Requirements for Plan I and Plan II (minimum 45 credits)

- 18 credits in home economics education
- 6 credits in education outside the major
- 15 credits home economics courses such as design, family social science, food science and nutrition, youth studies, and textiles and clothing, or in child development
- Electives—6 credits selected with the consent of an adviser

For information about graduate programs, consult the *Graduate School Bulletin* and the director of graduate study in this division.

INDUSTRIAL EDUCATION

Two types of master of education programs are offered. Option I is designed for licensed teachers of industrial education who have an undergraduate degree in industrial education. Option II is designed for licensed teachers who have an undergraduate degree in a content field related to their vocational teaching license. Option II students are expected to have a full or provisional teaching license before admission to the program. For admission to either option, students are expected to have a grade average of 2.25 overall and 2.50 in the undergraduate major. A grade average of 2.80 is required for graduation.

Course Requirements—Option I (minimum 45 credits)

- Core—15 credits
 - Ind 5305—Critical Issues in Industrial Education (3)
 - Ind 5325—Foundations of Industrial Education (3)
 - 6 credits in Ind 5900—School-Based Project in Industrial Education (1-6)
 - 3 credits elected from Ind 5306, 5309, 5310, 5401, or 5600
- Emphasis—15 credits in technical or occupational internship courses:
 - Ind 5112, 5122, 5132, 5142, 5152, 5100, 5101, 5102, 5103
- Electives—15 credits at the 5000 level, 9 of them in College of Education courses and the other 6 in courses taken outside the college

Course Requirements—Option II (minimum 45 credits)

Core—15 credits

Ind 5305—Critical Issues in Industrial Education (3)

Ind 5325—Foundations of Industrial Education (3)

6 credits in Ind 5900—School-Based Project in Industrial Education (1-6)

3 credits elected in Ind 5306, 5309, 5310, 5401, or 5600

Emphasis—15 credits in professional industrial or vocational courses:

Ind 5301, 5303, 5320, 5330, 5344, 5360, or VoEd 5100, 5101, 5103, 5200, 5300, 5400, 5500

Electives—15 credits at the 5000 level, 9 of them in College of Education courses and the other 6 in courses taken in other University academic units

For information about graduate programs, consult the *Graduate School Bulletin* and the director of graduate study in this division.

IV. DESCRIPTION OF COURSES

This section contains descriptions of the courses offered in the College of Education.

The *Class Schedule*, published just before the registration period each quarter, lists the days and hours when classes meet, the places of meeting, and the names of the instructors. Students should check the *Class Schedule* carefully for the specific courses offered each quarter.

Course Numbering System

1000 to 1998—Courses primarily for freshmen and sophomores

3000 to 3998—Courses primarily for juniors and seniors

5000 to 5998—Courses for juniors, seniors, adult specials, and graduate students

8000 to 8998—Courses for Graduate School registrants only

Course Symbols

The following symbols are used throughout the course descriptions:

- Courses in which graduate students may prepare Plan B projects.
- † All courses preceding the dagger must be completed before credit will be granted for any quarter of the sequence.
- § Credit will not be granted if the equivalent course listed after the section mark has been taken for credit.
- ¶ Concurrent registration is required in the course listed after the paragraph mark.
- # Consent of the instructor is required before registration.
- △ Consent of the department offering the course is required before registration.

When no departmental prefix precedes the number of a course listed as a prerequisite, the prerequisite course is in the same department as the course being described.

Child Psychology (CPsy)

- 1301. INTRODUCTORY CHILD PSYCHOLOGY.** (4 cr; prereq 5 cr introductory psychology)
Introduction to the science of child behavior; review of theories and research.
- 1310. TOPICS IN CHILD PSYCHOLOGY.** (1-4 cr; prereq #)
Readings and experiences, proposed by the student, related to cognitive, personality, perceptual, language, and social development in children.
- 1970. DIRECTED STUDY IN CHILD PSYCHOLOGY.** (Cr ar; prereq #)
Reading in area of special interest in child psychology.
- 3302. INFANCY.** (4 cr; prereq 1301 or #)
Perceptual, motor, emotional, social, and cognitive development during the first two years of life; the developing infant in its social and physical environment.
- 3303. ADOLESCENT PSYCHOLOGY.** (4 cr, §5303; prereq 5 cr introductory psychology)
Physical, cognitive, and social development during adolescence.
- 3304. INTRODUCTION TO MATURITY AND AGING.** (4 cr; prereq 1301 or equiv)
Empirical and theoretical issues in developmental psychology of maturity and aging; survey of perceptual-motor, cognitive, and social-psychological changes from young adulthood to old age.
- 3311. BEHAVIORAL AND EMOTIONAL PROBLEMS.** (4 cr, §5311; prereq 1301 or equiv)
Description, etiology, development of behavioral and emotional problems of children; treatment where germane. Excluded are problems deriving primarily from sensory or physical handicap, mental retardation, or neurological impairment.
- 3313. PSYCHOLOGY OF ATYPICAL CHILDREN.** (4 cr, §5313; prereq 1301 or equiv)
Problems of research, assessment, and behavior associated with atypicality; evaluation of research in areas of major concern for sensory, language, intellectual, and physical deviation.
- 3330. DIRECTED EXPERIENCES.** (1-4 cr; S-N only; prereq 1301 and #)
Intellectual and/or social development of children, adolescents, and adults as individuals or members of families or peer groups. Active participation with children, adolescents, or adults required.
- 3331. PROCESSES OF SOCIALIZATION OF CHILDREN.** (4 cr, §5331; prereq 1301 or equiv)
Processes of social learning: identification, social influence, imitation, reward and punishment, internalization, object choice.

Description of Courses

- 3347. CHILDREN'S LEARNING AND INTELLECTUAL SKILLS.** (4 cr; prereq 1301 or #)
Current research on learning, problem solving, intellectual performance in children; application to practical contexts.
- 3360H. HONORS SEMINAR I: CURRENT RESEARCH IN DEVELOPMENTAL PSYCHOLOGY.** (4 cr; prereq 1301 or equiv, #; primarily for child psychology majors)
Introduction to ongoing research programs, preparation for independent research (thesis research if honors major), discussion of career opportunities, other topics. Open to all students; required for all honors majors. Normally taken in the junior year.
- 3361H. HONORS SEMINAR II: RESEARCH AND THEORY IN DEVELOPMENTAL PSYCHOLOGY.** (4 cr; prereq 1301 or equiv, #; primarily for child psychology majors)
Overview of history, theory, and systems of research in developmental psychology within broader framework of psychology; framework for interpreting recurring issues. Open to all students; required of all honors majors. Normally taken in the senior year.
- 3980. DIRECTED INSTRUCTION.** (1-4 cr [max 4 cr]; S-N only; prereq #)
Undergraduates serve as teaching assistants in courses they have successfully completed for credit.
- 5303. ADOLESCENT PSYCHOLOGY.** (4 cr, §3303; prereq 5 cr introductory psychology)
Physical, cognitive, and social development during adolescence.
- 5310. TOPICS IN CHILD PSYCHOLOGY.** (1-4 cr; prereq 1301 and #)
Selected topics in the general content area.
- 5311. BEHAVIORAL AND EMOTIONAL PROBLEMS.** (4 cr, §3311; prereq 1301 or equiv)
Description, etiology, development of behavioral and emotional problems of children; treatment where germane. Excluded are problems deriving primarily from sensory or physical handicap, mental retardation, or neurological impairment.
- 5313. PSYCHOLOGY OF ATYPICAL CHILDREN.** (4 cr, §3313; prereq 1301 or equiv)
Problems of research, assessment, and behavior associated with atypicality; evaluation of research in areas of major concern for sensory, language, intellectual, and physical deviation.
- 5315. INTRODUCTION TO MENTAL RETARDATION.** (4 cr, §SpEd 5120, §PsyS 5120; prereq 1301 or equiv)
Psychological and educational problems related to the mentally retarded.
- 5319. CLINICAL PROCEDURES WITH CHILDREN AND YOUTH.** (4 cr; prereq 12 cr in psychology, educational psychology, sociology or child psychology)
Survey of assessment and intervention procedures of child clinical psychology in clinical and community settings. Primarily for students not majoring in clinical psychology.
- 5329. GENETICS, ETHOLOGY, AND DEVELOPMENT.** (4 cr; prereq 1301 or equiv)
Survey of evolutionary theory, behavioral genetics applied to understanding of development of human behavior; formation of species-typical adaptive behavior and individual differences in infancy, childhood, adolescence.
- 5331. PROCESSES OF SOCIALIZATION OF CHILDREN.** (4 cr, §3331; prereq 1301 or equiv)
Processes of social learning; identification, imitation, reward and punishment, internalization, and object choice.
- 5333. PERSONALITY DEVELOPMENT.** (4 cr; prereq 3331 or 5331)
Psychoanalytic and behavior theory formulations, related research literature in content areas (e.g., attachment, dependency, aggression, competence, and sex typing).
- 5334. CHILDREN AND YOUTH IN SOCIETY.** (4 cr; prereq #)
Rule-acquisition process in children and youth and its relation to concepts of rights, roles, and responsibilities; an interdisciplinary theoretical and research perspective employed to examine the development of moral, political, and legal ideologies in sub- and cross-cultural contexts.
- 5335. PEER RELATIONS.** (4 cr; prereq 3331 or 5331)
Peer influences; social interactions and social relations; developmental changes.
- 5339. PARENT-CHILD RELATIONS.** (4 cr; prereq 3331 or 5331)
Discussion of parent-child relationships and evaluation of relevant research (e.g., cross-cultural child rearing perspectives, alternative parenting roles, economics of parent-child relations, rights of parents and children).
- 5341. PERCEPTUAL DEVELOPMENT.** (4 cr; prereq 1301 or #)
Perceptual learning and the development of sensory and perceptual processes.
- 5343. COGNITIVE DEVELOPMENT.** (4 cr; prereq 1301 or #)
Development of cognitive processes; discussion of relevant theory, research literature, and methodology.
- 5345. LANGUAGE DEVELOPMENT.** (4 cr; prereq 1301 or #)
Development of structure and function of language; factors influencing development; methodological problems, language scales, theories.
- 5970. DIRECTED STUDY IN CHILD PSYCHOLOGY.** (Cr ar; prereq #)
Independent reading.
- 5990. DIRECTED RESEARCH IN CHILD PSYCHOLOGY.** (Cr ar; prereq #)
Individual empirical investigation.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8301. ADVANCED CHILD PSYCHOLOGY
- 8304. RESEARCH METHODS IN CHILD PSYCHOLOGY
- 8310. SEMINAR: CURRENT ISSUES IN CHILD PSYCHOLOGY I
- 8320. SEMINAR: CURRENT ISSUES IN CHILD PSYCHOLOGY II
- 8327. ETHOLOGY OF CHILD BEHAVIOR
- 8329. GENETICS AND DEVELOPMENT
- 8333. ADVANCED SOCIAL DEVELOPMENT I
- 8336. ADVANCED SOCIAL DEVELOPMENT II
- 8338. DEVELOPMENTAL PSYCHOLOGY OF COMMUNICATION
- 8341. ADVANCED PERCEPTUAL DEVELOPMENT
- 8343. ADVANCED COGNITIVE DEVELOPMENT I
- 8345. ADVANCED LANGUAGE DEVELOPMENT
- 8347. ADVANCED COGNITIVE DEVELOPMENT II
- 8351. THEORY AND PRACTICES IN THE PRESCHOOL
- 8355. BEHAVIOR OF PRESCHOOL CHILDREN
- 8360. SEMINAR: DEVELOPMENTAL PSYCHOLOGY
- 8605. DEVELOPMENTAL PSYCHOPATHOLOGY
- 8970. INDEPENDENT STUDY
- 8990. RESEARCH PROBLEMS

Curriculum and Instruction

ART EDUCATION (ArEd)

- 1207. EXPERIENCES WITH PICTORIAL EXPRESSION. (3 cr)
Materials, techniques, and ideas important in art expression; relationship between adult expression, child expression, and art history.
- 1208. EXPERIENCES WITH DESIGN AND MATERIALS. (3 cr)
Projects in invention, arrangement, and decoration; color, lettering, posters, bulletin board displays.
- 3000. ART OF CHILDREN. (3 cr)
Children's artistic development from infancy through adolescence; theoretical explanations of child art; implications for general learning.
- 3001. SURVEY OF ART ACTIVITIES. (4 cr; not open to art education majors)
Introduction to pictorial expression, design, and the function of art in the social environment.
- 3009. WEAVING WITHOUT A LOOM. (4 cr)
Developing fundamental weaving skills employing inexpensive equipment and techniques without use of the floor loom.
- 3010. INTRODUCTION TO WEAVING. (4 cr)
Equipment, design, setting up and operation of floor and table looms.
- 3011. ADVANCED WEAVING. (4 cr)
Multiharness floor looms, warp beams, draft studies, design, finishes.
- 3020. CONTEMPORARY CRAFTS. (4 cr)
Materials, equipment, design criteria, and techniques for textile, wood, metal and ceramics.
- 3030. PUPPETRY. (4 cr)
Construction, manipulation, and stage technique for basic puppet types.
- 3100. ART FOR YOUNG LEARNERS. (3 cr)
Art concepts, media, and activities appropriate for children.
- 3110. CURRICULUM DEVELOPMENT IN ART. (3 cr)
Rationales and methods for development and evaluation.

Description of Courses

- 3120. NEWER MEDIA IN ART CURRICULUM.** (3 cr; prereq 3110)
Development of art curriculum and support materials with emphasis on photography, filmmaking, video and sound production.
- 3130. COMMUNITY AND SCHOOL RESOURCES IN ART CURRICULUM.** (3 cr; prereq 3110)
Methods for the utilization of school and community resources.
- 3200. FIELD EXPERIENCES IN ART EDUCATION.** (3-9 cr; S-N only; prereq art education major or #)
Art education experiences in the school and community.
- 3309. INDEPENDENT STUDY.** (1-4 cr [max 4 cr]; prereq #)
Individual exploration and study of basic types of art expression with the opportunity for in-depth professional research and creative involvement in one area of interest.
- 3600. STUDENT TEACHING AND SUPERVISION OF ART.** (3, 6, or 12 cr; S-N only; prereq 3120, 3130, sr in art education, SeEd 3150, Elem 3101, ¶3610)
Observations, participation, supervisory experiences with various types and levels of art classes.
- 3610. TEACHING ART IN THE SCHOOLS.** (3 cr; prereq ¶3600)
Methods and media for teaching art in elementary and secondary schools.
- 3800. CURRENT TRENDS IN ART EDUCATION.** (3 cr; prereq 3120, 3130)
Issues and trends, current practices, recent research.
- 5001. ART MEDIA TECHNIQUES.** (1-12 cr [max 12 cr])
Lectures, demonstrations, discussions, critique sessions exploring and learning various techniques and processes in creativity; handling specific media. Each offering focuses on a single topic.
- 5020. ADVANCED CONTEMPORARY CRAFTS.** (4 cr; prereq 3020)
In-depth experiences in techniques of metal jewelry with emphasis on design criteria, equipment, materials, and process.
- 5302. CURRICULUM INNOVATIONS IN ART EDUCATION.** (4 cr)
Study and analysis of innovations, evaluation of materials for teaching units and projects.
- 5303. ART PROGRAMS FOR EXCEPTIONAL LEARNERS.** (4 cr)
Development and evaluation of art teaching units and projects for learners of all ages.
- 5316. INTERCULTURAL EDUCATION THROUGH ART.** (3 cr)
Approaches to international understanding through recognition of aesthetic contributions of diverse peoples to American life.
- 5318. ART EDUCATION IN EUROPE.** (3 cr)
Current practices, problems, and achievements in art education in Western Europe compared with practices in American art education.
- 5386. IMPROVING ART PROGRAMS IN THE SCHOOLS.** (4 cr; prereq tchg exper or #)
Critical examination of present art programs in the schools.
- 5389. APPLICATION OF AESTHETIC THEORY IN EDUCATION.** (3 cr)
Contemporary theories of art; their psychological and philosophical foundations. Open to teachers, supervisors, and administrators concerned with art in general education at all levels.
- 5600. INTERNSHIP.** (3-9 cr; prereq #)
Professional assignment for degree candidates under joint supervision of departments and cooperating agency.
- 5605. PRACTICUM.** (3-9 cr; prereq #)
Independent project under direction; gathering data, developing proposals, experimenting with evaluating innovative practices.
- 5900. PROFESSIONAL PROBLEMS.** (3 cr; prereq MEd student, #)
Independent study for M.Ed. candidates integrating learning from art education, art, and education.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8300. RESEARCH IN ART EDUCATION**
- 8306. SEMINAR: ART EDUCATION**
- 8900.* PROBLEMS: ART EDUCATION**

CURRICULUM AND INSTRUCTIONAL SYSTEMS (CISy)

- 5000. EDUCATIONAL TECHNOLOGY: INSTRUCTIONAL SYSTEMS.** (1 cr, §SeEd 5000, §SeEd 5102)
Introduction to use of technology in instruction; self-instructional, computer-managed module.
- 5001. EDUCATIONAL TECHNOLOGY: INSTRUCTIONAL MEDIA.** (1 cr, §SeEd 5001, §SeEd 5102)
Introduction to use of media technology in instruction; self-instructional, computer-managed module.

Curriculum and Instruction

- 5002. EDUCATIONAL TECHNOLOGY: INSTRUCTIONAL EQUIPMENT RESOURCES.** (1 cr, §SeEd 5002, §SeEd 5102)
Introduction to use of technology in instruction; self-instructional, computer-managed module.
- 5003. EDUCATIONAL TECHNOLOGY: COMPUTERS IN THE CLASSROOM.** (1 cr, §SeEd 5003, §SeEd 5102)
Introduction to use of computer technology in instruction; self-instructional, computer-managed module.
- 5004. EDUCATIONAL TECHNOLOGY: CLASSROOM VIDEO.** (1 cr, §SeEd 5004, §SeEd 5102)
Introduction to the use of video technology in instruction; self-instructional, computer-managed module.
- 5100. INSTRUCTIONAL TECHNOLOGY WORKSHOP.** (1-3 cr, §SeEd 5103)
Special topics in the use of technology in the classroom and school.
- 5201. SYSTEMS APPROACH TO DESIGN OF INSTRUCTION.** (3 cr, §SeEd 5201; prereq 5000 or SeEd 5000 or #)
Instructional materials design in accordance with systems principles, including design of a specific unit of courseware.
- 5203. RESOURCE MANAGEMENT IN INSTRUCTIONAL PROGRAMS.** (3 cr, §SeEd 5203; prereq 5000 or SeEd 5000 or #)
Processes an instructor or media generalist employs in integrating resources into a planned program; introduction to facilities planning, discussion of environmental health and safety.
- 5205. APPLICATIONS OF COMPUTERS IN EDUCATION.** (3 cr, §SeEd 5205; prereq 5003 or SeEd 5003)
Computer uses in education and training; instructional applications: simulation, tutorial, counseling, testing, instructional management, modeling and information retrieval (including data base inquiry). Computer-managed course includes criteria for selection, evaluation, and examination of on-line examples.
- 5207. APPLICATIONS OF VIDEO IN EDUCATION.** (4 cr)
Uses and design of video systems; instruction, training, simulation, counseling, and research.
- 5209. PRINCIPLES AND PROCEDURES IN DESIGNING INSTRUCTION.** (4 cr; prereq 5000)
Major models of instructional development; generic components; design models; review of instructional design and learning environments.
- 5211. PREPARATION OF MEDIA MATERIALS: AUDIO.** (1 cr)
Prototype development of instructional materials using audio materials.
- 5212. PREPARATION OF MEDIA MATERIALS: COMPUTER.** (2 cr, §SeEd 5212; prereq 5201, 5205, SeEd 5201, 5205)
Prototype development of instructional materials using computer materials.
- 5216. INSTRUCTIONAL SIMULATIONS AND LEARNING GAMES: DEVELOPMENT AND CLASSROOM USE.** (3 cr, §SeEd 5131)
Background, development factors, subject-matter models, procedures for use of materials; analysis of value of such materials.
- 5217. MECHANICS OF CINEMATOGRAPHY.** (3 cr, §SeEd 5111)
Motion picture photography in today's classroom: types of educational motion pictures considered from the production viewpoint; scripting; storyboard; selection and operation of camera, lens, and lighting equipment.
- 5219. MEDIA PRODUCTION TECHNIQUES.** (4 cr, prereq 5001, 5005)
Development of prototype instructional materials.
- 5505. FINDING EDUCATIONAL INFORMATION.** (3 cr, §SeEd 5115)
Finding and evaluating sources of information; identification of available options and development of skills needed to research them effectively.
- 5507. SEMINAR: PRACTICAL RESEARCH IN CURRICULUM AND INSTRUCTION.** (1-4 cr, §SeEd 5174; prereq #)
Topics appropriate to current research activities and plans of the participant selected to provide perspective on all components of a practical research endeavor; measurement and research design; hands-on computer analysis of data.
- 5509. DIRECTED INDIVIDUAL STUDY.** (1-6 cr [max 6 cr]; prereq Δ)
Review of literature in research and theory of instructional systems.
- 5600. INTRODUCTION TO CURRICULUM SYSTEMS.** (3 cr, §SeEd 5113)
Exploration of forces influencing goals and curriculum planning, trends and issues, traditional and emergent curricular designs, current proposals for change; models for curriculum planning.
- 5605. PRINCIPLES AND PROCEDURES IN DESIGNING CURRICULUM.** (3 cr, §SeEd 5114)
Systematic curriculum planning; students develop models for planning, formulate plans, and outline a curriculum design for an educational setting.
- 5700. CURRICULUM PLANNING PROCESSES.** (4 cr, §SeEd 5170; prereq 5600 or SeEd 5113 or Elem 5100)
Analyzing models using a specific educational setting to plan a solution to a particular problem; needs assessment and design.
- 5800. SUPERVISION OF SECONDARY INSTRUCTION.** (3 cr, §SeEd 5172; prereq 5600 or SeEd 5113)
Achievement of appropriate teaching expectations focusing on problems of personnel responsible for their improvement.

Description of Courses

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8100. CURRICULUM AND INSTRUCTION CORE: CURRICULUM
- 8101. CURRICULUM AND INSTRUCTION CORE: INSTRUCTION
- 8102. CURRICULUM AND INSTRUCTION CORE: TEACHING
- 8221. RESEARCH ON PERSONALIZING INSTRUCTION
- 8305. INSTRUCTIONAL DELIVERY SYSTEMS
- 8307. DESIGNING INSTRUCTIONAL MATERIALS: RESEARCH AND THEORY
- 8309. INSTRUCTIONAL SYSTEMS: DEVELOPMENT AND MANAGEMENT THEORY
- 8411. ADVANCED DESIGNS IN COURSEWARE: COMPUTER
- 8412. ADVANCED DESIGNS IN COURSEWARE: VIDEO
- 8414. ADVANCED DESIGNS IN COURSEWARE: MULTIMEDIA
- 8416. CURRICULUM AND INSTRUCTIONAL SYSTEMS SEMINAR
- 8501.* PROBLEMS: INSTRUCTIONAL SYSTEMS
- 8600. SEMINAR: CURRICULUM IMPLEMENTATION AND CHANGE
- 8700. CURRICULUM AND INSTRUCTIONAL SYSTEMS FIELD EXPERIENCE
- 8800.* PROBLEMS: SECONDARY SCHOOL SUPERVISION

EDUCATION: ADULT, TEACHER, AND HIGHER (Educ)

- 1100. DEVELOPMENT OF PARAPROFESSIONAL SKILLS IN INSTRUCTION. (1-9 cr [max 9 cr]; prereq in-service paraprofessional)
Basic background information for the paraprofessional; training in assisting with instruction. Each offering will focus on a different area.
- 5103. ADULT EDUCATION WORKSHOP. (1-12 cr [max 12 cr]; prereq practicing adult educator or #)
Study of topic appropriate to the activities and interests of the participants.
- 5104. SURVEY OF ADULT EDUCATION. (3 cr; prereq sr)
General concepts in the field; literature, objectives, history, philosophy, research, institutions, issues and problems.
- 5110. THE STATUS AND ROLE OF WOMEN IN AMERICAN SOCIETY. (4 cr)
The role of women in American history; perceptions of women in literature and art; attention to women in social studies curricula; human sexuality; male and female character-nature and/or nurture; choices of family and career.
- 5180. ANALYSIS OF THE TEACHING PROCESS. (3 cr; prereq tchg exper or #)
Conceptual analysis of instructional strategies and methodologies.
- 5182. LABORATORY APPROACHES IN TEACHER EDUCATION. (3 cr)
Training modes in teacher education; microteaching, simulation, games, and protocol materials.
- 5184. SUPERVISION OF CLINICAL EXPERIENCES. (3 cr; prereq #)
Supervision of professional laboratory experiences.
- 5186. ALTERNATIVE SCHOOL DESIGNS: IMPLICATIONS FOR TEACHER EDUCATION. (3 cr)
Value positions and basic assumptions underlying alternative schooling processes and their implications for the selection and training of personnel.
- 5199. WORKSHOP: TEACHER EDUCATION. (1-12 cr [max 12 cr]; prereq tchg exper and #)
Topics appropriate to the activities and interests of the participants.
- 5201. INTRODUCTION TO THE UNDEREDUCATED ADULT. (3 cr)
Issues in literacy education, characteristics, problems, individual differences of the adult learner; traditional and innovative approaches for working with adults in literacy programs.
- 5202. ADULT LITERACY: DIAGNOSIS AND PRESCRIPTION. (3 cr; prereq 5201 or #)
Application of diagnostic information, instruments, and techniques to learning difficulties of adults in reading and mathematics programs.
- 5203. ADULT LITERACY: METHODS AND MATERIALS. (3 cr; prereq 5202 or Elem 5331 or #)
Teaching literacy skills to adults: basic theories, approaches, overview of methods and materials for implementation.
- 5205. FIELD EXPERIENCE IN ADULT EDUCATION. (4-8 cr [max 8 cr]; prereq #)
Supervised fieldwork practice and seminars; presentations and evaluations of adult education practice.

- 5250. AMERICAN HIGHER EDUCATION.** (4 cr; S-N optional)
Study of higher and postsecondary educational systems and institutions; purposes and functions, governance and organization, instructional programs and outcomes.
- 5301. DESIGNING THE ADULT EDUCATION PROGRAM.** (3 cr)
Designing and implementing educational programs for adults: concepts, theories, determining needs, educational objectives, learning experiences, and evaluating outcomes.
- 5401. ADULT LEARNING AND DEVELOPMENT THROUGH THE LIFE SPAN.** (3 cr)
Physiological, social, and cultural bases of adult behavior; motivation, socialization, personality change as applied to education of adults.
- 5411. STRATEGIES FOR TEACHING ADULTS.** (3 cr)
Identification, classification, and analysis of techniques used in teaching adults.
- 5501. CONTINUING EDUCATION AND THE PROFESSIONS.** (3 cr)
Review of literature; analysis of philosophies, issues, and trends; emphasis on integrating personal growth, professional needs, and statutory requirements in continuing education programs.
- 5601. INTERNATIONAL EDUCATION: TOPICS IN CLASSROOM PRACTICES AND PROCEDURES.** (1-12 cr [max 12 cr]; prereq tchg license and #)
Educational practices in a designated country, region, or cultural group; impact of social and cultural features; organization, school structures, classroom practices, and delivery of educational services; potential for implementation in the United States.
- 5603. INTERNATIONAL EDUCATION AND DEVELOPMENT.** (3 cr)
Contemporary theories relating formal and nonformal education to national development in social, cultural, political, and economic sectors; alternative conceptualizations and theoretical perspectives on education and development.
- 5605. RESEARCH TOPICS: INTERNATIONAL DEVELOPMENT EDUCATION.** (3 cr)
Empirical research conducted in developing societies relating formal and nonformal education to national development in social, cultural, political, and economic sectors.
- 5607. APPLIED INTERNATIONAL DEVELOPMENT EDUCATION.** (3 cr)
Educational innovations designed to promote national development in selected developing nations; educational case studies in the context of such objectives; conceptualizations of the role of education in development, outcomes.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8188. ALTERNATIVE PROGRAMS IN TEACHER EDUCATION**
- 8228.* PROBLEMS: HIGHER EDUCATION**
- 8229. SEMINAR: BASIC ISSUES IN HIGHER EDUCATION**
- 8230. SEMINAR: DISSERTATION RESEARCH IN HIGHER EDUCATION**
- 8250. HIGHER EDUCATION IN THE UNITED STATES**
- 8251. CURRICULUM TRENDS IN AMERICAN COLLEGES**
- 8252. EFFECTIVE COLLEGE TEACHING**
- 8253. SEMINAR: IMPROVEMENT OF COLLEGE INSTRUCTION**
- 8254. DIRECTED EXPERIENCE IN COLLEGE INSTRUCTION**
- 8260. SEMINAR: MATERIALS AND METHODS IN MARRIAGE EDUCATION**
- 8284.* PROBLEMS: TEACHER EDUCATION**
- 8285, 8286. PROFESSIONAL EDUCATION OF TEACHERS**
- 8302.* PROBLEMS: ADULT EDUCATION**

ELEMENTARY EDUCATION (Elem)

- 3100. PSYCHOLOGICAL FOUNDATIONS OF ELEMENTARY EDUCATION.** (4 cr; prereq 5 cr introductory psychology)
Educational psychology, learning, retention, transfer, intelligence, measurement, behavioral management and modification applied to elementary education; lecture, laboratory section, school or community agency participation.
- 3101. INTRODUCTION TO ELEMENTARY SCHOOL TEACHING.** (3 cr; prereq §3100)
Curriculum and organizational patterns; unit instruction; reporting, promotion and nonpromotion, classroom management; control and support of public instruction.
- 3102. ORIENTATION TO TEACHING IN THE ELEMENTARY SCHOOL.** (1 cr, §3101; prereq 3100)
Role of the teacher, school and community; career planning.
- 3103. THE TEACHER AND THE ELEMENTARY SCHOOL.** (2 cr, §3101; prereq 3102)
Contemporary issues, curriculum, and organization of the elementary school.

Description of Courses

- 3111. FOUNDATIONS OF ELEMENTARY EDUCATION.** (1-5 cr [max 5 cr], §3100; prereq Δ)
Educational psychology applied to elementary education.
- 3300. CHILDREN'S LITERATURE.** (3 cr)
Materials for children's reading in the elementary school program.
- 3316. TEACHING ENGLISH IN THE ELEMENTARY SCHOOL.** (3 cr; prereq 3100, 3101, and Engl 3851)
Development of language power in elementary school in relation to all activities of the school day.
- 3331. TEACHING READING IN THE ELEMENTARY SCHOOL.** (3 cr; prereq 3100, 3101)
Emphasis on intermediate and upper elementary grades; reading readiness, word recognition techniques, development of basic study skills, word meanings, comprehension abilities, and interests and taste in reading.
- 3346. TEACHING SCIENCE IN THE ELEMENTARY SCHOOL.** (3 cr; prereq 3100, 3101, 10 cr in natural science)
Objectives, content, materials, philosophy, and methods of instruction and evaluation; practical applications.
- 3361. TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL.** (3 cr; prereq 3100, 3101)
Content and philosophy of the social studies program; methods of instruction and problems.
- 3376. NURSERY SCHOOL-KINDERGARTEN CURRICULUM I.** (3 cr; prereq 3100)
Objectives of the kindergarten; use of literature; appropriate creative activities in the areas of art, dramatics, music; planning of learning activities.
- 3377. NURSERY SCHOOL-KINDERGARTEN CURRICULUM II.** (3 cr; prereq 3376)
Additional expansion and clarification of the methods and materials in the areas of mathematics, reading, science, and social studies.
- 3378. SOCIAL LEARNING IN EARLY CHILDHOOD EDUCATION.** (3 cr; prereq CPsy 3301)
Directed observations of nursery school children and procedures.
- 3391. TEACHING MATHEMATICS IN THE ELEMENTARY SCHOOL.** (3 cr; prereq 3100, 3101, and Math 1005, 1006)
Principles of learning pertinent to the modern program of mathematics in primary and elementary grades; objectives, content, philosophy, instructional materials, and methods of instruction and evaluation.
- 3600. STUDENT TEACHING IN THE ELEMENTARY SCHOOL: HALF-DAY.** (6 cr; S-N only; prereq 12 cr methods, Δ)
Five half-days a week of supervised teaching and observing in elementary school.
- 3601. STUDENT TEACHING IN THE ELEMENTARY SCHOOL: HALF-DAY.** (6 cr; S-N only; prereq 6 cr elementary student tchg, Δ)
Five half-days a week of supervised teaching and observing in the elementary school with special attention to individual needs recognized in previous student teaching.
- 3602. TEACHING IN INNER CITY SCHOOLS.** (3 cr)
Lectures, observation, and participation directed toward understanding the child, his or her family, and the community in a low socioeconomic area.
- 3603. STUDENT TEACHING IN THE KINDERGARTEN.** (6 cr; S-N only; prereq 6 cr elementary student tchg, Δ)
Five half-days each week in supervised teaching and observation in public or private schools.
- 3604. STUDENT TEACHING IN THE NURSERY SCHOOL.** (3-6 cr; S-N only; prereq approval of major adviser and director of student tchg)
Three to five half-days each week in supervised teaching in the nursery school.
- 3605. STUDENT TEACHING IN ELEMENTARY SCHOOL: HALF-DAYS AND FULL DAYS.** (9 cr; S-N only; prereq 15 cr methods, Δ)
Five half-days and two full days each week in supervised teaching and observing in the elementary school.
- 3606. STUDENT TEACHING IN THE INNER CITY ELEMENTARY SCHOOL.** (9 cr; S-N only; prereq 15 cr methods, Δ)
Five half-days and two full days each week in supervised teaching and observing in elementary school in the inner city.
- 3607. STUDENT TEACHING IN ELEMENTARY SCHOOL: FULL DAYS.** (12 cr; S-N only; prereq 18 cr methods, Δ)
Five full days each week teaching and observing in elementary school.
- 3610. PRE-FALL STUDENT TEACHING: FULL DAYS.** (3 cr; S-N only; prereq 9 cr methods, Δ)
Observing and teaching during the beginning of the school year; begins with fall semester opening of public schools and continues until University classes begin.
- 3620. PRE-FALL ORIENTATION IN ELEMENTARY SCHOOL.** (1-4 cr; S-N only; prereq Δ)
Supervised observation and participation in classroom and related school activities; a pre-student-teacher exploratory experience.
- 3621. JUNIOR PRACTICUM IN ELEMENTARY EDUCATION.** (1 or 2 cr [max 6 cr]; S-N only; prereq Δ)
Supervised observation and participation in classroom and related school activities; a pre-student-teacher exploratory experience.
- 3630. STUDENT TEACHING IN ELEMENTARY SCHOOL LITERATURE.** (3 cr; S-N only; prereq 10 cr elementary student tchg, Δ)
Minimum of three hours weekly of supervised teaching and observation in elementary school.

- 3631. STUDENT TEACHING IN ELEMENTARY SCHOOL ENGLISH.** (3 cr; S-N only; prereq 10 cr elementary student tchg, Δ)
Minimum of three hours weekly of supervised teaching and observation in elementary school.
- 3633. STUDENT TEACHING IN ELEMENTARY SCHOOL READING.** (3 cr; S-N only; prereq 10 cr elementary student tchg, Δ)
Minimum of three hours weekly of supervised teaching and observation in elementary school.
- 3634. STUDENT TEACHING IN ELEMENTARY SCHOOL SCIENCE.** (3 cr; S-N only; prereq 10 cr elementary student tchg, Δ)
Minimum of three hours weekly of supervised teaching and observation in elementary school.
- 3636. STUDENT TEACHING IN ELEMENTARY SCHOOL SOCIAL STUDIES.** (3 cr; S-N only; prereq 10 cr elementary student tchg, Δ)
Minimum of three hours weekly of supervised teaching and observation in elementary school.
- 3639. STUDENT TEACHING IN ELEMENTARY SCHOOL MATHEMATICS.** (3 cr; S-N only; prereq 10 cr elementary student tchg, Δ)
Minimum of three hours weekly of supervised teaching and observation in elementary school.
- 3900. DIRECTED STUDY.** (1-3 cr [max 6 cr]; prereq elementary major and Δ)
Analysis of specific instruction; curricular, organizational, and operational situations or problems in elementary education.
- 5100. ELEMENTARY SCHOOL CURRICULUM.** (3 cr; prereq 3101)
Selection and organization of subject matter for courses; methods, problems, and findings of research by subjects.
- 5101. WORKSHOP: PROGRAMS AND PROCEDURES OF CURRICULUM DEVELOPMENT.** (1-3 cr; prereq elementary tchg exper, #)
Leadership in procedures; operational processes; major considerations in planning and organizing; interpersonal relationships, and evaluation of improvement programs.
- 5102. PREPARATION OF CURRICULUM MATERIALS.** (3 cr; prereq 5100 or SeEd 5113 or CISy 5600)
Selecting and organizing units, courses of study, and curriculum guides and writing materials, individually and in groups.
- 5103. WORKSHOP: CURRICULUM LABORATORY PRACTICE.** (1-6 cr; prereq elementary tchg exper, #)
Analysis and construction of units, courses of study, and curricula according to needs, interests, level, and specialization.
- 5107. DIAGNOSIS AND TREATMENT OF LEARNING DIFFICULTIES.** (3 cr)
Evaluation of the results of teaching; diagnosis of pupil difficulty; development and prevention; tests as aids to teaching; following up a testing program.
- 5108. SUPERVISION AND IMPROVEMENT OF INSTRUCTION.** (3 cr; prereq 9 cr in education)
Functions and duties of a supervisor; techniques; analysis of classroom activities.
- 5109. SUPERVISORY STRATEGIES IN PLANNING, OBSERVING, CONFERENCING.** (3 cr; prereq #)
Overview of the responsibilities of the supervising teacher; material development and practice in basic supervisory skills and functions.
- 5120. PLANNING AND EVALUATION OF EDUCATIONAL ALTERNATIVES.** (3 cr)
Survey of alternative school concepts and designs; examination of curriculum programs and materials; procedures for systematic study of options within a classroom, school, or school system.
- 5300. LITERATURE FOR THE ELEMENTARY SCHOOL.** (3 cr)
Evaluative survey of books for children; research related to children's reading interests; selection of literature.
- 5305. SURVEY OF SPECIAL COLLECTIONS IN CHILDREN'S LITERATURE.** (3 cr; prereq 5300 or #)
Content and accessibility of collections that relate to the creation of books; emphasis on possibilities and methods for interpreting the content of the collections to children.
- 5316. TEACHING AND SUPERVISION OF ENGLISH IN THE ELEMENTARY SCHOOLS.** (3 cr; prereq 3316 or elementary tchg exper)
Improvement of instruction, study of trends in English education.
- 5317. MATERIALS LABORATORY FOR TEACHING ENGLISH IN ELEMENTARY SCHOOLS.** (3 cr; prereq 3316 or elementary tchg exper)
Examination and evaluation of textbooks, programmed materials, and audiovisual resources for elementary school language arts instruction.
- 5318. CREATIVE WRITING FOR AND BY CHILDREN.** (3-6 cr [max 6 cr]; prereq 3300 or 3336 or elementary tchg exper and #)
Language arts in the elementary school for experienced teachers, supervisors, graduate students, and college instructors; emphasis on creative aspects of the writing of children's literature and the children's own writing.
- 5319. TEACHING SECOND LANGUAGES AND CULTURES IN ELEMENTARY SCHOOLS.** (3 cr)
Methods and materials; alternatives in program format; choice or preparation; teaching the four skills; community involvement; cross-cultural activities; testing and evaluation; use of children's literature, games, songs; developing units and lessons.

Description of Courses

- 5320. PRACTICUM: TEACHING SECOND LANGUAGES AND CULTURES IN ELEMENTARY SCHOOLS.** (3 cr; S-N only; prereq 5319 or *5319, #)
Minimum of three hours weekly of supervised teaching and observation in elementary schools.
- 5331. TEACHING AND SUPERVISION OF READING IN THE ELEMENTARY SCHOOL.** (3 cr; prereq 9 cr in education)
Objectives, materials, and teaching procedures; current practices and curricula; class and individual projects; observation of reading techniques and material in the demonstration school.
- 5333. INSTRUCTIONAL LEADERSHIP IN ELEMENTARY READING.** (3 cr; prereq 5331 or #)
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.*
- 5334. READING DIFFICULTIES.** (3 cr; prereq 5331 or SeEd 5344)
Causes, prevention, and correction; remedial practices useful to the classroom teacher, school counselor, and reading specialist.
- 5335. CLINICAL DIAGNOSIS OF READING DIFFICULTIES.** (3 cr; prereq 5334)
Relationship to psychological factors and clinical remedial correction.
- 5336. CLINICAL PRACTICE IN REMEDIAL TEACHING.** (3 cr; prereq 5334 or 5107 and #)
Remedial tutoring of individual children who have difficulty in school learning.
- 5337. BEGINNING READING INSTRUCTION.** (3 cr; prereq 3331 and #)
For teachers and specialists interested in initial teaching procedures; compares alternative methods of beginning instruction; emphasis on readiness programs, test-grouping patterns, language factors, and intensive instruction procedures to prevent reading failure.
- 5338. TEACHING READING IN THE INTERMEDIATE GRADES.** (3 cr; prereq 3331 and #)
For teachers and specialists interested in problems of teaching reading beyond the decoding stage; emphasis on comprehension strategies, basic study skills, and reading in the content areas.
- 5339. WORKSHOP: CURRICULUM IMPLEMENTATION IN ELEMENTARY SCHOOL READING.** (1-9 cr [max 9 cr]; prereq elementary tchg exper or #)
Analysis of new instructional materials, techniques, recent trends, and innovations in elementary reading instruction.
- 5346. TEACHING SCIENCE IN THE ELEMENTARY SCHOOL.** (3 cr; prereq elementary tchg exper or #)
Materials, resources, and methods of teaching science at the elementary level.
- 5347. WORKSHOP: CURRICULUM IMPLEMENTATION IN ELEMENTARY SCHOOL SCIENCE.** (3-6 cr; prereq elementary tchg exper)
Offered in summers with focus on a single program for each offering: treating concept foundations, goals, and teaching and evaluation procedures.
- 5348. WORKSHOP: OUTDOOR SCIENCE EDUCATION.** (3 cr; prereq elementary tchg exper)
Classroom and fieldwork activities dealing with models, materials, and methods in the outdoor setting; consideration of broad topics such as ecological relationships, cyclic processes, and change as well as more specific topics such as rocks and minerals, plants and animals, and stargazing.
- 5349. ELEMENTARY SCHOOL SCIENCE: CURRICULUM AND SUPERVISION.** (3 cr; prereq 3346 or 5346)
Program foundations including elements from philosophy, psychology, the science disciplines; design of in-school curriculum improvement models; program evaluation; pupil reporting procedures.
- 5350. ELEMENTARY SCHOOL SCIENCE: MATERIALS AND RESOURCES.** (3 cr; prereq 5349)
Experiences in the use of educational materials and media common to the teaching of modern elementary school science.
- 5361. TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL.** (3 cr; prereq 3101 or equiv)
Content and organization of social studies programs; programs of understanding, improving the learning situation, and effective use of materials.
- 5362. MATERIALS LABORATORY FOR ELEMENTARY SOCIAL STUDIES TEACHERS.** (3 cr; prereq 3361 or 5361 or #)
Printed, audiovisual, and other materials; investigation and evaluation of teaching materials and devices.
- 5363. WORKSHOP: CURRICULUM IMPLEMENTATION IN ELEMENTARY SCHOOL SOCIAL STUDIES.** (Cr or [max 9 cr]; prereq elementary tchg exper and #)
Analysis of new instructional materials and recent curriculum developments in the field; training in innovative instructional procedures.
- 5376. CURRENT TRENDS IN EARLY CHILDHOOD EDUCATION.** (3 cr; prereq tchg exper in kindergarten or primary or #)
Continuing needs of children in our changing culture; current practices and recent research.
- 5377. EARLY CHILDHOOD EDUCATION: MATERIALS AND RESOURCES.** (3 cr; prereq 3377 or 5376 and tchg exper)
Experience in the selection and use of commercial and teacher-made educational materials and media common to early childhood education programs.

- 5378. CONTEMPORARY PROGRAMS FOR YOUNG CHILDREN.** (1-3 cr [max 3 cr]; prereq MEd student in early childhood education)
Child growth and development aspects of preschool children in light of need for curriculum intervention programs; current trends, program evaluation, recent research.
- 5602. PRACTICUM: IMPROVEMENT OF TEACHING.** (3 cr; S-N only; prereq MEd student in elementary education and #)
Elementary school classroom teaching project designed to improve specific teaching skills, planned by student and approved and directed by student's adviser as part of M.Ed. program.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8300. RESEARCH IN SPECIAL COLLECTIONS OF CHILDREN'S LITERATURE**
- 8316. RESEARCH IN ENGLISH COMPOSITION IN ELEMENTARY SCHOOLS**
- 8317. RESEARCH IN SKILL DEVELOPMENT IN SPELLING, HANDWRITING, AND LISTENING**
- 8331. RESEARCH FOUNDATIONS FOR READING INSTRUCTION**
- 8332. RECENT RESEARCH IN READING**
- 8333. SEMINAR: READING RESEARCH AND INSTRUCTION**
- 8346.* RESEARCH FOUNDATIONS OF ELEMENTARY SCHOOL SCIENCE TEACHING**
- 8347. THE ELEMENTARY SCHOOL SCIENCE PROGRAM: ARTICULATION AND COORDINATION**
- 8361. CURRICULUM CONSTRUCTION IN ELEMENTARY SOCIAL STUDIES**
- 8362. RESEARCH IN ELEMENTARY SOCIAL STUDIES**
- 8363. SEMINAR: ELEMENTARY SOCIAL STUDIES EDUCATION**
- 8916.* PROBLEMS: TEACHING ENGLISH**
- 8931.* PROBLEMS: TEACHING READING**
- 8961.* PROBLEMS: TEACHING SOCIAL STUDIES**
- 8976. PROBLEMS: TEACHING KINDERGARTEN**
- 8991.* PROBLEMS: IMPROVEMENT OF INSTRUCTION**
- 8992. RESEARCH IN EDUCATIONAL DIAGNOSIS**

MATHEMATICS EDUCATION (Mthe)

- 5101. WORKSHOP: ELEMENTARY SCHOOL MATHEMATICS.** (1-12 cr [max 12 cr]; prereq #; not open to mathematics education majors)
Modern trends, methods, and materials used to convey mathematical ideas.
- 5102. WORKSHOP: MATHEMATICS EDUCATION.** (1-12 cr [max 12 cr])
Issues, materials, and instructional techniques focusing on a single current topic of particular relevance to secondary school and college mathematics teachers.
- 5301. INSTRUCTIONAL LEADERSHIP IN ELEMENTARY SCHOOL MATHEMATICS.** (3 cr; prereq #; not open to mathematics education majors)
Current trends in methods, materials, content, and evaluation; program development and research; intended for supervisors and principals.
- 5311. TEACHING AND SUPERVISION OF MATHEMATICS IN THE ELEMENTARY SCHOOL.** (3 cr; prereq Elem 3391 or #)
Present practices and trends in methods, evaluation, and diagnosis; objectives, psychology, and philosophy related to improvement of instruction.
- 5312. TEACHING AND SUPERVISION OF MATHEMATICS IN THE SECONDARY SCHOOL.** (3 cr; prereq mathematics tchg exper or #)
Methods, materials, and curriculum development; principles of learning; review of research; preparation and evaluation of tests, units, and materials of instruction.
- 5321. MATERIALS LABORATORY FOR ELEMENTARY SCHOOL MATHEMATICS INSTRUCTION.** (3 cr; prereq 5311 or Elem 3391 or #)
Printed and programmed materials, audiovisual aids, community resources; laboratory projects and techniques of using mathematical devices and instruments.

Description of Courses

- 5322. MATERIALS LABORATORY FOR SECONDARY SCHOOL MATHEMATICS INSTRUCTION.** (3 cr; prereq 5312 or #)
Sources and types of materials; laboratory projects and techniques of using mathematics devices and instruments, visual aids, and community resources.
- 5331. CURRENT DEVELOPMENTS IN ELEMENTARY SCHOOL MATHEMATICS INSTRUCTION.** (3 cr; prereq 5311 or #)
Contemporary literature, trends and experimentation with content; criteria for program evaluation.
- 5332. CURRENT TRENDS AND ISSUES IN SECONDARY SCHOOL MATHEMATICS INSTRUCTION.** (3 cr; prereq 5312 or #)
Recent developments in mathematics curriculum and instructional alternatives; issues in teaching and learning; providing for special student needs; program planning and evaluation.
- 5345. MATHEMATICS FOR GIFTED CHILDREN.** (3 cr; prereq 5311 or Elem 3391 or #)
Curriculum and methods of instruction for academically talented children; development of enrichment units; source material for teachers.
- 5355. MATHEMATICS FOR SLOW LEARNING CHILDREN.** (3 cr; prereq 5311 or Elem 3391 or #)
Units of instruction emphasizing mathematical concepts essential for vocational competence; experimental materials and methods designed to improve performance of low achievers.
- 5366. COMPUTER-ASSISTED MATHEMATICS INSTRUCTION.** (3 cr; prereq 5311 or 5312 or SeEd 3365 or #)
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.
- 5680. PRACTICUM IN MATHEMATICS EDUCATION.** (3-9 cr [max 9 cr]; prereq #)
Supervised experience in teaching or related work in school.
- 5980. DIRECTED STUDIES IN MATHEMATICS EDUCATION.** (3-9 cr [max 9 cr]; prereq #)
Survey of recent literature; design and preparation of reports on special problems.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8500. THEORY AND CLASSICAL RESEARCH IN MATHEMATICS EDUCATION**
- 8570. RESEARCH IN MATHEMATICS EDUCATION**
- 8590. SEMINAR: MATHEMATICS EDUCATION**
- 8680. INTERNSHIP: MATHEMATICS EDUCATION**
- 8980.* PROBLEMS: MATHEMATICS EDUCATION**

SECONDARY EDUCATION (SeEd)

- 3150. INTRODUCTION TO SECONDARY SCHOOL TEACHING.** (5 cr; prereq 5 cr introductory psychology)
Secondary education; purposes, history, organization, curriculum, pupils; organization of instructional units; teaching profession; lecture, discussion section; individual youth leadership project.
- 3151. DIRECTED STUDY.** (1-9 cr; prereq Δ)
Analysis of specific instructional, curricular, organizational, and operational situations or problems in secondary education.
- 3152. PRACTICUM: SECONDARY EDUCATION.** (1-7 cr [max 7 cr]; S-N only; prereq Δ)
A pre-student-teaching experience to enable students to develop teacher competencies; supervised observation and participation in classroom and related school activities.
- 3155. PSYCHOLOGICAL FOUNDATIONS OF SECONDARY EDUCATION.** (5 cr; prereq Psy 1001 or equiv or #)
Educational psychology; theory and applications in secondary education of learning, cognition, behavior, growth and development, measurement and evaluation; lecture, laboratory, discussion, individual projects.
- 3156, 3157. THE SOCIAL SCIENCES AND THE SOCIAL STUDIES.** (3 cr per qtr [max 6 cr]; prereq social studies major and #)
Social sciences as disciplines with specific attention to methods of inquiry, competing structures, and theories; implications for organizing and teaching social studies in secondary schools.
- 3220. TEACHING AND LEARNING IN THE HEBREW SCHOOL.** (3 cr)
Methods, materials, techniques relating Hebrew to other subjects learned in Hebrew parochial schools; micro-teaching practice; curriculum development and evaluation.
- 3320. BASIS FOR INSTRUCTION IN LANGUAGE IN SECONDARY ENGLISH CURRICULA.** (3 cr; prereq Engl 5851)
Implications of recent developments in linguistic theory for English language instruction; special attention to studies of oral and written language development of children and adolescents; relevance of instruction in grammar(s); nonstandard dialects; review of language materials used in schools; practice in development of materials and short instructional episodes.

- 3325. INSTRUCTIONAL PRACTICE IN ENGLISH, SPEECH, AND THEATRE ARTS.** (4 cr)
Practice on and analysis of small-scale instructional episodes with small groups of secondary school students and in conjunction with regular secondary school classes; interaction analysis and videotaping procedures.
- 3326. TEACHING ADOLESCENT LITERATURE.** (3 cr; prereq 3150, 3155)
Methods and materials at secondary level; literature for adolescents; techniques for discussion, planning and evaluating units; reading interests.
- 3327. TEACHING OF WRITING IN THE SECONDARY SCHOOL.** (3 cr; prereq 3150, 3155)
Sources and procedures for developing curriculum objectives and materials related to the teaching of written composition; attention to prewriting procedures; relational processes of composing; forms and functions of discourse; survey of research findings related to the evaluation of student writing.
- 3329. TEACHING LANGUAGE ARTS IN SECONDARY SCHOOLS.** (3 cr; prereq minor in English with major other than speech or theatre)
Methods and content in development of curriculum materials and instruction in language arts.
- 3331. INTRODUCTION TO TEACHING READING IN THE CONTENT AREAS.** (3 cr)
Problems encountered, objectives sought, methods and materials useful for advancing the reading skills of secondary students in regular classes.
- 3334. TEACHING SECOND LANGUAGES.** (6 cr)
- 3335. TEACHING SECOND LANGUAGES.** (3 cr)
- 3342. TEACHING SOCIAL STUDIES IN THE SECONDARY SCHOOL.** (3 cr; prereq minor only)
- 3348, 3349, 3350. TEACHING SOCIAL STUDIES IN THE SECONDARY SCHOOL.** (3 cr each; prereq social studies major, #)
- 3356. TEACHING SECONDARY SCHOOL SCIENCE.** (2 cr; prereq jr, 5 cr introductory psychology, †3155)
Procedures in selecting and organizing materials and in teaching secondary school science.
- 3357. TEACHING SECONDARY SCHOOL SCIENCE.** (4 cr; prereq science major or minor...for majors, 3356 and †3152)
Procedures in selecting and organizing materials for teaching secondary school science.
- 3365. TEACHING SECONDARY SCHOOL MATHEMATICS.** (4 cr; prereq 3150, 3155, †3152 for 2 cr)
Methods, materials, curriculum, and principles of learning pertinent to secondary school mathematics.
- 3368. TEACHING SECONDARY SCHOOL MATHEMATICS.** (3 cr; prereq 3365)
Methods, materials, curriculum, and principles of learning pertinent to secondary school mathematics.
- 3600. STUDENT TEACHING.** (Cr ar; prereq Δ)
Supervised teaching for students wishing to elect credits in student teaching in addition to regular requirements.
- 3606. STUDENT TEACHING IN LIBRARY SCIENCE.** (2-6 cr; prereq sr, Lib 5102, 5201, 5202, 5302, 5303, and 5205 or #)
For both liberal arts college graduates and College of Education undergraduates intending to become school librarians.
- 3621. DIRECTED EXPERIENCES IN TEACHING ENGLISH, SPEECH, AND THEATRE ARTS.** (6-9 cr; S-N only; prereq 3325, #)
- 3631. STUDENT TEACHING IN SECOND LANGUAGES.** (3, 6, 9, or 12 cr; S-N only)
- 3641. STUDENT TEACHING IN SOCIAL STUDIES.** (3 to 15 cr [max 15 cr]; S-N only; prereq 3350, sr)
- 3651. STUDENT TEACHING IN SCIENCE.** (1, 3, 6, 9, or 12 cr; S-N only; prereq sr, 3357 and 4 cr in 3352...for minors, 3357, #)
- 3661. STUDENT TEACHING IN MATHEMATICS.** (3, 6, 9, or 12 cr; S-N only; prereq 3365 during same yr, Math 3161 or †Math 3161)
- 5112. FAMILY LIFE EDUCATION.** (3 cr)
Sources and types of materials available; techniques of family life education, preparation and evaluation of instructional materials.
- 5122. STRATEGIES FOR TEACHING CULTURE IN THE SECOND LANGUAGE CLASSROOM.** (4 cr)
Analysis of other cultures; generation of learning materials for developing understanding of other cultures; sections conducted in French, Spanish, German, Hebrew.
- 5132. TECHNIQUES OF INSTRUCTION.** (3 cr)
Cross-departmental course designed to develop individual competencies; application of current psychological research to classroom instruction, defining objectives in terms of achievable student competencies.
- 5150. ADVANCED METHODS OF TEACHING THE SOCIAL STUDIES.** (3 cr)
Advanced methods for social studies teachers; prerequisite to other graduate level courses in social studies education.
- 5151. SCHOOL-BASED PROJECTS IN SOCIAL STUDIES EDUCATION.** (1-12 cr [max 12 cr])
Opportunity to work individually or in teams on curricular, instructional, or evaluation problems within the school.

Description of Courses

- 5152. TECHNIQUES OF INSTRUCTION IN SOCIAL STUDIES.** (3 cr)
Analysis of teaching strategies and contemporary curriculum materials in the social studies; techniques of instruction useful in inquiry; strategies of analysis; classroom behavior and evaluation; required of M.A., M.Ed., and Ph.D. candidates.
- 5153. NEW PERSPECTIVES IN THE SOCIAL STUDIES.** (1-3 cr [max 12 cr])
Issues, materials, and instructional techniques related to current topics of particular relevance to social studies teachers.
- 5155. MATERIALS LABORATORY FOR SOCIAL STUDIES TEACHERS.** (3 cr; prereq 5150, 5152)
Locating, developing, and using audiovisual materials, learning programs, and simulations for use in social studies classes.
- 5156. PRACTICUM IN SOCIAL STUDIES INSTRUCTIONAL TECHNIQUES.** (1 cr; prereq 5150, 5152)
Includes production of videotape episodes to demonstrate competency in the use of materials and techniques of instruction; required for all M.A., M.Ed., and Ph.D. candidates.
- 5167. ECONOMIC EDUCATION PROGRAMS.** (1-3 cr; prereq Econ 1002 or equiv or #)
Conceptual framework of economic education through analyzing its research, objectives, philosophy, scope, and curricular sequence.
- 5171. TEACHER SELF-APPRAISAL OBSERVATION SYSTEMS.** (3 cr)
Analyzing videotapes in classrooms using a variety of interaction analysis coding instruments as a means of understanding, selecting, and broadening classroom behavior; dimensions and directions of coding.
- 5175. SECONDARY REMEDIAL READING INSTRUCTION.** (3 cr; prereq 5344 or Elem 5331 or #)
Principles and techniques for developing and conducting programs for secondary students seriously deficient in reading skills.
- 5176. CLASSROOM RESEARCH IN ENGLISH EDUCATION AND READING.** (3 cr)
Review and analysis of current studies; design and analyses for school-based research.
- 5177. DIRECTING SECONDARY SCHOOL SPEECH ACTIVITIES.** (3 cr)
Philosophy, organization, and administration of extemporaneous speaking, oratory, interpretive reading, and debate.
- 5184. EXAMINATION AND ASSESSMENT OF MATERIALS IN SECOND LANGUAGES AND CULTURES.** (2 cr)
Evaluation of the tools of access in language acquisition: dictionaries, grammars, readers, tapes, language learning systems, supplementary and cultural materials.
- 5185. SCHOOL AND PROFESSIONAL BASED EXPERIENCES IN SECOND LANGUAGES AND CULTURES.** (1-12 cr [max 12 cr]; prereq MEd students only)
Opportunity for teachers to work together on curricular, instructional, or evaluation problems; internship experiences; participation in professional activities.
- 5186. ALTERNATIVES IN SECOND LANGUAGE EDUCATION.** (3 cr)
Overview of curricula and instruction in various settings: elementary, secondary, open, free, suburban, and center city schools; bilingual programs, colleges, community colleges, universities, and adult programs including teacher preparation.
- 5188. THEORY AND RESEARCH IN INTERCULTURAL EDUCATION.** (4 cr)
Theories, empirical research, and pedagogical applications; review of relevant literatures.
- 5189. PLANNING AND ASSESSING SECOND LANGUAGE CURRICULUM.** (4 cr)
Development of competencies in curriculum and materials construction; application to lessons, units, modules, courses, levels of instruction in ongoing programs of second language acquisition in schools.
- 5191. WORKSHOP: TEACHING OF SECOND LANGUAGES AND CULTURES.** (1-10 cr [max 10 cr])
Related specifically to the needs of the in-service teacher; topics, location, and duration will be highly flexible.
- 5192. SECOND LANGUAGE WORKSHOP: DEVELOPMENT OF CULTURAL MATERIALS ABROAD.** (3-12 cr)
Workshops held in France, Germany, and Spain to develop alternative approaches to teaching another culture in classrooms; individually contracted programs of work, study, travel, and development of culturally based curriculum materials.
- 5194. ENGLISH LANGUAGE ARTS CURRICULA IN THE SECONDARY SCHOOL.** (3 cr)
Growth and development of English as a major school subject; description and evaluation of current curricular direction.
- 5320. LITERATURE FOR ADOLESCENTS.** (3 cr)
Reading and analysis of fiction and nonfiction; methods for critically assessing quality and appeal; appropriate for secondary English and social studies teachers and librarians.
- 5321. TEACHING LITERATURE IN SECONDARY SCHOOLS.** (3 cr)
Current theory and methods of instruction; research and response to literature and reading; adolescent literature; growth assessment; curriculum design and evaluation.
- 5322. TEACHING COMPOSITION AND COMMUNICATION IN JUNIOR AND SENIOR HIGH SCHOOLS.** (3 cr)
Contemporary directions in rhetorical theory and analysis of recent curriculum developments bearing on the teaching of oral and written composition.

- 5324. CURRICULUM PROBLEMS AND ISSUES IN TEACHING THEATRE ARTS IN SECONDARY SCHOOLS.** (3 cr)
Philosophy, methods, materials of teaching drama in the curriculum and as an extracurricular activity in secondary schools; theatrical improvisation, including theatre games, sound and motion, characterization, plot structure, and experience with the informal use of scripted plays.
- 5325. IMPROVISATIONAL DRAMA TECHNIQUES IN THE CLASSROOM.** (3-6 cr [max 6 cr])
Experiences in improvisation, including training in beginning theatre games, sound and motion, characterization and plot structure; development of improvisational activities based on themes and literature of subject interest and suited to the needs of students.
- 5326. TEACHING FILM AND TELEVISION.** (3 cr)
Current theory and methods of teaching critical response to film and television; techniques, genres, history, economics; integration and use of short film and Super-8 filmmaking with English and social studies teaching in the classroom.
- 5340. TEACHING SPEECH AND FORENSICS IN SECONDARY SCHOOL.** (3 cr)
Methods of teaching speech and forensics in the high school classroom; attention to social framework of spoken communication; administration and instructional procedures in the high school forensic program.
- 5344. TEACHING READING IN CONTENT AREAS.** (3 cr)
Methods of accommodating to student abilities and facilitating reading in regular content classes.
- 5347. LINGUISTICS AND READING.** (3 cr)
Nature of linguistic inquiry, investigation of the contributions made to reading and programs resulting from linguistic input; potential contributions of current linguistic research to reading instruction.
- 5349. WORKSHOP: SECONDARY READING INSTRUCTION.** (1-12 cr [max 12 cr]; prereq #)
Principles, instructional techniques, and materials for teaching reading in secondary schools. Each offering will focus on a single topic.
- 5350. CURRENT DEVELOPMENTS IN ENGLISH AND SPEECH EDUCATION.** (1-6 cr [max 12 cr])
New instructional approaches, new materials, current issues and problems in English and language arts education. Each offering will focus on a single topic or issue.
- 5351. DIRECTED STUDY.** (Cr ar [max 6 cr]; S-N optional; prereq #)
Individual or group work on curricular, instructional, or evaluation problems.
- 5371. CURRICULUM WORKSHOP.** (1-3 cr per qtr; prereq 5113 or Elem 5100 or ClSy 5600 or #)
Workshops pertaining to curriculum and instruction with specific topic to be identified at the time workshop is listed for offering.
- 5382. TESTING AND EVALUATION IN SECOND LANGUAGE TEACHING AND LEARNING.** (3 cr)
Standardized achievement, proficiency, aptitude, and attitude tests in foreign languages; building test items for cognitive, affective, and psychomotor domains; techniques for evaluating curricula and teaching practices.
- 5385. PLANNING AND ASSESSING SECOND LANGUAGE INSTRUCTION.** (4 cr)
Identifying and assessing teaching competency; use of videotapes, simulation, and analysis to develop concept of teaching as a continuing process from planning through evaluation.
- 5390. CURRENT DEVELOPMENTS IN SECONDARY SCHOOL SCIENCE TEACHING.** (3 cr; prereq 3356, 3357 or equiv undergrad courses or exper in tchg science)
Curricula, methods, materials of instruction, evaluation.
- 5394. WORKSHOP: SCIENCE EDUCATION.** (1-12 cr [max 12 cr])
Analysis of issues, materials, and instructional techniques on current topics of relevance to secondary school and college science teachers. Each offering will focus on a single topic for varying credit.
- 5395. SCHOOL-BASED PROJECTS IN SCIENCE EDUCATION.** (1-12 cr [max 12 cr]; prereq MEd student in science education)
Individual or group work on curricular, instructional, or evaluation problems and projects applicable to school situations.
- 5396. METHODS OF TEACHING ENGLISH AS A SECOND LANGUAGE.** (3 cr; prereq Ling 5001 or #)
Principles of selection, sequencing, and presentation of instructional materials at various grade levels.
- 5397. STUDIES IN SCIENCE EDUCATION.** (3 cr, §8887; prereq MEd student, #)
Improvement of science teaching through application of research findings.
- 5404. LANGUAGE, CULTURE, AND EDUCATION.** (4 cr, §Spch 5404)
Psychological and social-psychological perspectives for the study of language-communication; dimensions of language variation (dialects, codes, registers); implications for program development and instructional practices.
- 5609. INTERNSHIP.** (Cr ar; prereq MEd students only)
- 5615. PRACTICUM IN SECONDARY READING: TUTORING REMEDIAL STUDENTS.** (3 cr per qtr [max 9 cr]; prereq #)
Supervised experience in diagnosing; planned individual instruction and teaching secondary students with reading difficulties.

Description of Courses

- 5659. SCHOOL-RELATED PROJECTS IN LANGUAGE ARTS.** (1-12 cr [max 12 cr]; prereq MEd student in English education)
Individual or group work on curricular, instructional, or evaluation problems and projects applicable to school situations.
- 5670-5671†. INTERNSHIP: SUPERVISION OF SOCIAL STUDIES STUDENT TEACHERS.** (2/1 cr; prereq #)
On-the-job supervision of social studies student teachers; coordinating seminar.
- 5674-5675-5676. CLINICAL METHODS AND PRACTICES IN SPEECH PATHOLOGY.** (Cr ar; prereq CDis 5502, 5503, 5504 and #)
Case histories and analysis; testing and diagnosis of speech defects; techniques and work programs; practical clinical work.
- 5697. PRACTICUM: TEACHING ENGLISH AS A SECOND LANGUAGE.** (3 cr; prereq 5396 or #)
Supervised observation and teaching of classes in English for students whose native language is not English.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8104. CURRICULUM DEVELOPMENT IN THE SOCIAL STUDIES**
- 8188. INFORMATION SOURCES AND RESEARCH IN SECOND LANGUAGE LEARNING AND TEACHING**
- 8340. WORKSHOP: IMPROVEMENT OF INSTRUCTION**
- 8362. RESEARCH IN SOCIAL STUDIES**
- 8364. SEMINAR: SOCIAL STUDIES EDUCATION**
- 8387. SEMINAR: SECOND LANGUAGE EDUCATION**
- 8673. INTERNSHIP: COLLEGE TEACHING IN SOCIAL STUDIES EDUCATION**
- 8801.* PROBLEMS: TEACHING SOCIAL STUDIES**
- 8871.* PROBLEMS: CURRICULUM CONSTRUCTION**
- 8887.* RESEARCH FOUNDATIONS OF SECONDARY SCHOOL SCIENCE TEACHING**
- 8892. INTRODUCTION TO RESEARCH IN ENGLISH EDUCATION AND READING**
- 8893. SEMINAR: ADVANCED TOPICS IN ENGLISH-LANGUAGE ARTS EDUCATION**
- 8894.* PROBLEMS: SECOND LANGUAGES AND CULTURES EDUCATION**
- 8895. READINGS IN ENGLISH EDUCATION**
- 8896.* PROBLEMS: TEACHING ENGLISH**
- 8897. RESEARCH IN ENGLISH AND SPEECH EDUCATION**
- 8898. READINGS IN SECOND LANGUAGES AND CULTURES EDUCATION**
- 8899. SEMINAR: RESEARCH IN SCIENCE EDUCATION**

Educational Administration (EdAd)

- 5101. PUBLIC SCHOOL ADMINISTRATION.** (3 cr; not open to majors in educational administration; prereq sr, 9 cr in education)
Organization, administration, and general support of public schools in state and local school districts.
- 5103. SUPERVISION AND ADMINISTRATION OF SPECIAL EDUCATION.** (3 cr, §SpEd 5160 or PsyS 5160)
Procedures in establishing and improving educational programs for exceptional children.
- 5105. WORKSHOP: ADMINISTRATION AND SUPERVISION OF SPECIAL EDUCATION.** (1-6 cr)
Laboratory approach to common administrative and supervisory problems for experienced administrators of special needs programs.
- 5120. PRACTICUM: POSTSECONDARY ADMINISTRATION.** (3-6 cr [max 6 cr])
Intensive group and individual examination of current and pertinent administrative problems in post-secondary but nonbaccalaureate institutions.
- 5127. WORKSHOP: POLICY DEVELOPMENT FOR SCHOOL MANAGERS.** (3 cr)
Elements of feedback control applied to policy development and implementation in education; policies for instructional management, personnel administration, and fiscal control; implementation plans and procedures for analysis of policy impact.
- 5128. WORKSHOP: EDUCATIONAL ADMINISTRATION.** (1-6 cr; S-N optional)
Laboratory approach provides opportunities for experienced administrators to concentrate their study on common administrative and supervisory problems.

- 5130. ADMINISTRATOR DEVELOPMENT SEMINAR.** (3-9 cr [max 9 cr])
Assessment and development of skills required of the administrator in the areas of planning, decision making, and human relations; introduction to contemporary issues in educational administration; initial course for students pursuing professional licensure programs.
- 5139. LABORATORY IN DECISION MAKING.** (1-4 cr per qtr)
Contribution of recent research and theory to effective administration; analysis of administrative behavior in realistic settings and relations of administration to human behavior.
- 5140. ADMINISTRATION OF EARLY EDUCATION PROGRAMS.** (3 cr)
Issues and skills relevant to an administrator who directs a preschool program or the student planning a leadership position in early education.
- 5167. THE AMERICAN MIDDLE SCHOOL.** (3 cr)
Sources of the movement; purposes, functions, and limitations; fundamental problems, types, and curricular implications of reorganization.
- 5180, 5181. SEMINAR: ADMINISTRATION OF SPECIAL EDUCATION.** (3 cr per qtr, §SpEd 8560, 8561, §PsyS 8560, 8561; prereq 5103 or SpEd 5160 or PsyS 5160 or #)
Problems of administration and organization of special education programs.
- 5200. DESIGN AND MANAGEMENT OF EDUCATION SERVICES.** (3 cr)
Educational services offered by schools, hospitals, industries, government agencies; contemporary technology, roles, authority systems, communication networks; resource-policy relationships, evaluation and management of activities of clients and staff members.
- 5231. PRACTICUM: PUBLIC RELATIONS FOR SCHOOL ORGANIZATIONS.** (1-4 cr; S-N grading optional)
Practical experience in design and use of basic tools in a program such as conducting community analysis; preparing copy and news releases; meeting, working with material for the press, radio, and television; planning school publications; opinion polling and personal conferences.
- 5233. PRACTICUM: MIDDLE SCHOOL ADMINISTRATION.** (1-4 cr; S-N grading optional)
Projects such as articulation with elementary and senior high school; organizing to meet the needs of the preadolescent; activity programs; guidance functions.
- 5274. TWO-YEAR POSTSECONDARY INSTITUTIONS.** (3 cr)
Present status, development, functions, organization, curriculum, and trends in postsecondary but nonbaccalaureate institutions.
- 5280. INTRODUCTION TO THE ECONOMICS OF EDUCATION .** (4 cr §SPFE 5180)
Economic impact of education on educational markets, prices and production relationships, distribution of income, and investment and cost-benefit analysis in education.
- 5990. SEMINAR: ADMINISTRATION OF INDIAN PROGRAMS.** (1-9 cr [max 9 cr], §Amin 5990)
Examination of various educational agencies dealing with Indian education and development of research designs for the study and improvement of the administration of Indian educational programs.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8201. FORMAL ORGANIZATIONS IN EDUCATION**
- 8202. POLITICS OF EDUCATION**
- 8203. THE COMMUNITY SCHOOL**
- 8210. FINANCING ELEMENTARY AND SECONDARY SCHOOLS**
- 8212. SCHOOL BUDGETING**
- 8213. FINANCIAL RESOURCE MANAGEMENT**
- 8214. SCHOOL MANAGEMENT INFORMATION SYSTEMS**
- 8215. THE ELEMENTARY SCHOOL PRINCIPALSHIP**
- 8216. RECENT RESEARCH IN ELEMENTARY SCHOOL ADMINISTRATION**
- 8217. SEMINAR: ELEMENTARY SCHOOL ADMINISTRATION**
- 8218. SEMINAR: THE SOCIAL ORGANIZATION OF SCHOOLS**
- 8219. SEMINAR: APPLIED HUMANISM IN ADMINISTRATIVE BEHAVIOR (THE CLASSICAL PERSPECTIVE)**
- 8220. QUANTITATIVE FOUNDATIONS FOR MANAGEMENT METHODS**
- 8221. QUANTITATIVE MODELS FOR PROGRAM ANALYSIS AND RESEARCH**
- 8223. QUANTITATIVE TECHNIQUES FOR DECISION MAKING**
- 8224. LEGAL IMPLICATIONS OF ACTS BY SCHOOL BOARDS, ADMINISTRATORS, AND TEACHERS**
- 8225. EDUCATIONAL POLICY AND THE LAW**

Description of Courses

- 8226. EDUCATIONAL FACILITIES PLANNING
- 8227. PUBLIC SCHOOL PERSONNEL PROGRAMS
- 8230. PUBLIC RELATIONS FOR SCHOOL ORGANIZATIONS
- 8234. SEMINAR: EDUCATIONAL FINANCE
- 8235. SEMINAR: APPLIED HUMANISM IN ADMINISTRATIVE BEHAVIOR (THE MODERN PERSPECTIVE)
- 8236. SEMINAR: EDUCATIONAL FACILITIES PLANNING
- 8237. SEMINAR: THEORY AND RESEARCH IN EDUCATIONAL LAW
- 8238. SEMINAR: THEORY AND RESEARCH
- 8240. SEMINAR: CLINICAL EXPERIENCES IN EDUCATIONAL ADMINISTRATION
- 8241. SEMINAR: INTERNSHIP IN EDUCATIONAL ADMINISTRATION
- 8242. ADMINISTRATIVE ORGANIZATION AND STAFFING OF SCHOOL SYSTEMS
- 8247. SEMINAR: SCHOOL DISTRICT POLITICS
- 8248. SEMINAR: METROPOLITAN SCHOOL GOVERNANCE
- 8253. ADMINISTRATION IN HIGHER EDUCATION
- 8264. THE SECONDARY SCHOOL PRINCIPALSHIP
- 8265. ADMINISTERING THE HIGH SCHOOL PROGRAM
- 8270.* PROBLEMS: ELEMENTARY SCHOOL ADMINISTRATION
- 8271.* PROBLEMS: SECONDARY SCHOOL ADMINISTRATION
- 8272.* PROBLEMS: EDUCATIONAL ADMINISTRATION
- 8273. FIELD STUDY
- 8275. TWO-YEAR COLLEGE ADMINISTRATION
- 8276. SEMINAR: ADMINISTRATION OF CURRICULUM IN THE TWO-YEAR COLLEGE
- 8278. RECENT RESEARCH IN TWO-YEAR COLLEGE ADMINISTRATION
- 8290. FINANCING HIGHER EDUCATION
- 8340. POLICY SYSTEMS IN EDUCATION
- 8341. ANALYSIS OF EDUCATION POLICY SYSTEMS

Music Education (MuEd)

- 1201. INTRODUCTION TO MUSIC EDUCATION. (1 cr)
Orientation to various areas and levels of music teaching through observation and school-centered experiences.
- 1801. INTRODUCTION TO MUSIC THERAPY. (1 cr)
Survey exploring methods, materials, and applications of music therapy in various clinical settings with emphasis on field observations.
- 3001. MUSIC FOR RECREATIONAL LEADERSHIP. (4 cr)
Directing and working with students in musical performing groups, rhythmic activities, singing, musical instruments, and listening.
- 3011. TEACHING MUSIC IN THE ELEMENTARY SCHOOL. (4 cr; prereq Mus 1001 or exemption)
For non-music majors; methods and materials in teaching singing, rhythm, music reading, creativity, classroom instruments, fundamentals, appreciation in K-6.
- 3301. TEACHING VOCAL AND GENERAL MUSIC, K-4. (4 cr; prereq music education major or #)
Methods, materials, curriculum development, principles of learning; the child voice; music reading, history, and appreciation; classroom instruments, creativity, rhythm, and basic conducting techniques.
- 3302. TEACHING VOCAL AND GENERAL MUSIC, GRADES 5-12. (4 cr; prereq music education major or #)
Methods, materials, curriculum, principles of learning; the adolescent voice; music reading, history, and appreciation; creativity; advanced conducting techniques for middle, junior, and senior high school music.
- 3314. PIANO IMPROVISATION METHODS AND MATERIALS. (3 cr)
Methods and materials for developing basic improvisational skills; visual and physical familiarization with keyboard; chord symbology, reading chord progressions, translating chord symbols into formal voicings; reading melodies, expanded harmonies and righthand improvisations; aural development.

- 3322. TECHNIQUES OF CLASSROOM INSTRUMENTS.** (4 cr; prereq Mus 1001 or equiv or music or music education major)
Beginning and intermediate class and small group recorder instructions; methods and materials for teaching recorders, capped and uncapped Renaissance reed instruments and Studio 49 (Orff-Schulwerk) melodic and percussion instruments, and bowed, fretted instruments; factors in combining these instruments with voices and keyboard instruments.
- 3331. PRACTICUM: MUSIC EDUCATION.** (2 cr; prereq music education major or #)
School-centered experience applying methods and materials for teaching choral and general music in the public schools.
- 3415. CHORAL LABORATORY.** (4 cr; prereq music education major or #)
Development of basic conducting skills and rehearsal techniques; methods and materials for school choral ensembles; school-based experiences; score reading and arranging.
- 3501. STRING TECHNIQUES.** (4 cr; prereq music education major or #)
Playing experience on violin, viola, cello, and bass; basic concepts of teaching with study of methods and materials; techniques of Suzuki, Bornoff, Applebaum, and Rolland.
- 3503. WOODWIND TECHNIQUES.** (4 cr; prereq music education major or #)
Playing experience on all woodwind instruments; basic concepts of teaching; study of methods and materials; class instruction.
- 3504. BRASS TECHNIQUES.** (4 cr, §1525; prereq music education major or #)
Theory and technical development of instruments, elementary instruction in performing, special attention to routine class instruction.
- 3505. PERCUSSION TECHNIQUES.** (4 cr; prereq music education major or #)
Playing experience on snare drum, timpani, keyboard mallet instruments, drum set; basic concepts of teaching; study of methods and materials; class instruction.
- 3515, 3516. INSTRUMENTAL LABORATORY I, II.** (4 cr each; prereq music education major or #)
Fundamentals of conducting with emphasis on rehearsal techniques for bands and orchestras; literature and materials for school use; school-based experiences; orchestration and arranging.
- 3650. STUDENT TEACHING IN MUSIC.** (3-12 cr; prereq #)
Supervised teaching and observing in elementary, junior high, and senior high schools. Weekly seminar emphasizing classroom management, curriculum development, administration of music programs.
- 3701. BEGINNING CONDUCTING.** (3 cr; prereq Mus 1506, 1516)
Fundamentals; rehearsal techniques; score reading and arranging; literature and materials for instrumental performance in elementary and secondary schools.
- 3800. OBSERVATION IN MUSIC THERAPY.** (2 cr, §3803)
Elementary laboratory and field studies of music therapy and music behavior.
- 3801. PSYCHOLOGY OF MUSIC I.** (4 cr; prereq Psy 1001, 3604 or #)
Basic study of acoustics, the ear and hearing, musical systems, and the psycho-socio-physiological processes involved in musical behavior.
- 3802. PSYCHOLOGY OF MUSIC II.** (4 cr; prereq 3801)
Consideration of research methods applied in the psychology of music problems through examination of selected research studies.
- 3804. MUSIC THERAPY TECHNIQUES I.** (4 cr; prereq major in music therapy)
Examination of specific techniques in the quantification of study of music behavior; projects using behavioral applications.
- 3805-3806†. MUSIC THERAPY TECHNIQUES II, III.** (3 cr each; prereq 3804)
Methods and materials for music therapy in school and hospital settings; designing and implementing programs for severely and moderately handicapped children and adults.
- 3850. FIELD EXPERIENCES: MUSIC THERAPY.** (1 or 2 cr per qtr [max 10 cr]; S-N only; prereq 3800, 3804 or #)
Pre-internship experiences in health, welfare, recreational, and educational settings.
- 3851-3852†. INTERNSHIP: MUSIC THERAPY.** (2 cr each; S-N only; prereq #)
Six-month resident internship in music therapy at an affiliated, approved hospital or clinic.
- 5111. RESEARCH IN MUSIC EDUCATION: BIBLIOGRAPHY.** (3 cr)
Sources, materials, and techniques.
- 5112. RESEARCH IN MUSIC EDUCATION: TECHNIQUES.** (3 cr)
Methods and techniques employed in investigating and reporting music education problems; review of significant research.
- 5115. RESEARCH IN MUSIC EDUCATION: MEASUREMENT.** (3 cr; prereq #)
Current status in music testing; principles; survey of evaluative, accountability, and testing materials in music.
- 5211. PHILOSOPHIES OF MUSIC EDUCATION.** (3 cr)
Analysis and interpretation of philosophies of music and education; objectives, trends, curriculum, evaluation.

Description of Courses

- 5214. PSYCHOLOGICAL FOUNDATIONS.** (3 cr; prereq #)
Analysis and interpretation of psychologies of music and education as applied to the teaching of music.
- 5217. HISTORICAL FOUNDATIONS OF MUSIC EDUCATION.** (3 cr; prereq #)
Analysis and interpretation of important elements in modern music teaching derived from the past.
- 5601. TECHNIQUES AND MATERIALS: INTERMEDIATE AND ADVANCED RECORDER.** (3 cr, §5323; prereq intermediate level competence, two-octave range or #)
Lecture-demonstrations and assignments in breath and articulation technique; ornamentation, improvisation, solo and ensemble editing, arranging, and playing.
- 5603. TECHNIQUES AND MATERIALS: ORFF-SCHULWERK APPROACH.** (3 cr)
Demonstration and class practice in teaching and performance skills; the recorder; movement, improvisation, singing, and creation of musical forms; techniques to encourage children to create and improvise songs, instrumental music, and related bodily movement; class exercises in adapting indigenous and ethnic music material for school use.
- 5611. TECHNIQUES AND MATERIALS: MUSIC AND RELATED ARTS.** (3 cr; prereq #)
Teaching music to reflect the major developments of Western culture.
- 5613. TEACHING MUSIC LITERATURE.** (3 cr; prereq #)
Principles, methods, and materials for teaching music history (appreciation) in grades K-12.
- 5615. TEACHING MUSIC READING.** (3 cr; prereq #)
Objectives; materials, research, teaching procedures, evaluation; class and individual projects; emphasis on general music class approach.
- 5617. CONTEMPORARY YOUTH MUSIC IN EDUCATION.** (3 cr; prereq #)
Analysis of contemporary youth music and utilization through a concept-centered approach in general music classes.
- 5621. SUPERVISION AND ADMINISTRATION OF SCHOOL MUSIC.** (3 cr, §5231; prereq #)
Analysis and evaluation of instructional, supervisory, and administrative techniques; readings, new trends.
- 5631. TECHNIQUES AND MATERIALS: CHORAL CONDUCTING.** (3 cr, §5421; prereq #)
Student conducting with class as performing ensemble; criteria for selecting choral and combined choral and instrumental materials; rehearsal techniques.
- 5633. TECHNIQUES AND MATERIALS: CHORAL ENSEMBLES.** (3 cr, §5431; prereq #)
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.
- 5641. TECHNIQUES AND MATERIALS: STRINGS.** (3 cr, §5504; prereq #)
Research reports, lecture-demonstrations; performance by class members and school-age laboratory groups.
- 5643. TECHNIQUES AND MATERIALS: WOODWINDS.** (3 cr, §5515; prereq #)
Practical performance with lectures and discussions of research in performance techniques.
- 5645. TECHNIQUES AND MATERIALS: BRASS.** (3 cr, §5525; prereq #)
Practical performance with lectures and discussions of research in performance techniques.
- 5647. TECHNIQUES AND MATERIALS: PERCUSSION.** (3 cr, §5534; prereq #)
Contemporary approaches to teaching in elementary, junior high, and senior high school; emphasis on performing techniques; playing of teaching materials, solo and ensemble repertoire.
- 5651. TECHNIQUES AND MATERIALS: INSTRUMENTAL ENSEMBLES.** (3 cr, §5581, §5582)
Survey of solo, chamber, and larger wind ensemble music and use in teaching instrumental music at precollegiate level.
- 5653. BAND ARRANGING.** (3 cr, §Mus 5564; prereq #)
Current scoring techniques for wind and percussion; creative arrangements and scoring for marching or concert band.
- 5655. NEW DIMENSIONS IN INSTRUMENTAL MUSIC EDUCATION.** (3 cr)
Study of contemporary instrumental music through analysis, performance, listening, composition; evaluative procedures; curriculum structure and design; scheduling.
- 5657. TECHNIQUES AND MATERIALS: INSTRUMENTAL CONDUCTING.** (3 cr)
Basic conducting and rehearsal techniques for school bands and orchestras; selection of instrumental materials; organization of school ensembles, elementary and secondary.
- 5661. MUSIC IN THERAPY.** (3 cr)
Survey of principles and methods related to public school, hospital, and community settings; observation and laboratory sessions.
- 5663. INFLUENCE OF MUSIC ON BEHAVIOR.** (3 cr)
Methods and principles of the behavioral and biological sciences as they relate to the art of music.
- 5665. MUSIC FOR EXCEPTIONAL CHILDREN.** (3 cr; prereq #)
Trends; methods and materials for a functional program of singing, playing, rhythm, listening, and creative activities for mentally and physically handicapped and gifted pupils.

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5750. WORKSHOP: MUSIC EDUCATION. (1-12 cr [max 12 cr])

Selected topics in music education. Each offering will focus on a single topic.

5970. INDEPENDENT STUDY. (1-4 cr; prereq Δ , consent of adviser)

Independent study project organized by the student in consultation with the appropriate instructor.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

8281-8282-8283†. SEMINAR: HISTORICAL, PHILOSOPHICAL, AND PSYCHOLOGICAL ISSUES

8990.* RESEARCH PROBLEMS

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Activity courses are offered on successive levels in each of the following areas:

Adapted activities

Aquatics

Conditioning

Dance

Dual sports and activities

Individual sports and activities

Team sports

The beginning courses, listed first in numerical ordering, require no prerequisite. For courses at more advanced levels, prerequisites are indicated, but students with skills or experience in a given area may start with one of the more advanced offerings rather than register for the prerequisite course. Advisers in Cooke and Norris Halls will aid students who have questions about the appropriate level for registration.

Students who do not attend the first meeting of a class for which enrollment is limited forfeit their place. If a class in which enrollment is limited is closed at the time of registration, a student may report to the first class meeting to ask about possible cancellations.

The S-N option is available for all PE and Dnce courses numbered through 1499.

All courses involve participation requiring a high energy expenditure level and are to be considered high intensity in nature except Activities for the Handicapped, which is adjusted for each individual; and Archery, Angling, Bowling, Camping, Golf, Hunting, Posture and Individual Exercise, Physical Education for Family Living, and Rifle Marksmanship, which involve a lower level of energy expenditure and are considered moderate intensity in nature. It is recommended that students know their health status and any limitations on their ability to participate safely in the physical activities involved in the course in which they plan to register. Students who have questions about their health status should seek advice from a personal physician.

PHYSICAL EDUCATION (PE)

1001. ACTIVITIES FOR THE HANDICAPPED. (1 cr; prereq #; intensity individually prescribed)

1004. DIVING, SPRINGBOARD. (1 cr; prereq 1007 or #)

1007. SWIMMING. (1 cr)

1008. WATER POLO. (1 cr)

Introduction to and practice of skills through drills and game situations.

1014. CONDITIONING. (1 cr)

1015. WEIGHT TRAINING. (1 cr)

1016. POSTURE AND INDIVIDUAL EXERCISE. (1 cr; moderate intensity)

1017. RHYTHMIC GYMNASTICS. (1 cr)

Rhythmic exercises following the natural movements of the body.

1029. HANDBALL. (1 cr)

Basic fundamentals of skills and shots; rules and game strategy.

Description of Courses

1031. **SABER FENCING.** (1 cr)
Development of physical and perceptual skills for fencing; techniques of the saber; history, rules, practical bouting experience.
1032. **BADMINTON.** (1 cr)
1033. **FENCING.** (1 cr)
1034. **JUDO.** (1 cr)
1035. **KARATE.** (1 cr)
1036. **RACQUETBALL.** (1 cr)
1037. **SQUASH RACQUETS.** (1 cr)
1038. **TENNIS.** (1 cr)
1039. **WRESTLING.** (1 cr)
1040. **TABLE TENNIS.** (1 cr)
Fundamental skills, rules, etiquette, and strategy for singles and doubles play.
1041. **CYCLING.** (1 cr; prereq supply own bicycle)
Basic skills; physiological and mechanical principles; maintenance, safety, training.
1042. **ORIENTEERING.** (1 cr)
Fundamental skills including land navigation, terrain analysis, fitness.
1043. **BEGINNING HORSEMANSHIP.** (1 cr)
Introduction to fundamental skills and techniques in riding.
1045. **ANGLING: FISHING.** (1 cr; moderate intensity)
1046. **APPARATUS.** (1 cr)
1047. **ARCHERY.** (1 cr; moderate intensity)
1048. **BOWLING.** (1 cr; moderate intensity)
1049. **CAMPING.** (1 cr; moderate intensity)
1050. **GOLF.** (1 cr; moderate intensity)
1051. **HUNTING.** (1 cr; moderate intensity)
1052. **RIFLE MARKSMANSHIP.** (1 cr; moderate intensity)
1053. **ICE SKATING.** (1 cr)
1055. **FOUNDATIONS OF PHYSICAL ACTIVITY.** (2 cr)
1056. **NORDIC (CROSS-COUNTRY) SKIING.** (1 cr)
Basic techniques; participation in exercise and conditioning program preparatory to skiing.
1057. **SKIING.** (1 cr)
1058. **PHYSICAL EDUCATION FOR FAMILY LIVING.** (1 cr; moderate intensity)
1059. **TRACK AND FIELD.** (1 cr)
1060. **TUMBLING, FLOOR EXERCISE, AND TRAMPOLINE.** (1 cr)
1067. **BASKETBALL.** (1 cr)
1068. **CURLING.** (1 cr)
1069. **FIELD HOCKEY.** (1 cr)
1070. **HOCKEY, ICE.** (1 cr; prereq 1053 or equiv)
1071. **LACROSSE.** (1 cr)
1072. **SOCCER.** (1 cr)
1073. **SOFTBALL.** (1 cr)
1074. **VOLLEYBALL.** (1 cr)
1107. **SWIMMING.** (1 cr; prereq 1007 or equiv)
1132. **BADMINTON.** (1 cr; prereq 1032 or equiv)
1133. **FENCING.** (1 cr; prereq 1033 or equiv)
1134. **JUDO.** (1 cr; prereq 1034 or equiv)
1135. **KARATE.** (1 cr; prereq 1035 or equiv)
1136. **RACQUETBALL.** (1 cr; prereq 1036 or equiv)
Advanced skills, strategy and technique; conduct of game and experiences in competition.
1138. **TENNIS.** (1 cr; prereq 1038 or equiv)

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1139. **WRESTLING.** (1 cr; prereq 1039 or equiv)
1143. **INTERMEDIATE HORSEMANSHIP.** (1 cr; prereq 1043 or #)
Progressive advancement through fundamental skills and techniques: initial stages of competition.
1145. **ANGLING: FLY FISHING.** (1 cr; prereq 1045 or equiv; moderate intensity)
1146. **APPARATUS-GYMNASTICS.** (1 cr; prereq 1046 or equiv)
1147. **ARCHERY.** (1 cr; prereq 1047 or equiv; moderate intensity)
1148. **BOWLING.** (1 cr; prereq 1048 or #; moderate intensity)
1150. **GOLF.** (1 cr; prereq 1050 or equiv; moderate intensity)
1154. **FIGURE SKATING.** (1 cr; prereq 1053 or equiv)
1157. **SKIING.** (1 cr; prereq 1057 or equiv)
1159. **TRACK AND FIELD.** (1 cr; prereq 1059 or equiv)
1160. **TUMBLING, FLOOR EXERCISE, AND TRAMPOLINE.** (1 cr; prereq 1060 or equiv)
1167. **BASKETBALL.** (1 cr; prereq 1067 or equiv)
1172. **SOCCER.** (1 cr; prereq 1072 or equiv)
1173. **SOFTBALL.** (1 cr; prereq 1073 or equiv)
1174. **VOLLEYBALL.** (1 cr; prereq 1074 or equiv)
1205. **SCUBA AND SKIN DIVING.** (1 cr; prereq 1107 or equiv)
1207. **SWIMMING.** (1 cr; prereq 1107 or equiv)
1238. **TENNIS.** (1 cr; prereq 1138)
1248. **BOWLING.** (1 cr; prereq 160 average; moderate intensity)
1250. **GOLF.** (1 cr; prereq 1150; moderate intensity)
1254. **FIGURE SKATING.** (1 cr; prereq 1154 or equiv)
1257. **SKIING.** (1 cr; prereq 1157 or equiv)
Refinement and combination of advanced techniques in downhill skiing.
1274. **VOLLEYBALL.** (1 cr; prereq 1174 or #)
Basic offensive and defensive skills; advanced skills and strategies; proficient performance during competitive play.
1306. **ADVANCED LIFESAVING.** (1 cr; prereq ability to swim 440 yds)
1307. **SWIMMING.** (1 cr; prereq 1207 or equiv)
1309. **SYNCHRONIZED SWIMMING.** (1 cr; prereq 1207 or equiv)
1410. **WATER SAFETY INSTRUCTOR.** (2 cr; prereq current American Red Cross Advanced Lifesaving Certificate and have or concurrently acquire ARC First Aid and CPR Certificate)
1497. **DIRECTED STUDY.** (1-6 cr; prereq 3 cr in physical education, Δ)
For the nonprofessional student who wishes to study a topic or problem under tutorial guidance.
1520. **POSTURE AND FUNCTIONAL EXERCISE.** (1 cr)
1521. **GYMNASTICS.** (1 cr)
1522. **GYMNASTICS.** (1 cr; prereq 1521)
1523. **CONDITIONING AND TACTICS.** (1 cr)
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; public school observation included.
1524. **GYMNASTICS COMPOSITION.** (1 cr; prereq 1521, 1522)
Competition: routines on the balance beam and uneven parallel bar at intermediate and advanced levels of skill and in floor exercise at all skill levels; judging points related to composition.
1530. **GOLF.** (1 cr)
1540. **BADMINTON.** (1 cr)
1541. **TENNIS.** (1 cr)
1550. **FIELD HOCKEY-VOLLEYBALL.** (1 cr)
1551. **BASKETBALL.** (1 cr)
1552. **SPEEDAWAY-SOFTBALL.** (1 cr)
1553. **BASEBALL.** (1 cr)
1554. **FOOTBALL.** (1 cr)
Demonstrations and practice in fundamentals for all positions on a team.

Description of Courses

- 1555. SOCCER.** (1 cr)
- 1561. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY SCHOOL.** (3 cr; prereq physical education major)
Analysis of basic skills, observations, and laboratory experience in teaching activities.
- 1630. GOLF.** (1 cr; prereq 1050 or equiv)
- 1640. WRESTLING.** (1 cr; prereq 1039 or equiv)
- 1641. RACQUET SPORTS.** (1 cr; prereq 1032 or 1038 or equiv)
- 1650. OFFICIATING FIELD HOCKEY-VOLLEYBALL.** (1 cr; prereq 1550)
- 1651. OFFICIATING BASKETBALL.** (1 cr; prereq 1551)
- 1652. BASKETBALL.** (1 cr; prereq 1067 or equiv)
Demonstrations and practice, individual and team offensive and defensive tactics.
- 1653. VOLLEYBALL.** (1 cr)
- 1654. TRACK AND FIELD.** (1 cr; prereq 1059 or equiv)
Demonstrations and practice in all events.
- 1655. ICE HOCKEY.** (1 cr; prereq 1053 or equiv)
- 1656. OFFICIATING SOFTBALL.** (1 cr; prereq 1073 or 1552 or #)
Teaching officiating techniques; opportunity to practice skills for the national official's examination.
- 1657. OFFICIATING SOCCER.** (1 cr; prereq 1072 or #)
Rules of the game, techniques of officiating; opportunity to qualify as soccer official through the Minnesota Soccer Referee's Association.
- 1801. AQUATIC ADMINISTRATION.** (2 cr; prereq current water safety instructor's certificate and #)
Emphasizes skills needed to administer an aquatic program in a school or community setting.
- 1860. PHYSICAL EDUCATION FOR YOUNG CHILDREN.** (3 cr; S-N only; prereq child care workers)
Designed for the paraprofessional working with preschool children; emphasis on the importance and principles of movement, principles of planning, instructional techniques, resource materials.
- 1870. ORIENTATION TO MOVEMENT.** (3 cr; prereq physical education major)
Introduction to mechanics of movement: basic locomotor and axial movements, movement patterns; exercise, conditioning, and relaxation techniques.
- 1871. INTRODUCTION TO PHYSICAL EDUCATION.** (3 cr; prereq physical education major)
Professional and disciplinary dimensions of physical education; theoretical application to human movement.
- 1875. ORIENTATION TO TEACHING PHYSICAL EDUCATION.** (4 cr)
Introduction to teaching techniques; emphasis on teaching styles, educational objectives, communication, and observation skills.
- 1980. PHYSICAL EDUCATION ACTIVITIES.** (1-6 cr; S-N only; prereq physical education major)
Demonstration of competencies at the beginning level in a variety of activities.
- 1981. PHYSICAL EDUCATION ACTIVITIES: ADVANCED.** (1-3 cr; S-N only; prereq physical education major)
Demonstration of competencies at the advanced level in a variety of activities.
- 1990. DIRECTED STUDY.** (1-6 cr; prereq Δ)
For students majoring or minoring in physical education who wish to study a topic or problem under tutorial guidance.
- 3100. ADAPTED PHYSICAL EDUCATION.** (3 cr; prereq 3111)
Philosophy, principles, and techniques of adapting the program to meet the needs of handicapped pupils.
- 3110. HUMAN ANATOMY.** (3 cr)
Emphasizes bones, nerves, and muscles and their significance in physical education.
- 3111. MECHANICS OF MOVEMENT.** (3 cr; prereq Anat 1027, Phys 1061)
Structure of the body, principles and mechanics of bodily movements.
- 3112. PHYSICAL AND PSYCHOMOTOR DEVELOPMENT.** (3 cr)
Physical growth and development at all ages of childhood and adolescence; relationship of physical growth and psychomotor skill acquisition to cognitive and affective factors.
- 3113. MOTOR LEARNING AND MOTOR DEVELOPMENT.** (4 cr)
Motor growth and development of children, adolescents, and adults with emphasis on sociopsychological factors.
- 3114. PREVENTION AND CARE OF INJURIES.** (3 cr; prereq 3110 or Anat 1027)
Policies for conditioning athletes in interscholastic and intercollegiate sports; safety controls.
- 3115. PHYSIOLOGICAL APPLICATION TO SPORTS.** (3 cr, §PubH 3385, §PubH 3386)
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 Minnesota Coaching Endorsement.

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- 3120. CURRICULUM.** (3 cr; prereq physical education major, sr)
Objectives, content, organization, evaluation, and trends in curriculum for the elementary and secondary school.
- 3125. PHILOSOPHY OF PHYSICAL EDUCATION AND SPORT.** (3 cr)
Introduction to the form and content of the subject as represented by the major short essay literature; theories of reality, knowledge, and value salient to physical education and sport.
- 3126. PSYCHOLOGICAL AND SOCIOLOGICAL DIMENSIONS OF PHYSICAL ACTIVITY.** (3 cr)
Introductory focus on analysis of current literature and theoretical constructs in this dimension of physical activity.
- 3130. HISTORY OF PHYSICAL EDUCATION AND SPORT.** (3 cr)
Introductory description and interpretation of influence of past sociocultural events upon development of physical education and sport from primitive to 20th-century civilization.
- 3143. ORGANIZATION AND MANAGEMENT OF SPORT.** (3 cr; prereq 2 cr coaching course)
Principles, policies, and procedures involved in the coaching of interscholastic sports.
- 3144. ADMINISTRATION.** (2 cr, \$3120; prereq physical education major, sr)
Overview of objectives, content of organizations, evaluation and trends in administration of physical education for the elementary and secondary schools.
- 3150. INTRODUCTION TO EVALUATION.** (4 cr; prereq SeEd 3155)
Selection, evaluation, construction, and administration of tests; administration of sports skill and motor ability tests for elementary and secondary school levels.
- 3160. PROGRAMMING RECREATIONAL SPORTS.** (3 cr)
Basic ingredients for administering recreational sports programs including competitive intramurals, sports clubs, and self-directed exercise.
- 3169. VOLLEYBALL COACHING.** (2 cr; prereq 1174 or #)
Professional preparation emphasizing philosophies, skills, strategies, and responsibilities.
- 3170. BASEBALL COACHING.** (2 cr; prereq 1553 or #)
Techniques of playing each position, batting, coaching runners, and team play; study of rules; officiating methods and practice; organization of practices.
- 3171. BASKETBALL COACHING.** (2 cr; prereq 1652 or #)
Techniques, styles of offense and defense, conditioning and handling of players.
- 3172. FOOTBALL COACHING.** (2 cr; prereq 1554 or #)
Techniques and orientation, strategy, generalship, styles of offense and defense, methods of organizing practices and handling players.
- 3173. GOLF COACHING.** (2 cr; prereq 1630 or 1530 or #)
Techniques for organizing the squad, selecting the team, and conducting tournaments; principle of the golf swing, practice routines, rules and strategy of play.
- 3174. GYMNASTICS COACHING.** (2 cr; prereq 1620 or 1522 or #)
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.
- 3175. ICE HOCKEY COACHING.** (2 cr; prereq 1655 or #)
Techniques of and orientation to coaching high school hockey; planning and conducting practices, team offense and defense; drills to develop individual skills; conditioning.
- 3176. SWIMMING AND DIVING COACHING.** (2 cr; prereq 1600 or 1800 or #)
Instruction in and practice of the basic techniques used in competitive swimming and diving; rules and regulations governing staging of competition.
- 3177. TENNIS COACHING.** (2 cr; prereq 1641 or 1541 or #)
Techniques and orientation, methods and organization; emphasis on high school and college levels; coverage of coaching techniques, analysis of strokes, and organization of practice sessions.
- 3178. TRACK AND FIELD COACHING.** (2 cr; prereq 1654 or 1059 or #)
Techniques of performance in all standard events; methods of coaching; organization of track meets; study of rules; officiating methods and practice.
- 3179. WRESTLING COACHING.** (2 cr; prereq 1640 or #)
Analysis of the moves, combinations, and sequences; training, safety, and health features; administrative responsibilities of the coach; review of the literature.
- 3310. ATHLETIC TRAINING LABORATORY.** (1 cr; prereq 3114)
Thirty hours of practical experience in the training room under supervision.
- 3322. TEACHING PHYSICAL EDUCATION: ELEMENTARY SCHOOL.** (5 cr; prereq 1871, 1875, 3150, all required activity courses)
Methods of teaching in grades K-6; emphasis on planning, organizational patterns, teaching techniques, and evaluation.

Description of Courses

- 3323. TEACHING PHYSICAL EDUCATION: SECONDARY SCHOOL.** (5 cr; prereq 3322)
Methods of teaching in grades 7-12; emphasis on planning, organizational patterns, teaching techniques, and evaluation.
- 3327. TEACHING PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL.** (3 cr, §1560, §3325, §Hlth 3325; prereq elementary education major)
An overview of the elementary physical education program; primarily a laboratory course, with participation in representative physical education activities for children; opportunities for observation of children, microteaching, skill analysis, and group discussion.
- 3360. THE INTRAMURAL-EXTRAMURAL-INTERSCHOOL SPORTS PROGRAM.** (3 cr; prereq physical education major or minor, jr)
Objectives, principles, policies, procedures, and personnel involved in the planning of sports programs for girls and women.
- 3371. SOCCER COACHING.** (2 cr; prereq 1072 or #)
Styles, systems, training techniques, psychological aspects of soccer; fundamental approaches and tactics in coaching soccer.
- 3600. PRE-FALL STUDENT TEACHING.** (3 cr; S-N only; prereq #)
Program and problems of organization and management; begins with fall semester opening of public schools.
- 3604. ADVANCED STUDENT TEACHING.** (3 cr; S-N optional; prereq #)
Optional for those who have done superior work.
- 3607. STUDENT TEACHING: COLLEGE.** (1 cr; prereq physical education major, f3323)
Observation and practical experience in teaching at the college level under guidance.
- 3621. STUDENT TEACHING: ELEMENTARY.** (6 cr; S-N optional; prereq SeEd 3150, 3155 or Elem 3100, physical education major)
Student teaching in physical education in grades 1-6 in public schools.
- 3622. STUDENT TEACHING: SECONDARY.** (6 cr; S-N optional; prereq SeEd 3150, 3155 or Elem 3100, physical education major)
Student teaching in physical education in grades 7-12 in public schools.
- 3624. STUDENT TEACHING: COACHING.** (3 cr; S-N optional; prereq #)
May be elected by physical education majors; required of candidates for coaching credential only; for men and women without public school coaching experience.
- 3625. SUPERVISED PRACTICAL EXPERIENCE.** (3 cr; prereq Δ)
On-the-job experience under a specialist in the particular area of study.
- 3900. DIRECTED STUDY.** (1-9 cr; prereq Δ)
Self-directed study preceded by classroom study and possession of basic competence.
- 5100. TEACHING PHYSICAL EDUCATION FOR THE HANDICAPPED.** (3 cr; prereq #)
Introduction to the role of physical education in the education of the handicapped individual, emphasizing understanding, principles of organization, administration, curriculum, supervision, and evaluation.
- 5101. PHYSICAL EDUCATION ACTIVITIES FOR THE HANDICAPPED.** (3 cr; prereq 5100 or SpEd 5101 or PsyS 5101)
Adaptation of methods, materials, and physical activities to meet the needs of the physically, mentally, or emotionally atypical student applied to specific handicaps in selected activity areas.
- 5102. PRACTICUM: PHYSICAL EDUCATION FOR THE HANDICAPPED.** (3 cr; prereq 5101 or #)
Opportunity for teaching in public school or community organization, providing instruction for atypical individuals; includes seminar for review of current theory and exchange of ideas and problems.
- 5110. SUPERVISION OF SCHOOL HEALTH AND PHYSICAL EDUCATION.** (3 cr; prereq #)
Functions; adaptations of accepted procedures for observation, guidance, and training of physical educators.
- 5111. PHYSICAL EDUCATION FACILITIES.** (3 cr)
Planning of areas and facilities for physical education and athletics with special emphasis on current trends and problems in the field.
- 5112. PHYSICAL EDUCATION EQUIPMENT.** (3 cr)
Selection, purchase, and maintenance of athletic equipment and supplies with opportunity to investigate selected equipment in depth.
- 5120. ADVANCED BIOMECHANICS/KINESIOLOGY.** (4 cr; prereq undergrad kinesiology or #)
Principles of mechanics applied to human movement, analysis of motor skills, application to individual projects.
- 5121. CONTRIBUTIONS OF BASIC SCIENCE TO PHYSICAL EDUCATION.** (3 cr; prereq #)
Recent research in related physical sciences; applications in selected areas.
- 5122. APPLIED PHYSIOLOGY.** (3 cr; prereq PubH 3386 or Phsl 3051 or equiv)
Application of concepts in human physiology to exercise physiology, sports training, and physical activities with particular reference to respiratory and cardiovascular systems.

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- 5123. ANALYSIS OF MOVEMENT IN GYMNASTICS.** (3 cr; prereq 3111 and 3174 or 3322 or #)
Scientific principles of body mechanics and training relating to teaching, analysis, and development of advanced performance techniques.
- 5125. ADVANCED PHILOSOPHY OF PHYSICAL EDUCATION AND SPORT.** (3 cr; prereq 3125 or #)
Examination of comprehensive, systematic, and revealing accounts of the status of physical education and sport with respect to reality, knowledge, and value.
- 5126. ADVANCED PSYCHOLOGICAL AND SOCIOLOGICAL DIMENSIONS OF PHYSICAL ACTIVITY.** (3 cr; prereq #)
Advanced insight into the substance, nature, and significance of these dimensions of physical activity; focus on current research, issues, and trends as well as potential practical contributions.
- 5130. MOTOR LEARNING AND HUMAN PERFORMANCE.** (3 cr; prereq 3113 or #)
Mechanisms of human motor skill learning; emphasis on theories of motor learning and control of movement, motor memory, and individual differences.
- 5133. PRACTICUM: ASSESSMENT OF PSYCHOMOTOR SKILLS IN YOUNG CHILDREN.** (3 cr; S-N optional; prereq 3150 or #)
For the practitioner interested in collecting, treating, and analyzing assessment data.
- 5134. PERCEPTUAL-MOTOR DEVELOPMENT IN CHILDHOOD.** (3 cr; prereq 3113 or #)
The motoric dimension of perception; emphasis on developmental tenets of perception, diagnosis and remediation of perceptual-motor deficiencies and related research.
- 5136. PSYCHOLOGY OF COACHING.** (3 cr; prereq 3113 or #)
Psychological aspects of coaching at the elementary, secondary, and college levels.
- 5140. BIOMECHANICS OF SPORT SAFETY.** (3 cr; prereq undergrad kinesiology)
Forces and torques developed in sports activities; tolerances of the human body; techniques for preventing injury; design of protective equipment.
- 5150. TEACHING ELEMENTARY SCHOOL PHYSICAL EDUCATION.** (3 cr; prereq tchg license or #)
Principles, techniques, and procedures in developing basic motor skills, physical fitness, and sports skills.
- 5151. CURRICULUM.** (3 cr; prereq sr)
For students without previous experience in curriculum; objectives, content, organization, evaluation, and trends.
- 5152. CURRICULUM DEVELOPMENT.** (3 cr; prereq 5151 or equiv)
Trends, issues, and problems at selected levels of interest: elementary, secondary, junior college; for experienced teachers.
- 5160. EVALUATION IN PHYSICAL EDUCATION.** (3 cr; prereq 3150 or equiv)
General principles and techniques of evaluation.
- 5161. PRACTICUM: CONSTRUCTION OF MOTOR PERFORMANCE TESTS.** (3-6 cr; prereq 5160 or #)
Practical experience in the development and/or revision of motor performance tests from preschool through college with emphasis on test design and evaluation of the instrument.
- 5162. PRACTICUM: CONSTRUCTION OF WRITTEN TESTS.** (3-6 cr, §Hlth 5160; prereq PsyF 5120 or #)
Practical experience in the development of written tests with emphasis on test design and evaluation of the items.
- 5170. FOUNDATIONS OF PHYSICAL EDUCATION.** (3 cr; prereq grad or MEd students)
Establishment of guidelines for individual and group professional action; examination of pertinent social forces, educational philosophies, and general ethics.
- 5255. RECREATIONAL SPORTS.** (3 cr)
In-depth analysis of the processes and benefits of recreational sports programming and participation.
- 5351. SEMINAR: TEACHING PHYSICAL EDUCATION IN COLLEGES AND UNIVERSITIES.** (1 cr [max 3 cr], §Rec 5351, §Hlth 5351; prereq Δ)
Emphasis on improvement of instruction.
- 5387. DETECTION AND PREVENTION OF CORONARY HEART DISEASE.** (4 cr, §PubH 5387)
Introduction to causes, detection, and prevention of major cardiovascular diseases emphasizing risk factor identification and modification, role of exercise in prevention, and measurement and interpretation of exercise electrocardiograms.
- 5388. EXERCISE TESTING, CONDITIONING, AND CARDIAC REHABILITATION.** (4 cr, §PubH 5388; prereq 5387 or PubH 5387 and #)
Administration and interpretation of exercise tests, cardiopulmonary resuscitation, and exercise prescription; survey of exercise programs for apparently healthy adults and CHD patients; familiarization with principles for establishment of intervention and rehabilitative programs.
- 5389. PRACTICAL EXPERIENCE IN GRADED EXERCISE TESTING, PRESCRIPTION, AND DIRECTION.** (3-6 cr [max 6 cr], §PubH 5389; prereq 5388 or PubH 5388, #)
Supervised on-site training in testing, prescription, and direction of programs for adults.
- 5620. PRACTICUM: PREVENTION AND CARE OF ATHLETIC INJURIES.** (3 cr; prereq Anat 1027 or equiv)
An 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.

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- 5695. PRACTICUM: RECREATIONAL SPORTS.** (3 cr; prereq 5255)
Theory and application of principles in developing programs including supervised experiences in program operation.
- 5710. WORKSHOP: PHYSICAL EDUCATION FOR THE ELEMENTARY SCHOOL CHILD.** (1-12 cr [max 12 cr]; S-N at option of dept)
Current trends, instructional techniques, and resource materials.
- 5740. WORKSHOP: COACHING OF INDIVIDUAL, DUAL, OR TEAM SPORTS.** (1-12 cr [max 12 cr])
Instruction at the advanced level including analyses of skills, game strategies, specific techniques of coaching, and methods of training and conditioning.
- 5750. ATHLETICS IN CONTEMPORARY SOCIETY.** (3-9 cr; prereq sr or grad student)
Contemporary issues; background on organizational and management problems of interscholastic and intercollegiate athletics. Each offering will focus on a current problem.
- 5980. RESEARCH METHODOLOGY.** (3 cr, §Hlth 5980; prereq #)
Methods and design for research in health, physical education, and recreation.
- 5981. PROBLEMS.** (Cr ar; prereq MEd candidate, #)
Focus on teaching of physical education.
- 5983. READINGS: PHYSICAL EDUCATION.** (Cr ar [max 9 cr] prereq #)
Independent study under tutorial guidance.
- 5985. APPLICATION OF RESEARCH.** (3 cr)
Professional research for the practitioner; focus on interrelationships of the purpose, methods, findings, conclusions, and implications.

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(For course descriptions, see the *Graduate School Bulletin*)

- 8110. ADMINISTRATION: GENERAL PRINCIPLES AND PROCEDURES**
- 8113. COLLEGE PHYSICAL EDUCATION ADMINISTRATION**
- 8126. SEMINAR: PSYCHOLOGICAL AND SOCIOLOGICAL DIMENSIONS OF PHYSICAL ACTIVITY**
- 8150. PROFESSIONAL PREPARATION OF PHYSICAL EDUCATION TEACHERS**
- 8310. SEMINAR: PHYSICAL EDUCATION**
- 8320. SEMINAR: BIOMECHANICS**
- 8325. SEMINAR: PHILOSOPHY OF PHYSICAL EDUCATION AND SPORT**
- 8330. SEMINAR: MOTOR LEARNING AND HUMAN PERFORMANCE**
- 8381. LABORATORY RESEARCH TECHNIQUES**
- 8382. BIOMECHANICS: RESEARCH TECHNIQUES**
- 8980.* RESEARCH PROBLEMS**
- 8981.* RESEARCH PROBLEMS**
- 8985. SEMINAR: CONTEMPORARY PROBLEMS**

DANCE (Dnce)

- 1020. FUNDAMENTALS, MOVEMENT.** (1 cr)
- 1021. DISCO DANCE I.** (1 cr)
Line, free style, individual, and couple dances.
- 1022. BALLROOM DANCE.** (1 cr)
- 1023. FOLK AND SQUARE DANCE.** (1 cr)
- 1024. MODERN DANCE.** (1 cr)
- 1025. BALLET.** (1 cr)
Fundamentals of classical ballet techniques including barre and center work.
- 1122. BALLROOM DANCE.** (1 cr; prereq 1022 or equiv)
- 1123. FOLK AND SQUARE DANCE.** (1 cr; prereq 1023 or equiv)
- 1124. MODERN DANCE.** (1 cr; prereq 1024 or equiv)
- 1125. BALLET.** (1 cr; prereq 1025 or #)
Fundamentals of classical ballet including barre, center work, and combinations.

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- 1222. BALLROOM DANCE.** (1 cr; prereq 1122 or equiv)
English quickstep, waltz, bolero, mambo; advanced routines for tango, cha-cha, swing, and current novelty dances.
- 1224. MODERN DANCE.** (1 cr; prereq 1124 or equiv)
- 1225. BALLET.** (1 cr; prereq 1125 or #)
Fundamentals of classical ballet including barre, center work, combinations, and adagio and allegro movements.
- 1324. MODERN DANCE.** (1 cr; prereq 1224 or equiv)
- 1514. IMPROVISATION.** (1 cr)
Basis for exploring movement possibilities spontaneously.
- 1515. MODERN DANCE TECHNIQUE AND IMPROVISATION I.** (2 cr; prereq 1324 or equiv or #)
Basic technique of modern dance and its relationship to form, design, and exploration of movement.
- 1517. ETHNIC DANCE HERITAGE I.** (2 cr per qtr. [max 8 cr])
Focus on relationship of dance to the culture from which it evolved; emphasis each quarter on one of the following: native American, East Indian, Afro-American, Spanish.
- 1518. BALLET I.** (2 cr; prereq #)
Fundamental technique of classical ballet.
- 1615. MODERN DANCE TECHNIQUE AND IMPROVISATION II.** (2 cr; prereq 1515 or #)
Basic technique of modern dance and its relationship to form, design, and exploration of movement.
- 1618. BALLET II.** (2 cr; prereq 1518 or #)
Intense discipline instruction in the technique of ballet.
- 1715. MODERN DANCE TECHNIQUE AND IMPROVISATION III.** (2 cr; prereq 1615 or #)
Basic technique of modern dance and its relationship to form, design, and exploration of movement.
- 1718. BALLET III.** (2 cr; prereq 1618 or #)
Intense discipline instruction in the technique of ballet.
- 3181. DANCE THERAPY.** (2 cr)
For students and teachers interested in dance therapy as a means of communication and interaction for the emotionally disturbed and/or handicapped person.
- 3182. DANCE HISTORY: PRIMITIVE THROUGH RENAISSANCE PERIOD.** (3 cr)
Historical background of dance and its relation to allied arts.
- 3183. DANCE HISTORY: 17TH TO 20TH CENTURIES.** (3 cr)
History and trends of dance and its relation to the other arts.
- 3321. TEACHING OF FOLK DANCE AND SOCIAL FORMS.** (4 cr; prereq 1022, 1023)
Methods and materials for teaching folk dance and basic ballroom dance skills through observation, teaching experience, and lectures.
- 3326. TEACHING OF MODERN DANCE.** (4 cr; prereq 1024, 1124, 1224 or 1515, 1615 or #)
Study of and experimentation with methods, principles, and techniques; emphasis on observation, microteaching, assisting with class instruction under supervision, and workshop experiences.
- 3381. MODERN DANCE TECHNIQUE AND IMPROVISATION.** (3 cr; prereq 1715 or #)
Advanced technique.
- 3382. MODERN DANCE TECHNIQUE AND IMPROVISATION.** (3 cr; prereq 3381 or #)
Advanced technique.
- 3383. MODERN DANCE TECHNIQUE AND IMPROVISATION.** (3 cr; prereq 3382 or #)
Advanced technique.
- 3390. DANCE COMPOSITION.** (2 cr; prereq 1514, 1715 or #)
Solo dance compositions emphasizing form or principles of composition with practical applications.
- 3391. DANCE COMPOSITION.** (2 cr; prereq 3390 or equiv)
Group dance compositions emphasizing form or basic elements of composition applicable to all art forms.
- 3392. DANCE PRODUCTION.** (3 cr; prereq #)
Culmination of dance composition in a dance production; experience in stagecraft and costuming.
- 3394. CREATIVE DANCE FOR CHILDREN.** (4 cr; prereq 1024 or #)
Emphasis on creatively teaching basic skills and techniques of dance to children; observations and teaching experiences.
- 3395. ADVANCED IMPROVISATION.** (1 cr; prereq 1515, 1615, 1715 or #)
Exploration and spontaneous invention through greater awareness of space, movement, and the community environment.
- 3396. DANCE REPERTORY THEATRE.** (3 cr [max 9 cr]; prereq audition or #)
Technique and improvisation in the construction and performance of a dance theatre work under the direction of a guest choreographer; professionally oriented dance experience for advanced students.

Description of Courses

- 3397. MUSIC FOR DANCE.** (3 cr)
Relationships of music to dance; analysis of musical forms and practical compositional experiences; for dancers, choreographers, teachers, accompanists, musicians, and composers.
- 3398. DANCE COMPOSITION.** (2 cr; prereq 3391, 3395 or #)
Experimental approaches to dance composition.
- 3399. DANCE COMPOSITION.** (3 cr; prereq 3398 or #)
Advanced theory and practice including various approaches to composition.
- 3400. SENIOR DANCE SEMINAR.** (3 cr [max 9 cr]; prereq #)
For all majors focusing on the philosophy and aesthetics of dance as an art form and dance in education; culminates in a senior project.
- 3608. STUDENT TEACHING: COLLEGE MODERN DANCE.** (1 cr; prereq 1715 or #, †3326)
Observation and practical experience in teaching at the college level under guidance.
- 3610. STUDENT TEACHING IN DANCE: ELEMENTARY.** (3 or 6 cr; prereq 3394 or #)
Student teaching in grades K-6.
- 3611. STUDENT TEACHING IN DANCE: SECONDARY.** (3 or 6 cr; prereq 3326 or #)
Student teaching in grades 7-12.
- 3612. FIELD EXPERIENCES IN TEACHING DANCE.** (3 or 6 cr; prereq 3326, 3608 or #)
On-the-job-experience teaching dance under supervision in nursery schools, dance studios, recreational agencies, hospitals, and homes for the aged.
- 5181. WORKSHOP: DYNAMICS OF THERAPEUTIC DANCE/MOVEMENT.** (1-3 cr [max 9 cr]; prereq 3181 or #)
Movement laboratory integrating theory and experience in therapeutic dance; individual movement behavior and its relationship to verbal communication and the ongoing process; includes fieldwork observation.
- 5700. WORKSHOP: DANCE IN EDUCATION.** (Cr ar [max 12 cr])
History, principle, instructional techniques, and materials for teaching dance in schools and recreational agencies. Topic and credit will vary with each offering.

RECREATION, PARK, AND LEISURE STUDIES (Rec)

- 1500. RECREATION FOR SPECIAL GROUPS.** (3 cr)
Problems of forced leisure; values, methods, and techniques for planning and leading recreation activities.
- 1505. OBSERVATION OF RECREATION SERVICES FOR SPECIAL GROUPS.** (3 cr)
Supervised group observation and participation.
- 1510. RECREATION PROGRAMMING FOR SPECIAL GROUPS.** (3 cr)
Techniques and guidelines for determining organization and content; resources for program activities.
- 1520. ORIENTATION TO LEISURE AND RECREATION.** (5 cr; prereq recreation major or minor)
Examination of the history and development of the park and recreation movement; sociological, economical, psychological, and political considerations of leisure and recreation in contemporary societies; professional and service organizations and their interrelationship; orientation to the professional field.
- 1530. CAMP AQUATICS.** (2 cr)
Administration of waterfront program, basic skills in handling small craft.
- 1540. CAMP COUNSELING.** (4 cr)
Practical experience in all phases of camping; introduction to camping and outdoor education for prospective counselors.
- 1600. LEADERSHIP IN SOCIAL ACTIVITIES.** (3 cr)
Techniques of leadership in social games, parties, dances, outings.
- 1650. SOCIAL ASPECTS OF LEISURE.** (3 cr; prereq nonmajor only)
Sociological consideration of leisure and recreation as parts of our total socioeconomic structure.
- 1700. FIELD EXPERIENCE.** (1-15 cr; S-N only)
Supervised experiences in selected agencies.
- 3150. LEADERSHIP IN OUTDOOR RECREATION.** (3 cr; prereq 1520 or Δ)
Identity and scope of outdoor recreation programs.
- 3530. RECREATION AND PARK AREAS AND FACILITIES.** (5 cr; prereq 1520 or #)
Basic principles of planning community facilities; effective application of standards in planning, design, and construction.
- 3540. RECREATION PROGRAMMING.** (5 cr; prereq 1520 or #)
Principles of program planning and leadership in all aspects of recreation.
- 3550. PARK AND RECREATION ADMINISTRATION.** (5 cr; prereq 3530, 3540 or #)
Principles and practices in the delivery of park and recreation services.

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- 3700. SENIOR INTERNSHIP.** (1-15 cr; S-N only; prereq sr, recreation major or minor, Δ)
Supervised experiences in selected agencies.
- 3701. SENIOR SEMINAR.** (3 cr; prereq 1525, *3700, sr, recreation major or minor, #)
Guided individual and group conferences.
- 3800. WORKSHOP: SPECIAL TOPICS IN RECREATION PROGRAMMING.** (1-12 cr [max 12 cr]); prereq Δ : not open to MEd or grad students)
Background and current developments in recreation programming designed for program and allied service personnel. Each offering will focus on a specific service and/or clientele.
- 3900. DIRECTED STUDY.** (3 cr [max 9 cr]; S-N optional; prereq recreation majors only and Δ)
Self-directed study preceded by classroom study and possession of basic competence.
- 5100. FOUNDATIONS OF RECREATION.** (3 cr, §8120; prereq MEd, adult special or grad student)
Investigation of the historical, sociological, and educational bases of the recreative use of leisure time in contemporary society.
- 5160. CONSERVATION OF NATURAL RESOURCES.** (3 cr; prereq 1520 or 5100 or Δ)
Environmental considerations in relation to recreation and leisure services.
- 5170. CAMP ADMINISTRATION.** (3 cr; prereq 1540 or #)
Management and operation of group camping facilities.
- 5180. INDUSTRIAL RECREATION.** (3 cr; prereq 1520 or 5100 or #)
History, scope, and management of employee recreation services in industrial organizations.
- 5190. COMMERCIAL RECREATION.** (3 cr; prereq 5150 or #)
Survey of scope and development of profit-making recreation agencies, facilities, and services.
- 5200. RECREATION IN COMMUNITY EDUCATION.** (3 cr; prereq 1520 or 5100 or Δ)
Recreation and leisure services in the community education process.
- 5210. INTRODUCTION TO THERAPEUTIC RECREATION.** (3 cr; prereq 1520 or *5100 or #)
Relationship of recreation to special populations; milieu and interdisciplinary approaches in the delivery of services.
- 5220. THERAPEUTIC RECREATION SERVICES.** (5 cr; prereq 5120 or Δ)
Recreation services for the ill, disabled, and other special populations.
- 5230. RECREATION AND MENTAL RETARDATION.** (3 cr; prereq 5210, 5220 or #)
Issues relating to leisure services for persons with mental retardation problems; approaches to programming in the institution and in the community.
- 5240. RECREATION FOR THE AGING.** (3 cr; prereq 3540 or 5100 or Δ)
Leisure problems of the aging citizen; modification of program activities; investigation of community resources; trends and developments in recreation planning.
- 5250. FINANCING PUBLIC RECREATION AND PARKS.** (3 cr; prereq 3550 or Δ)
Methods and techniques of financing operations and capital improvements in public park and recreation agencies; legal basis, fiscal policy, federal and state aids, revenue sharing and budgeting procedures.
- 5300. FOUNDATIONS OF OUTDOOR EDUCATION.** (3 cr; prereq sr, 1520 or 5100 or #)
Investigation of the philosophical, historical, and educational foundations of outdoor education.
- 5351. SEMINAR: TEACHING LEISURE EDUCATION IN COLLEGES AND UNIVERSITIES.** (1 cr [max 3 cr], §PE 5351, §Hlth 5351; prereq Δ)
Emphasis on improvement of instruction.
- 5550. COLLEGE UNIONS.** (3 cr; prereq 3550 and #)
Administration, organization, and programming in college unions.
- 5620. PRACTICUM: COLLEGE UNIONS.** (3-9 cr; prereq 12 cr in recreation)
Supervised experiences in program operation; administrative and supervisory duties.
- 5630. PRACTICUM: THERAPEUTIC RECREATION.** (3-9 cr; prereq 12 cr in recreation)
Supervised experiences in program operation; administrative and supervisory duties.
- 5640. PRACTICUM: PUBLIC RECREATION AND PARKS.** (3-9 cr; prereq 12 cr in recreation)
Supervised experiences in program operation; administrative and supervisory duties.
- 5900. WORKSHOP: CONTEMPORARY ISSUES IN LEISURE SERVICES.** (1-12 cr [max 12 cr]; prereq Δ)
Contemporary issues emphasizing administrative and supervisory functions for recreation and allied professionals; individual offerings focus on special issues and/or professional groups.
- 5980. INTRODUCTION TO RESEARCH.** (3 cr, §PE 5980; prereq MEd or grad student or Δ)
Basic techniques; emphasis on social research methodology; survey of present status of recreation and park research.
- 5981. PROBLEMS.** (Cr ar; prereq MEd candidate, #)
Focus on conduct of recreation programs.
- 5983. READINGS: RECREATION.** (1-3 cr; prereq MEd or grad student or Δ)
Independent study under tutorial guidance.

Description of Courses

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(For course descriptions, see the *Graduate School Bulletin*)

- 8310. SEMINAR: RECREATION AND PARK ADMINISTRATION
- 8370. SEMINAR: ADMINISTRATIVE PROBLEMS IN THERAPEUTIC RECREATION
- 8380. SEMINAR: ADMINISTRATIVE PROBLEMS IN RECREATION AND PARKS
- 8980.* RESEARCH PROBLEMS
- 8981.* RESEARCH PROBLEMS

SCHOOL HEALTH EDUCATION (Hith)

- 1500. AMERICAN RED CROSS STANDARD FIRST AID AND PERSONAL SAFETY. (2 cr)
Lectures, demonstrations, and practice in first aid and personal safety; ARC Standard First Aid and Personal Safety Certificate awarded upon recommendation of the instructor.
- 1502. BASIC LIFE SUPPORT. (1 cr; S-N only)
Theory and practice in skills of rescue breathing and external cardiac compression; American Red Cross certification awarded upon demonstration of competence based on recommendation of instructor.
- 3100. CURRICULUM IN SCHOOL HEALTH EDUCATION. (3 cr; prereq PubH 3004, school health education major or minor)
Study of the content included in units for the secondary school.
- 3300. INSTRUCTOR'S COURSE IN STANDARD FIRST AID AND PERSONAL SAFETY. (3 cr; prereq ARC First Aid and Personal Safety Certificate or Advanced Certificate)
Preparation to teach the ARC basic first aid and standard first aid and personal safety courses.
- 3320. METHODS AND MATERIALS IN SCHOOL HEALTH EDUCATION. (3 cr; prereq 3100)
Methods, materials, problems, and evaluation in preparation for health teaching; allocation and gradation of subject matter.
- 3330. TEACHING HEALTH IN THE ELEMENTARY SCHOOL. (3 cr; prereq elementary education major)
Content (including critical health issues) and methods of instruction in health education.
- 3333. CHEMICALS AND CONSCIOUSNESS. (3 cr)
Relationships between chemical use and human consciousness as drugs (both licit and illicit) modify levels of awareness; nondrug methods of consciousness change (e.g., physical activity, biofeedback, meditation).
- 3600. PRE-FALL STUDENT TEACHING. (3 cr; prereq #)
Program and problems of organization and management in health education; begins with fall semester opening of public schools.
- 3601. STUDENT TEACHING: ELEMENTARY SCHOOL. (3 cr; prereq 3320, SeEd 3150 and 3155, major or minor in school health education)
Observation, participation, and teaching under supervision.
- 3602. STUDENT TEACHING: JUNIOR HIGH SCHOOL. (3-6 cr; prereq 3320, SeEd 3150 and 3155, major or minor in school health education)
Observation, participation, and teaching under supervision.
- 3603. STUDENT TEACHING: SENIOR HIGH SCHOOL. (3-6 cr; prereq 3320, SeEd 3150 and 3155, major or minor in school health education)
Observation, participation, and teaching under supervision.
- 3999. DIRECTED STUDIES: SCHOOL HEALTH EDUCATION. (1-6 cr [max 6 cr]; S-N only; prereq upper division major or minor in school health education and #)
Study of topic or problem under tutorial guidance.
- 5069. COMMUNITY HEALTH EDUCATION PRACTICUM FOR SCHOOL HEALTH EDUCATION STUDENTS. (6 cr; prereq 5072)
Provides student an opportunity to apply health education theory and practice in a community agency setting.
- 5072. INTRODUCTION TO SCHOOL AND COMMUNITY HEALTH EDUCATION. (3 cr; prereq 3100 or PubH 5080 or #)
Role and function of the school health and community health educator theory, content, program planning.
- 5100. DRIVER EDUCATION I. (4 cr)
Materials and methods for driver education, building a plan for driver education for a specific school; behind-the-wheel training. Valid Minnesota driver's license required.
- 5101. DRIVER EDUCATION II. (4 cr; prereq 5100)
Second of three courses to meet Minnesota licensure requirement after September 1, 1966.
- 5110. SUPERVISION OF HEALTH EDUCATION. (3 cr; prereq #)
Functions; adaptations of accepted procedures for observation, guidance, and training of health educators.

School of Physical Education, Recreation, and School Health Education

- 5120. ROLE OF THE SCHOOL HEALTH EDUCATOR IN HEALTH APPRAISAL.** (3 cr)
Role of school medical and dental advisers, nurses, teachers, and other school personnel in protection and maintenance phases.
- 5130. SAFETY EDUCATION.** (4 cr; prereq sr)
Scope and nature of the accident problem in our society; study of curricular areas leading to accident prevention.
- 5140. ADMINISTRATION OF THE SCHOOL HEALTH PROGRAM.** (3 cr)
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.
- 5150. FAMILY LIFE AND SEX EDUCATION IN THE SECONDARY SCHOOLS.** (3 cr; prereq FSoS 5001 or #)
Concepts, appropriate materials, and methods for teaching in the junior and senior high schools.
- 5160. PRACTICUM: CONSTRUCTION OF WRITTEN TESTS.** (3-6 cr. \$PE 5162; prereq PsyF 5120)
Practical experience in the development of written tests with emphasis on test design and evaluation of the items.
- 5300. CONTEMPORARY PROBLEMS IN SCHOOL HEALTH EDUCATION.** (3 cr)
Instructional and individual problems.
- 5301. TEACHER STRESS: SOURCES, CONSEQUENCES, SOLUTIONS.** (3 cr; S-N optional)
Focus on elementary and secondary teachers: individual, collective, and organizational strategies to prevent, eliminate, or reduce workplace environmental stressors and effects of stress.
- 5350. FAMILY LIFE AND SEX EDUCATION IN THE ELEMENTARY SCHOOLS.** (3 cr)
Research on sexual behavior of the preadolescent child; terminology, appropriate content, and effective methods for teaching.
- 5351. SEMINAR: TEACHING SCHOOL HEALTH EDUCATION IN COLLEGES AND UNIVERSITIES.** (1 cr [max 3 cr], \$PE 5351, \$Rec 5351; prereq Δ)
Emphasis on improvement of instruction.
- 5400. TOPICS: EDUCATIONAL ASPECTS OF DRUG USE AND ABUSE.** (3 cr. \$PubH 5032; prereq education srs, licensed teachers, school nurses)
Basic background information on alcohol and other drugs and chemicals with emphasis on curriculum concepts, teaching methodology, materials, and referral procedures appropriate for elementary, junior high, and senior high schools.
- 5402. DEATH EDUCATION IN CONTEMPORARY SOCIETY.** (3 cr. \$PubH 5040, \$Mort 5040; prereq education sr, licensed teacher, health science major, mortuary science major, school or public health nurse or #)
Basic background information on concepts and attitudes toward death, grief, and bereavement with emphasis on instructional aspects for the elementary and secondary schools; role of the school in suicide prevention.
- 5403. HEALTH ASPECTS OF AGING.** (3 cr. \$PubH 5024; prereq sr or grad student)
Social, cultural, psychological, and economic factors associated with health problems and care of the aging; development of personal insight into the aging process and/or preparation for professional work with the aging.
- 5500. STUDENTS, DRUGS, AND THE SCHOOLS.** (3 cr; prereq PubH 3004)
Use and abuse of drugs by elementary and secondary school students; analysis of patterns of use, physiological and psychological effects, academic issues, alternatives.
- 5602. THE DRIVER SIMULATOR.** (4 cr; prereq 5100)
Working with the simulator program to improve, expand, and reduce the cost of conventional driver education.
- 5685. SCHOOL-BASED PROJECTS IN SCHOOL HEALTH EDUCATION.** (1-12 cr [max 12 cr]; prereq #)
Individual or group projects, applicable to local school situations, such as curricular, instructional, or evaluative problems.
- 5700. WORKSHOP: CONTEMPORARY SOCIAL HEALTH PROBLEMS.** (1-12 cr [max 12 cr]; prereq Δ)
Basic background information on social health problems with emphasis on educational aspects for educators and health professionals. Each offering will focus on a current problem.
- 5800. SUBSTANCE ABUSE: A MODEL OF DEPENDENCY.** (3 cr)
Use and abuse of alcohol, drugs, tobacco, and food examined within a substance abuse model. Topics: etiology, motivational variables, physiological and psychological factors, and treatment modalities.
- 5980. INTRODUCTION TO RESEARCH.** (3 cr. \$PE 5980; prereq #)
Methods and design for research in health, physical education, and recreation.
- 5981. PROBLEMS.** (Cr ar; prereq #)
Focus on teaching of school health education.
- 5983. READINGS: HEALTH EDUCATION** (1-3 cr; prereq sr honor or grad student. #)
Independent study under tutorial guidance.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see *Graduate School Bulletin*)

- 8310. SEMINAR: SCHOOL HEALTH EDUCATION**
- 8980.* RESEARCH PROBLEMS**
- 8981.* RESEARCH PROBLEMS**

Description of Courses

Psychoeducational Studies (PsyS)

- 1304. WORKSHOP: DEVELOPING EDUCATIONAL AND HUMAN SERVICE PROGRAMS.** (Cr ar; S-N only)
Concepts, issues, practices; development of educational and psychological support services in school and human service settings; for persons in paraprofessional positions.
- 3106. EXCEPTIONAL STUDENTS IN REGULAR CLASSES.** (2 cr, §5106)
Policies and procedures for teaching handicapped and gifted students in regular school settings; exposure to special curriculum adaptations; collaborative roles of regular and special education teachers, parents, pupil personnel workers, and other educators.
- 3604 (formerly SpEd 3604). TEACHING HANDICAPPED CHILDREN.** (3-6 cr per qtr; S-N only; prereq #)
Observing and limited teaching of handicapped students under direction in special and regular education settings, conducted in cooperation with public schools and service agencies.
- 5100 (formerly SpEd 5100). CHILDREN LANGUAGE DEVELOPMENT: CLASSROOM IMPLICATIONS.** (3 cr, §SpEd 5100)
Recent trends and findings in the study of language acquisition; classroom implications for the education of exceptional children.
- 5101 (formerly SpEd 5101). EDUCATION OF EXCEPTIONAL CHILDREN.** (4 cr, §SpEd 5101)
Introduction to field of special education for classroom teachers and other school personnel.
- 5104 (formerly SpEd 5104). SOCIAL AND VOCATIONAL DEVELOPMENT OF HANDICAPPED STUDENTS.** (4 cr, §SpEd 5104; prereq #)
Organization and design of training programs to promote independent living, vocational and community adjustment of handicapped persons; curriculum materials and methods at adolescent and adult levels.
- 5105 (formerly SpEd 5105). LAW AND THE HANDICAPPED: IMPLICATIONS FOR EDUCATION.** (2-4 cr)
Analysis of recent litigation and legislation; emphasis on implementation of right to education, right to treatment, labeling, due process, and related issues.
- 5106. EXCEPTIONAL STUDENTS IN REGULAR CLASSES.** (2 cr, §3106)
For description, see PsyS 3106.
- 5107 (formerly SpEd 5107). MAINSTREAMING: ISSUES IN INDIVIDUALIZING INSTRUCTION.** (3-5 cr)
Mandate for, implications of, and problems in the implementation of systems models and practical classroom practices that facilitate the education of the handicapped within regular classroom settings.
- 5108 (formerly SpEd 5108). PARENT AND PROFESSIONAL PLANNING FOR HANDICAPPED STUDENTS.** (3 cr, §SpEd 5108)
Study and demonstration of constructive approaches to cooperative planning and implementation of education programs by parents, teachers, and persons involved with children who have special needs.
- 5110 (formerly CSPP 5110). COUNSELING PROCEDURES.** (3 cr, §CSPP 5110)
For persons whose professional work includes counseling and interviewing; not for licensure as school counselor. Emphasis on counseling relationship and principles of interviewing; case studies, role playing, and demonstration.
- 5111. COUNSELING PROCEDURES II.** (3 cr; prereq 5110)
Analysis of type of client and stage of counseling; isolation of chain of interactions between client and counselor described and practiced; appropriate techniques.
- 5112 (formerly SpEd 5112). EDUCATION OF LEARNING-DISABLED CHILDREN.** (3 cr, §SpEd 5112)
Analysis of considerations in design and conduct of services for learning-disabled children; approaches to education of such children.
- 5113 (formerly SpEd 5110). DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITY I.** (4 cr, §SpEd 5110; prereq #)
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.
- 5114 (formerly SpEd 5111). DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITY II.** (4 cr, §SpEd 5111; prereq 5113, §5611 or SpEd 5110, 5611, #)
Survey, demonstration, and evaluation of special techniques for amelioration of deficits in perceptive, integrative, and expressive processes.
- 5117 (formerly CSPP 5120). CLINICAL USE OF TESTS IN PSYCHOLOGICAL SERVICES.** (3 cr, §CSPP 5120; prereq PsyF 5110 or Psy 3801 and PsyF 5121 or Psy 5862 or #)
Psychological theories related to test interpretation and the counseling process; critical review and selection of standardized tests.
- 5120 (formerly SpEd 5120). INTRODUCTION TO MENTAL RETARDATION.** (4 cr, §CPsy 5315, §SpEd 5120; prereq 5101 or SpEd 5101 or #)
Issues that relate to educational practices; community planning; educational philosophy, administration and organization, and programming.

- 5121 (formerly SpEd 5121). METHODS AND MATERIALS FOR ELEMENTARY AND SECONDARY MENTALLY RETARDED PUPILS.** (4 cr, §SpEd 5121; prereq 5101 or SpEd 5101 or equiv)
Curriculum content, materials and methods of instruction for educable mentally retarded children; preparation of units and development of teaching aids.
- 5123 (formerly SpEd 5123). METHODS AND MATERIALS FOR SEVERELY RETARDED PRESCHOOL AND SCHOOL-AGE PUPILS.** (4 cr, §SpEd 5123; prereq 5101 or SpEd 5101 or equiv)
Issues and problems in curriculum development; pupil assessment and evaluation techniques; materials and teaching strategies.
- 5124 (formerly SpEd 5124). BIOMEDICAL ASPECTS OF DEVELOPMENTAL DISABILITIES.** (Cr or [max 4 cr]; prereq #)
Selected information in genetics, anatomy and physiology, the central nervous system, biochemistry of the body, and prenatal development; causative factors and clinical features, particularly mental retardation and its clinical manifestations.
- 5125 (formerly SpEd 5125). EDUCATION OF SEVERELY HANDICAPPED INFANTS AND PRESCHOOL CHILDREN.** (4 cr, §SpEd 5125; prereq 5101 or 5120 or SpEd 5101 or SpEd 5120 or #)
Issues, problems, and practical application in designing strong programs for young children with all types of handicapping conditions.
- 5126 (formerly SpEd 5126). METHODS AND MATERIALS FOR TEACHING CHILDREN WITH SEVERE MULTIHANDICAPPING CONDITIONS.** (4 cr, §SpEd 5126; prereq 5101 or 5120 or SpEd 5101 or SpEd 5120 or CPsy 5315)
Core curricula for children who manifest combinations of severe mental, physical, and sensory impairments; strategies for using adaptive equipment and managing classroom space.
- 5130 (formerly CSPP 5130). INTRODUCTION TO GUIDANCE.** (3 cr, §CSPP 5130)
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.
- 5131 (formerly CSPP 5131). GROUP PROCEDURES IN GUIDANCE.** (3 cr, §CSPP 5131; prereq 9 cr in education, 5130 or CSPP 5130 or #)
Content and materials for homeroom groups, occupation units, and other guidance courses in junior and senior high schools.
- 5135 (formerly SpEd 5130). EDUCATION OF STUDENTS WITH PHYSICAL DISABILITIES.** (3 cr, §SpEd 5130; prereq 5101 or SpEd 5101 or #)
Characteristics and abilities; methods and materials for training; observation of teaching situations involving these groups; personal consultation scheduled in addition to class hours.
- 5136 (formerly SpEd 5131). EDUCATIONAL PROBLEMS OF THE NEUROLOGICALLY IMPAIRED.** (3 cr, §SpEd 5131; prereq 5101 or SpEd 5101 or #)
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.
- 5140 (formerly SpEd 5140). PSYCHOSOCIAL AND EDUCATIONAL ASPECTS OF DEAFNESS.** (3 cr, §SpEd 5140)
Historical and current societal perceptions of the deaf; analysis of effects and patterns of auditory impairment on children and adults; intelligence, personal and social adjustment, effect of the psychological processes on acquisition of language, speech, and speechreading.
- 5141 (formerly SpEd 5141). METHODS OF TEACHING SCHOOL SUBJECTS TO THE HEARING IMPAIRED.** (3 cr, §SpEd 5141; prereq #)
Adaptation of materials and teaching methods for hearing-impaired children in reading, mathematics, social studies, and science.
- 5143 (formerly SpEd 5143). TEACHING LANGUAGE TO THE HEARING IMPAIRED I.** (3 cr, §SpEd 5143; prereq 5140 or SpEd 5140)
Survey of the language curricula and teaching techniques in infant, nursery, preschool, and beginning primary programs for the deaf; overview of language development in the deaf and hearing child in the primary years.
- 5144 (formerly SpEd 5144). TEACHING LANGUAGE TO THE HEARING IMPAIRED II.** (3 cr, §SpEd 5144; prereq #)
Devising language curricula and teaching techniques in primary, intermediate, and advanced programs for the deaf; comparative study of the language development of the deaf and hearing.
- 5145, 5146 (formerly SpEd 5145, 5146). TEACHING SPEECH TO THE HEARING IMPAIRED I, II.** (3 cr each, §SpEd 5145, 5146; prereq #)
Survey of speech methodologies employed in teaching auditorily impaired children; major emphasis on techniques for teaching specific sounds, articulation, voice and sentence rhythm stressing intelligibility of speech. Demonstration and practice with individuals and groups of auditorily impaired children.
- 5147 (formerly SpEd 5147). AURAL REHABILITATION OF HEARING-IMPAIRED CHILDREN.** (3 cr, §SpEd 5147; prereq #)
Recent trends in training hearing-impaired (deaf and hard-of-hearing) children in utilization of residual hearing; consideration of present alternative approaches to auditory training and aural rehabilitation.
- 5151 (formerly SpEd 5151). MANAGING PROBLEM BEHAVIOR IN THE CLASSROOM.** (3 cr, §SpEd 5151)
Typical patterns of problem behavior in classroom settings; relationships to teacher mental health; simulation of methods for prevention and management.

Description of Courses

- 5152 (formerly SpEd 5152). DISTURBED AND DISTURBING STUDENTS I: BACKGROUND AND ASSESSMENT.** (3 cr, §SpEd 5152)
Preparation for specialists; theories, related interventions, strategies appropriate for school settings; methods for accurate description of classroom behavior; simulations and real settings.
- 5153 (formerly SpEd 5153). DISTURBED AND DISTURBING STUDENTS II: PROGRAM SELECTION, OPERATION, MODIFICATION, AND EVALUATION.** (3 cr, §SpEd 5153; prereq 5152 or SpEd 5152)
Methods for managing problem behavior and teaching adaptive behavior presented and practiced in simulated and real settings.
- 5155 (formerly SpEd 5155). PSYCHOEDUCATIONAL INTERVENTIONS: PSYCHOTIC CHILDREN.** (3 cr, §SpEd 5155; prereq 12 cr in psychology, child psychology, or special education)
Introduction to psychopathology of children with psychotic characteristics; emphasis on psychoeducational intervention programs and teaching strategies.
- 5160 (formerly SpEd 5160). SUPERVISION AND ADMINISTRATION OF SPECIAL EDUCATION.** (3 cr, §SpEd 5160, §EdAd 5103)
Procedures in establishing and improving educational programs for exceptional children.
- 5170 (formerly SpEd 5170). INTRODUCTION TO EDUCATION OF VISUALLY HANDICAPPED CHILDREN.** (3 cr, §SpEd 5170; prereq #)
Educational programs, services, and resources for blind and partially seeing children; historical background; philosophy; sociological and psychological problems.
- 5171 (formerly SpEd 5171). BRAILLE I.** (3 cr, §SpEd 5171; prereq 5170 or SpEd 5170 or #)
Mastery of literary braille code and introduction to use of mathematics and music codes; analysis of specialized equipment with emphasis on use of braille writers and slates.
- 5172 (formerly SpEd 5172). BRAILLE II.** (3 cr, §SpEd 5172; prereq 5171 or SpEd 5171)
Development of classroom material 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.
- 5173 (formerly SpEd 5173). METHODS OF TEACHING VISUALLY HANDICAPPED CHILDREN** (4 cr, §SpEd 5173; prereq 5170 or SpEd 5170 or #)
Principles of preparation, selection, and effective use of instructional materials; adaptation of school environment; utilization of family, school, and community resources.
- 5174 (formerly SpEd 5174). COMMUNICATION, ORIENTATION, AND MOBILITY TECHNIQUES FOR VISUALLY HANDICAPPED STUDENTS.** (3 cr, §SpEd 5174)
Introduction to basic techniques to gain skills; cane, guide dog, related strategies of travel and technological advances.
- 5175 (formerly SpEd 5175). STRUCTURE AND FUNCTION OF THE EYE: EDUCATIONAL IMPLICATIONS.** (3 cr, §SpEd 5175)
Ophthalmological and educational considerations of anatomy and physiology of the eye; educational implications, vision screening, visual efficiency, use of low vision aids.
- 5180 (formerly SpEd 5180). EDUCATION OF THE DISADVANTAGED.** (3 cr, §SpEd 5180; prereq 12 cr in psychology, educational psychology, or sociology)
Educational needs of children handicapped by behavior related to deficiencies of physical and/or cultural environment; adaptations of educational programs.
- 5181 (formerly SpEd 5181). METHODS AND MATERIALS FOR HANDICAPPED INFANTS AND PRESCHOOL CHILDREN.** (3 cr, §SpEd 5181; prereq 12 cr in education or #)
Methods, materials, conceptual models for maximizing educational development of young children with all types of handicapping conditions.
- 5190 (formerly SpEd 5190). EDUCATION OF THE GIFTED AND TALENTED.** (3 cr, §SpEd 5190)
Origin and development of terms such as giftedness, creativity, genius, talent, and intelligence; implications for educational practice; current issues and trends.
- 5200 (formerly SpEd 5100). ASSESSMENT AND DECISION MAKING IN SPECIAL EDUCATION.** (4 cr)
For teachers and other educational personnel. Identifying the needs of handicapped students; planning, monitoring, evaluating instructional programs; practice in use of standardized devices and development of clinical measures for handicapped students.
- 5210 (formerly CSPP 5101). FOUNDATIONS OF CAREER DEVELOPMENT.** (3 cr, §CSPP 5101)
Introduction: theory, research practice; examination of concepts of work, work values, career and career education; application of theory and research to career guidance practice in educational, industrial, and community agency settings.
- 5300 (formerly CSPP 5300). WORKSHOP: COUNSELING PSYCHOLOGY.** (1-6 cr [max 12 cr]; prereq #)
For all counselors, teachers, and administrators. Aspects of intervention theory examined in relation to psychological principles: counseling, career development, assessment, psychological education, and consultation.

- 5301 (formerly SchP 5300). WORKSHOP IN DEVELOPMENTAL EDUCATION.** (3-6 cr [max 6 cr])
Concepts and techniques of psychological and developmental education applied to needs of specific groups of educators emphasizing classroom applications; improving effectiveness of educational programming for conceptual, moral, or ego development; positive self-identity; or interpersonal and affective growth.
- 5302 (formerly SpEd 5302). WORKSHOP: SPECIAL EDUCATION.** (Cr ar; prereq #)
Laboratory approach provides opportunities for school personnel to study specific problems related to special education.
- 5303 (formerly SpEd 5320). WORKSHOP: EDUCATION OF TRAINABLE RETARDED CHILDREN.** (6 cr; prereq #)
Curriculum and materials for teaching trainable mentally retarded children.
- 5304. WORKSHOP: INTERVENTIONS AND PRACTICES IN EDUCATIONAL AND HUMAN SERVICE PROGRAMS.**
(Cr ar; S-N only)
Concepts, issues, and practices; development of educational and psychological support services in school and human service settings; for practicing professionals.
- 5305 (formerly SpEd 5303). BEHAVIORAL ANALYSIS PROCEDURES WITH MILDLY AND MODERATELY HANDICAPPED PEOPLE.** (4 cr, §SpEd 5301, §SpEd 5303; PsyF 5149 or Psy 5017 recommended)
Behavioral approaches to improving the academic and personal-social behavior of mildly and moderately handicapped people in mainstream and resource programs.
- 5306 (formerly SpEd 5304). BEHAVIORAL PROCEDURES WITH SEVERELY AND PROFOUNDLY HANDICAPPED PEOPLE.** (4 cr, §SpEd 5301, §SpEd 5304; PsyF 5149 or Psy 5017 recommended)
Behavioral approaches to developing self-care, independent living and communication skills; and eliminating self-stimulating, self-abusive, and aggressive behaviors in such people.
- 5310. COUNSELING WOMEN FOR CAREER DEVELOPMENT.** (3 cr, §CSPP 5310; S-N optional)
Introduces counseling skills and interventions for facilitating women's career growth at different life stages; incorporates theory and research on career needs, patterns, and characteristics of women; examines facts and trends regarding changing roles and status of both women and men.
- 5313. ASSESSMENT IN INFANCY AND EARLY CHILDHOOD.** (3 cr; S-N optional)
Issues related to psychological assessment of neonates, infants, and toddlers (to age two); basic theory, knowledge, current research in relationship to current assessment practices.
- 5320 (formerly CSPP 5320). GROUP COUNSELING: PRINCIPLES AND PROCEDURES.** (3 cr, §CSPP 5320; prereq course in counseling theory)
Basic principles of group dynamics related to the group counseling process; emphasis on developing concepts, attitudes, and skills; includes theory and laboratory experiences.
- 5331. CAREER DEVELOPMENT: THEORY AND COUNSELING APPLICATIONS.** (3 cr, §CSPP 5331)
Designed to provide students in counseling and allied fields with background; emphasis on counseling skills; topics include work and other life values, the counseling process, planning and decision making, information and employment trends, sexual equity in career options, needs of specific groups.
- 5332. CAREER DEVELOPMENT: ORGANIZATIONAL INTERVENTIONS AND PROGRAMS.** (3 cr, §CSPP 5332; prereq 5210 or 5331 or equiv or #)
Designed to provide students in counseling and allied fields with background and skills in planning, developing, managing, implementing, and evaluating career programs for a variety of populations and settings; emphasis on content of career development programs, the process of consultation and organizational change, sexual equity, and programs for specific populations.
- 5340 (formerly SpEd 5340). CLINICAL AND EDUCATIONAL PROCEDURES FOR PRESCHOOL AND PRIMARY HEARING-IMPAIRED CHILDREN.** (6 cr, §SpEd 5340; prereq teacher of hearing impaired or #)
Overview of education of the deaf; practical application to guided clinical experience with hearing-impaired children ages one to six; for professionals working with the hearing impaired.
- 5501 (formerly SpEd 5501). INTRODUCTION TO RESEARCH IN SPECIAL EDUCATION.** (2 cr, §SpEd 5501; S-N only)
Issues in special education; critique of research with exceptional children.
- 5505 (formerly CSPP 5505). CROSS-CULTURAL COUNSELING.** (3 cr, §CSPP 5505; prereq #)
Effect of cross-cultural and cross-national differences in the counseling process.
- 5514 (formerly SchP 5514). METHODS OF DEVELOPMENTAL INTERVENTION IN THE CLASSROOM: GROUP.** (3 cr, §SchP 5514; S-N optional; prereq #)
Developmental approach to the use of group techniques to promote psychological growth in the classroom.
- 5515 (formerly SchP 5515). METHODS OF DEVELOPMENTAL ASSESSMENT: THE PUPIL AND CURRICULUM CONTENT.** (3-6 cr [max 6 cr]; S-N optional)
Practical approaches matching individual development with curriculum materials; developmental psychology applied to assessment of individual pupils and instructional programs.
- 5540 (formerly CSPP 5540). SEMINAR: THE COLLEGE STUDENT.** (3 cr, §CSPP 5540; prereq 6 cr in psychology or educational psychology)
Psychology and sociology of college students; research concerning diversity of populations, vocational development of students, student society, culture, mental health, underachievement, dropouts, values and attitudes; relevant research methods.

Description of Courses

- 5550 (formerly SchP 5550). SEMINAR: PSYCHOLOGICAL EDUCATION.** (3 cr [max 9 cr]; prereq #)
Review of curriculum programs in psychological/affective education including achievement training, sensitivity groups, psychological and moral education. Not intended to meet licensure requirements in school psychology.
- 5601 (formerly SpEd 5601). PRACTICUM: SPECIAL EDUCATION.** (Cr ar; S-N optional; prereq #)
Supervised experience in teaching or related work in schools or other agencies serving exceptional children.
- 5610 (formerly SpEd 5610). PRACTICUM: DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITY I.** (3 cr, §SpEd 5610; S-N optional; prereq †5113 and #)
Clinical practice in prescriptive teaching using a selected range of techniques presented in 5113.
- 5611 (formerly SpEd 5611). PRACTICUM: DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITY II.** (3 cr, §SpEd 5611; S-N optional; prereq 5610 or SpEd 5610, †5114, #)
Clinical practice in prescriptive teaching using a selected range of techniques presented in 5114 or SpEd 5111.
- 5620 (formerly CSPP 5620). PRACTICUM IN GROUP COUNSELING.** (1-6 cr [max 6 cr]; prereq 5320 or CSPP 5320 or equiv and #)
Supervised practice in counseling several groups, preferably in the setting in which the student intends to work; emphasis on systematic evaluation of progress through direct observations and tapes, and on developing skills in interpersonal perception, communication, and research.
- 5650 (formerly SchP 5650). PRACTICUM: PSYCHOLOGICAL EDUCATION.** (1-3 cr [max 9 cr]; prereq #)
Practice in designing and implementing programs in psychological/affective education. Not intended to meet licensure requirements in school psychology.
- 5900. INDEPENDENT STUDY.** (Cr ar [max 12 cr]; prereq #)
Independent study in areas of special interest to students.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8112 (formerly SpEd 8112). **CURRENT ISSUES IN LEARNING DISABILITIES**
- 8120 (formerly SpEd 8120). **PSYCHOLOGICAL THEORY AND RESEARCH IN MENTAL RETARDATION**
- 8121 (formerly SpEd 8121). **FUNCTIONAL ANALYSIS OF BEHAVIOR IN THE MENTALLY RETARDED**
- 8140 (formerly CSPP 8140). **COLLEGE STUDENT PERSONNEL WORK—FOUNDATIONS AND SCOPE**
- 8150* (formerly CSPP 8150). **PSYCHOLOGICAL ASPECTS OF COUNSELING SUPERVISION**
- 8151 (formerly SpEd 8151). **THEORIES OF EDUCATING DISTURBED CHILDREN**
- 8152 (formerly SpEd 8152). **RESEARCH IN EDUCATION OF DISTURBED CHILDREN**
- 8153 (formerly SchP 8512). **NEW APPROACHES TO PSYCHOPATHOLOGY IN CHILDREN AND ADOLESCENTS**
- 8301 (formerly SpEd 8301). **BEHAVIORAL RESEARCH WITH HANDICAPPED STUDENTS**
- 8302-8303-8304† (formerly CSPP 8302-8303-8304). **COUNSELING THEORY AND PROCEDURES I, II, III**
- 8305-8306-8307† (formerly CSPP 8305-8306-8307). **FIELD PLACEMENT IN COUNSELING AND STUDENT PERSONNEL PSYCHOLOGY**
- 8310 (formerly SchP 8310). **TECHNIQUES OF PSYCHOEDUCATIONAL ASSESSMENT**
- 8311 (formerly SchP 8311). **TECHNIQUES OF PSYCHOEDUCATIONAL ASSESSMENT: SPECIAL POPULATIONS**
- 8312 (formerly SchP 8312). **PERSONALITY APPRAISAL IN CHILDREN AND ADOLESCENTS**
- 8341 (formerly CSPP 8341). **DIAGNOSIS AND TREATMENT OF COLLEGE LEARNING DIFFICULTIES**
- 8500 (formerly SpEd 8500). **SURVEY OF SPECIAL EDUCATION PROBLEMS**
- 8501 (formerly SpEd 8501). **RESEARCH IN SPECIAL EDUCATION**
- 8502 (formerly SpEd 8502). **SEMINAR: SPECIAL EDUCATION**
- 8503 (formerly CSPP 8502). **DOCTORAL SEMINAR: COUNSELING AND STUDENT DEVELOPMENT PSYCHOLOGY**
- 8504* (formerly CSPP 8520). **SEMINAR: RESEARCH IN GROUP COUNSELING**
- 8505 (formerly CSPP 8500). **MASTER'S SEMINAR: COUNSELING AND STUDENT PERSONNEL PSYCHOLOGY**
- 8506 (formerly CSPP 8501). **PROFESSIONAL SEMINAR: COUNSELING AND STUDENT PERSONNEL PSYCHOLOGY**
- 8508 (formerly SchP 8510). **SEMINAR: SCHOOL PSYCHOLOGY**
- 8510* (formerly CSPP 8510). **SEMINAR: ADVANCED COUNSELING THEORY**
- 8511* (formerly CSPP 8511). **SEMINAR: ADVANCED COUNSELING RESEARCH**
- 8512 (formerly CSPP 8512). **SEMINAR: ADVANCED COUNSELING RESEARCH**
- 8513 (formerly SchP 8513). **THEORIES AND METHODS OF INTERVENTION: INDIVIDUALS**
- 8514 (formerly SchP 8514). **THEORIES AND METHODS OF INTERVENTION: GROUPS**

Social, Psychological, and Philosophical Foundations of Education

- 8515 (formerly SchP 8515). THEORIES AND METHODS OF INSTRUCTIONAL INTERVENTION
- 8520 (formerly SchP 8520). SEMINAR: RESEARCH IN SCHOOL PSYCHOLOGY
- 8525 (formerly SpEd 8520). SOCIOCULTURAL THEORY AND RESEARCH ON HANDICAPPING CONDITIONS
- 8540 (formerly SpEd 8540). LANGUAGE ACQUISITION AND LEARNING THEORY
- 8541 (formerly CSPP 8541). COLLEGE STUDENT PERSONNEL WORK—HOUSING
- 8542 (formerly CSPP 8542). COLLEGE STUDENT PERSONNEL WORK—STUDENT ACTIVITIES
- 8543 (formerly CSPP 8543). COLLEGE STUDENT PERSONNEL WORK—DISCIPLINE AND ADMINISTRATION
- 8560, 8561 (formerly SpEd 8560, 8561). SEMINAR: ADMINISTRATION OF SPECIAL EDUCATION
- 8580 (formerly SpEd 8580). SEMINAR: THE DISADVANTAGED
- 8600 (formerly SchP 8600). CLINICAL PRACTICE IN SCHOOL PSYCHOLOGY
- 8601 (formerly SpEd 8601). ADVANCED PRACTICUM
- 8602-8603-8604† (formerly CSPP 8602-8603-8604). COUNSELING PRACTICUM I, II, III
- 8605 (formerly CSPP 8605). PSYCHOLOGICAL CONSULTATION: THEORY AND PRACTICE
- 8610 (formerly SchP 8610). PRACTICUM: SCHOOL PSYCHOLOGICAL SERVICES
- 8612 (formerly CSPP 8612). COUNSELING PRACTICUM: ADVANCED
- 8613-8614-8615† (formerly CSPP 8613-8614-8615). COUNSELING PRACTICUM: STUDENT COUNSELING BUREAU
- 8640 (formerly CSPP 8640). PRACTICE IN STUDENT PERSONNEL WORK
- 8641 (formerly CSPP 8641). CLINICAL PRACTICE IN DIAGNOSIS AND TREATMENT OF COLLEGE LEARNING DIFFICULTIES
- 8700 (formerly SchP 8700). INTERNSHIP: SCHOOL PSYCHOLOGICAL SERVICES
- 8701 (formerly CSPP 8701). INTERNSHIP: COUNSELING AND STUDENT PERSONNEL PSYCHOLOGY
- 8710 (formerly SchP 8710). INTERNSHIP: INSTRUCTION AND SUPERVISION IN SCHOOL PSYCHOLOGY
- 8900 RESEARCH PROBLEMS
- 8910 DIRECTED STUDY

Social, Psychological, and Philosophical Foundations of Education

PSYCHOLOGICAL FOUNDATIONS (PsyF)

3102. **INTRODUCTION TO MEASUREMENT AND STATISTICS.** (2-3 cr; prereq 5 cr introductory psychology)
Measures of central tendency, variability, and correlation; principles of test construction.
3370. **HUMAN RELATIONS AND GROUP DYNAMICS.** (1-4 cr)
Based on small-group training theory and methods; designed to help the student develop an understanding of his or her own behavior, the behavior of other individuals, and group and organizational behavior.
3380. **INTRODUCTION TO HUMAN RELATIONS.** (3 cr; S-N only; prereq education jr or sr)
Based on small-group training theory and methods; designed to help the student develop an understanding of his or her own behavior, the behavior of other individuals, and group and organizational behavior.
5110. **INTRODUCTORY STATISTICAL METHODS.** (4 cr)
Techniques for organizing and presenting data; descriptive indices of central tendency, variability and bivariate correlation/regression; procedures for making inferences concerning means and proportions.
5111. **APPLIED MATRIX AND VECTOR CONCEPTS.** (1 cr; S-N only)
Introduction to concepts and operations; applications in multiple regression, factor analysis of variance.
5120. **EDUCATIONAL MEASUREMENT IN THE CLASSROOM.** (4 cr)
Principles and methods for construction, evaluation, and improvement of classroom measures; techniques for describing results statistically; use of measurement in evaluating instruction and student performance; assignment of grades.
5121. **BASIC PRINCIPLES OF MEASUREMENT.** (3 cr; prereq 5110 or 8110 or Psy 3801 or equiv)
Fundamental concepts, principles, and methods in educational and psychological measurement; educationally useful properties of tests; types and uses of derived scores; factors influencing reliability and validity.
5125. **PRINCIPLES AND METHODS OF EVALUATION.** (3 cr)
Introductory course in program evaluation; theory; practical examples: purpose, roles, program descriptions, and evaluation strategies.

Description of Courses

- 5147. INTELLIGENCE.** (3 cr, §5150)
Examination of theories of intelligence and its development; implications for educational practices and psychological research.
- 5148. PSYCHOLOGY AND PEDAGOGY OF READING.** (3 cr)
Physiological, psychological, and linguistic factors influencing beginning and fluent reading and their implications for instruction.
- 5149. BEHAVIOR ANALYSIS IN EDUCATION.** (4 cr)
Practical applications of reinforcement theory, behavior analysis, precision teaching, programmed instruction.
- 5152. KNOWING, LEARNING, AND THINKING.** (4 cr)
Principles of human information processing; issues in memory and thought; discussion of mental operations in comprehension and understanding; analysis of intellectual structures supporting problem solving in applied settings.
- 5153. INTRODUCTION TO THE PSYCHOLOGY OF INSTRUCTION.** (3 cr)
Survey of psychological factors in design of instruction; performance criteria, strategy, and sequence in the contexts of research; development and implementation activities in instructional techniques, technologies, and delivery systems; psychological processes relevant to measures of effectiveness in teaching-learning environment.
- 5162. PERSONALITY AND SOCIAL DEVELOPMENT.** (3 cr; prereq 5 cr introductory psychology)
Major concepts and research findings in adjustment and development, with special emphasis on educational implications.
- 5163. SELF-CONCEPT: THEORY AND APPLICATIONS.** (3 cr; S-N optional)
Major theoretical approaches; related aspects of human behavior; measurement issues; ways of addressing related issues in applied settings.
- 5170. SOCIAL PSYCHOLOGY OF EDUCATION.** (4 cr)
Concepts and theories in the field applied to educational problems and settings; laboratory sessions to make applications and develop skills in group behavior.
- 5172. STRUCTURING LEARNING: SOCIAL PSYCHOLOGICAL APPROACHES.** (3 cr)
How to use cooperation, competition, and individualization to affect learning climate and cognitive and affective outcomes of instruction.
- 5173. ISSUES IN SCHOOL DESEGREGATION.** (4 cr; prereq survey course in social psychology or #)
Policy, methods, theory, research; emphasis on outcomes for children.
- 5176. CHEMICAL USE: PSYCHOSOCIAL ASPECTS.** (3 cr)
Chemical use examined from multiple perspectives of psychosociological theory and research; individual projects and current research findings used to strengthen application in school settings.
- 5182. PSYCHOLOGY OF STUDENT LEARNING.** (3 cr)
Survey of psychological methods and principles; models of the learner; topics in development, creativity, intelligence, and motivation; implications for teaching and curriculum design in preschool, elementary, and secondary education; professional training with children and adolescents as clients.
- 5183. ADULT LEARNING AND EDUCATIONAL PRACTICE.** (4 cr)
Survey of psychological methods and principles in human learning; models of the adult learner; topics in motivation, creativity, achievement, intelligence; implications for teaching and curriculum design in higher education, continuing education, and professional training.
- 5305. WORKSHOP IN HUMAN RELATIONS.** (1-6 cr [max 6 cr], §CSPP, §Educ 5305; S-N only)
An experientially based course including simulation activities, curriculum writing, and supervised practice in basic human relations skills, emphasizing individual, cultural, and ethnic differences and their implications for educational practice.
- 5330. COMPUTER PROGRAMMING.** (3 cr; prereq sr)
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.
- 5333. INTRODUCTION TO COMPUTER OPERATIONS: U OF M SYSTEMS, SPSS.** (1 cr; S-N only)
Procedures for operation of batch and interactive computers; emphasis of SPSS statistical programs.
- 5520. EVALUATION COLLOQUIUM.** (1 cr [max 6 cr])
Informal seminar of faculty and students interested in the problems of evaluation.
- 5570. PROBLEMS ANALYSIS AND DECISION MAKING.** (4 cr)
Literature from decision research contrasted with literature in problems solving from cognitive psychology and the psychology of information processing; improvement in decision making through consideration of training, allocation of work, and decision aids.
- 5581. INDIVIDUAL DIFFERENCES AND EDUCATIONAL PRACTICE.** (4 cr; prereq 5121 or #)
Student characteristics (age, sex, personality, ethnicity, cognitive styles) as they relate to differences in performance. Methods and models for utilizing student characteristics to improve learning and development.

Social, Psychological, and Philosophical Foundations of Education

- 5621. PRACTICUM: INSTRUMENTS AND PROCEDURES FOR EVALUATION.** (3 cr; prereq 5125, 5121 or equiv)
Developing curriculum evaluation instruments and procedures; introduction to methods and theories; focus on identifying evaluation problems; developing and implementing techniques for their solution.
- 5641. PRACTICUM: BEHAVIOR ANALYSIS AND PRECISE PERSONAL MANAGEMENT.** (1-3 cr [max 12 cr]; prereq #)
Self-applied behavior analysis; practice in self-recording and self-control of inner and outer behaviors; exploration of systematic ways to help others guide themselves more precisely and to learn more effectively.
- 5899. WORKSHOP: IMPROVEMENT OF SCHOOL SUPPORT SERVICES.** (1-12 cr [max 12 cr]; prereq #)
Topics appropriate to activities and interests of the participants; each offering will focus on current problems.
- 5900. DIRECTED STUDY.** (Cr ar; prereq #)

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8110, 8111, 8112. STATISTICAL METHODS**
- 8113. DESIGN AND ANALYSIS OF EXPERIMENTS**
- 8114. MULTIPLE REGRESSION ANALYSIS**
- 8117. FACTOR ANALYSIS**
- 8120.* METHODS IN EDUCATIONAL RESEARCH**
- 8130. COMPUTER APPLICATION TO STATISTICAL ANALYSES**
- 8510. ANALYSIS OF RESULTS FROM NONEXPERIMENTAL RESEARCH**
- 8520. SEMINAR: RESEARCH PLANNING**
- 8522. ADVANCED THEORY OF MEASUREMENT**
- 8523. THEORY OF PSYCHOLOGICAL SCALING**
- 8525.* SEMINAR: SPECIAL TOPICS IN EDUCATIONAL EVALUATION**
- 8530. SEMINAR: DEVELOPING COMPUTER APPLICATIONS**
- 8544. KNOWLEDGE AND SKILL**
- 8547. SEMINAR: COGNITIVE PROCESSES OF THE ADOLESCENT AND EDUCATIONAL IMPLICATIONS**
- 8548. PSYCHOLOGICAL ANALYSIS OF VERBAL LEARNING AND READING**
- 8553. ETHOLOGICAL ISSUES IN EDUCATION**
- 8554. INSTRUCTIONAL PSYCHOLOGY**
- 8562. PERSONALITY DEVELOPMENT AND SOCIALIZATION**
- 8565. DEVELOPMENT OF MORAL-POLITICAL JUDGMENT AND PROGRAMS IN VALUE EDUCATION**
- 8571. PSYCHOLOGY OF CONFLICT RESOLUTION**
- 8572. ORGANIZATIONAL DEVELOPMENT AND CHANGE**
- 8573. SMALL-GROUP PROCEDURES USED FOR PERSONAL AND ORGANIZATIONAL CHANGE**
- 8574. SOCIAL AND PSYCHOLOGICAL INFLUENCES ON INDIVIDUAL BEHAVIORS**
- 8670. PRACTICUM IN GROUP LEADERSHIP**
- 8682. THEORETICAL DEVELOPMENTS IN INSTRUCTIONAL DESIGN**
- 8721. INTERNSHIP: EVALUATION**
- 8900.* RESEARCH PROBLEMS**
- 8910.* PROBLEMS: STATISTICS FOR STUDENTS IN EDUCATION AND PSYCHOLOGY**
- 8920.* PROBLEMS: MEASUREMENT**
- 8921.* PROBLEMS: EVALUATION**
- 8930.* RESEARCH PROBLEMS: COMPUTER APPLICATIONS**
- 8940.* RESEARCH PROBLEMS: LEARNING AND COGNITION**
- 8960.* RESEARCH PROBLEMS: PERSONALITY**
- 8970.* RESEARCH PROBLEMS: SOCIAL PSYCHOLOGY**
- 8980.* RESEARCH PROBLEMS: INSTRUCTIONAL PSYCHOLOGY**

Description of Courses

SOCIAL AND PHILOSOPHICAL FOUNDATIONS OF EDUCATION (SPFE)

- 3090. THE SCHOOL AND SOCIETY.** (3 cr; prereq sr)
Readings in social science and philosophy give the student opportunity to integrate points of view in thinking about the role of the school in present-day society.
- 3099. DIRECTED STUDY.** (1-6 cr; prereq #)
Independent readings with guidance of the faculty.
- 3210. SOCIETIES OF THE FUTURE.** (4 cr, §SSci 3981)
Introduction to the area of future studies; application of interdisciplinary analysis to the problems of specialization and generalization of human understanding; alternative images of the futures of formal and informal social systems.
- 5099. DIRECTED STUDY.** (Cr ar [max 9 cr]; S-N optional; prereq #)
Individual or group work on topics or problems in social and philosophic foundations of education.
- 5101. HISTORICAL FOUNDATIONS OF MODERN EDUCATION.** (3 cr)
Analysis and interpretation of important elements in modern education derived from the Greeks, the Romans, the Middle Ages, and the Renaissance. Background course for all other courses in the history and philosophy of education.
- 5102. EDUCATION IMAGERY IN EUROPE AND AMERICA.** (3 cr; S-N optional)
Images and ideas of education expressed in the visual arts of Western civilization (antiquity to 20th century) in relation to concurrent educational thought and practice; symbolism, myth, propaganda, didacticism, genre, caricature.
- 5110. INTERCULTURAL EDUCATION: SOCIAL SCIENCE AND SYSTEMS PERSPECTIVES.** (3 cr)
Application of social science and systems analysis to educational theories, ideologies, and operating contexts; preparation of students for later ethnically focused courses on educational problems of particular minority populations in the United States.
- 5120. HISTORY OF CHILDHOOD EDUCATION.** (3 cr; S-N optional)
Childhood education in Western civilization; emphasis on images, symbols, ideas important to educational theory and practice in home and school.
- 5125. YOUTH IN MODERN SOCIETY.** (4 cr, §Soc 5952)
Youth in advanced societies and as a social entity; functions and roles in industrial society, family, education, politics and government, economy and work, welfare, and religion; organizations, social movements, and subcultures; empirical research and cross-cultural perspectives.
- 5131. COMPARATIVE EDUCATION.** (3 cr)
European, Asiatic, and American systems and philosophies of education; possibilities of international education.
- 5141. CRITICAL ISSUES IN CONTEMPORARY EDUCATION.** (3 cr)
Introduces graduate students to ideas involved in current theory and practice.
- 5155. HISTORY OF WESTERN EDUCATIONAL THOUGHT.** (3 cr)
Examination of the major educational classics of Western civilization; Plato, Aristotle, Cicero, Quintilian, Montaigne, Milton, Locke, Rousseau, and others.
- 5156. HISTORY OF IDEAS IN AMERICAN EDUCATION.** (3 cr)
Readings in American political, economic, and social development related to education; reference to the emerging system of public education. Recommended as background for 5170 but not a prerequisite.
- 5170. AMERICAN PRAGMATISM AND EDUCATION.** (3 cr)
Analysis and interpretation of the educational philosophy of pragmatism (experimentalism); readings from Dewey, Kilpatrick, Bode, Counts, Childs, and others.
- 5171. ANTHROPOLOGY AND EDUCATION.** (4 cr, §Anth 5145)
Cross-cultural perspectives in examining educational patterns, the implicit and explicit cultural assumptions underlying them; methods and approaches to cross-cultural studies in education.
- 5172. ANTHROPOLOGY OF AMERICAN EDUCATION.** (3 cr; §Anth 5144; S-N optional, prereq Δ)
Application of anthropological principles to study of socialization, schooling, and cultural transmission in the United States; utility of anthropological concepts for the study of our own education systems and analysis of educational change.
- 5173. ANTHROPOLOGICAL CLASSROOM METHODS FOR CROSS-CULTURAL EDUCATION.** (3 cr; prereq introductory anthropology course or #)
Analysis of the social structure of classrooms and cultural backgrounds of pupils; study of ethnopedagogical techniques; development of culturally appropriate modifications of standard teaching techniques.
- 5174. FIELD METHOD FOR THE STUDY OF EDUCATION.** (4 cr; §Anth 5316; S-N optional; prereq 5171 or 5172 or Anth 5145 or 5144 or 1502)
Practice in aspects of field methodology below the level of full field study; detailed reading; analysis of studies in anthropology and education for methodological content.

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- 5175. INTRODUCTION TO SYSTEMS THEORY IN SOCIAL SCIENCE AND EDUCATION.** (3 cr)
Fundamental aspects of general systems theory; readings; basic modeling techniques.
- 5180. INTRODUCTION TO THE ECONOMICS OF EDUCATION.** (4 cr. §EdAd 5280)
Economic impact of education on educational markets, prices and production relationships, distribution of income, and investment and cost-benefit analysis in education.
- 5182. COMPARATIVE PHILOSOPHIES OF EDUCATION.** (3 cr)
Examination of competing philosophies of education.
- 5190. SOCIOLOGY OF EDUCATION.** (4 cr. §Soc 5953)
Advanced studies in the social aspects of education including the school as a socialization process, the social structure of education, the role of the school in social change.
- 5191. PROFESSIONALIZATION AND TEACHING.** (3 cr)
Process, social history, and ideology; role of teacher organizations; forms of militancy; comparison with professionalism in other occupations.
- 5192. SOCIOLOGY OF HIGHER EDUCATION.** (4 cr. §Soc 5958; prereq introductory statistics or #)
Advanced studies in social aspects of higher education; socialization of students, comparative institutional organization, role structure; emphasis on theory and empirical research.
- 5205. INTERCULTURAL EDUCATION: WORKSHOP IN COMMUNITY SOCIAL SIMULATIONS.** (3 cr)
Analyses of operation of the city as a social system; use of simulation gaming techniques to study urban institutions and processes with emphasis on formal education.
- 5209. EDUCATION IN FUTURE SOCIAL SYSTEMS.** (3 cr, §5212)
Interdisciplinary inquiry into problems of social specialization and generalization; projections and analysis of long-range (30 years or more) social and technological trends related to education.
- 5210. SOCIAL FORECASTING AND EDUCATIONAL FUTURES.** (3 cr)
Application of social sciences in their academic and applied dimensions to formal education, including a social-scientific and systems orientation toward communities; emphasis on short-range social and educational planning—near-present to a few years hence.
- 5211. SOCIAL DESIGN AND EDUCATIONAL FUTURES.** (3 cr)
Medium-range interdisciplinary approach to community design and analysis emphasizing formal education systems in community context; focus upon new neighborhoods, towns, experimental cities and subcultural enclaves in rural and urban settings emphasizing time period from several years to three decades hence.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8170. SEMINAR: RESEARCH METHODS IN ANTHROPOLOGY AND EDUCATION**
- 8172. SEMINAR: TOPICS IN ANTHROPOLOGY AND EDUCATION**
- 8202. POLITICS OF EDUCATION**
- 8220. SEMINAR: SOCIAL AND EDUCATIONAL FUTURES**
- 8241.* PROBLEMS: HISTORY AND PHILOSOPHY OF EDUCATION**
- 8242. SEMINAR: EDUCATIONAL PHILOSOPHY**
- 8255. SEMINAR: EUROPEAN AND AMERICAN EDUCATIONAL THOUGHT: 16TH AND 17TH CENTURIES**
- 8256. SEMINAR: EUROPEAN AND AMERICAN EDUCATIONAL THOUGHT: 17TH CENTURY**
- 8260. SEMINAR: SOCIAL AND PHILOSOPHIC FOUNDATIONS OF EDUCATION**
- 8290. ADVANCED SOCIOLOGY OF EDUCATION**
- 8991.* PROBLEMS: SOCIOLOGY OF EDUCATION**

Vocational and Technical Education

AGRICULTURAL EDUCATION (AgEd)

- 1001. INTRODUCTION TO AGRICULTURAL EDUCATION.** (1 cr; prereq #)
Orientation to employment and service; qualifications of teachers, survey of preparatory offerings; the program in Minnesota.
- 1010. HISTORY AND PHILOSOPHY OF VOCATIONAL AND COMMUNITY EDUCATION.** (3 cr)
Analysis and interpretation; alternative value positions involving social, economic, and related community variables.
- 3010. ORGANIZATION AND DIRECTION OF FFA ACTIVITIES.** (2 cr)
Development of FFA leadership: vocational agriculture/agribusiness and natural resources education, youth leadership organization; integration of classroom and supervised occupational experience.

Description of Courses

- 3021. EDUCATION THROUGH EXTENSION METHODS.** (3 cr, \$HEEd 3021; prereq soph)
Role of nonschool agencies in rural and agricultural education; methods and techniques of formal and informal instruction in school and nonschool educational programs.
- 3029. DIRECTED EXPERIENCE IN AGRICULTURAL EDUCATION.** (1-3 cr)
Observation of the activities of teachers of agriculture; familiarization with the staff, the curriculum, and the physical facilities and equipment in a department of vocational agriculture with opportunity to participate in the functions of a teacher.
- 3031. STUDENT TEACHING IN AGRICULTURE.** (8 cr; prereq jr, 5028, SeEd 3155 and #)
Instruction in developing individual farming programs, contacting parents, program analysis of community needs, conducting classes, community activities, Future Farmers, and case studies.
- 3041. PRACTICUM: AGRICULTURAL EDUCATION TECHNOLOGY.** (1-3 cr [max 5 cr])
Individualized study packages of one credit each on technology in agriculture, horticulture, off-farm agriculture, agricultural mechanics, adult and beginning farmer programs, youth organizations, program evaluation, and visual aids.
- 5010.* RURAL EDUCATION AND COMMUNITY LEADERSHIP.** (3 cr, §1010; prereq #)
Role of school in rural community, coordination of school with nonschool educational agencies; responsibility for community leadership.
- 5021. EDUCATION THROUGH EXTENSION METHODS.** (3 cr, \$HEEd 5021; prereq grad student or #)
Role of nonschool agencies in rural and agricultural education; methods and techniques of formal and informal instruction in school and nonschool educational program.
- 5023. EXTENSION METHODS FOR AGRICULTURAL PRODUCTION IN DEVELOPING COUNTRIES.** (3 cr, \$HEEd 5023)
Extension methods to promote the rapid adoption of improved agricultural practices.
- 5024. EXTENSION HISTORY AND PHILOSOPHY.** (3 cr, \$HEEd 5024; prereq #)
Independent study under tutorial guidance of origin, philosophy, historical development, objectives, and organizational structure of the Cooperative Extension Service.
- 5025. EXTENSION PROGRAM DEVELOPMENT.** (3 cr, \$HEEd 5025)
Planning, implementing, and evaluating the program development process.
- 5026. EXTENSION ADMINISTRATION.** (3 cr, \$HEEd 5026; prereq #)
Administration of the Cooperative Extension Service organization at the county, area, and state levels.
- 5027. PRACTICUM: PLACEMENT FOR EXTENSION EXPERIENCES.** (2-6 cr [max 6 cr], \$HEEd 3605, \$HEED or 5027; S-N optional)
Observation of the activities of county extension staff; familiarization with staff, program planning and development, county committee, youth activities and office activities, with opportunity to participate in the functions of an Extension educator.
- 5028. TEACHING METHODS IN AGRICULTURAL EDUCATION.** (5 cr; prereq SeEd 3155 or 1SeEd 3155)
Methods utilized in teaching agriculture in public schools; use of media, principles of learning, problem solving, test construction, classroom management and specific practice in problem-solving teaching techniques; use of competency-based individualized instruction as a medium for course presentation and a model for teaching methods.
- 5032. HIGH SCHOOL CURRICULUM IN AGRICULTURE.** (3 cr; prereq 10 cr in education)
Philosophy, organization, and administration of instruction in agriculture departments in secondary schools.
- 5034. PROCEDURES IN TEACHING AGRICULTURE.** (3 cr; prereq #)
New developments in methodology; assessment of innovations and procedures; consideration of various levels of instruction.
- 5035. METHODS AND PRACTICES IN TEACHING POST-HIGH-SCHOOL AGRICULTURE.** (3 cr)
Problems unique to area school and junior college teaching; improving the ability to organize and present subject matter.
- 5041. WORKSHOP: AGRICULTURAL EDUCATION TECHNOLOGY.** (1-6 cr [max 6 cr])
New understandings, techniques, and materials in animal science, plant science, horticulture, soil science, agricultural mechanics, forestry, natural resources, youth organization, visual aids, and occupational exploration.
- 5049. AGRICULTURAL EDUCATION FOR ADULTS.** (5 cr)
Methods, organization, and implementation of systematic education programs for beginning and established farmers; organization of local programs to meet needs of production agriculture in areas of enterprises, agricultural mechanics and management; developing a continuing program, observations.
- 5051. ENTERPRISE ANALYSIS.** (3 cr; prereq #)
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.
- 5052. FARM BUSINESS MANAGEMENT EDUCATION.** (3 cr; prereq 5049 or #)
Administration, organization, and operation of farm business management education programs for adults; development and utilization of curriculum materials based on farm business record data.

Vocational and Technical Education

- 5061. PROGRAM PLANNING AND EVALUATION.** (3 cr; prereq sr)
Developing a program of agricultural education in a community school, integration with total school program, administrative relationships, techniques and use of program evaluation in planning.
- 5071. SUPERVISED OCCUPATIONAL EXPERIENCES IN AGRICULTURE.** (3 cr)
Organization and administration of an occupational experience program in agriculture for high schools and area schools.
- 5072. PRACTICUM: AGRICULTURAL BUSINESS AND INDUSTRY.** (1-3 cr [max 9 cr]; prereq 5071 or #)
Observation, study, and experience in agricultural business and industry; application to educational problems in agriculture.
- 5080. ORGANIZATION AND MANAGEMENT** (3 cr; prereq #)
Administrative structure and function of subcollegiate programs.
- 5081. CURRENT ISSUES FOR THE BEGINNING AGRICULTURE TEACHER.** (1-3 cr [max 3 cr]; prereq #)
Teaching methods, organizing learning resource materials, managing classroom and laboratory learning activities, curriculum planning and organization, managing discipline situations, school and community relationships for the beginning teacher.
- 5084. CURRICULA FOR CAREER EXPLORATION IN AGRICULTURAL OCCUPATIONS.** (3 cr)
Analysis and evaluation of material; criteria for selection of material; content, organization, resource activities and teaching techniques.
- 5085. CAREER DEVELOPMENT IN AGRICULTURAL EMPLOYMENT.** (3 cr)
Methods and materials in teaching career development for agricultural industries.
- 5090. INDEPENDENT STUDY.** (1-3 cr; prereq sr)
Topics may be chosen to permit study of areas within education or to supplement areas of inquiry not provided in the regular course structure.
- 5095. INDEPENDENT STUDY.** (3 cr; prereq MEd student in agricultural education)
Preparation of a paper dealing with learning in agricultural education applied to professional responsibilities.
- 5128. METHODS OF TEACHING.** (3 cr; prereq non-agricultural-education major and/or #)
Methods of teaching agriculture or related subjects; developing competencies in planning, organizing, implementing, and evaluating instruction with practice in instructional techniques.
- 5129. CURRICULUM PLANNING.** (3 cr; prereq 5128 or #5128, non-agricultural-education major and/or #)
Methods and procedures in planning a curriculum to teach within a specific subject matter area; curriculum construction for use in native country setting.
- 5130. EFFECTIVE TEACHING IN A COLLEGE OF AGRICULTURE.** (3 cr; prereq 1 yr grad study in agriculture or #)
Approaches to effective teaching, development of a personal philosophy, practice in employing types of instructional improvement activities. Primarily for the student who plans to teach in a college of agriculture.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8001.* RESEARCH IN AGRICULTURAL EDUCATION**
- 8010. CURRENT ISSUES IN AGRICULTURAL EDUCATION**
- 8020. SEMINAR: AGRICULTURAL EDUCATION**
- 8091. FIELD PROBLEMS**
- 8303. SEMINAR: GRADUATE STUDIES REVIEW**

BUSINESS AND DISTRIBUTIVE EDUCATION (BDE)

- 1100. INTRODUCTION TO DISTRIBUTIVE EDUCATION.** (4 cr, §DE 1100)
Orientation to and exploration of distributive education including 20-25 hours of directed observation in public schools.
- 1501. BEGINNING TYPEWRITING.** (3 cr, §BsEd 1501; S-N optional for nonmajors)
Emphasis on correct typewriting techniques; letter styles; manuscripts; simple tabulation; proofreading.
- 1502. INTERMEDIATE TYPEWRITING.** (3 cr, §BsEd 1502; prereq 1501 or proficiency exam)
Speed and accuracy building; carbons, tabulations, simple manuscripts, rough drafts, additional letter styles, interoffice memoranda, office forms, outlines and enumerations.
- 1503. ADVANCED TYPEWRITING.** (3 cr, §BsEd 1503; prereq 1502 or proficiency exam)
Proficiency in typing complex manuscripts, footnotes, bibliographies, additional letter styles, complex tabulations.
- 1504. INTRODUCTION TO BUSINESS EDUCATION.** (4 cr, §BsEd 1504)
Introduction to curriculum and methodologies at all educational levels.
- 1505. BEGINNING SHORTHAND.** (3 cr, §BsEd 1505; prereq 1501 or equiv)
Shorthand theory, speed building on familiar material, typewritten transcription; introduction to new matter dictation and personal note-taking.

Description of Courses

- 1506. INTERMEDIATE SHORTHAND.** (3 cr, §BsEd 1506; prereq 1502, 1505 or proficiency exam)
Emphasis on building speed on new matter dictation and typewritten transcription.
- 1507. ADVANCED SHORTHAND.** (3 cr, §BsEd 1507; prereq 1502, 1506 or proficiency exam)
Continued emphasis on speed building, using new matter dictation; emphasis on transcription of mailable letters.
- 1508. OFFICE MANAGEMENT AND PROCEDURES.** (3 cr, §BsEd 1508)
Office organization, communications, systems and work flow, records management.
- 1509. OFFICE MACHINES.** (3 cr, §BsEd 1509; prereq 1502 or equiv)
Calculating, duplicating, and transcribing machines.
- 3300. TEACHING TYPEWRITING.** (3 cr, §BsEd 3300; prereq 1502 or †1502 or equiv, SeEd 3155 or †SeEd 3155)
Objectives, content, methods, materials, and evaluation in the teaching of typewriting.
- 3301. TEACHING SHORTHAND AND TRANSCRIPTION.** (3 cr, §BsEd 3301; prereq 1506 or †1506 or equiv, SeEd 3155 or †SeEd 3155)
Classroom methods in developing shorthand and transcription skills.
- 3302. TEACHING BASIC BUSINESS SUBJECTS.** (3 cr, §BsEd 3302; prereq SeEd 3155 or †SeEd 3155)
Developments in content and methods of teaching nonvocational business subjects.
- 3303. TEACHING ACCOUNTING AND DATA PROCESSING.** (3 cr, §BsEd 3303; prereq jr, SeEd 3155 or †SeEd 3155)
Methods, materials, curriculum, and principles of learning pertinent to accounting and data processing.
- 3304. METHODS: DISTRIBUTIVE EDUCATION.** (4 cr, §DE 3302; prereq #)
- 3305. METHODS: DISTRIBUTIVE EDUCATION.** (4 cr, §DE 3303; prereq 3304, #)
- 3602. PRE-FALL STUDENT TEACHING.** (3 cr, §BsEd 3602, §DE 3602; S-N only; prereq #)
Introductory student teaching experience in business or distributive education subjects.
- 3603, 3604, 3605. STUDENT TEACHING IN BUSINESS OR DISTRIBUTIVE EDUCATION.** (4 cr each; S-N optional; prereq SeEd 3155 and Δ.)
BDE 3603 is required for students majoring or minoring in distributive education and students majoring in business education. BDE 3604 and 3605 are required for all students majoring in business or distributive education.
- 5150. RESEARCH AND METHODS IN TEACHING ACCOUNTING.** (4 cr, §BsEd 5100)
Application of current research findings to teaching methodology.
- 5151. RESEARCH AND METHODS IN TEACHING TYPEWRITING.** (3 cr, §BsEd 5118)
Application of research findings to classroom methodology and materials development.
- 5152. RESEARCH AND METHODS IN TEACHING THE BASIC BUSINESS SUBJECTS.** (4 cr, §BsEd 5102)
Application of research findings to classroom methodology in general business, economics, introduction to business, business law, and consumer education.
- 5153. CONSUMER EDUCATION IN THE SCHOOLS.** (4 cr, §BsEd 5103)
Objectives, content, curricular organization, and teaching methods at the elementary, secondary, postsecondary, and adult levels.
- 5154. MATERIALS AND METHODS FOR MODEL OFFICE COURSES.** (4 cr, §BsEd 5111)
Course organization, methods, development, and evaluation of objectives and materials; practicum in simulation.
- 5155. TRENDS AND ISSUES IN BUSINESS EDUCATION.** (4 cr {max 6 cr}, §BsEd 5117)
Current status and practices; alternative program options in business education.
- 5156. RESEARCH AND METHODS IN TEACHING SHORTHAND AND TRANSCRIPTION.** (3 cr, §BsEd 5119)
Application of research findings to classroom methodology and materials development in shorthand, and machine and shorthand transcription.
- 5157. MATERIALS AND METHODS IN OFFICE EDUCATION.** (4 cr, §BsEd 5107)
Recent research and developments in teaching office procedures, the preparatory and related classes for cooperative office education, and the advising of vocational office education student organizations.
- 5158. OFFICE MANAGEMENT TECHNIQUES AND TECHNOLOGY.** (4 cr, §BSEd 5121)
Present and future management principles, financial management, personnel, communications, systems, and environment.
- 5159. WORD PROCESSING CONCEPTS AND TEACHING METHODS.** (4 cr)
Personnel and organization in industry; input and output hardware; implementing word processing systems; instructional implications.
- 5160. WORD PROCESSING PRACTICUM.** (2 cr)
Participation in office simulation using input and output hardware; center operation and supervision; procedures for originating communications.
- 5250. ISSUES AND TRENDS IN DISTRIBUTIVE EDUCATION.** (3 cr, §DE 5125; prereq #)
Identification, analysis, and discussion of recent issues and trends; review and synthesis of research.
- 5251. MATERIALS AND METHODS IN COOPERATIVE VOCATIONAL EDUCATION.** (4 cr, §DE 5300, §DE 5301)
Planning, execution, and evaluation of instruction; selection of instructional materials and management of learning environment.

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- 5252. TEACHING MERCHANDISE DISPLAY.** (3 cr, §DE 5305; prereq #)
Materials and methods; practice in using equipment.
- 5253. TEACHING SUPERVISORY TRAINING.** (3 cr, §DE 5330)
Conducting short unit courses for store and office supervisors and improving on-the-job training in cooperative vocational education programs.
- 5254. MATERIALS LABORATORY: POSTSECONDARY DISTRIBUTIVE EDUCATION.** (3 cr, §DE 5116; prereq #)
New methods of instruction; development of materials for distributive education programs in junior colleges and area vocational-technical schools.
- 5255. MATERIALS LABORATORY: DISTRIBUTIVE EDUCATION.** (3 cr, §DE 5310; prereq 3305 or 5251, or DE 3303, DE 5300, or DE 5301, or #)
Development of specific related vocational materials for distributive occupations, cooperative vocational education classes.
- 5256. MATERIALS LABORATORY: OCCUPATIONAL ADJUSTMENT.** (3 cr, §DE 5315; prereq 3305 or 5251, or DE 3303, DE 5300, or DE 5301, or #)
Development of general related vocational materials for all types of cooperative classes.
- 5350. BUSINESS DATA PROCESSING: CONTENT AND TEACHING METHODS.** (4 cr, §BsEd 5100, §DE 5320)
Business applications of electronic data processing; current curriculum developments and teaching methodology in high school and postsecondary business and distributive education.
- 5351. ORGANIZATION AND ADMINISTRATION OF BUSINESS AND DISTRIBUTIVE EDUCATION.** (4 cr, §BsEd 5106, §DE 5100)
Organization and administrative structure in the United States; objectives, programs, practices, teacher selection and supervision, evaluative criteria for business and distributive education departments.
- 5352. COORDINATION TECHNIQUES IN BUSINESS AND DISTRIBUTIVE EDUCATION.** (4 cr, §BsEd 5104, §DE 5105, §DE 5106)
The cooperative program in distributive and office education; program establishment; guidance, selection, and placement of students; work adjustment, student objectives, evaluation; labor laws; public relations.
- 5353. CURRICULUM CONSTRUCTION IN BUSINESS AND DISTRIBUTIVE EDUCATION.** (4 cr, §BsEd 5108, §DE 5110, §DE 5111)
Content identification, program organization, preparation of instructional objectives, guidelines for selection and development of instructional materials.
- 5354. POSTSECONDARY BUSINESS AND DISTRIBUTIVE EDUCATION.** (3 cr, §BsEd 5125, §DE 5115)
Determining needs, curriculum facilities, admission practices, placement of and follow-up of students, teacher qualifications, interorganizational relations in junior college and area technical school programs.
- 5355. BUSINESS AND DISTRIBUTIVE PROGRAMS FOR ADULTS.** (3 cr, §BsEd 5130, §DE 5120)
Selection and training of evening school instructors; planning and promoting evening school business and distributive education classes; teaching adults; course and program evaluation.
- 5356. BUSINESS AND DISTRIBUTIVE EDUCATION FOR STUDENTS WITH SPECIAL NEEDS.** (4 cr, §BsEd 5109)
Characteristics of students such as the handicapped, disadvantaged, incarcerated, and gifted; review of programs, curricula, methodologies, and instructional materials for meeting general and vocational needs, including mainstreaming and self-contained classrooms.
- 5357. RESEARCH PROCEDURES IN BUSINESS AND DISTRIBUTIVE EDUCATION.** (4 cr, §BsEd 5115)
Research design and techniques, computer orientation, preparation of reports; criteria for appraisal and critical analysis of research completed in business and distributive education.
- 5358. BUSINESS AND DISTRIBUTIVE EDUCATION STUDENT ORGANIZATIONS.** (3 cr, §BsEd 5340, §DE 5340)
Organization, administration, and operation of local, state, and national business and distributive education vocational student organizations.
- 5359. OCCUPATIONAL EXPERIENCE.** (1-18 cr; S-N optional; prereq #)
Observation and employment experiences in business offices or distributive businesses; weekly seminars on applications to teaching and guidance of high school and post-high-school students.
- 5360. PROGRAM DEVELOPMENTS IN BUSINESS AND DISTRIBUTIVE EDUCATION.** (1-6 cr)
Developments emerging from research and local, state, and national programs and projects. Content will vary with each offering.
- 5600. SCHOOL-BASED PROJECTS IN BUSINESS AND DISTRIBUTIVE EDUCATION.** (1-12 cr [max 12 cr]; prereq #)
Individual or group work on curricular, instructional, developmental, or evaluative problems and projects applicable to local school situations.
- 5900. DIRECTED STUDY IN BUSINESS AND DISTRIBUTIVE EDUCATION.** (1-6 cr [max 6 cr]; S-N optional; prereq Δ)
Opportunity for individual learning experiences not covered by regular courses.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8300. SEMINAR: RESEARCH IN BUSINESS, DISTRIBUTIVE, AND ECONOMIC EDUCATION**
- 8600. INTERNSHIP: BUSINESS AND DISTRIBUTIVE EDUCATION**
- 8900*. PROBLEMS: BUSINESS AND DISTRIBUTIVE EDUCATION.**

Description of Courses

HOME ECONOMICS EDUCATION (HEEd)

- 1500. INTRODUCTION TO HOME ECONOMICS EDUCATION.** (2 cr; prereq soph)
Structure and function of teaching; nature of home economics teachers' work, emphasis on specific teaching options; impact of schooling on growth and development of pupils.
- 1510. KNOWLEDGE AND VALUES IN TEACHING.** (4 cr; prereq 1500 or #)
Roles of the home economics teacher in creating and using knowledge and in weighing and fostering values.
- 3021. EDUCATION THROUGH EXTENSION METHODS.** (3 cr, §AgEd 3021; prereq soph)
Role of nonschool agencies in rural and agricultural education; methods and techniques of formal and informal instruction in school and nonschool educational programs.
- 3315. ADULT EDUCATION IN HOME ECONOMICS.** (3 cr; prereq 3520 or #)
Objectives; problems affecting community and family life; methods of helping adults and out-of-school youth in solving problems in home living.
- 3325. PRACTICUM IN CHILD DEVELOPMENT.** (1 cr; prereq 3320 or *3320 and Δ)
Observation and experience with children as a method of teaching child development in the home economics program.
- 3331. CHILDREN AND PARENTING: CURRICULUM METHODS AND MATERIALS.** (2 cr; prereq for section for home economics majors *CPsy 3330 or #)
Appropriate methods and materials for teaching concepts at the secondary and adult levels.
- 3520. HOME ECONOMICS CURRICULUM AND INSTRUCTION: COGNITIVE LEARNING.** (5 cr; prereq 1510)
Broad overview of elements of curriculum; objectives, assessment, and strategies related to cognitive learning.
- 3530. HOME ECONOMICS CURRICULUM AND INSTRUCTION: AFFECTIVE LEARNING.** (4 cr; prereq 3520 or #, SeEd 3150, 3155 or *SeEd 3150, 3155)
Objectives, assessment, and strategies related to affective learning.
- 3601. CLINICAL EXPERIENCE.** (3-18 cr; S-N only; prereq 3620, *3611, Δ)
Classroom teaching in consumer homemaking, family life, and home economics occupations in selected Minnesota schools.
- 3611. FIELDWORK.** (3 cr; S-N only; prereq 3620, *3601, Δ)
Individualized instruction in consumer homemaking, family life, or occupational education programs in the field and on campus.
- 3620. CURRICULUM MANAGEMENT.** (3 cr; prereq 3530 or *3530)
Classroom activities including laboratory.
- 3900. INDEPENDENT STUDY.** (1-9 cr per qtr [max 9 cr]; prereq jr and #)
Study of selected topics in home economics chosen in collaboration with staff.
- 3910. EDUCATIONAL METHODS FOR HOME ECONOMISTS.** (3 cr; S-N optional; prereq jr and non-home-economics education major)
A survey course that allows students to explore and gain experience in methods used by home economists in nonschool settings.
- 5003. COOPERATIVE EDUCATION PROGRAM: INTERNSHIP.** (3 cr [max 9 cr]; S-N only; prereq 1500, HE 1003)
Planned work experience focusing on education competencies in nonschool settings. Students assume defined responsibilities of the position. A maximum of three credits may be used in M.A. and M.Ed. programs.
- 5021. EDUCATION THROUGH EXTENSION METHODS.** (3 cr, §AgEd 5021; prereq grad student or #)
Role of nonschool agencies in rural and agricultural education; methods and techniques of formal and informal instruction in school and nonschool educational programs.
- 5023. EXTENSION METHODS FOR DEVELOPING COUNTRIES.** (3 cr, §AgEd 5023)
Extension methods to promote the rapid adoption of improved practices.
- 5024. EXTENSION HISTORY AND PHILOSOPHY.** (3 cr, §AgEd 5024; prereq #)
Independent study under tutorial guidance of the origin, philosophy, historical development, objectives, and organizational structure of the Cooperative Extension Service.
- 5025. EXTENSION PROGRAM DEVELOPMENT.** (3 cr, §AgEd 5025)
Planning, implementing, and evaluating the program development process.
- 5026. EXTENSION ADMINISTRATION.** (3 cr, §AgEd 5026; prereq #)
Administration of the Cooperative Extension Service organization at the county, area, and state levels.
- 5027. PRACTICUM: PLACEMENT FOR EXTENSION EXPERIENCES.** (2-6 cr [max 6 cr], §3605, §AgEd 5027; S-N optional)
Observation of the activities of county extension staff; familiarization with staff, program planning and development, county committee, youth activities and office activities; opportunity to participate in functions of an Extension educator.

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- 5106. COORDINATION TECHNIQUES: HOME ECONOMICS OCCUPATIONAL EDUCATION.** (3 cr)
Responsibilities of instructor-coordinators in home economics secondary and postsecondary cooperative and project plan programs; guidance, selection; placing students in training agencies; articulation, supervision, evaluation of training; licensure course.
- 5300. HOME ECONOMICS CURRICULUM.** (3 cr)
Examination of research and literature; development of units of study and programs at elementary and secondary levels; production and evaluation of materials.
- 5301. CURRICULA, MATERIALS, METHODS: HOME ECONOMICS OCCUPATIONAL EDUCATION.** (3 cr)
Appropriate content for teaching concepts related to cooperative and project plan programs; licensure course for instructor-coordinators.
- 5305. HOME ECONOMICS CURRICULUM: COLLEGE LEVEL.** (3 cr; prereq #)
Examination of research and literature; course and program development in higher education; analysis of current college programs; production and evaluation of curriculum materials.
- 5310. METHOD IN TEACHING HOME ECONOMICS: ATTITUDES, VALUES, AND KNOWLEDGE.** (3 cr)
Derivation of theory for educational method from relevant research; application to educational objectives, strategies, and student motivation.
- 5315. EVALUATION: THEORETICAL AND TECHNICAL ASPECTS.** (3 cr)
Collecting and interpreting evidence related to achievement of objectives, emphasizing higher levels of cognition and affective behaviors.
- 5320. ADULT EDUCATION IN HOME ECONOMICS.** (3 cr)
Planning a community program; teaching procedures; special problems.
- 5325. TRENDS IN HOME ECONOMICS EDUCATION.** (1-4 cr [max 12 cr])
Current status; purposes, programs, content emphasis, research, problems and issues in the field.
- 5331. HOME ECONOMICS OCCUPATIONAL EDUCATION.** (3 cr [max 12 cr]; prereq sr or tchg exper or #)
Exploration of career opportunities; identification of needed competencies; development of instructional units; objectives, teaching-learning experiences, appraisal procedures; preparation of teaching materials.
- 5336. HOME ECONOMICS OCCUPATIONAL EXPERIENCE.** (3-6 cr [max 12 cr]. \$3330; prereq jr. sr. in-service teacher. #: S-N optional: max of 3 cr may be applied to a grad degree)
Observation and directed experience in selected occupational cluster; seminars with application to teaching and guidance of high school and post-high-school students required each quarter of enrollment. Each credit requires 85 hours of paid occupational experience.
- 5337. HOME ECONOMICS OCCUPATIONAL SEMINAR.** (3-9 cr [max 9 cr]; prereq #)
Current practices and career opportunities in business and industry combining planned experiences in work environments and a related seminar; maximum of three credits may be used in a degree program.
- 5400. WORKSHOP: HOME PLANNING AND FURNISHING.** (1-12 cr [max 12 cr])
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.
- 5405. WORKSHOP: CHILD DEVELOPMENT AND FAMILY RELATIONS.** (1-4 cr [max 12 cr])
Recent emphasis on growth and guidance of individuals; materials and techniques for high school and adult levels to attain better understanding.
- 5407. FAMILY LIFE EDUCATION: CURRICULUM METHODS AND MATERIALS.** (1-3 cr [max 12 cr])
Materials, curriculum articulation, teaching techniques, evaluation for high school and adult levels; theoretical foundations for production and critique of curriculum.
- 5410. WORKSHOP: FOODS AND NUTRITION.** (1-4 cr [max 12 cr])
Problems in teaching at high school and adult levels; use of new materials and techniques; group and individual projects for experienced teachers.
- 5415. WORKSHOP: MATERIALS FOR INSTRUCTION.** (1-4 cr [max 12 cr])
Problems in selection and use of new materials for instruction in home economics.
- 5420. WORKSHOP: ADULT EDUCATION.** (1-4 cr [max 12 cr])
Procedures in teaching adults; planning the program; use of new materials and techniques; group and individual problems.
- 5430. WORKSHOP: CONTEMPORARY PROBLEMS IN HOME ECONOMICS EDUCATION.** (1-6 cr [max 12 cr])
Consideration of topic of current concern in home economics education.
- 5500. PROSEMINAR: HOME ECONOMICS EDUCATION.** (2 cr; required of all new grad students)
Relation of the processes and standards of rational thought to professional competence and the goals of a graduate program of study.
- 5505. SEMINAR: SUPERVISION OF STUDENT TEACHING.** (2 cr)
Examination or research pertinent to purposes, procedures, evaluation, and interpersonal relations.

Description of Courses

- 5520. PHILOSOPHY OF HOME ECONOMICS.** (4 cr; prereq #)
Application of philosophic thought to conceptions of home economics upheld in literature and practice.
- 5600. PRACTICUM: ADULT EDUCATION.** (3 cr; prereq #)
Individual field assignments under supervision.
- 5900. READINGS IN HOME ECONOMICS EDUCATION.** (1-3 cr; [max 12 cr]; prereq #)
Independent study under tutorial guidance.
- 5910. INTEGRATING PAPER.** (3 cr; prereq MEd student)
Independent paper integrating learning from a course or courses in education with learnings in home economics education.
- 5920. DIRECTED STUDIES.** (1-6 cr; S-N optional; prereq #)
Opportunity for individualized learning experience in areas not covered by regular courses.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

- 8300. RESEARCH METHODS**
- 8305. RESEARCH METHODS**
- 8500. SEMINAR: CURRICULUM DEVELOPMENT**
- 8510. SEMINAR: IMPROVEMENT OF INSTRUCTION IN ADULT EDUCATION**
- 8515. SEMINAR: TEACHER EDUCATION**
- 8520. SEMINAR: HISTORY AND PHILOSOPHY OF HOME ECONOMICS EDUCATION**
- 8525. SEMINAR: ADMINISTRATION AND SUPERVISION OF HOME ECONOMICS PROGRAMS**
- 8530.* SEMINAR: HOME ECONOMICS EDUCATION**
- 8631. PRACTICUM: HOME ECONOMICS TEACHER EDUCATION**
- 8900.* PROBLEMS: HOME ECONOMICS EDUCATION**

INDUSTRIAL EDUCATION (Ind)

- 1300. INTRODUCTION TO INDUSTRIAL EDUCATION TEACHING.** (2 cr; for freshmen and those contemplating the major)
Objectives, programs, and teaching career options of industrial education.
- 1301. INTRODUCTION TO VOCATIONAL-INDUSTRIAL TEACHING.** (3-6 cr [max 6 cr])
Techniques for the occupationally certifiable individual who plans to enter the field of vocational teaching; required for initial state vocational licensure.
- 1302. SUPERVISED VOCATIONAL-INDUSTRIAL TEACHING.** (3 cr; prereq #)
Supervised teaching on the job for beginning teachers.
- 1490. ELEMENTARY HANDCRAFTS.** (3 cr)
For majors in elementary, art, special, and recreational education.
- 1492. CRAFTWORK.** (3 cr)
Projects in media suitable for industrial arts, plastics, art metal, lapidary, and leather work.
- 1600. DRAFTING.** (3 cr)
Mechanical drafting utilizing current practices of industry: projection, sketching, dimensioning, sections, auxiliaries, fasteners, working drawings, reproduction processes, basic design problems.
- 1602. DRAWING AND DESIGN.** (3 cr; prereq 1600 or #)
Laboratory: introduction to procedures and application systems; aspects of social, economic, production, and aesthetic considerations in engineering new designs.
- 1604. INDUSTRIAL MATERIALS AND MEASUREMENT.** (3 cr)
Instruction and laboratory experiences in application of materials and measurement concepts.
- 1606. INTRODUCTION TO INDUSTRIAL PROCESSES.** (3 cr)
Instruction and laboratory experiences in basic technical process skills.
- 1610. CONSTRUCTION TECHNOLOGY I.** (3 cr; prereq 1600, 1604, 1606)
Analysis of managed personnel production system of construction; synthesis of housing construction practices and city and regional planning practices.
- 1612. CONSTRUCTION TECHNOLOGY II.** (3 cr; prereq 1610)
Basic construction methods and techniques; applied activities oriented to laboratory experiences; planning, organization, and control of resources to produce products on a site.

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- 1620. GRAPHIC COMMUNICATION I.** (3 cr; prereq 1600, Math 1111)
Introduction to and laboratory experience in solution of graphic communication problems relating to hot metal processes.
- 1622. GRAPHIC COMMUNICATION II.** (3 cr; prereq 1620)
Introduction to and laboratory experiences in solution of graphic communication problems relating to cold metal processes.
- 1630. MANUFACTURING I, PROCESSES.** (3 cr; prereq 1604, 1606)
Introductory instruction and laboratory experiences in basic manufacturing processes; machining; sheet metal forming, welding, foundry.
- 1632. MANUFACTURING II, PRODUCTION.** (3 cr; prereq 1602, 1630)
Advanced instruction and laboratory experiences in manufacturing enterprise; exploration and interpretation of careers in manufacturing.
- 1640. INTRODUCTION TO POWER AND ENERGY.** (3 cr; prereq 1604, Phys 1014 and 1015 or GC 1163, GC 1451, Math 1111 or 1131)
Introductory laboratory experiences in application of electronic logic, servomechanisms, fluidic/pneumatic power, hydraulic power, and rotating machinery in industrial use.
- 1642. POWER AND ENERGY SYSTEMS.** (3 cr; prereq 1640)
Laboratory and classroom experiences in application and design of interfaced logic systems, servomechanisms, fluidic/pneumatic and hydraulic power, and rotating machinery systems in industrial use.
- 1650. TRANSPORTATION I.** (3 cr; prereq 1604, 1606)
Air, sea, and land transportation services, organization, economic relationship; individualized study of fuels and lubricants, use of technical manuals, specification charts, measurement techniques, power calculations; laboratory experience using test equipment, mock-ups, experiments.
- 1652. TRANSPORTATION II.** (3 cr; prereq 1650)
Concepts in fuels, specification, measurement, concentrating on automotive and recreational vehicle service industry; laboratory experiences in power unit servicing, basic mechanics, repair techniques, diagnostic procedures to be provided by AVT centers.
- 1800. CAREER PLANNING PRACTICUM I.** (1 cr; prereq Δ)
Peer group professional growth assessment and advising; human relations processes.
- 1801. CAREER PLANNING PRACTICUM II.** (1 cr; prereq 1800, Δ)
Peer group professional growth assessment and advising; human relations processes.
- 1802. CAREER PLANNING PRACTICUM III.** (1 cr; prereq 1801, Δ)
Peer group professional growth assessment and advising; human relations processes.
- 1803. CAREER PLANNING PRACTICUM IV.** (1 cr; prereq 1802, Δ)
Peer group professional growth assessment and advising; human relations processes.
- 3110. CONSTRUCTION: INTERMEDIATE.** (3 or 6 or 9 cr; prereq 1612, #)
Individualized technical skill development in areas of house framing, concrete work, domestic wiring, plumbing, surveying, painting, paper hanging, and basic construction codes.
- 3111. CONSTRUCTION: ADVANCED.** (3 or 6 or 9 cr; prereq 3110, #)
Individualized advanced skill development in areas of forming, block and brick, commercial plumbing, industrial circuitry, landscaping, finishing, and advanced construction codes.
- 3120. GRAPHIC COMMUNICATIONS: INTERMEDIATE.** (3 or 6 or 9 cr; prereq 1622, #)
Individualized technical skill development in areas of offset printing, technical illustrating, machine and architectural drafting, photography.
- 3121. GRAPHIC COMMUNICATIONS: ADVANCED.** (3 or 6 or 9 cr; prereq 3120, #)
Individualized advanced skill development in areas of color separation, web press operation, drafting design, color renditions, air brush.
- 3130. MANUFACTURING: INTERMEDIATE.** (3 or 6 or 9 cr; prereq 1632, #)
Individualized technical skill development in areas of welding, lathe operation, milling machine operation, sheet metal construction.
- 3131. MANUFACTURING: ADVANCED.** (3 or 6 or 9 cr; prereq 3130, #)
Individualized advanced skill development in areas of numerical control and machine setup inspection, electric discharge machining, TIG welding.
- 3140. POWER AND ENERGY: INTERMEDIATE.** (3 or 6 or 9 cr; prereq 1642, #)
Individualized technical skill development in areas of digital, hydraulic, and pneumatic control systems, and radio and television repair.
- 3141. POWER AND ENERGY: ADVANCED.** (3 or 6 or 9 cr; prereq 3140, #)
Individualized advanced skill development in areas of digital, hydraulic, and pneumatic system design, electronic maintenance and repair, and alternative energy sources.
- 3150. TRANSPORTATION: INTERMEDIATE.** (3 or 6 or 9 cr; prereq 1652, #)
Individualized technical skill development in areas of small gas and marine engine repair, automotive tuneup, cooling systems, brakes, and auto body repair.

Description of Courses

- 3151. TRANSPORTATION: ADVANCED.** (3 or 6 or 9 cr; prereq 3150, #)
Individualized advanced skill development in areas of diesel engine repair, auto engine overhaul, front end repair, automatic transmission, aircraft engine maintenance, chassis straightening.
- 3160. INDUSTRIAL EDUCATION INSTRUCTIONAL MANAGEMENT.** (3 cr; prereq minimum of 36 cr from occupational block 5301, 5330, 5360, 5303)
Application of technical subject matter and instructional methodology in management of an industrial education laboratory and its environment.
- 3700, 3702, 3704, 3706. STUDENT TEACHING.** (3 cr each; S-N only; for 3700, 3702, 3704: 9 cr required, prereq 1300, 5360 and Δ ...for 3706: elective course, prereq Δ)
- 3701, 3703, 3705, 3707. STUDENT TEACHING SEMINAR.** (1-3 cr; S-N only; prereq ϵ 3700, ϵ 3702, ϵ 3704, ϵ 3706)
- 3750. INDUSTRIAL PRACTICES AND PROCESSES.** (3 cr; prereq #)
An organized series of field trips to representative industrial plants preceded by classroom study and investigation.
- 3801. CAREER PLANNING PRACTICUM V.** (1 cr; prereq 3800, Δ)
Peer group professional growth assessment and advising; human relations processes.
- 3802. CAREER PLANNING PRACTICUM VI.** (1 cr; prereq 3801, Δ)
Peer group professional growth assessment and advising; human relations processes.
- 3803. CAREER PLANNING PRACTICUM VII.** (1 cr; prereq 3802, Δ)
Peer group professional growth assessment and advising; human relations processes.
- 3804. CAREER PLANNING PRACTICUM VIII.** (1 cr; prereq 3803, Δ)
Peer group professional growth assessment and advising; human relations processes.
- 3900, 3901, 3902. INDEPENDENT STUDY.** (3 cr per qtr; prereq jr or #)
Self-directed study, preceded by classroom instruction in basic research procedures.
- 5100. COMMUNICATIONS OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15 cr]; prereq #)
Structured/supervised employment in the communications industry. Credits allowed will be derived from the ratio of 100 clock hours of supervised work experience to each credit given the student. Total credit earned in 5100, 5101, 5102, and 5103 may not exceed 15.
- 5101. PRODUCTION/MANUFACTURING OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15 cr]; prereq #)
Structured/supervised employment in the production/manufacturing industry. Credits allowed will be derived from the ratio of 100 clock hours of supervised work experience to each credit given the student. Total credit earned in 5100, 5101, 5102, and 5103 may not exceed 15.
- 5102. POWER/ENERGY OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15 cr]; prereq #)
Structured/supervised employment in the power/energy industry. Credits allowed will be derived from the ratio of 100 clock hours of supervised work experience to each credit given the student. Total credit earned in 5100, 5101, 5102, and 5103 may not exceed 15.
- 5103. CONSTRUCTION OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15 cr]; prereq #)
Structured/supervised employment in the construction industry. Credits allowed will be derived from the ratio of 100 clock hours of supervised work experience to each credit given the student. Total credit earned in 5100, 5101, 5102, and 5103 may not exceed 15.
- 5112. CONSTRUCTION: SPECIALIZATION.** (1-9 cr; prereq Δ)
Integration of specialized technical instruction in advanced or emerging areas into courses in industrial education.
- 5122. GRAPHIC COMMUNICATIONS: SPECIALIZATION.** (1-9 cr; prereq Δ)
Integration of specialized technical instruction in advanced or emerging areas into courses in industrial education.
- 5132. MANUFACTURING: SPECIALIZATION.** (1-9 cr; prereq Δ)
Integration of specialized technical instruction in advanced or emerging areas into courses in industrial education.
- 5142. POWER AND ENERGY: SPECIALIZATION.** (1-9 cr; prereq Δ)
Integration of specialized technical instruction in advanced or emerging areas into courses in industrial education.
- 5152. TRANSPORTATION: SPECIALIZATION.** (1-9 cr; prereq Δ)
Integration of specialized technical instruction in advanced or emerging areas into courses in industrial education.
- 5300. VOCATIONAL EDUCATION SURVEYS.** (3 cr; prereq 5314 or 5325 or equiv)
Practices and techniques in the study of communities or areas for the establishment or improvement of vocational courses and facilities.
- 5301. TESTS IN INDUSTRIAL SUBJECTS.** (3 cr)
Application of principles of evaluation to shop and drawing subjects.
- 5302. THE GENERAL SHOP.** (3 cr)
Lectures only; purpose of general shop organization; types of shops, equipment, instructional materials and procedures, pupil personnel plans.
- 5303. INSTRUCTIONAL AIDS.** (3 cr)
Planning, construction, use.
- 5305. CRITICAL ISSUES IN INDUSTRIAL EDUCATION.** (3 cr)
Identification, analysis, and discussion of major current problems in the field.

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- 5306. INDUSTRIAL EDUCATION WORKSHOP.** (1-6 cr; prereq tchg exper and #)
Areas of concentration vary with each offering.
- 5309. CONFERENCE LEADING FOR INDUSTRY.** (3 cr; prereq #)
Purposes, advantages, and limitations of method; techniques of procedure; experience in planning, leading, and evaluating conferences and in writing summaries.
- 5310. COORDINATION.** (3 cr)
Duties and responsibilities of coordinators in trade schools, part-time programs, and comprehensive high schools.
- 5312. SUPERVISION OF INDUSTRIAL EDUCATION.** (3 cr)
Principles of creative supervision; duties, organization for supervision.
- 5314. ADMINISTRATION OF INDUSTRIAL EDUCATION.** (3 cr)
General and vocational phases; objectives, programs, and practices; laws, rulings, and standards for aid; significant literature.
- 5320. VOCATIONAL GUIDANCE.** (3 cr)
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.
- 5325. FOUNDATIONS OF INDUSTRIAL EDUCATION.** (3 cr)
History, objectives, development, and current practices of the field.
- 5330. INDUSTRIAL COURSE CONSTRUCTION.** (3 cr)
Principles and techniques; experience in planning, organizing, and building a teaching guide.
- 5344. FACILITIES AND MANAGEMENT.** (3 cr; prereq 1300 or 5330 or #)
Planning, evaluation, and management of industrial education shop and laboratory facilities.
- 5360. INDUSTRIAL INSTRUCTION.** (3 cr)
Concepts and techniques of instruction in the industrial arts, trade and industrial schools and classes, and training-within-industry programs.
- 5400. INSTRUCTIONAL MATERIALS LABORATORY FOR NONMAJORS.** (3 cr; prereq tchg exper or #)
For students needing manipulative skills and using craftwork activities in their teaching; individual and group projects.
- 5401. WORKSHOP: OCCUPATIONAL EDUCATION PROGRAMS FOR HANDICAPPED.** (1-6 cr; prereq #)
An examination of exemplary programs in occupational education; workshop sessions involving directors of model programs and other personnel.
- 5600. INSTRUCTIONAL MATERIALS LABORATORY.** (3-6-9 cr; prereq major, tchg exper or #)
Laboratory and shop experiences with new materials, processes, and equipment; development of complementary instructional materials.
- 5900. SCHOOL-BASED PROJECT IN INDUSTRIAL EDUCATION.** (1-6 cr [max 12 cr]; S-N optional; prereq 5305, 5325, MEd students only)
Independent or team project designed to study, improve, evaluate, or develop curriculum or instructional materials to improve quality of instruction.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

8300. LITERATURE OF INDUSTRIAL EDUCATION

8310. RESEARCH

8700. SEMINAR: INDUSTRIAL EDUCATION

8900, 8901, 8902.* RESEARCH PROBLEMS

VOCATIONAL EDUCATION (VoEd)

- 1200. COURSE CONTENT ANALYSIS WORKSHOP FOR ADULT VOCATIONAL INSTRUCTORS.** (1 cr; prereq Ind 1301)
Identification and analysis of adult vocational education course content.
- 1210. COURSE DEVELOPMENT WORKSHOP FOR ADULT VOCATIONAL INSTRUCTORS.** (1 cr; prereq 1200, Ind 1301 or previously developed content analysis course)
Course planning, including assessment of student needs, development of lesson plans, related materials, learning activities.
- 1220. INSTRUCTIONAL STRATEGIES WORKSHOP FOR ADULT VOCATIONAL INSTRUCTORS.** (1 cr; prereq Ind 1301)
Familiarization with and application of instructional methods and techniques for instructing adult learners in vocational education.

Description of Courses

- 1230. INSTRUCTIONAL AIDS WORKSHOP FOR ADULT VOCATIONAL INSTRUCTORS** . (1 cr; prereq Ind 1301)
Planning for and using community and educational resources and instructional media in adult vocational education.
- 3100. TECHNICAL SPECIALTY WORKSHOP.** (1-3 cr; prereq licensed vocational-technical or practical arts instructor)
Technical updating in occupational areas of vocational education; content varies with each offering.
- 5100. SPECIAL TOPICS IN INSTRUCTION.** (1-6 cr [max 9 cr]; prereq #)
Topics will vary with each offering but course covers planning, providing, and/or evaluating instruction.
- 5101. SPECIAL TOPICS IN CURRICULUM.** (1-6 cr [max 9 cr]; prereq #)
Topics will vary with each offering but course covers the development and evaluation of curricula and/or curriculum materials.
- 5102. SPECIAL TOPICS IN ADMINISTRATION.** (1-6 cr [max 9 cr]; prereq #)
Topics will vary with each offering but course covers leadership and management of vocational education programs.
- 5200. EVALUATION OF LOCAL VOCATIONAL EDUCATION PROGRAMS.** (3 cr)
Procedures and experience in the use of instruments for conducting program evaluations for teachers, administrators, and state department personnel.
- 5274. TWO-YEAR POSTSECONDARY INSTITUTIONS.** (3 cr, §EdAd 5274, §EdAd 8274)
Present status, development, functions, organization, curriculum, trends in postsecondary but nonbaccalaureate institutions.
- 5300. PHILOSOPHY AND PRACTICE OF VOCATIONAL EDUCATION.** (3 cr)
Interpretation of the purposes of vocational education in varying socioeconomic contexts; analysis of vocational fields in regard to recipients, practices, legislation, and funding.
- 5400. EDUCATION FOR WORK.** (3 cr; prereq 5300 or #)
Examination of contextual bases underlying education for work; implications for practice.
- 5500. INTRODUCTION TO VOCATIONAL EDUCATION ADMINISTRATION.** (3 cr)
Basic concepts of structure, financing, program planning and evaluation, law and liability, personnel policies, and the management of vocational education programs.
- 5600. PLANNING VOCATIONAL EDUCATION.** (3 cr)
Context, definition, methods, and information needs in planning at national, state, and local education agency levels.
- 5700. TEACHING ENTREPRENEURSHIP: SMALL BUSINESS MANAGEMENT.** (4 cr)
Methods, organization, curriculum modification, and implementation of education programs.
- 5800. WORKING WITH SPECIAL NEEDS STUDENTS.** (3 cr)
Designed to help vocational instructors identify instruction for disadvantaged and handicapped students within regular classroom/laboratory settings.

FOR GRADUATE STUDENTS ONLY

(For course descriptions, see the *Graduate School Bulletin*)

8100. VOCATIONAL EDUCATION TUTORIAL

8500. SEMINAR: GENERAL EDUCATION ASPECTS OF THE VOCATIONAL FIELDS

SECTION V. FACULTY

CHILD PSYCHOLOGY

196 Child Development

William R. Charlesworth
W. Andrew Collins
Megan R. Gunnar
Willard W. Hartup
Catherine E. Lord
Michael P. Maratsos
Shirley G. Moore
Frederick J. Morrison
Marion Perlmutter
Anne D. Pick
Herbert L. Pick, Jr.
Philip H. Salapatek
L. Alan Sroufe
June L. Tapp
Albert Jonas

CURRICULUM AND INSTRUCTION

148 Peik Hall

Adult Education

175 Peik Hall

Harlan G. Copeland
Rosemarie L. Park
Howard Y. Williams
Reynold A. Willie

Art Education

135 Wulling Hall

Michael D. Day
Margaret DiBlasto
George K. Olson
Thomas C. Slettehaugh
Anna Smits

Elementary Education

214 Burton Hall

John J. Cogan
Robert Dykstra
Arthur K. Ellis
Harlan S. Hansen
Alan H. Humphreys
Robert L. Jackson
Roger T. Johnson
Ronald T. Lambert
John C. Manning
R. Norine Odland
Thomas R. Post
Robert E. Schreiner
James E. Stochl
Barbara M. Taylor
Judith S. Youngers

Higher Education

211 Burton Hall

Mary E. Corcoran
Robert J. Keller
Theodore C. Kellogg

Secondary Academic Fields

148 Peik Hall

Curriculum Systems

Andrew Ahlgren
Eugene M. Anderson
Richard D. Kimpston
Howard Y. Williams

Economic Education

Bruce R. Dalgaard
Darrell R. Lewis

English/Speech Education

Richard W. Beach
Michael F. Grapes
Gene L. Piché
Betty Robinett

Instructional Systems

Carol A. Carrier
Neville P. Pearson
Robert D. Tennyson

Mathematics Education

Peggy N. House
Robert L. Jackson
Thomas R. Post
James E. Stochl

Science Education

Eugene D. Gennaro

Second Languages and Cultures

Helen L. Jorstad
Dale L. Lange

Social Studies Education

William E. Gardner
Allen D. Glenn
James A. Mackey

Teacher Education

233 Burton Hall

Charles R. Bruning
Kenneth R. Howey
Reynold A. Willie
Arnold S. Woestehoff

EDUCATIONAL ADMINISTRATION

218 Health Service Building
Twin Cities campus St. Paul

Gary F. Alkire
William M. Ammentorp
Vernon L. Hendrix
Clifford P. Hooker
Robert J. Keller
Ronald T. Lambert
Tim L. Mazzoni, Jr.
Don A. Morgan
Jon R. Morris
Van D. Mueller

Faculty

Neal C. Nickerson, Jr.
Barbara B. Pilling
Samuel H. Popper
Charles H. Sederberg
Richard F. Weatherman

MUSIC EDUCATION

104 Scott Hall

Robert L. Borg
Reginald T. Buckner
Arnold F. Caswell
Judith A. Jellison
Stephen W. Schultz
Edgar M. Turrentine
Lloyd Ultan

PHYSICAL EDUCATION, RECREATION, AND SCHOOL HEALTH EDUCATION

110 Cooke Hall

Physical Education

224 Cooke Hall

John F. Alexander
Susan Breihan
Carol A. French
Eloise M. Jaeger
Nadine M. Jette
Robert W. Johnson
March Krotee
John A. Kundla
Mary B. Lampe
G. Robert Mowerson
Jeralyn J. Plack
Robert C. Serfass
Jacqueline M. Shick
Lela June Stoner
Nancy Struna
G. Alan Stull
Mary L. Young

Recreation, Park, and Leisure Studies

203 Cooke Hall

Frederick M. Chapman
Leo H. McAvoy
John H. Schultz
Caroline R. Weiss

School Health Education

101 Norris Hall

Robert Cobb
Mark Hochhauser
Richard H. Needle

PSYCHOEDUCATIONAL STUDIES

249 Burton Hall

Counseling and Student Personnel Psychology

139 Burton Hall

Alan R. Anderson
Henry Borow
William H. Edson
Lois J. Fiedler
Charles J. Glotzbach
Theda Hagenah
Lorraine S. Hansen
Thomas J. Hummel
G. Gordon Kingsley
Dorothy R. Loeffler
Clyde A. Parker
Alton L. Raygor
Warren Shaffer
Thomas M. Skovholt
Martin L. Snoko
Norman A. Springthall
W. Wesley Tennyson
Donald R. Zander

Psychology in the Schools Training Programs

N-548 Elliott Hall

Byron Egeland
V. Lois Erickson
Richard A. Weinberg
James E. Ysseldyke

Special Education

101 Pattee Hall

Bruce E. Balow
Robert H. Bruininks
Virginia L. Bruininks
Stanley L. Deno
Dewey G. Force, Jr.
Maynard C. Reynolds
Rosalyn A. Rubin
John E. Rynders
James E. Tumure
Richard F. Weatherman
Frank B. Wilderson
Frank H. Wood

SOCIAL, PSYCHOLOGICAL, AND PHILOSOPHICAL FOUNDATIONS OF EDUCATION

204 Burton Hall

Douglas H. Anderson
Ayers L. Bagley
William M. Bart
Robert H. Beck
Russell W. Burris
Shirley M. Clark
Raymond O. Collier, Jr.
Mary E. Corcoran
Mark L. Davison

Stanley L. Deno
Marion L. Dobbert
Kenneth O. Doyle
Judith M. Garrard
David L. Giese
Arthur M. Harkins
Glen L. Hendricks
David W. Johnson
Paul E. Johnson
Roger T. Johnson
E. Gary Joselyn
Theodore E. Kellogg
Darrell R. Lewis
Donald G. MacEachern
Geoffrey M. Maruyama
Jack C. Merwin
Ardyth A. Norem-Hebeisen
Chester W. Oden
Clyde A. Parker
Ruth B. Pitt
James R. Rest
S. Jay Samuels
John E. Stecklein
Robert D. Tennyson
James S. Terwilliger
Wayne W. Welch

VOCATIONAL AND TECHNICAL EDUCATION

145 Peik Hall

Agricultural Education

130 Classroom-Office Building
Twin Cities campus-St. Paul

W. Forrest Bear
George H. Copa
Gary W. Leske
R. Paul Marvin
Curtis D. Norenberg
Edgar A. Persons
Roland L. Peterson
Gordon I. Swanson

Business Education

275 Peik Hall

Charles R. Hopkins
Judith J. Lambrecht
Gary N. McLean

Distributive Education

275 Peik Hall

Richard D. Ashmun
Mary K. Klaurens

Home Economics Education

386 McNeal Hall
Twin Cities campus/St. Paul

Jane E. Plihal
Marilyn A. Rossmann
Ruth G. Thomas
Emma B. Whiteford

Industrial Education

125 Peik Hall

David C. Bjorkquist
James M. Brown
Donald E. Irvin
William A. Kavanaugh
Stephen J. Miletich
Jerome Moss, Jr.
David J. Pucel
Brandon B. Smith
Richard A. Swanson

Where to Obtain Information

The following is a list of departments, program areas, and offices where information can be obtained about courses, programs, requirements for degrees and teaching licensure, and special resources.

General Information and Admission	Education Career Development Office 1425 University Avenue S.E.	373-2268
Adult Education	Harlan G. Copeland 175 Peik Hall	376-3501
Agricultural Education	Roland L. Peterson 130 Classroom-Office Building Twin Cities campus St. Paul	373-1021
Art Education	Michael Day 135 Wulling Hall	373-4050
Business Education	Charles R. Hopkins 275 Peik Hall	373-3306
Center for Early Education and Development	Shirley G. Moore 180 Child Development	373-9854
Center for Educational Policy Studies	Charles H. Sederberg 300 Health Service Building Twin Cities campus St. Paul	373-2251
Child Care Center	Steven Sternberg University Child Care Center	376-5266
Child Psychology	W. Andrew Collins 104 Child Development	373-9864
Coaching Endorsement (men and women)	Mary L. Young 224A Cooke Hall	373-4637
Communication Disorders	Charles E. Speaks 110 Shevlin Hall	373-4116
Community Education	Harlan G. Copeland 175 Peik Hall	376-3501
Counseling and Student Personnel Psychology	Thomas Hummel 139 Burton Hall	373-4471
Curriculum and Instruction	Robert Dykstra 130 Peik Hall	373-0277
Curriculum Systems	Richard D. Kimpston 226 Burton Hall	373-5157
Dean's Office	104 Burton Hall	373-9880
Distributive Education	Richard D. Ashmun 275 Peik Hall	373-9724
Drug Education	Mark Hochhauser 107 Norris Hall	376-2753
Economic Education	1169 Business Administration Building West Bank	373-4469
Education Library	Celia S. Ellingson 214 Walter Library	373-2899
Education Student Board	239 Burton Hall	373-5155
Educational Administration	Sharon Olson 215 Health Service Building Twin Cities campus St. Paul	373-5568

Where to Obtain Information

Elementary Education	214 Burton Hall	373-3974
English Education (Speech- Communication, Theatre Arts)	Gene L. Piché 104 Burton Hall	373-9880
Field Experiences (Student Teaching)	Education Career Development Office 1425 University Avenue S.E.	373-2245
Financial Aid	Student Financial Aid 210 Fraser Hall	373-4021
Foreign Languages (see Second Languages and Cultures)		
Futures Education	204 Burton Hall	373-0210
Graduation Requirements (Balance Sheet Clerk)	Student Relations Unit 150 Williamson Hall	376-1680
Higher Education	Mary E. Corcoran 221 Burton Hall	373-5841
Home Economics Education	Ruth G. Thomas 386 McNeal Hall Twin Cities campus St. Paul	373-1530
Human Relations	204 Burton Hall	373-0210
Industrial Education	David C. Bjorkquist 125 Peik Hall	376-7490
Institute for Research in Learning Disabilities	James Ysseldyke N-350 Elliott Hall	376-2666
Instructional Systems Laboratory	Robert D. Tennyson 250 Burton Hall	373-5158
Kindergarten Education	Harlan S. Hansen 238 Burton Hall	373-2285
Library Science	Joan Leigh 419 Walter Library	373-3100
Mathematics Education	Robert L. Jackson 1407 University Avenue S.E.	373-2275
Minnesota Research and Development Center for Vocational Education	George C. Copa 145 Peik Hall	373-3838
Music Education	Arnold F. Caswell 213 Scott Hall	373-3524
Nursery School	Lynn P. Galle 226 Child Development	376-8085
Physical Education	Mary L. Young 224 Cooke Hall	373-4218
Placement	Education Career Development Office 1425 University Avenue S.E.	373-2266
Planning and Development Office	Theodore E. Kellogg 103 Burton Hall	373-3577
Psychoeducational Studies	Robert H. Bruininks 249 Burton Hall	373-3483
Psychological Foundations of Education	204 Burton Hall	373-0210

Where to Obtain Information

Readmission Procedures	Education Career Development Office 1425 University Avenue S.E.	373-2257
Recreation, Parks, and Leisure Studies	John Schultz 203A Cooke Hall	373-4269
Registration Information	Education Career Development Office 1425 University Avenue S.E.	373-2268
Remedial Reading and Reading Supervisor Programs	Robert L. Schreiner 136 Burton Hall	373-5834
School and Community Health Education	Robert S. Cobb 101 Norris Hall	373-3403
School Psychology	Byron Egeland N-550 Elliott Hall	373-3286
Science Education	Eugene G. Gennaro 370 Peik Hall	373-3305
Second Languages and Cultures Education	Helen L. Jorstad 230 Peik Hall	373-5104
Secondary Education (see academic fields)		
Social and Philosophical Foundations of Education	204 Burton Hall	373-0210
Social, Psychological, and Philosophical Foundations of Education	Clyde A. Parker 204 Burton Hall	373-0210
Social Studies Education	Allen D. Glenn 152 Peik Hall	373-0256
Special Education	John E. Rynders 101 Pattee Hall	373-3291
Student Progress Committee	Education Career Development Office 1425 University Avenue S.E.	373-2257
Teacher Center (MPS UM)	Frederick V. Hayen 155 Peik Hall	376-4580
Teacher Education	Kenneth R. Howey 233 Burton Hall	373-9736
Vocational Education	Gordon I. Swanson 130 Classroom-Office Building Twin Cities campus/St. Paul	373-5183

All students and prospective students should refer also to the *General Information Bulletin*. Some may wish to refer to bulletins of other undergraduate colleges of the University as well as those of the Graduate School and Continuing Education and Extension. Bulletins for any of these units may be obtained at the Williamson Hall information booth or by writing to the Office of Admissions and Records, 110 Williamson Hall, 231 Pillsbury Drive S.E., University of Minnesota, Minneapolis, Minnesota 55455.

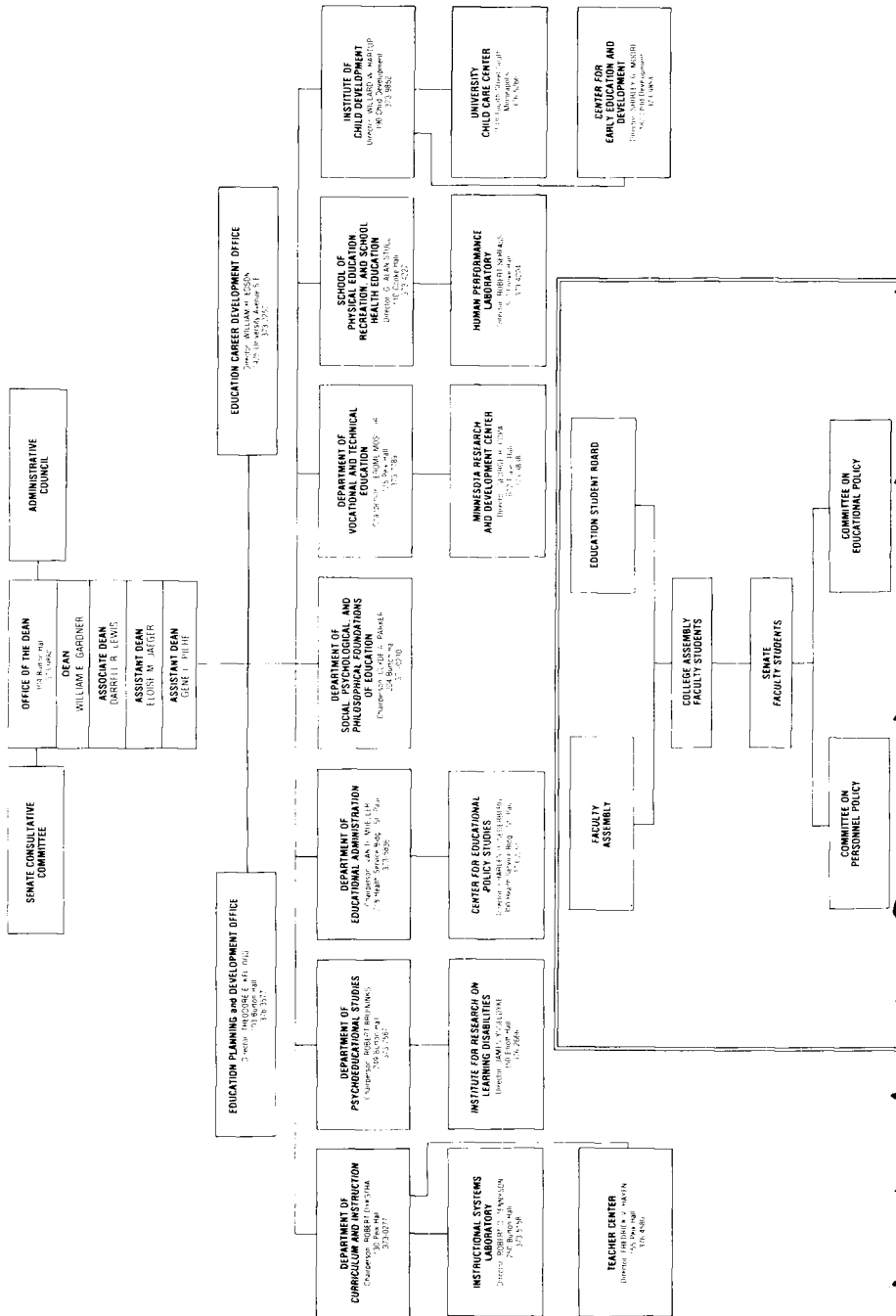
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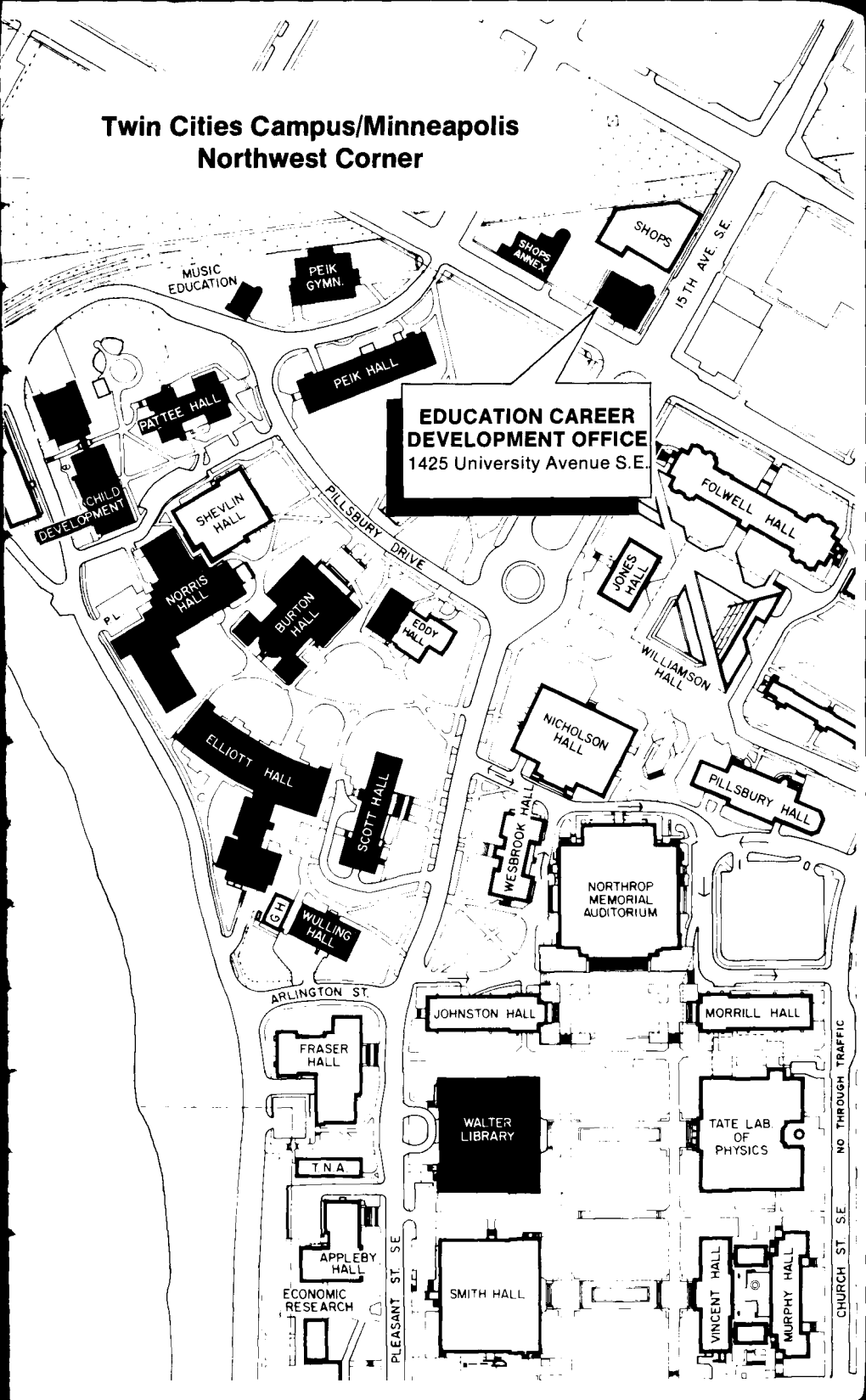
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College of Education Organizational Chart

SEPTEMBER 15, 1980



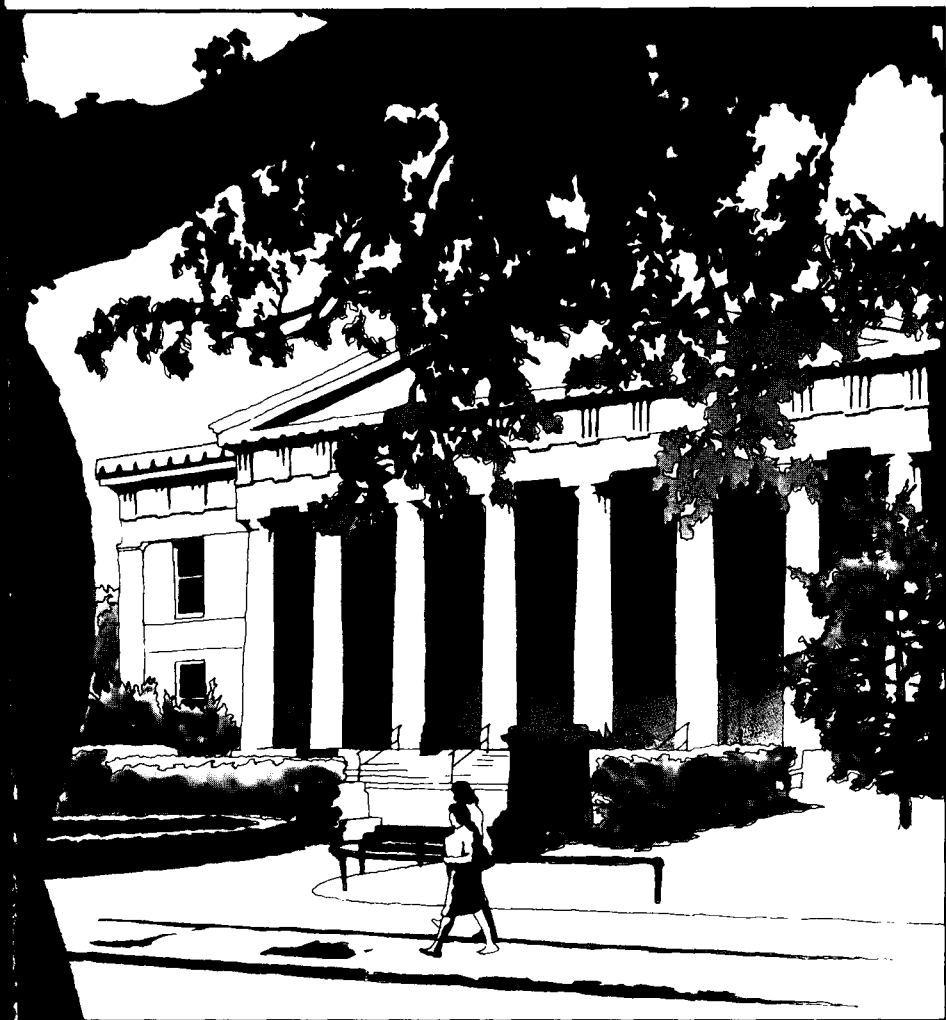
Twin Cities Campus/Minneapolis Northwest Corner



1980-81
UNIVERSITY
OF MINNESOTA
BULLETIN

**COLLEGE OF EDUCATION
CONTINUING EDUCATION CLASSES**

Day School Classes
Extension Classes





UNIVERSITY OF MINNESOTA

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The Honorable Wenda Moore, Minneapolis, Chairman; The Honorable Robert Latz, Golden Valley, Vice Chairman; The Honorable Charles H. Casey, West Concord; The Honorable William B. Dosland, Moorhead; The Honorable Erwin L. Goldfine, Duluth; The Honorable Lauris D. Krenik, Madison Lake; The Honorable David M. Lebedoff, Minneapolis; The Honorable Charles F. McGuiggan, Marshall; The Honorable Lloyd H. Peterson, Paynesville; The Honorable Mary T. Schertler, St. Paul; The Honorable Neil C. Sherburne, Lakeland; The Honorable Michael W. Unger, St. Paul.

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College of Education Administration

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Darrell R. Lewis, Associate Dean
Eloise M. Jaeger, Assistant Dean
Gene L. Piché, Assistant Dean
William H. Edson, Director of Education Career Development Office
Theodore E. Kellogg, Director of Education Planning and Development Office

Cover: Design by Brett Gadbois.

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August 28, 1980

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The contents of this bulletin and other University bulletins, publications, or announcements are subject to change without notice.

College of Education Continuing Education Classes

Day School Classes
Extension Classes

UNIVERSITY OF MINNESOTA

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Equal Opportunity Statement

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, creed, color, sex, national origin, or handicap. In adhering to this policy, the University abides by the requirements of Title IX of the Education Amendments of 1972, by Section 504 of the Rehabilitation Act of 1973, and by other applicable statutes and regulations relating to equality of opportunity.

Inquiries regarding compliance may be directed to Lillian H. Williams, Director, Office of Equal Opportunity and Affirmative Action, 419 Morrill Hall, 100 Church Street S.E., University of Minnesota, Minneapolis, Minnesota 55455, (612) 373-7969, or to the Director of the Office of Civil Rights, Department of Education, 400 Maryland Avenue S.W., Washington, D.C. 20202.

College of Education Continuing Education Classes

I. GENERAL INFORMATION

The College of Education offers a wide variety of classes to teachers at times convenient to them. Some are offered in the day school; others are offered through Continuing Education and Extension; and some are offered jointly by both units. This bulletin is primarily a class schedule. Classes offered in day school are identified by the symbol ○, classes offered through Continuing Education and Extension by the symbol ●, and classes offered jointly by the symbol ⊙. Subject to enrollment limits set for each unit, students may elect the type of registration—day or extension—for the courses that are jointly listed. Because procedures differ for the two types of registration, teachers are cautioned to read the registration instructions in this bulletin very carefully.

Teachers are urged to consult the *College of Education Bulletin* and the *Graduate School Bulletin* for admission requirements and complete descriptions of courses and programs, and the quarterly *Class Schedule* for changes in course meeting times and sites and additional course offerings. All prospective and currently enrolled students should also refer to the *General Information Bulletin*. Some students may wish to refer to bulletins of other collegiate units as well, such as those of the Colleges of Agriculture, Biological Sciences, Business Administration, Home Economics, and Liberal Arts, the General College, and the Institute of Technology. These bulletins are available at the Williamson Hall information booth or by mail through the Office of Admissions and Records, 110 Williamson Hall, 231 Pillsbury Drive S.E., University of Minnesota, Minneapolis, Minnesota 55455.

Day School Classes

Admission—Teachers who plan to register for day school classes must be admitted to the College of Education or the Graduate School. Applicants must pay a credentials examination fee as follows:

	University Graduates	Non-University Graduates
College of Education		
—undergraduate programs	\$ 0	\$10
—M.Ed. program	10	10
Graduate School		
—M.A., Ed.D., and Ph.D. programs	5	15
Extension classes	0	0
Adult special students	0	0

Teachers planning a program of study leading to a degree must file an application for admission with transcripts of all previous academic work as well as the credentials examination fee.

Teachers who wish to work toward the master of education degree apply for admission to the College of Education. Graduates of the University of Minnesota College of Education may secure the admission application at 150 Williamson Hall; all others may obtain this form from the Admissions Office, 240 Williamson Hall, 231 Pillsbury Drive S.E., University of Minnesota, Minneapolis, Minnesota 55455. See the *College of Education Bulletin* for a description of this program. Telephone requests for information about the College of Education should be made to the Education Career Development Office, (612) 373-2268.

Teachers who wish to pursue work leading to the master of arts, doctor of education, or doctor of philosophy degree or the specialist in education certificate apply for admission to the Graduate School at the Graduate School Office, 307 Johnston Hall, 101 Pleasant Street S.E., University of Minnesota, Minneapolis, Minnesota 55455. Completed forms are returned to 307 Johnston Hall. See the *Graduate School Bulletin* for descriptions of these programs. Telephone requests for information about the Graduate School should be made to its prospective students office, (612) 373-5542.

Teachers who wish to take course work but who have not been formally admitted to a degree program in the College of Education or the Graduate School may be admitted as adult special students in the College of Education. Graduates of the College of Education need not apply for admission as adult special students; they need only secure a permit to register at the Registration Center in Fraser Hall. All others must complete the adult special application form, available from the Admissions Office, 240 Williamson Hall, and return it to that office as early as possible before registration. Those who have been admitted as adult special students and wish to proceed in degree programs should apply for admission to the specific program early in their first quarter of adult special registration.

Courses numbered 8000 or above are open only to students who have been admitted to the Graduate School; adult special, summer special, and master of education students are not permitted to register for these courses.

Registration—Teachers-in-service are expected to register during the advance registration period (under alphabetical control for CLA classes) or during the week before classes begin. Early registration is advised for classes with enrollment limits. The Education Career Development Office will remain open until 5 p.m. on September 22, for registration of teachers-in-service.

Teachers who find it impossible to come to campus during the regular registration period may register from Monday through Friday of the first week of the quarter, but the procedure must be started by early afternoon to be completed in time to attend a late afternoon class on the same day. Closing hour for the final step of registration at the Registration Center, 202 Fraser Hall, is 4 p.m., Monday through Friday of that week.

For students admitted to the Graduate School, the location of registration materials depends on the major. For information, Graduate School students should check in 316 Johnston Hall or call (612) 373-4584.

College of Education students, including those registering as M.Ed. or adult special students, should secure registration materials as follows: (a) those registered the preceding regular quarter (excluding summer terms) should secure materials at the Education Career Development Office (ECDO), 1425 University Avenue S.E.; (b) those not registered the preceding regular quarter (but previously admitted to the college) should obtain a reentry permit at the Registration Center, 202 Fraser Hall, before obtaining registration materials at ECDO.

Quarterly Tuition and Fees—The fee for part-time registration in the College of Education is \$28.75 per credit for residents of the state and \$79.25 per credit for nonresidents. Students who register for six or more credits must pay a student services fee of \$68.40.

The fee for registration in the Graduate School is \$37.00 per credit for residents and \$102.00 per credit for nonresidents. The student services fee of \$68.40 is required of all students taking six credits or more.

A \$6 record service fee is required of all new students. Auditors pay the same fees as students registered for credit.

For more information about tuition and fees, see the *General Information Bulletin* and the quarterly *Class Schedule*. See the inside back cover of this bulletin for complete registration instructions.

Transfer of Credits—Upon recommendation of the student's adviser and director of graduate studies, the Graduate School will accept the transfer of up to 40 percent of the course work for the M.A. degree from adult special, summer special, or Continuing Education and Extension status at the University of Minnesota, or from other recognized graduate schools, in any desired combination. Upon recommendation of the adviser, the

College of Education will accept the transfer of up to 12 credits of the course work for the M.Ed. degree from each of the following categories: adult special and summer special status at the University of Minnesota, Continuing Education and Extension, and other recognized graduate schools. However, no more than a total of 12 credits taken prior to admission may be applied to an M.Ed. program. Only those credits earned in the first quarter of adult special or summer special status and a maximum of 12 credits from Continuing Education and Extension at the University of Minnesota may be presented to the Graduate School for transfer to a specialist or Ph.D. program.

Continuing Education and Extension

Admission—Many College of Education courses are offered to teachers through Continuing Education and Extension. A teacher need not apply for admission to the College of Education or Graduate School to register for courses through Continuing Education and Extension unless the courses are to be used in a program of study leading to a degree. Entry to classes is limited only by the prerequisites listed.

Courses numbered 5000 or above may be taken for graduate credit by graduate students. Courses numbered 8000 or above carry graduate credit and are open only to persons who have been admitted to a program in the Graduate School; adult special, summer special, and master of education students are not permitted to register for these courses.

Registration—Teachers may register for courses offered through Continuing Education and Extension in 101 Wesbrook Hall; at the MacPhail Center, 1128 LaSalle Avenue, Minneapolis, Minnesota 55403; or by mail. In-person fall registration at Wesbrook Hall will be accepted September 10 through 12 and on September 15 through 18. Registration hours are from noon to 8 p.m. except on Friday when they are from noon to 4:30 p.m. For complete information about registration procedures, including registration by mail, consult the 1980-81 *Extension Classes Bulletin*. A copy of this bulletin may be obtained by calling (612) 376-3000 or by writing to Extension Classes, 101 Wesbrook Hall, 77 Pleasant Street S.E., University of Minnesota, Minneapolis, Minnesota 55455.

Tuition and Fees—The following tuition schedule is in effect for courses offered through Continuing Education and Extension:

1000-level courses	\$19.50 per credit
3000-level courses	\$23.00 per credit
5000-level courses	\$24.00 per credit
8000-level courses	\$37.00 per credit

Students registering for graduate credit will be charged tuition according to the Continuing Education and Extension tuition schedule. However, if course work is later transferred to a Graduate School record, students will be charged the difference, if any, between the CEE and Graduate School tuition schedules for credits accepted for their programs. The extra tuition charged will be the difference between the rates in effect at the time the course work was taken.

Special fees may be charged for use of a laboratory, extra materials, or audiovisual equipment.

Students who plan to take concurrently a day school class and a Continuing Education and Extension class must register on separate forms and pay both day and extension tuition and fees.

For complete information on registration and fees, consult the *Extension Classes Bulletin* or contact the Department of Extension Classes at (612) 373-3195.

Transfer of Credits—Upon recommendation of the student's adviser and director of graduate studies, the Graduate School will accept the transfer of up to 40 percent of the course work for the M.A. degree from adult special, summer special, or Continuing Education and Extension status at the University of Minnesota, or from other recognized graduate schools, in any desired combination. Upon recommendation of the adviser, the College of Education will accept the transfer of up to 12 credits of the course work for the M.Ed. degree from each of the following categories: adult special and summer special status at the University of Minnesota, Continuing Education and Extension, and other recognized graduate schools. However, no more than a total of 12 credits taken prior to admission may be applied to an M.Ed. program. Only those credits earned in the first quarter of adult special or summer special status and a maximum of 12 credits from Continuing Education and Extension at the University of Minnesota may be presented to the Graduate School for transfer to a specialist or Ph.D. program.

Teacher Placement Service

The College of Education provides a placement service for its qualified students and graduates for a nominal fee, helping them to secure the kinds of positions they desire. The fee entitles students to placement services for a one-year period ending October 1. All graduating seniors (except majors in music therapy and recreation, park, and leisure studies) are required to register with the Education Career Development Office, or to secure an official exemption from the requirement from that office.

Access to Student Educational Records

In accordance with regents' policy on access to student records, information about a student generally may not be released to a third party without the student's permission. The policy also permits students to review their educational records and to challenge the contents of those records.

Some student information—name, address, telephone number, dates of attendance, college and class, major, adviser, and degrees earned—is considered public or directory information. To prevent release of such information outside the University while in attendance at the University, a student must notify the records office on his or her campus.

Students are notified annually of their right to review their educational records. The regents' policy, including a directory of student records, is available for review at the information booth in Williamson Hall, Twin Cities campus/Minneapolis, and at the records offices on other campuses of the University. Questions may be directed to the office of the Coordinator of Student Support Services, 260E Williamson Hall, (612) 373-2106.

Where to Obtain Information

The following is a list of departments, program areas, and offices where information can be obtained about courses, programs, requirements for degrees and teaching licensure, and special resources.

General Information and Admission	Education Career Development Office 1425 University Avenue S.E.	373-2268
Adult Education	Harlan G. Copeland 175 Peik Hall	376-3501
Agricultural Education	Roland L. Peterson 130 Classroom-Office Building Twin Cities campus/St. Paul	373-1021
Art Education	Michael Day 135 Wulling Hall	373-4050
Business Education	Charles R. Hopkins 275 Peik Hall	373-3306
Center for Early Education and Development	Shirley G. Moore 180 Child Development	373-9854
Center for Educational Policy Studies	Charles H. Sederberg 300 Health Service Twin Cities campus/St. Paul	373-2251
Child Care Center	Steven Sternberg 1818 South 4th Street	376-5265
Child Psychology	W. Andrew Collins 104 Child Development	373-9864
Coaching Endorsement	Mary L. Young 224A Cooke Hall	373-4637
Communication Disorders	Charles E. Speaks 110 Shevlin Hall	373-4116
Community Education	Charles Bruning 229 Burton Hall	373-2244
Counseling and Student Personnel Psychology	Thomas Hummel 139 Burton Hall	373-4471
Curriculum and Instruction	Robert Dykstra 130 Peik Hall	373-0277
Curriculum Systems	Richard D. Kimpston 226 Burton Hall	373-5157
Dean's Office	104 Burton Hall	373-9880
Distributive Education	Richard D. Ashmun 275 Peik Hall	373-9724
Drug Education	Mark Hochhauser 101 Norris Hall	376-2753
Economic Education	Bruce R. Dalgaard 1169 Business Administration Building West Bank	373-4469
Education Library	Celia Ellingson 214 Walter Library	373-2899
Education Student Board	239 Burton Hall	373-5155
Educational Administration	Sharon Olson 215 Health Service Twin Cities campus/St. Paul	373-5568

Elementary Education	214 Burton Hall	373-3974
English Education (Speech- Communication, Theatre Arts)	Gene L. Piché 104 Burton Hall	373-9880
Field Experiences (Student Teaching)	Education Career Development Office 1425 University Avenue S.E.	373-2245
Financial Aid	Student Financial Aid 210 Fraser Hall	373-4021
Foreign Languages (see Second Languages and Cultures)		
Future Cultural and Educational Systems	203 Burton Hall	373-9899
Graduation Requirements	Student Relations Unit 150 Williamson Hall	376-1680
Higher Education	Mary E. Corcoran 221A Burton Hall	373-5841
Home Economics Education	Ruth E. Thomas 386 McNeal Hall Twin Cities campus St. Paul	373-1530
Human Relations	Chester W. Oden 206 Burton Hall	376-5027
Industrial Education	David Bjorkquist 125 Peik Hall	373-3641
Institute for Research in Learning Disabilities	James Ysseldyke N-350 Elliott Hall	376-2666
Instructional Systems	Robert D. Tennyson 250 Burton Hall	373-5158
Kindergarten Education	Harlan S. Hansen 238 Burton Hall	373-2285
Library Science	Joan Leigh 419 Walter Library	373-3100
Mathematics Education	Robert L. Jackson 1407 University Avenue S.E.	373-2275
Minnesota Research and Development Center for Vocational Education	George Copa 145 Peik Hall	373-3838
Music Education	Judith Jellison 2 Music Education	373-4488
Nursery School	Lynn Galle 226C Child Development	376-8085
Physical Education	Mary L. Young 224 Cooke Hall	373-4218
Placement	Education Career Development Office 1425 University Avenue S.E.	373-2266
Planning and Development Office	Theodore E. Kellogg 103 Burton Hall	376-3577
Psychoeducational Studies	Robert H. Bruininks 249 Burton Hall	373-3483
Psychological Foundations of Education	204 Burton Hall	373-0210
Readmission Procedures	Education Career Development Office 1425 University Avenue S.E.	373-2257

Recreation, Park, and Leisure Studies	John Schultz 203 Cooke Hall	373-4269
Registration Information	Education Career Development Office 1425 University Avenue S.E.	373-2268
Remedial Reading and Reading Supervisor Programs	Robert L. Schreiner 136 Burton Hall	373-5834
School and Community Health Education	Robert Cobb 101 Norris Hall	373-3403
School Psychology	Byron Egeland N-550 Elliott Hall	373-3286
Science Education	Eugene G. Gennaro 370 Peik Hall	373-3305
Second Languages and Cultures Education	Helen L. Jorstad 230 Peik Hall	373-5104
Secondary Education (see academic fields)		
Social and Philosophical Foundations of Education	204 Burton Hall	373-0210
Social, Psychological, and Philosophical Foundations of Education	204 Burton Hall	373-0210
Social Studies Education	Allen D. Glenn 152 Peik Hall	373-0256
Special Education	John E. Rynders 101 Pattee Hall	373-3291
Special Services, Vocational and Technical Education	David Pucel 145 Peik Hall	373-5050
Student Progress Committee	Education Career Development Office 1425 University Avenue S.E.	373-2257
Student Records	Student Relations Office of Registration, Student Records, and Scheduling 150 Williamson Hall	376-1680
Teacher Center (MPS:UM)	Fredrick V. Hayen 155 Peik Hall	376-4580
Teacher Education	Kenneth R. Howey 233 Burton Hall	373-9736
Vocational Education	Gordon I. Swanson 130 Classroom-Office Building Twin Cities campus/St. Paul	373-5183

II. CLASS SCHEDULE

Key to Symbols

The following symbols are used throughout the course descriptions in lieu of page footnotes:

- § Credit will not be granted if the equivalent course listed after the section mark has been taken for credit.
- † All courses preceding the dagger must be completed before credit will be granted for any quarter of the sequence.
- ‡ Concurrent registration is allowed (or required) in the course listed after the paragraph mark.
- # Consent of the instructor is required prior to registration.
- △ Consent of the division, department, or school offering the course is required prior to registration.
- Course is offered through day school.
- Course is offered through Continuing Education and Extension.
- ⦿ Course is offered through day school and Continuing Education and Extension. Subject to enrollment limits, students may register through either day school or CEE.

Please check the quarterly *Class Schedule* for building abbreviations used in the course listings. A *Class Schedule* is given to students with their registration materials.

Hours and Days

Using the 24-hour clock, this schedule lists both a starting time and an ending time for each class. Refer to the table below for help in interpreting these times. To convert 24-hour clock time to standard time, drop the first 0 in 0100 through 0900 hours (e.g., 0815 hours = 8:15 a.m.), read 1000 through 1200 hours as written (e.g., 1115 hours = 11:15 a.m.), and subtract 1200 from 1300 through 2400 hours (e.g., 1615 hours = 4:15 p.m.).

24-Hour Clock	Standard Time
0800	8:00 a.m.
0900	9:00 a.m.
1000	10:00 a.m.
1100	11:00 a.m.
1200	12:00 noon
1300	1:00 p.m.
1400	2:00 p.m.
1500	3:00 p.m.
1600	4:00 p.m.
1700	5:00 p.m.
1800	6:00 p.m.
1900	7:00 p.m.
2000	8:00 p.m.

The days of the week are abbreviated M, T, W, Th, F, S, Su.

CHILD PSYCHOLOGY (CPsy)

FALL QUARTER 1980

- 5303. ADOLESCENT PSYCHOLOGY.** (4 cr, §3303; prereq 5 cr intro psy) ○ Sec 1, 1315-1400 MWF, SciCB 125, Drinkwater; ● sec 1, 1820-2050 Th, BuH 120, Peskay
- 5305. MULTIDISCIPLINARY PERSPECTIVES ON AGING.** (4 cr, §Educ 5440, §HSU 5009, §PA 5671, §SW 5010, §Soc 5960) ○ 1615-1800 MW, VH 16, Perimutter
- 5310. TOPICS IN CHILD PSYCHOLOGY.** (1-4 cr; prereq 1301, #) ○ Sec 2, ar, Valsiner. Focus: emotions and their origins: Soviet and American perspectives.
- 5311. BEHAVIORAL AND EMOTIONAL PROBLEMS.** (4 cr, §3311; prereq 1301) ○ Sec 1, 1115-1200 MWF, SciCB 125, Sroufe; ● sec 2, 1820-2050 M, WuH 230, Tomlinson
- 5319. CLINICAL PROCEDURES WITH CHILDREN AND YOUTH.** (4 cr; prereq 12 cr in psy, educ psy, soc or child psy) ● 1820-2050 T, PTH 215, Gross
- 5329. GENETICS, ETHOLOGY, AND DEVELOPMENT.** (4 cr; prereq 1301) ○ 1015-1100 MWF, ChDev 216, Charlesworth

5331. **PROCESSES OF SOCIALIZATION OF CHILDREN.** (4 cr, §3331; prereq 1301) ○ 0915-1000 MWF, Bo B6, Collins
5333. **PERSONALITY DEVELOPMENT.** (4 cr; prereq 3331 or 5331) ○ 0915-1000 MWF, P1H 215, Hartup
5341. **PERCEPTUAL DEVELOPMENT.** (4 cr; prereq 1301 or #) ○ 1115-1200 MWF, ChDev 218, H Pick, Salapatek
5345. **LANGUAGE DEVELOPMENT.** (4 cr; prereq 1301 or #) ● 1900-2130 W, Ramsey HS 238, Roseville, Chalkley
5970. **DIRECTED STUDY.** (ar cr; prereq #) ○
5990. **DIRECTED RESEARCH.** (ar cr; prereq #) ○
8304. **RESEARCH METHODS IN CHILD PSYCHOLOGY.** (3 cr; prereq #) ○ 1415-1500 MW, ChDev 218, A Pick
8310. **SEMINAR: CURRENT ISSUES IN CHILD PSYCHOLOGY I.** (1 cr; prereq #) ○ H Pick
8343. **ADVANCED COGNITIVE DEVELOPMENT I.** (3 cr; prereq 12 cr child psy or psy) ○ 1445-1600 MW, ChDev 105, Perlmutter
8360. **SEMINAR: DEVELOPMENTAL PSYCHOLOGY.** (ar cr; prereq #) ○ Gibson, Kuczaj, Tapp
8605. **DEVELOPMENTAL PSYCHOPATHOLOGY.** (3 cr; prereq 8333, #) ○ 1445-1600 TTh, ChDev 218, Lord
8970. **INDEPENDENT STUDY.** (ar cr; prereq #) ○
8990. **RESEARCH PROBLEMS.** (ar cr; prereq #) ○

WINTER QUARTER 1981

5303. **ADOLESCENT PSYCHOLOGY.** (4 cr, §3303; prereq 5 cr intro psy) ○ 1115-1200 MWF
5310. **TOPICS IN CHILD PSYCHOLOGY.** (1-4 cr; prereq 1301, #) ○ Sec 1, 1115-1230 MW; ● sec 1, 1820-2050 W
5311. **BEHAVIORAL AND EMOTIONAL PROBLEMS.** (4 cr, §3311; prereq 1301 or equiv) ● 1820-2050 T
5313. **PSYCHOLOGY OF ATYPICAL CHILDREN.** (4 cr, §3313; prereq 1301 or equiv) ○ Sec 1, 0915-1000 MWF; ● sec 1, 1820-2050 M
5315. **INTRODUCTION TO MENTAL RETARDATION.** (4 cr, §SpEd 5120, §PsyS 5120; prereq 1301) ● 1615-1745 TTh
5319. **CLINICAL PROCEDURES WITH CHILDREN AND YOUTH.** (4 cr; prereq 12 cr psy, educ psy, soc or child psy) ○ 0900-1130 S
5331. **PROCESSES OF SOCIALIZATION OF CHILDREN.** (4 cr, §3331; prereq 1301 or equiv) ● 1820-2050 Th
5339. **PARENT-CHILD RELATIONS.** (4 cr; prereq 3331 or 5331) ○ Sec 1, 1045-1200 TTh; ● sec 1, 1820-2050 W
5345. **LANGUAGE DEVELOPMENT.** (4 cr; prereq 1301 or #) ○ 1315-1400 MWF
5970. **DIRECTED STUDY.** (ar cr; prereq #) ○
5990. **DIRECTED RESEARCH.** (ar cr; prereq #) ○
8333. **ADVANCED SOCIAL DEVELOPMENT I.** (3 cr; prereq #) ○ 1445-1600 MW
8341. **ADVANCED PERCEPTUAL DEVELOPMENT.** (3 cr; prereq Psy 5031, #) ○ 1315-1430 MW
8347. **ADVANCED COGNITIVE DEVELOPMENT II.** (3 cr; prereq Psy 5013 or #) ○ 1345-1500 TTh
8360. **SEMINAR: DEVELOPMENTAL PSYCHOLOGY.** (ar cr; prereq #) ○
8970. **INDEPENDENT STUDY.** (ar cr; prereq #) ○
8990. **RESEARCH PROBLEMS.** (ar cr; prereq #) ○

SPRING QUARTER 1981

5303. **ADOLESCENT PSYCHOLOGY.** (4 cr, §3303; prereq 5 cr intro psy) ○ Sec 1, 1115-1200 MWF; ● sec 2, 1900-2130 Th
5310. **TOPICS IN CHILD PSYCHOLOGY.** (1-4 cr; prereq 1301, #) ○ Ar
5311. **BEHAVIORAL AND EMOTIONAL PROBLEMS.** (4 cr, §3311; prereq 1301) ○ Sec 1, 1315-1400 MWF; ● sec 3, 1900-2130 M
5315. **INTRODUCTION TO MENTAL RETARDATION.** (4 cr, §SpEd 5120, §PsyS 5120; prereq 1301) ○ 1315-1500 MW
5331. **PROCESSES OF SOCIALIZATION OF CHILDREN.** (4 cr, §3331; prereq 1301) ○ 0915-1000 MWF
5334. **CHILDREN AND YOUTH IN SOCIETY.** (4 cr; prereq #) ○ 0945-1100 TTh
5343. **COGNITIVE DEVELOPMENT.** (4 cr; prereq 1301 or #) ○ Sec 1, 0915-1000 MWF; ● sec 1, 1900-2130 M
5970. **DIRECTED STUDY.** (ar cr; prereq #) ○
5990. **DIRECTED RESEARCH.** (ar cr; prereq #) ○

8320. SEMINAR: CURRENT ISSUES IN CHILD PSYCHOLOGY II. (1 cr; prereq #) ○ 1245-1400 T
8327. ETHOLOGY OF CHILD BEHAVIOR. (3 cr; prereq #) ○ 1345-1500 TTh
8336. ADVANCED SOCIAL DEVELOPMENT II. (3 cr; prereq #) ○ 1445-1600 MW
8345. ADVANCED LANGUAGE DEVELOPMENT. (3 cr; prereq Ling 5001, 12 cr child psy or psy, #) ○ 1315-1430 MW
8351. THEORY AND PRACTICES IN PRESCHOOL. (3 cr; prereq #) ○
8360. SEMINAR: DEVELOPMENTAL PSYCHOLOGY. (ar cr; prereq #) ○
8970. INDEPENDENT STUDY. (ar cr; prereq #) ○
8990. RESEARCH PROBLEMS. (ar cr; prereq #) ○

CURRICULUM AND INSTRUCTION

Adult, Higher, and Teacher Education (Educ)

FALL QUARTER 1980

5104. SURVEY OF ADULT EDUCATION. (3 cr; prereq sr) ● 1840-2100 T, PeikH 315, Copeland
5180. ANALYSIS OF THE TEACHING PROCESS. (3 cr; prereq tchg exper or #) ● 1615-1800 T, PeikH 225, E Anderson
5201. INTRODUCTION TO THE UNDEREDUCATED ADULT. (3 cr) ● 1515-1700 Th, Pth 215, Park
5205. FIELD EXPERIENCE IN ADULT EDUCATION. (4-8 cr [max 8]; prereq #) ○ Copeland, Park, Williams, Willie, Woods
5401. ADULT LEARNING AND DEVELOPMENT THROUGH THE LIFE SPAN. (3 cr) ● 1615-1800 M, Pth 214, Williams
5411. STRATEGIES FOR TEACHING ADULTS. (3 cr) ● 1615-1800 T, ChDev 105, Willie
5440. MULTIDISCIPLINARY PERSPECTIVES ON AGING. (4 cr, §HSU 5009, §CPsy 5305, §PA 5671, §Soc 5960, §SW 5010) ● 1615-1800 MW, VH 16, Patton, Copeland
5603. INTERNATIONAL EDUCATION AND DEVELOPMENT. (3 cr) ○ 1615-1800 T, ChDev 216, Paige
8228. PROBLEMS: HIGHER EDUCATION. (ar cr; prereq #) ○
8230. SEMINAR: DISSERTATION RESEARCH IN HIGHER EDUCATION. (1 cr; prereq #) ○ 1615-1800 alt M, BuH 211, Corcoran
8250. HIGHER EDUCATION IN THE UNITED STATES. (3 cr; prereq 18 cr educ or 1 yr grad study in any field) ○ 1845-2100 W, BuH 125, Corcoran
8254. DIRECTED EXPERIENCE IN COLLEGE INSTRUCTION. (ar cr; prereq 8252, △) ○ Corcoran
8284. PROBLEMS: TEACHER EDUCATION. (3-9 cr; prereq #) ○ Woestehoff
8302. PROBLEMS: ADULT EDUCATION. (3-9 cr; prereq #) ○ Bruning, Copeland, Howey, Park, Williams, Willie, Woods

WINTER QUARTER 1981

5104. SURVEY OF ADULT EDUCATION. (3 cr; prereq sr) ● 1545-1800 T
5203. ADULT LITERACY: METHODS AND MATERIALS. (3 cr; prereq 5202 or Elem 5331 or #) ○ 1515-1700 T
5205. FIELD EXPERIENCE IN ADULT EDUCATION. (4-8 cr [max 8]; prereq #) ○
5250. AMERICAN HIGHER EDUCATION. (4 cr; S-N optional) ○ 1515-1800 W
5301. DESIGNING THE ADULT EDUCATION PROGRAM. (3 cr) ● 1545-1800 Th
5401. ADULT LEARNING AND DEVELOPMENT THROUGH THE LIFE SPAN. (3 cr) ○ 1015-1200 TTh
5501. CONTINUING EDUCATION AND THE PROFESSIONS. (3 cr) ● 1615-1800 W
5605. RESEARCH TOPICS: INTERNATIONAL DEVELOPMENT EDUCATION. (3 cr) ○ 1615-1800 T
8228. PROBLEMS: HIGHER EDUCATION. (ar cr; prereq #) ○
8230. SEMINAR: DISSERTATION RESEARCH IN HIGHER EDUCATION. (1 cr; prereq #) ○ 1615-1800 M alt weeks
8251. CURRICULUM TRENDS IN AMERICAN COLLEGES. (3 cr; prereq 8250, 18 cr educ or 1 yr grad study in any field) ○ 1845-2100 W
8254. DIRECTED EXPERIENCE IN COLLEGE INSTRUCTION. (ar cr; prereq 8252, △) ○
8284. PROBLEMS: TEACHER EDUCATION. (3-9 cr; prereq #) ○

8285. PROFESSIONAL EDUCATION OF TEACHERS. (3 cr; prereq 15 cr educ incl 5184, 8250 or HED 5182 or SPFE 5182 or CSPP 8140 or PsyS 8140 or #) ○ 1615-1800 W

8302. PROBLEMS: ADULT EDUCATION. (3-9 cr; prereq #) ○

SPRING QUARTER 1981

5103. ADULT EDUCATION WORKSHOP. (3 cr; prereq practicing adult educator or #) ● Focus: the Future and Adult Education.

5104. SURVEY OF ADULT EDUCATION. (3 cr; prereq sr) ● 1615-1800 W

5203. ADULT LITERACY: METHODS AND MATERIALS. (3 cr; prereq 5202 or Elem 5331 or #) ○ 1515-1700 T

5205. FIELD EXPERIENCE IN ADULT EDUCATION. (4-8 cr [max 8]; prereq #) ○

5301. DESIGNING THE ADULT EDUCATION PROGRAM. (3 cr) ○ 1015-1200 TTh

5401. ADULT LEARNING AND DEVELOPMENT THROUGH THE LIFE SPAN. (3 cr) ● 1615-1800 Th

5607. APPLIED INTERNATIONAL DEVELOPMENT EDUCATION. (3 cr) ○ 1615-1800 T

8228. PROBLEMS: HIGHER EDUCATION. (ar cr; prereq #) ○

8229. SEMINAR: BASIC ISSUES IN HIGHER EDUCATION. (1-4 cr; prereq #) ○ 1900-2100 M

8230. SEMINAR: DISSERTATION RESEARCH IN HIGHER EDUCATION. (1 cr; prereq #) ○ 1615-1800 alt M

8250. HIGHER EDUCATION IN THE UNITED STATES. (3 cr; prereq 18 cr educ or 1 yr grad study in any field) ○ 1615-1800 Th

8252. EFFECTIVE COLLEGE TEACHING. (3 cr; prereq 8250, 1 yr of grad study in any field or 18 cr educ) ○ 1615-1800 T

8254. DIRECTED EXPERIENCE IN COLLEGE INSTRUCTION. (ar cr; prereq 8252, Δ) ○

8284. PROBLEMS: TEACHER EDUCATION. (3-9 cr; prereq #) ○

8286. PROFESSIONAL EDUCATION OF TEACHERS. (3 cr; prereq 8285 or #) ○ 1615-1800 W

8302. PROBLEMS: ADULT EDUCATION. (3-9 cr; prereq #) ○

Art Education (ArEd)

FALL QUARTER 1980

5001. ART MEDIA TECHNIQUES. (3 cr) ● 1820-2050 W, WuH 220, Day

5020. ADVANCED CONTEMPORARY CRAFTS. (4 cr; prereq 3020) ○ 1015-1200 MWF, WuH 120

5302. CURRICULUM INNOVATIONS IN ART EDUCATION. (4 cr) ● 1730-2000 W, WuH 110, DiBlasio

5318. ART EDUCATION IN EUROPE. (3 cr) ● 1615-1800 Th, WuH 110, Slettehaugh

5600. INTERNSHIP. (3-9 cr; prereq #) ○ Day, DiBlasio, Slettehaugh

5605. PRACTICUM. (3-9 cr; prereq #) ○ Day, DiBlasio, Slettehaugh

5900. PROFESSIONAL PROBLEMS. (3 cr; prereq MEd student, #) ○ Day, DiBlasio, Slettehaugh

8900. PROBLEMS: ART EDUCATION. (ar cr; prereq #) ○ Day, DiBlasio, Slettehaugh

WINTER QUARTER 1981

5020. ADVANCED CONTEMPORARY CRAFTS. (4 cr; prereq 3020) ○ Sec 1, 0915-1200 TTh; ○ sec 2, 1315-1600 TTh

5600. INTERNSHIP. (3-9 cr; prereq #) ○

5605. PRACTICUM. (3-9 cr; prereq #) ○

5900. PROFESSIONAL PROBLEMS. (3 cr; prereq MEd student, #) ○

8300. RESEARCH IN ART EDUCATION. (3 cr) ○ 1630-1800 T

8306. SEMINAR: ART EDUCATION. (1 cr) ○ 1615-1800 Th

8900. PROBLEMS: ART EDUCATION. (ar cr; prereq #) ○

SPRING QUARTER 1981

5020. ADVANCED CONTEMPORARY CRAFTS. (4 cr; prereq 3020) ○ 0900-1200 TTh

5386. IMPROVING ART PROGRAMS IN THE SCHOOLS. (4 cr; prereq tchg exper or #) ● 1615-1800 W

5389. APPLICATION OF AESTHETIC THEORY IN EDUCATION. (3 cr) ● 1615-1800 T

- 5600. **INTERNSHIP.** (3-9 cr; prereq #) ○
- 5605. **PRACTICUM.** (3-9 cr; prereq #) ○
- 5900. **PROFESSIONAL PROBLEMS.** (3 cr; prereq MEd student, #) ○
- 8306. **SEMINAR: ART EDUCATION.** (1 cr) ○ 1615-1800 T
- 8900. **PROBLEMS: ART EDUCATION.** (ar cr; prereq #) ○

Curriculum and Instructional Systems (CISy)

FALL QUARTER 1980

- 5001. **EDUCATIONAL TECHNOLOGY: INSTRUCTIONAL MEDIA.** (1 cr, §SeEd 5102 or 5001) ● 1630-2030 W, EdHAN 62 (Oct 1, 22, Nov 12), Philipson
- 5002. **EDUCATIONAL TECHNOLOGY: INSTRUCTIONAL EQUIPMENT RESOURCES.** (1 cr, §SeEd 5002 or 5102) ● 0900-1200 S, EdHAN 61 (Oct 11, Nov 8), Philipson
- 5003. **EDUCATIONAL TECHNOLOGY: COMPUTERS IN THE CLASSROOM.** (1 cr, §SeEd 5003 or 5102) ● 1615-1800 M, EdHAN 54, Philipson
- 5203. **RESOURCE MANAGEMENT IN INSTRUCTIONAL PROGRAMS.** (3 cr, §SeEd 5203; prereq SeEd 5000 or CISy 5000 or #) ● 1615-1800 Th, EdHAN 64, Philipson
- 5205. **APPLICATIONS OF COMPUTERS IN EDUCATION.** (3 cr, §SeEd 5205; prereq SeEd 5003 or CISy 5003) ● 1615-1800 T, EdHAN 64, Tennyson
- 5509. **DIRECTED INDIVIDUAL STUDY.** (1-6 cr [max 6]; prereq Δ) ○ Carrier, Kimpston, Philipson, Tennyson
- 5600. **INTRODUCTION TO CURRICULUM SYSTEMS.** (3 cr, §SeEd 5113) ○ 1615-1800 T, NichH 122, Kimpston
- 8100. **CURRICULUM AND INSTRUCTION CORE: CURRICULUM.** (2 cr; prereq PhD student or Δ) ○ 1615-1800 Th, PeikH 325, Howey, Kimpston
- 8305. **INSTRUCTIONAL DELIVERY SYSTEMS.** (3 cr, §SeEd 8305) ○ 1615-1800 M, EdHAN 64, Carrier
- 8416. **CURRICULUM AND INSTRUCTIONAL SYSTEMS SEMINAR.** (1-4 cr; prereq Δ) ○ 0915-1100 Th, BuH 240, Kimpston, Tennyson
- 8501. **PROBLEMS: INSTRUCTIONAL SYSTEMS.** (ar cr; prereq Δ) ○ Carrier, Kimpston, Philipson, Tennyson
- 8700. **CURRICULUM AND INSTRUCTIONAL SYSTEMS FIELD EXPERIENCE.** (3-6 cr [max 6]; prereq #) ○ Kimpston
- 8800. **PROBLEMS: SECONDARY SCHOOL SUPERVISION.** (ar cr; prereq Δ) ○ E Anderson

WINTER QUARTER 1981

- 5000. **EDUCATIONAL TECHNOLOGY: INSTRUCTIONAL SYSTEMS.** (1 cr, §SeEd 5102 or 5000) ● 0900-1100 S (Jan 10, 31)
- 5004. **EDUCATIONAL TECHNOLOGY: CLASSROOM VIDEO.** (1 cr, §SeEd 5102 or 5004) ● 1615-1800 W
- 5006. **EDUCATIONAL TECHNOLOGY: INSTRUCTIONAL COMPUTER PROGRAMMING.** (1 cr) ○ 1615-1800 M
- 5201. **SYSTEMS APPROACH TO DESIGN OF INSTRUCTION.** (3 cr, §SeEd 5201; prereq SeEd 5000 or CISy 5000 or #) ● 1615-1800 W
- 5207. **APPLICATIONS OF VIDEO IN EDUCATION.** (4 cr) ● 1615-1800 Th
- 5216. **INSTRUCTIONAL SIMULATIONS AND LEARNING GAMES: DEVELOPMENT AND CLASSROOM USE.** (3 cr, §SeEd 5131) ● 1615-1800 T
- 5509. **DIRECTED INDIVIDUAL STUDY.** (1-6 cr [max 6]; prereq Δ) ○
- 5700. **CURRICULUM PLANNING PROCESSES.** (4 cr, §SeEd 5170; prereq 5600 or SeEd 5113 or Elem 5100) ● 1615-1800 T
- 5800. **SUPERVISION OF SECONDARY INSTRUCTION.** (3 cr, §SeEd 5172; prereq SeEd 5113 or CISy 5600) ● 1900-2100 T
- 8101. **CURRICULUM AND INSTRUCTION CORE: INSTRUCTION.** (2 cr; prereq PhD student or Δ) ○ 1615-1800 Th
- 8221. **RESEARCH ON PERSONALIZING INSTRUCTION.** (3 cr; prereq #) ○ 0915-1100 T
- 8307. **DESIGNING INSTRUCTIONAL MATERIALS: RESEARCH AND THEORY.** (3 cr; prereq 5209) ○ 1615-1800 M
- 8416. **CURRICULUM AND INSTRUCTIONAL SYSTEMS SEMINAR.** (1-4 cr; prereq Δ) ○ 0915-1100 T
- 8501. **PROBLEMS: INSTRUCTIONAL SYSTEMS.** (ar cr; prereq Δ) ○
- 8700. **CURRICULUM AND INSTRUCTIONAL SYSTEMS FIELD EXPERIENCE.** (3-6 cr [max 6]; prereq #) ○
- 8800. **PROBLEMS: SECONDARY SCHOOL SUPERVISION.** (ar cr; prereq Δ) ○

SPRING QUARTER 1981

5209. PRINCIPLES AND PROCEDURES IN DESIGNING INSTRUCTION. (4 cr; prereq 5000) ③ 1615-1900 T
5212. PREPARATION OF MEDIA MATERIALS: COMPUTER. (2 cr, §SeEd 5212; prereq SeEd 5201, 5205 or CISy 5201, 5205) ③ 1615-1800 Th
5219. MEDIA PRODUCTION TECHNIQUES. (4 cr; prereq 5001, 5005) ③ 1615-1800 W
5507. SEMINAR: PRACTICAL RESEARCH IN CURRICULUM AND INSTRUCTION. (1-4 cr, §SeEd 5174; prereq #) ③
5509. DIRECTED INDIVIDUAL STUDY. (1-6 cr [max 6]; prereq Δ) ○
5600. INTRODUCTION TO CURRICULUM SYSTEMS. (3 cr, §SeEd 5113; prereq SeEd 3155 or equiv) ③ 1615-1800 T
5605. PRINCIPLES AND PROCEDURES IN DESIGNING CURRICULUM. (3 cr, §SeEd 5114) ③ 1615-1800 W
8102. CURRICULUM AND INSTRUCTION CORE: TEACHING. (2 cr; prereq PhD student or Δ) ○ 1615-1800 Th
8309. INSTRUCTIONAL SYSTEMS: DEVELOPMENT AND MANAGEMENT THEORY. (4 cr; prereq 5201, 5203) ○ 1615-1800 M
8416. INSTRUCTIONAL SYSTEMS SEMINAR. (1-4 cr; prereq Δ) ○ 0915-1100 T
8501. PROBLEMS: INSTRUCTIONAL SYSTEMS. (ar cr; prereq Δ) ○
8700. CURRICULUM AND INSTRUCTIONAL SYSTEMS FIELD EXPERIENCE. (3-6 cr [max 6]; prereq #) ○
8800. PROBLEMS: SECONDARY SCHOOL SUPERVISION. (ar cr; prereq Δ) ○

Elementary Education (Elem)

FALL QUARTER 1980

5100. ELEMENTARY SCHOOL CURRICULUM. (3 cr; prereq 3101) ③ 1615-1800 M, ChDev 216, Howey
5107. DIAGNOSIS AND TREATMENT OF LEARNING DIFFICULTIES. (3 cr) ③ 1615-1800 Th, ChDev 216
5300. LITERATURE FOR THE ELEMENTARY SCHOOL. (3 cr) ○ 1615-1800 M, BuH 120, Odland
5316. TEACHING AND SUPERVISION OF ENGLISH IN THE ELEMENTARY SCHOOLS. (3 cr; prereq 3316 or elem tchg exper) ③ 1615-1800 Th, BuH 123, Youngers
5319. TEACHING SECOND LANGUAGES AND CULTURES IN ELEMENTARY SCHOOLS. (3 cr) ③ 0900-1200 S, PeikH 215, Jorstad
5320. PRACTICUM: TEACHING SECOND LANGUAGES AND CULTURES IN ELEMENTARY SCHOOLS. (3 cr, S-N only; prereq 5319 or *5319, #) ○ Jorstad
5331. TEACHING AND SUPERVISION OF READING IN THE ELEMENTARY SCHOOLS. (3 cr; prereq 9 cr educ) ③ 1615-1800 T, BuH 123, Manning
5334. READING DIFFICULTIES. (3 cr; prereq 5331 or SeEd 5344) ③ 1615-1800 M, FoIH 105, Manning
5338. TEACHING READING IN INTERMEDIATE GRADES. (3 cr; prereq 3331, #) ③ 1615-1800 W, ChDev 216, Taylor
5361. TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL. (3 cr; prereq 3101) ③ 1615-1800 W, PtH 214, Ellis
5376. CURRENT TRENDS IN EARLY CHILDHOOD EDUCATION. (3 cr; prereq tchg exper in kindergarten or primary or #) ③ 1615-1830 T, PtH 214, Hansen
5378. CONTEMPORARY PROGRAMS FOR YOUNG CHILDREN. (1-3 cr [max 3]; prereq MEd student in early childhood educ) ○ Moore
5602. PRACTICUM: IMPROVEMENT OF TEACHING. (3 cr; S-N only; prereq MEd student in elem educ, #) ○
8331. RESEARCH FOUNDATIONS FOR READING INSTRUCTION. (3 cr; prereq 5331, #) ○ Schreiner
8916. PROBLEMS: TEACHING ENGLISH. (ar cr; prereq #) ○ Dykstra, Youngers
8931. PROBLEMS: TEACHING READING. (ar cr; prereq 5331 or SeEd 5344, #) ○
8961. PROBLEMS: TEACHING SOCIAL STUDIES. (ar cr; prereq 5361 or SeEd 5155 or 8104, #) ○ Ellis, Cogen
8976. PROBLEMS: TEACHING KINDERGARTEN. (3 cr; prereq #) ○ Hansen
8991. PROBLEMS: IMPROVEMENT OF INSTRUCTION. (ar cr; prereq #) ○

WINTER QUARTER 1981

5107. DIAGNOSIS AND TREATMENT OF LEARNING DIFFICULTIES. (3 cr) ③ 1615-1800 Th
5305. SURVEY OF SPECIAL COLLECTIONS IN CHILDREN'S LITERATURE. (3 cr; prereq 5300 or #) ○ 1615-1800 T

5317. MATERIALS LABORATORY FOR TEACHING ENGLISH IN ELEMENTARY SCHOOLS. (3 cr; prereq 3316 or elem tchg exper) ① 1615-1800 M
5319. TEACHING SECOND LANGUAGES AND CULTURES IN ELEMENTARY SCHOOLS. (3 cr) ○
5320. PRACTICUM: TEACHING SECOND LANGUAGES AND CULTURES IN ELEMENTARY SCHOOLS. (3 cr, S-N only; prereq 5319 or *5319, #) ○
5331. TEACHING AND SUPERVISION OF READING IN THE ELEMENTARY SCHOOLS. (3 cr; prereq 9 cr educ) ○ 1615-1800 W
5334. READING DIFFICULTIES. (3 cr; prereq 5331 or SeEd 5344) ○ 1615-1800 W
5337. BEGINNING READING INSTRUCTION. (3 cr; prereq 3331, #) ① 1615-1800 T
5338. TEACHING READING IN THE INTERMEDIATE GRADES. (3 cr; prereq 3331, #) ○ 1615-1800 M
5347. WORKSHOP: CURRICULUM IMPLEMENTATION IN ELEMENTARY SCHOOL SCIENCE. (3-6 cr; prereq elem tchg exper) ① 0830-1700 S (Jan 24, Feb 7, addtl hrs ar)
5350. ELEMENTARY SCHOOL SCIENCE: MATERIALS AND RESOURCES. (3 cr; prereq 5349) ① 1615-1800 Th
5362. MATERIALS LABORATORY FOR ELEMENTARY SOCIAL STUDIES TEACHERS. (3 cr; prereq 3361 or 5361 or #) ① 1615-1800 W
5378. CONTEMPORARY PROGRAMS FOR YOUNG CHILDREN. (1-3 cr [max 3]; prereq MEd student in early childhood educ) ○
5602. PRACTICUM: IMPROVEMENT OF TEACHING. (3 cr; S-N only; prereq MEd student in elem educ, #) ○
8332. RECENT RESEARCH IN READING. (3 cr; prereq #) ○
8916. PROBLEMS: TEACHING ENGLISH. (ar cr; prereq #) ○
8931. PROBLEMS: TEACHING READING. (ar cr; prereq 5331 or SeEd 5344, #) ○
8961. PROBLEMS: TEACHING SOCIAL STUDIES. (ar cr; prereq 5361 or SeEd 5155 or 8104, #) ○
8976. PROBLEMS: TEACHING KINDERGARTEN. (3 cr; prereq #) ○
8991. PROBLEMS: IMPROVEMENT OF INSTRUCTION. (ar cr; prereq #) ○

SPRING QUARTER 1981

5107. DIAGNOSIS AND TREATMENT OF LEARNING DIFFICULTIES. (3 cr) ① 1615-1800 W
5108. SUPERVISION AND IMPROVEMENT OF INSTRUCTION. (3 cr; prereq 9 cr educ) ○ 1615-1800 Th
5300. LITERATURE FOR THE ELEMENTARY SCHOOL. (3 cr) ○ 1615-1800 T
5317. MATERIALS LABORATORY FOR TEACHING ENGLISH IN ELEMENTARY SCHOOLS. (3 cr; prereq 3316 or elem tchg exper) ○ 1615-1800 M
5320. PRACTICUM: TEACHING SECOND LANGUAGES AND CULTURES IN ELEMENTARY SCHOOLS. (3 cr; S-N only; prereq 5319 or *5319, #) ○
5331. TEACHING AND SUPERVISION OF READING IN THE ELEMENTARY SCHOOLS. (3 cr; prereq 9 cr educ) ① 1615-1800 T
5334. READING DIFFICULTIES. (3 cr; prereq 5331 or SeEd 5344) ① 1615-1800 W
5335. CLINICAL DIAGNOSIS OF READING DIFFICULTIES. (3 cr; prereq 5334) ① 1615-1800 T
5337. BEGINNING READING INSTRUCTION. (3 cr; prereq 3331, #) ① 1615-1800 M
5350. ELEMENTARY SCHOOL SCIENCE: MATERIALS AND RESOURCES. (3 cr; prereq 5349) ① 1615-1800 T
5361. TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL. (3 cr; prereq 3101) ① 1615-1800 M
5377. EARLY CHILDHOOD EDUCATION: MATERIALS AND RESOURCES. (3 cr; prereq 3377 or 5376, tchg exper) ① 1615-1900 T
5378. CONTEMPORARY PROGRAMS FOR YOUNG CHILDREN. (1-3 cr [max 3]; prereq MEd student in early childhood educ) ○
5602. PRACTICUM: IMPROVEMENT OF TEACHING. (3 cr; S-N only; prereq MEd student in elem educ, #) ○
8300. RESEARCH IN SPECIAL COLLECTIONS OF CHILDREN'S LITERATURE. (1-3 cr [max 6]) ○ 1615-1800 Th
8333. SEMINAR: READING RESEARCH AND INSTRUCTION. (1-3 cr [max 9]; prereq #) ○
8916. PROBLEMS: TEACHING ENGLISH. (ar cr; prereq #) ○
8931. PROBLEMS: TEACHING READING. (ar cr; prereq 5331 or SeEd 5344, #) ○
8961. PROBLEMS: TEACHING SOCIAL STUDIES. (ar cr; prereq 5361 or SeEd 5155 or 8104, #) ○
8976. PROBLEMS: TEACHING KINDERGARTEN. (3 cr; prereq #) ○
8991. PROBLEMS: IMPROVEMENT OF INSTRUCTION. (ar cr; prereq #) ○

Mathematics Education (MthE)

FALL QUARTER 1980

5101. **WORKSHOP: ELEMENTARY SCHOOL MATHEMATICS.** (1-12 cr [max 12]; prereq #, non math educ majs) ●
1615-1800 TTh, PeikH 375, Stochl
5102. **WORKSHOP: MATHEMATICS EDUCATION.** (3 cr [max 12]) ● 1615-1900 M, PeikH 315, 336, ar. Focus:
microcomputers and calculators in the middle school.
5301. **INSTRUCTIONAL LEADERSHIP IN ELEMENTARY SCHOOL MATHEMATICS.** (3 cr; prereq #, non-math-educ
majs) ○ 1615-1830 T, PeikH 315, Jackson
5355. **MATHEMATICS FOR SLOW LEARNING CHILDREN.** (3 cr; prereq 5311 or Elem 3391 or #) ● 1615-1900 W,
PeikH 375, Post
5680. **PRACTICUM.** (3-9 cr [max 9]; prereq #) ○
5980. **DIRECTED STUDIES.** (3-9 cr [max 9]; prereq #) ○
8680. **INTERNSHIP: MATHEMATICS EDUCATION.** (ar cr) ○
8980. **PROBLEMS: MATHEMATICS EDUCATION.** (ar cr; prereq 8500 or 8570) ○

WINTER QUARTER 1981

5312. **TEACHING AND SUPERVISION OF MATHEMATICS IN SECONDARY SCHOOL.** (3 cr; prereq math tchg exper
or #) ● 1615-1900 W
5321. **MATERIALS LABORATORY FOR ELEMENTARY SCHOOL MATHEMATICS INSTRUCTION.** (3 cr; prereq
5311 or Elem 3391 or #) ● 1615-1900 W
5355. **MATHEMATICS FOR SLOW LEARNING CHILDREN.** (3 cr; prereq 5311 or Elem 3391 or #) ● 1615-1900 Th
5366. **COMPUTER ASSISTED MATHEMATICS INSTRUCTION.** (3 cr; prereq 5311 or 5312 or SeEd 3365 or #) ● 1615-
1900 Th
5680. **PRACTICUM.** (3-9 cr [max 9]; prereq #) ○
5980. **DIRECTED STUDIES.** (3-9 cr [max 9]; prereq #) ○
8590. **SEMINAR.** (ar cr [max 8]; prereq #) ○
8680. **INTERNSHIP: MATHEMATICS EDUCATION.** (ar cr) ○
8980. **PROBLEMS: MATHEMATICS EDUCATION.** (ar cr; prereq 8500 or 8570) ○

SPRING QUARTER 1981

5102. **WORKSHOP: MATHEMATICS EDUCATION.** (3 cr [max 12]) ● 1615-1900 W. Focus: interactions of science and
mathematics.
5311. **TEACHING AND SUPERVISION OF MATHEMATICS IN ELEMENTARY SCHOOL.** (3 cr; prereq Elem 3391 or
#) ● 1615-1900 M
5680. **PRACTICUM.** (3-9 cr [max 9]; prereq #) ○
5980. **DIRECTED STUDIES.** (3-9 cr [max 9]; prereq #) ○
8680. **INTERNSHIP: MATHEMATICS EDUCATION.** (ar cr) ○
8980. **PROBLEMS: MATHEMATICS EDUCATION.** (ar cr; prereq 8500 or 8570) ○

Secondary Education (SeEd)

FALL QUARTER 1980

5112. **FAMILY LIFE EDUCATION.** (3 cr) ● 1645-1830 M, McNH 197, Hey
5150. **ADVANCED METHODS OF TEACHING THE SOCIAL STUDIES.** (3 cr) ● 1615-1800 T, PeikH 165, Glenn
5151. **SCHOOL-BASED PROJECTS IN SOCIAL STUDIES EDUCATION.** (1-12 cr [12 max]) ○ Glenn, Mackey
5189. **PLANNING AND ASSESSING SECOND LANGUAGE CURRICULUM.** (4 cr) ● 1800-1945 TTh, PeikH 215,
Lange
5322. **TEACHING COMPOSITION AND COMMUNICATION IN JUNIOR AND SENIOR HIGH SCHOOLS.** (3 cr) ● 0915-
1230 alt S, PeikH 225 (begins Oct 4), Beach
5340. **TEACHING OF SPEECH AND FORENSICS IN SECONDARY SCHOOLS.** (3 cr) ● 1615-1800 M, PeikH 225,
Caruson

5344. **TEACHING READING IN CONTENT AREAS.** (3 cr) ① 1615-1800 T, FolH 105, Slater
5351. **DIRECTED STUDY.** (ar cr [max 6]; S-N optional; prereq #) ①
5390. **CURRENT DEVELOPMENTS IN SECONDARY SCHOOL SCIENCE TEACHING.** (3 cr; prereq 3356, 3357 or equiv undergrad courses or sci tchg exper) ① 0815-1000 S, PeikH 365, Gennaro
5395. **SCHOOL-BASED PROJECTS IN SCIENCE EDUCATION.** (1-12 cr [12 max]; prereq MEd student in sci ed) ① Gennaro
5615. **PRACTICUM IN SECONDARY READING: TUTORING REMEDIAL STUDENTS.** (3 cr [max 9]; prereq #) ① 0915-1100 MWF, PeikH 235, Park
5659. **SCHOOL-RELATED PROJECTS IN LANGUAGE ARTS.** (1-12 cr [max 12]; prereq MEd student in English ed) ① Beach
8387. **SEMINAR: SECOND LANGUAGE EDUCATION.** (1-3 cr) ① 1615-1800 F, PeikH 215, Jorstad
8801. **PROBLEMS: TEACHING SOCIAL STUDIES.** (3-9 cr; prereq 5150, 5152, 5156, 8104 or #) ① Glenn, Mackey
8871. **PROBLEMS: CURRICULUM CONSTRUCTION.** (ar cr; prereq #) ① Gennaro
8892. **INTRODUCTION TO RESEARCH IN ENGLISH EDUCATION AND READING.** (4 cr) ① 1615-1800 W, PeikH 215, Piché
8894. **PROBLEMS: SECOND LANGUAGES AND CULTURES EDUCATION.** (ar cr [max 8]; prereq #) ① Jorstad, Lange
8895. **READINGS IN ENGLISH EDUCATION.** (1-3 cr) ① Beach, Piché
8896. **PROBLEMS: TEACHING ENGLISH.** (ar cr) ① Beach, Piché
8898. **READINGS IN SECOND LANGUAGES AND CULTURES EDUCATION.** (1-3 cr) ① Jorstad, Lange

WINTER QUARTER 1981

5151. **SCHOOL-BASED PROJECTS IN SOCIAL STUDIES EDUCATION.** (1-12 cr [max 12]) ①
5152. **TECHNIQUES OF INSTRUCTION IN SOCIAL STUDIES.** (3 cr) ① 1615-1800 Th
5153. **NEW PERSPECTIVES IN THE SOCIAL STUDIES.** (1-3 cr [max 12]) ① 1615-1800 T
5175. **SECONDARY REMEDIAL READING INSTRUCTION.** (3 cr; prereq 5344 or Elem 5331 or #) ① 1615-1800 T
5320. **LITERATURE FOR ADOLESCENTS.** (3 cr) ① 0915-1230 all S (begins Jan 10)
5325. **IMPROVISATIONAL DRAMA TECHNIQUES IN THE CLASSROOM.** (3-6 cr [max 6]) ① 1900-2100 M
5351. **DIRECTED STUDY.** (ar cr [max 6]; S-N optional; prereq #) ①
5385. **PLANNING AND ASSESSING SECOND LANGUAGE INSTRUCTION.** (4 cr) ① 0900-1200 S
5395. **SCHOOL-BASED PROJECTS IN SCIENCE EDUCATION.** (1-12 cr [max 12]; prereq MEd student in science ed) ①
5615. **PRACTICUM IN SECONDARY READING: TUTORING REMEDIAL STUDENTS.** (3 cr [max 9]; prereq #) ① 0915-1100 MWF
5659. **SCHOOL-RELATED PROJECTS IN LANGUAGE ARTS.** (1-12 cr [max 12]; prereq MEd student in English ed) ①
8188. **INFORMATION SOURCES AND RESEARCH IN SECOND LANGUAGE LEARNING AND TEACHING.** (5 cr) ① 1800-2030 TTTh
8387. **SEMINAR: SECOND LANGUAGE EDUCATION.** (1-3 cr) ① 1615-1800 F
8801. **PROBLEMS: TEACHING SOCIAL STUDIES.** (3-9 cr; prereq 5150, 5152, 5156, 8104 or #) ①
8871. **PROBLEMS: CURRICULUM CONSTRUCTION.** (ar cr; prereq #) ①
8893. **SEMINAR: ADVANCED TOPICS IN ENGLISH-LANGUAGE ARTS EDUCATION.** (1-9 cr [max 9]; prereq #) ① 1515-1700 Th
8894. **PROBLEMS: SECOND LANGUAGES AND CULTURES EDUCATION.** (ar cr [max 8]; prereq #) ①
8895. **READINGS IN ENGLISH EDUCATION.** (1-3 cr) ①
8896. **PROBLEMS: TEACHING ENGLISH.** (ar cr) ①
8898. **READINGS IN SECOND LANGUAGES AND CULTURES EDUCATION.** (1-3 cr) ①
8899. **SEMINAR: RESEARCH IN SCIENCE EDUCATION.** (3 cr [max 9]; prereq #) ① 1615-1800 M

SPRING QUARTER 1981

5122. **STRATEGIES FOR TEACHING CULTURE IN THE SECOND LANGUAGE CLASSROOM.** (4 cr) ① 0930-1200 S
5151. **SCHOOL-BASED PROJECTS IN SOCIAL STUDIES EDUCATION.** (1-12 cr [max 12]) ①

5153. **NEW PERSPECTIVES IN THE SOCIAL STUDIES.** (1-3 cr [max 12]) ① 1615-1800 Th
5176. **CLASSROOM RESEARCH IN ENGLISH EDUCATION AND READING.** (3 cr) ○ 1615-1800 W
5185. **SCHOOL AND PROFESSIONAL BASED EXPERIENCES IN SECOND LANGUAGES AND CULTURES.** (1-12 cr [max 12]; prereq MEd student) ○
5188. **THEORY AND RESEARCH IN INTERCULTURAL EDUCATION.** (4 cr) ① 1615-1800 MW
5321. **TEACHING LITERATURE IN SECONDARY SCHOOLS.** (3 cr) ① 0900-1200 alt S
5322. **TEACHING COMPOSITION AND COMMUNICATION IN JUNIOR AND SENIOR HIGH SCHOOLS.** (3 cr) ○ 1615-1800 M
5326. **TEACHING FILM AND TELEVISION.** (3 cr) ① 1615-1800 Th
5344. **TEACHING READING IN CONTENT AREAS.** (3 cr) ① 0800-1200 alt S
5351. **DIRECTED STUDY.** (ar cr [max 6]; S-N optional; prereq #) ○
5382. **TESTING AND EVALUATION IN SECOND LANGUAGE TEACHING AND LEARNING.** (3 cr) ① 1630-1830 TTh
5395. **SCHOOL-BASED PROJECTS IN SCIENCE EDUCATION.** (1-12 cr [max 12]; prereq MEd student in science ed) ○
5397. **STUDIES IN SCIENCE EDUCATION.** (3 cr, §8887; prereq MEd student, #) ○ 0815-1000 S
5615. **PRACTICUM IN SECONDARY READING: TUTORING REMEDIAL STUDENTS.** (3 cr [max 9]; prereq #) ○ 0915-1100 MWF
5659. **SCHOOL-RELATED PROJECTS IN LANGUAGE ARTS.** (1-12 cr [max 12]; prereq MEd student in English ed) ○
8362. **RESEARCH IN SOCIAL STUDIES.** (3 cr, §Elem 8362; prereq 5152, 8104) ○ 1615-1800 W
8387. **SEMINAR: SECOND LANGUAGE EDUCATION.** (1-3 cr) ○ 1615-1800 F
8801. **PROBLEMS: TEACHING SOCIAL STUDIES.** (3-9 cr; prereq 5150, 5152, 5156, 8104 or #) ○
8871. **PROBLEMS: CURRICULUM CONSTRUCTION.** (ar cr; prereq #) ○
8887. **RESEARCH FOUNDATIONS OF SECONDARY SCHOOL SCIENCE TEACHING.** (3 cr) ○ 0815-1000 S
8894. **PROBLEMS: SECOND LANGUAGES AND CULTURES EDUCATION.** (ar cr [max 8]; prereq #) ○
8895. **READING IN ENGLISH EDUCATION.** (1-3 cr) ○
8896. **PROBLEMS: TEACHING ENGLISH.** (ar cr) ○
8897. **RESEARCH: ENGLISH AND SPEECH EDUCATION.** (1-3 cr [max 6]) ○ 1515-1700 W
8898. **READINGS IN SECOND LANGUAGES AND CULTURES EDUCATION.** (1-3 cr) ○

EDUCATIONAL ADMINISTRATION (EdAd)

FALL QUARTER 1980

5103. **SUPERVISION AND ADMINISTRATION OF SPECIAL EDUCATION.** (3 cr, §SpEd 5160, §PsyS 5160) ○ 1600-1745 T, SIP Schools, Weatherman
5120. **PRACTICUM: POSTSECONDARY ADMINISTRATION.** (3-6 cr [max 6]) ○ 1600-1745 M, ClaOff B25, Parkes, Morgan
5128. **WORKSHOP: EDUCATIONAL ADMINISTRATION.** (3 cr; S-N optional) ○ 1830-2030 M, ClaOff B25, Nickerson. Focus: speech and communications for school administrators.
5167. **THE AMERICAN MIDDLE SCHOOL.** (3 cr) ○ 1600-1745 M, ClaOff 35, Popper
5200. **DESIGN AND MANAGEMENT OF EDUCATION SERVICES.** (3 cr) ○ 1600-1745 M, ClaOff 31, Ammentorp
8201. **FORMAL ORGANIZATIONS IN EDUCATION.** (3 cr) ○ 1600-1745 T, ClaOff B36, Popper
8202. **POLITICS OF EDUCATION.** (3 cr, §SPFE 8202) ○ 1830-2030 W, ClaOff B25, Mazzoni
8210. **FINANCING ELEMENTARY AND SECONDARY SCHOOLS.** (3 cr) ○ 1600-1745 W, BioSci 6, Mueller
8212. **SCHOOL BUDGETING.** (3 cr; prereq 8220) ○ 1600-1745 T, ClaOff 27, Sederberg
8215. **ELEMENTARY SCHOOL PRINCIPALSHIP.** (3 cr; prereq 8201, 8202 or #) ○ 1600-1745 Th, ClaOff 27, Lambert
8220. **QUANTITATIVE FOUNDATIONS FOR MANAGEMENT METHODS.** (3 cr) ○ 1600-1820 T, ClaOff B25, Hendrix
8224. **LEGAL IMPLICATIONS OF ACTS BY SCHOOL BOARDS, ADMINISTRATORS, AND TEACHERS.** (3 cr) ○ 1830-2030 Th, Law 4, Hooker
8225. **EDUCATIONAL POLICY AND THE LAW.** (3 cr; prereq 8224 or #) ○ 1615-1800 Th, Law 40, Hooker
8226. **EDUCATIONAL FACILITIES PLANNING.** (3 cr) ○ 1600-1745 M, BioSci 64, Alkire

8238. SEMINAR: THEORY AND RESEARCH. (3 cr; prereq 8218, 8235, educ admin maj or #) ○ 1830-2030 T, ClaOff B25, Hendrix, Morris
8241. SEMINAR: INTERNSHIP. (0-9 cr) ○ 1300-1500 Th, ClaOff 31, Alkire, Nickerson
8247. SEMINAR: SCHOOL DISTRICT POLITICS. (3 cr; prereq 8202) ○ 1600-1745 Th, ClaOff 31, Mazzoni
8253. ADMINISTRATION IN HIGHER EDUCATION. (3 cr; prereq Educ 8250) ○ 1600-1745 T, MorH 115, Pillingier, Keller
8264. SECONDARY SCHOOL PRINCIPALSHIP. (3 cr) ○ 1600-1745 W, ClaOff 31, Nickerson
8270. PROBLEMS: ELEMENTARY SCHOOL ADMINISTRATION. (ar cr; prereq #) ○
8271. PROBLEMS: SECONDARY SCHOOL ADMINISTRATION. (ar cr; prereq #) ○
8272. PROBLEMS: EDUCATIONAL ADMINISTRATION. (1-3 cr) ○
8273. FIELD STUDY. (0-10 cr; prereq #) ○
8340. POLICY SYSTEMS IN EDUCATION. (3 cr; prereq 8220) ○ 1600-1745 W, BioSci 70, Ammentorp, Morris

WINTER QUARTER 1981

5101. PUBLIC SCHOOL ADMINISTRATION. (3 cr; prereq sr, 9 cr educ, non-educ-admin maj) ○ 1615-1800 Th (Mpls)
5128. WORKSHOP: EDUCATIONAL ADMINISTRATION. (3 cr; S-N optional) ○ 1830-2030 T. Focus: teacher evaluation.
5180. SEMINAR: ADMINISTRATION OF SPECIAL EDUCATION. (3 cr, §SpEd 8560, 8561, §PsyS 8560, 8561; prereq 5103 or SpEd 5160 or PsyS 5160 or #) ○ 1600-1745 M
5274. TWO-YEAR POSTSECONDARY INSTITUTIONS. (3 cr) ○ 1615-1800 T
5280. INTRODUCTION TO THE ECONOMICS OF EDUCATION. (4 cr, §SPFE 5180) ○ 1615-1900 T
8202. POLITICS OF EDUCATION. (3 cr, §SPFE 8202) ○ 1600-1745 M
8203. COMMUNITY SCHOOL. (3 cr) ○ 1000-1200 S
8213. FINANCIAL RESOURCE MANAGEMENT. (3 cr; prereq 8212 or #) ○ 1600-1745 M
8216. RECENT RESEARCH IN ELEMENTARY SCHOOL ADMINISTRATION. (3 cr; prereq 8215) ○ 1600-1745 T
8221. QUANTITATIVE MODELS FOR PROGRAM ANALYSIS AND RESEARCH. (3 cr; prereq 8220) ○ 1600-1820 T
8225. EDUCATIONAL POLICY AND THE LAW. (3 cr; prereq 8224 or #) ○ 1800-2000 Th (Mpls)
8227. PUBLIC SCHOOL PERSONNEL PROGRAMS. (3 cr) ○ 1830-2030 M
8230. PUBLIC RELATIONS FOR SCHOOL ORGANIZATIONS. (3 cr) ○ 1600-1745 T
8234. SEMINAR: EDUCATIONAL FINANCE. (3 cr; prereq 8210 or #) ○ 1830-2030 Th
8236. SEMINAR: EDUCATIONAL FACILITIES PLANNING. (3 cr; prereq 8226 or #) ○ 1600-1745 W
8237. SEMINAR: THEORY AND RESEARCH IN EDUCATIONAL LAW. (3 cr; prereq 8224 or 8225 or #) ○ 1600-1745 W (Mpls)
8238. SEMINAR: THEORY AND RESEARCH. (3 cr; prereq 8218, 8235, educ admin maj or #) ○ 1600-1745 W
8241. SEMINAR: INTERNSHIP. (0-9 cr) ○ 1300-1500 Th
8248. SEMINAR: METROPOLITAN SCHOOL GOVERNANCE. (3 cr; prereq 8202) ○ 1600-1745 W
8265. ADMINISTERING THE HIGH SCHOOL PROGRAM. (3 cr) ○ 0800-1000 S
8270. PROBLEMS: ELEMENTARY SCHOOL ADMINISTRATION. (ar cr; prereq #) ○
8271. PROBLEMS: SECONDARY SCHOOL ADMINISTRATION. (ar cr; prereq #) ○
8272. PROBLEMS: EDUCATIONAL ADMINISTRATION. (1-3 cr) ○
8273. FIELD STUDY. (9-10 cr; prereq #) ○
8278. RECENT RESEARCH IN TWO-YEAR COLLEGE ADMINISTRATION. (1-3 cr [max 3]; prereq #) ○ 1830-2030 T
8290. FINANCING HIGHER EDUCATION. (3 cr; prereq #) ○ 1600-1745 M
8341. ANALYSIS OF EDUCATION POLICY SYSTEMS. (3 cr; prereq 8340) ○ 1830-2030 W

SPRING QUARTER 1981

5103. SUPERVISION AND ADMINISTRATION OF SPECIAL EDUCATION. (3 cr, §SpEd 5160, §PsyS 5160) ○ 1600-1745 T, 0900-1600 S
5128. WORKSHOP: EDUCATIONAL ADMINISTRATION. (ar cr; S-N optional) ○ Sec 1, 3 cr, 1830-2030 T, focus: decision making; 1 sec 2, 2 cr, 0730-0900 W, focus: time management.

5140. ADMINISTRATION OF EARLY EDUCATION PROGRAMS. (3 cr) ○ 1600-1745 W
5181. SEMINAR: ADMINISTRATION OF SPECIAL EDUCATION. (3 cr, §SpEd 8560, 8561, §PsyS 8560, 8561; prereq 5103 or SpEd 5160 or #) ○ 1600-1745 M
5200. DESIGN AND MANAGEMENT OF EDUCATION SERVICES. (3 cr) ○ 1830-2030 M
5274. TWO-YEAR POSTSECONDARY INSTITUTIONS. (3 cr) ○ 1000-1200 S (Mpls)
8202. POLITICS OF EDUCATION. (3 cr, §SPFE 8202) ○ 1600-1745 W
8212. SCHOOL BUDGETING. (3 cr; prereq 8220) ○ 1600-1745 M
8214. SCHOOL MANAGEMENT INFORMATION SYSTEMS. (3 cr, §8222; prereq 8220, 8212) ○ 1600-1745 Th
8217. SEMINAR: ELEMENTARY SCHOOL ADMINISTRATION. (3 cr; prereq 8216 or #) ○ 1600-1745 T
8218. SEMINAR: THE SOCIAL ORGANIZATION OF SCHOOLS. (3 cr; prereq educ admin maj or #) ○ 1600-1745 T
8220. QUANTITATIVE FOUNDATIONS FOR MANAGEMENT METHODS. (3 cr) ○ 1830-2030 T
8223. QUANTITATIVE TECHNIQUES FOR DECISION MAKING. (3 cr; prereq 8220 or #) ○ 1600-1820 T
8224. LEGAL IMPLICATIONS OF ACTS BY SCHOOL BOARDS, ADMINISTRATORS, AND TEACHERS. (3 cr) ○ 1615-1800 T (Mpls)
8225. EDUCATIONAL POLICY AND THE LAW. (3 cr; prereq 8224 or #) ○ 1830-2030 Th (Mpls)
8227. PUBLIC SCHOOL PERSONNEL PROGRAMS. (3 cr) ○ 1800-2030 M
8235. SEMINAR: APPLIED HUMANISM IN ADMINISTRATIVE BEHAVIOR: MODERN PERSPECTIVE. (3 cr; prereq 8201) ○ 1600-1745 M
8238. SEMINAR: THEORY AND RESEARCH. (3 cr; prereq 8218, 8235, educ admin maj or #) ○ 1600-1745 M
8241. SEMINAR: INTERNSHIP. (0-9 cr) ○ 1300-1500 Th
8242. ADMINISTRATION ORGANIZATION AND STAFFING OF SCHOOL SYSTEMS. (3 cr; prereq #) ○ 1830-2030 W
8253. ADMINISTRATION IN HIGHER EDUCATION. (3 cr; prereq Educ 8250) ○ 1600-1745 Th
8264. THE SECONDARY SCHOOL PRINCIPALSHIP. (3 cr) ○ 1600-1745 W
8270. PROBLEMS: ELEMENTARY SCHOOL ADMINISTRATION. (ar cr; prereq #) ○
8271. PROBLEMS: SECONDARY SCHOOL ADMINISTRATION. (ar cr; prereq #) ○
8272. PROBLEMS: EDUCATIONAL ADMINISTRATION. (1-3 cr) ○
8273. FIELD STUDY. (0-10 cr; prereq #) ○
8275. TWO-YEAR COLLEGE ADMINISTRATION. (3 cr; prereq 5274) ○ 1600-1745 W
8276. SEMINAR: ADMINISTRATION OF CURRICULUM IN THE TWO-YEAR COLLEGE. (3 cr; prereq 5274) ○ 1830-2030 W
8341. ANALYSIS OF EDUCATION POLICY SYSTEMS. (3 cr; prereq 8340) ○ 1600-1745 M

MUSIC EDUCATION (MuEd)

FALL QUARTER 1980

5111. RESEARCH IN MUSIC EDUCATION: BIBLIOGRAPHY. (3 cr) ● 1615-1800 M, ScH 103, Turrentine
5601. TECHNIQUES, MATERIALS: INTERMEDIATE AND ADVANCED RECORDER. (3 cr, §5323; prereq intermed level competence, two-octave range or #) ● 1615-1800 W, ScH 4, Caswell
5750. WORKSHOP: MUSIC EDUCATION. (2 cr) ● 1900-2100 T, MacP 115, Cortright. Focus: music for early childhood.
5970. INDEPENDENT STUDY. (1-4 cr; prereq consent of adviser, Δ) ○ Borg, Buckner, Caswell, Jellison, Schultz, Turrentine
8281. SEMINAR: HISTORICAL, PHILOSOPHICAL, AND PSYCHOLOGICAL ISSUES. (2 cr, 8281-8282-8283; prereq MA in mus or mus educ or #) ○ 1615-1800 T, ScH 103, Turrentine
8990. RESEARCH PROBLEMS. (4-12 cr; prereq elem stat) ○ Borg, Caswell, Jellison, Schultz, Turrentine

WINTER QUARTER 1981

5112. RESEARCH IN MUSIC EDUCATION: TECHNIQUES. (3 cr) ● 1615-1800 W
5633. TECHNIQUES AND MATERIALS: CHORAL ENSEMBLES. (3 cr, §5431; prereq #) ● 1615-1800 M
5970. INDEPENDENT STUDY. (1-4 cr; prereq consent of adviser, Δ) ○

8282. SEMINAR: HISTORICAL, PHILOSOPHICAL, AND PSYCHOLOGICAL ISSUES. (2 cr, 8281-8282-8283†; prereq 8281) ○ 1615-1800 T
8990. RESEARCH PROBLEMS. (4-12 cr; prereq elem stat) ○

SPRING QUARTER 1981

5115. RESEARCH IN MUSIC EDUCATION: MEASUREMENT. (3 cr; prereq #) ● 1615-1800 W
5211. PHILOSOPHIES OF MUSIC EDUCATION. (3 cr) ● 1615-1800 M
5653. BAND ARRANGING. (3 cr, §Mus 5564; prereq #) ○ 1115-1200 TTh
5661. MUSIC IN THERAPY. (3 cr) ○ 1615-1800 Th
5750. WORKSHOP: MUSIC EDUCATION. (2 cr) ● 1900-2100 T. Focus: music for early childhood.
5970. INDEPENDENT STUDY. (1-4 cr; prereq consent of adviser, Δ) ○
8283. SEMINAR: HISTORICAL, PHILOSOPHICAL, AND PSYCHOLOGICAL ISSUES. (2 cr, 8281-8282-8283†; prereq 8282) ○ 1615-1800 T
8990. RESEARCH PROBLEMS. (4-12 cr; prereq elem stat) ○

PHYSICAL EDUCATION, RECREATION, AND SCHOOL HEALTH EDUCATION

Dance (Dnce)

FALL QUARTER 1980

5181. WORKSHOP: DYNAMICS OF THERAPEUTIC DANCE/MOVEMENT. (1 cr; prereq 3181 or #) ● Sec 1, 1300-1600 ThFS, Oct 9, 10, 11, NorrisH 68, Santangelo; ● sec 2, 1700-2000 ThFS, Oct 9, 10, 11, NorrisH 68, Santangelo
5700. WORKSHOP: DANCE IN EDUCATION. (3 cr, max 12) ● 1810-2110 W, NorrisH 68, Hardenbergh

WINTER QUARTER 1981

5181. WORKSHOP: DYNAMICS OF THERAPEUTIC DANCE/MOVEMENT. (1 cr; prereq 3181 or #) ● Sec 3, 1300-1600 ThFS, Jan 22, 23, 24; ● sec 4, 1700-2000 ThFS, Jan 22, 23, 24
5700. WORKSHOP: DANCE IN EDUCATION. (3 cr [max 12]) ● 1810-2110 W

SPRING QUARTER 1981

5181. WORKSHOP: DYNAMICS OF THERAPEUTIC DANCE/MOVEMENT. (1 cr; prereq 3181 or #) ● Sec 5, 1300-1600 ThFS, Apr 23, 24, 25; ● sec 6, 1700-2000 ThFS, Apr 23, 24, 25
5700. WORKSHOP: DANCE IN EDUCATION. (3 cr [max 12]) ● 1810-2110 W

Physical Education (PE)

FALL QUARTER 1980

5100. TEACHING PHYSICAL EDUCATION FOR THE HANDICAPPED. (3 cr; prereq #) ● 1830-2030 T, CookeH 214, Breihan
5121. CONTRIBUTIONS OF BASIC SCIENCE TO PHYSICAL EDUCATION. (3 cr; prereq #) ● 1830-2030 M, CookeH 214, Stoner
5122. APPLIED PHYSIOLOGY. (3 cr; prereq PubH 3386 or Phsl 3051 or equiv) ● 1830-2030 W, CookeH 214, Serfass
5126. ADVANCED PSYCHOLOGICAL AND SOCIOLOGICAL DIMENSIONS OF PHYSICAL ACTIVITY. (3 cr; prereq #) ● 1600-1800 T, CookeH 226, Krotee
5130. MOTOR LEARNING AND HUMAN PERFORMANCE. (3 cr; prereq 3113 or #) ● 1600-1800 Th, CookeH 214, Johnson
5150. TEACHING ELEMENTARY SCHOOL PHYSICAL EDUCATION. (3 cr; prereq tchg lic or #) ● 1600-1800 T, CookeH 214, Plack
5389. PRACTICAL EXPERIENCE IN GRADED EXERCISE TESTING, PRESCRIPTION, AND DIRECTION. (3-6 cr [max 6], §PubH 5389; prereq 5388 or PubH 5388, #) ○ Serfass

- 5740. WORKSHOP: COACHING OF INDIVIDUAL, DUAL, OR TEAM SPORTS.** (1-12 cr [max 12]) ① 1800-2000 M, CookeH 214, Buetow. Focus: coaching ice hockey.
- 5980. RESEARCH METHODOLOGY.** (3 cr, §Hlth 5980; prereq #) ○ 1615-1730 MW, CookeH 215, Stull
- 5981. PROBLEMS.** (ar cr; prereq MEd cand, #) ○
- 5983. READINGS: PHYSICAL EDUCATION.** (ar cr [max 9]; prereq #) ○
- 8981. RESEARCH PROBLEMS.** (ar cr; S-N only; prereq 8980 or #) ○

WINTER QUARTER 1981

- 5101. PHYSICAL EDUCATION ACTIVITIES FOR THE HANDICAPPED.** (3 cr; prereq 5100 or SpEd 5101 or PsyS 5101) ① 1830-2030 T
- 5125. ADVANCED PHILOSOPHY OF PHYSICAL EDUCATION AND SPORTS.** (3 cr; prereq 3125 or #) ① 1830-2030 W
- 5136. PSYCHOLOGY OF COACHING.** (3 cr; prereq 3113 or #) ① 1600-1800 M
- 5140. BIOMECHANICS OF SPORT SAFETY.** (3 cr; prereq undergrad kinesiology) ① 1600-1800 T
- 5151. CURRICULUM.** (3 cr; prereq sr) ○ 0915-1000 MWF
- 5160. EVALUATION IN PHYSICAL EDUCATION.** (3 cr; prereq 3150 or equiv) ① 1830-2030 M
- 5387. DETECTION AND PREVENTION OF CORONARY HEART DISEASE.** (4 cr, §PubH 5387) ○ 1600-1800 MW
- 5981. PROBLEMS.** (ar cr; prereq MEd cand, #) ○
- 5983. READINGS: PHYSICAL EDUCATION.** (ar cr [max 9]; prereq #) ○
- 8330. SEMINAR: MOTOR LEARNING AND HUMAN PERFORMANCE.** (3-9 cr [max 9]; prereq 5130 or #) ○ 1600-1800 W
- 8381. LABORATORY RESEARCH TECHNIQUES.** (1-3 cr; prereq 5980 or #5980) ○ 1830-2030 Th
- 8980. RESEARCH PROBLEMS.** (1 cr [max 2]; S-N only; prereq 5980, PsyF 5110 or #) ○ 1600-1800 Th
- 8981. RESEARCH PROBLEMS.** (ar cr; S-N only; prereq 8980 or #) ○

SPRING QUARTER 1981

- 5102. PRACTICUM: PHYSICAL EDUCATION FOR THE HANDICAPPED.** (3 cr; prereq 5101 or #) ① 1830-2030 T
- 5120. ADVANCED BIOMECHANICS/KINESIOLOGY.** (4 cr; prereq undergrad kinesiology or #) ① 1600-1800 TTh
- 5134. PERCEPTUAL-MOTOR DEVELOPMENT IN CHILDHOOD.** (3 cr; prereq 3113 or #) ① 1600-1800 T
- 5170. FOUNDATIONS OF PHYSICAL EDUCATION.** (3 cr; prereq grad or MEd student) ① 1830-2030 Th
- 5388. EXERCISE TESTING, CONDITIONING, AND CARDIAC REHABILITATION.** (4 cr, §PubH 5388; prereq 5387 or PubH 5387, #) ○ 1600-1800 MW
- 5620. PRACTICUM: PREVENTION AND CARE OF ATHLETIC INJURIES.** (3 cr; prereq Anat 1027 or equiv) ● 1900-2130 T
- 5981. PROBLEMS.** (ar cr; prereq MEd cand, #) ○
- 5983. READINGS: PHYSICAL EDUCATION.** (ar cr [max 9]; prereq #) ○
- 5985. APPLICATION OF RESEARCH.** (3 cr) ○ 1600-1800 W
- 8110. ADMINISTRATION: GENERAL PRINCIPLES AND PROCEDURES.** (3 cr) ○ 1600-1800 Th
- 8980. RESEARCH PROBLEMS.** (1 cr [max 2]; S-N only; prereq 5980, PsyF 5110 or #) ○ 1600-1800 M
- 8981. RESEARCH PROBLEMS.** (ar cr; S-N only; prereq 8980 or #) ○

Recreation, Park, and Leisure Studies (Rec)

FALL QUARTER 1980

- 5100. FOUNDATIONS OF RECREATION.** (3 cr, §8120; prereq MEd, adult spec or grad) ○ 1215-1300 TTh, addtl hrs ar, CookeH 214, Schultz
- 5210. INTRODUCTION TO THERAPEUTIC RECREATION.** (3 cr; prereq 1520 or #5100 or #) ○ 1315-1500 MW, CookeH 206, Weiss
- 5300. FOUNDATIONS OF OUTDOOR EDUCATION.** (3 cr; prereq sr, 1520 or 5100 or #) ○ 1315-1600 F, CookeH 214, McAvoy
- 5630. PRACTICUM: THERAPEUTIC RECREATION.** (3-9 cr; prereq 12 cr rec) ○ Weiss

- 5640. PRACTICUM: PUBLIC RECREATION AND PARKS.** (3-9 cr; prereq 12 cr rec) ○ Chapman
- 5900. WORKSHOP: CONTEMPORARY ISSUES IN LEISURE SERVICES.** (3 cr [max 12]; prereq Δ) ○ Sec 1, 0915-1000 MWF, CookeH 206, Stefanics, focus: federal assistance for recreation and parks; ○ sec 2, 1015-1100 MWF, CookeH 206, Weiss, focus: therapeutic information for recreators; ○ sec 3, 1215-1300 M, 1515-1800 W, CookeH 206, Chapman, focus: recreation in voluntary and youth agencies
- 5980. INTRODUCTION TO RESEARCH.** (3 cr, §PE 5980; prereq MEd, grad or Δ) ○ 1015-1200 TTh, CookeH 226, Schultz
- 5981. PROBLEMS.** (ar cr; prereq MEd cand, #) ○
- 5983. READINGS: RECREATION.** (1-3 cr; prereq MEd, grad or Δ) ○
- 8980. RESEARCH PROBLEMS.** (1 cr; S-N only; prereq 5980, PsyF 5110 or #) ○
- 8981. RESEARCH PROBLEMS.** (ar cr; S-N only; prereq 8980 or #) ○

WINTER QUARTER 1981

- 5160. CONSERVATION OF NATURAL RESOURCES.** (3 cr; prereq 1520 or 5100 or Δ) ○ 1115-1230 TTh
- 5190. COMMERCIAL RECREATION.** (3 cr; prereq 3530 or #) ○ 1015-1100 MWF
- 5200. RECREATION IN COMMUNITY EDUCATION.** (3 cr; prereq 1520 or 5100 or Δ) ○ 0915-1000 MWF
- 5220. THERAPEUTIC RECREATION SERVICES.** (5 cr; prereq 5120 or Δ) ○ 1115-1300 MWF
- 5230. RECREATION AND MENTAL RETARDATION.** (3 cr; prereq 5210, 5220 or #) ○ 1115-1230 TTh
- 5630. PRACTICUM: THERAPEUTIC RECREATION.** (3-9 cr; prereq 12 cr rec) ○
- 5640. PRACTICUM: PUBLIC RECREATION AND PARKS.** (3-9 cr; prereq 12 cr rec) ○
- 5900. WORKSHOP: CONTEMPORARY ISSUES IN LEISURE SERVICES.** (3 cr [max 12]; prereq Δ) ○ Sec 1, 1515-1600 MW, focus: leisure counseling for special populations; ○ sec 2, 0815-0945 TTh, focus: legal issues in leisure services; ○ sec 3, 1515-1700 TTh, focus: group processes in therapeutic recreation
- 5981. PROBLEMS.** (ar cr; prereq MEd cand, #) ○
- 5983. READINGS: RECREATION.** (1-3 cr; prereq MEd, grad or Δ) ○
- 8380. SEMINAR: ADMINISTRATION PROBLEMS IN RECREATION AND PARKS.** (3 cr; prereq 3550) ○ 1615-1800 Th
- 8980. RESEARCH PROBLEMS.** (1 cr; S-N only; prereq 5980, PsyF 5110 or #) ○
- 8981. RESEARCH PROBLEMS.** (ar cr; S-N only; prereq 8980 or #) ○

SPRING QUARTER 1981

- 5170. CAMP ADMINISTRATION.** (3 cr; prereq 1540 or #) ○ 0915-1000 MWF
- 5180. INDUSTRIAL RECREATION.** (3 cr; prereq 1520 or 5100 or #) ○ 0915-1000 TTh
- 5240. RECREATION FOR THE AGING.** (3 cr; prereq 3540 or 5100 or Δ) ○ 1015-1200 MW
- 5250. FINANCING PUBLIC RECREATION AND PARKS.** (3 cr; prereq 3550 or Δ) ○ 1215-1400 TTh
- 5630. PRACTICUM: THERAPEUTIC RECREATION.** (3-9 cr; prereq 12 cr rec) ○
- 5640. PRACTICUM: PUBLIC RECREATION AND PARKS.** (3-9 cr; prereq 12 cr rec) ○
- 5900. WORKSHOP: CONTEMPORARY ISSUES IN LEISURE SERVICES.** (3 cr [max 12]; prereq Δ) ○ Sec 1, 1215-1300 MWF, focus: community recreation for special populations; ○ sec 2, 1315-1500 T, focus: recreation and mental illness; ○ sec 1 (CEE) and sec 2 (day), 1800-2100 Th, Apr 9, 16, 23, 30, May 7, and 0830-1700 SSu, May 2, 3 (Wood Lake Nature Center, Richfield), focus: programming in outdoor education
- 5981. PROBLEMS.** (ar cr; prereq MEd cand, #) ○
- 5983. READINGS: RECREATION.** (1-3 cr; prereq MEd, grad or Δ) ○
- 8370. SEMINAR: ADMINISTRATION PROBLEMS IN THERAPEUTIC RECREATION.** (3 cr; prereq 5220 or #) ○ 1315-1500 Th
- 8980. RESEARCH PROBLEMS.** (1 cr; S-N only; prereq 5980, PsyF 5110 or #) ○
- 8981. RESEARCH PROBLEMS.** (ar cr; S-N only; prereq 8980 or #) ○

School Health Education (Hlth)

FALL QUARTER 1980

- 5069. COMMUNITY HEALTH EDUCATION PRACTICUM FOR SCHOOL HEALTH EDUCATION STUDENTS.** (6 cr; prereq 5072) ○ Needle
- 5072. INTRODUCTION TO SCHOOL AND COMMUNITY HEALTH EDUCATION.** (3 cr; prereq 3100 or PubH 5080 or #) ○ 1315-1530 TTh, NorrisH 3, Needle

5100. **DRIVER EDUCATION I.** (4 cr) ● 1900-2200 W, Richfield HS 343
5150. **FAMILY LIFE AND SEX EDUCATION IN SECONDARY SCHOOLS.** (3 cr; prereq FSoS 5001 or #) ○ 1615-1800 M and 1 hr ar, NorrisH 3, Cobb
5500. **STUDENTS, DRUGS, AND THE SCHOOLS.** (3 cr; prereq PubH 3004) ○ 1615-1800 T and 1 hr ar, NorrisH 3, Hochhauser
5685. **SCHOOL-BASED PROJECTS IN SCHOOL HEALTH EDUCATION.** (1-12 cr [max 12]; prereq #) ○ Cobb
5800. **SUBSTANCE ABUSE: A MODEL OF DEPENDENCY.** (3 cr) ○ 1615-1830 W, NorrisH 3, Hochhauser
5980. **INTRODUCTION TO RESEARCH.** (3 cr, §PE 5980; prereq #) ○ 1600-1800 TTth, CookeH 215, Stull
5981. **PROBLEMS.** (ar cr; prereq #) ○
5983. **READINGS: HEALTH EDUCATION.** (1-3 cr; prereq sr honor or grad, #) ○
8981. **RESEARCH PROBLEMS.** (ar cr; S-N only; prereq 8980 or #) ○

WINTER QUARTER 1981

5069. **COMMUNITY HEALTH EDUCATION PRACTICUM FOR SCHOOL HEALTH EDUCATION STUDENTS.** (6 cr; prereq 5072) ○
5101. **DRIVER EDUCATION II.** (4 cr; prereq 5100) ● 1900-2200 W
5120. **ROLE OF THE SCHOOL HEALTH EDUCATOR IN HEALTH APPRAISAL.** (3 cr) ○ 1615-1900 Th
5301. **TEACHER STRESS: SOURCES, CONSEQUENCES, SOLUTIONS.** (3 cr; S-N optional) ○ 1615-1830 T
5400. **TOPICS: EDUCATIONAL ASPECTS OF DRUG USE AND ABUSE.** (3 cr, §PubH 5032; prereq ed sr or lic tchr or sch nurse) ○ 1615-1830 M
5402. **DEATH EDUCATION IN CONTEMPORARY SOCIETY.** (3 cr, §PubH 5040, §Mort 5040; prereq educ sr or lic tchr, hlth sci maj or schl or publ hlth nurse or mort sci major or #) ○ 1615-1800 M, 1615-1700 W
5685. **SCHOOL BASED PROJECTS IN SCHOOL HEALTH EDUCATION.** (1-12 cr [max 12]; prereq #) ○
5981. **PROBLEMS.** (ar cr; prereq #) ○
5983. **READINGS: HEALTH EDUCATION.** (1-3 cr; prereq sr honor or grad, #) ○
8980. **RESEARCH PROBLEMS.** (1 cr; S-N only; prereq 5980, PsyF 5100 or #) ○ 1615-1800 W
8981. **RESEARCH PROBLEMS.** (ar cr; S-N only; prereq 8980 or #) ○

SPRING QUARTER 1981

5069. **COMMUNITY HEALTH EDUCATION PRACTICUM FOR SCHOOL HEALTH EDUCATION STUDENTS.** (6 cr; prereq 5072) ○
5072. **INTRODUCTION TO SCHOOL AND COMMUNITY HEALTH EDUCATION.** (3 cr; prereq 3100 or PubH 5080 or #) ○ 1615-1900 Th
5130. **SAFETY EDUCATION.** (4 cr; prereq sr) ● 1900-2200 T
5140. **ADMINISTRATION OF THE SCHOOL HEALTH PROGRAM.** (3 cr) ○ 1615-1800 T and 1 hr ar
5150. **FAMILY LIFE AND SEX EDUCATION IN SECONDARY SCHOOLS.** (3 cr; prereq FSoS 5001 or #) ○ 1615-1900 W
5500. **STUDENTS, DRUGS, AND THE SCHOOLS.** (3 cr; prereq PubH 3004) ○ 1615-1800 M and 1 hr ar
5602. **THE DRIVER SIMULATOR.** (4 cr; prereq 5100) ● 1900-2200 W
5685. **SCHOOL-BASED PROJECTS IN SCHOOL HEALTH EDUCATION.** (1-12 cr [max 12]; prereq #) ○
5800. **SUBSTANCE ABUSE: A MODEL OF DEPENDENCY.** (3 cr) ○ 1615-1830 Th
5981. **PROBLEMS.** (ar cr; prereq #) ○
5983. **READINGS: HEALTH EDUCATION.** (1-3 cr; prereq sr honor or grad, #) ○
8980. **RESEARCH PROBLEMS.** (1 cr; S-N only; prereq 5980, PsyF 5110 or #) ○

PSYCHOEDUCATIONAL STUDIES (PsyS)

FALL QUARTER 1980

5100. **CHILDHOOD LANGUAGE DEVELOPMENT: CLASSROOM IMPLICATIONS.** (3 cr, §SpEd 5100) ● 1820-2050 M, PtH 215, Turnure
5101. **EDUCATION OF EXCEPTIONAL CHILDREN.** (4 cr, §SpEd 5101) ● 0900-1200 S, ClaOff B25 (StP), Force

5110. **COUNSELING PROCEDURES.** (3 cr, §CSPP 5110) ◉ Sec 1, 1615-1845 M, BuH 125, Shaffer; ◉ sec 2, 1315-1545 Th, BuH 123, Romano
5112. **EDUCATION OF LEARNING-DISABLED CHILDREN.** (3 cr, §SpEd 5112) ◉ 1600-2000 W, BuH 120, Balow
5113. **DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITY I.** (4 cr, §SpEd 5110; prereq #) ◉ 1830-2130 T, Pt 111, V Bruininks
5130. **INTRODUCTION TO GUIDANCE.** (3 cr, §CSPP 5130) ◉ 1615-1830 T, BuH 125, Tennyson
5140. **PSYCHOSOCIAL AND EDUCATIONAL ASPECTS OF DEAFNESS.** (3 cr, §SpEd 5140) ◉ 1610-1900 W, ChDev 105, Mercaldo
5151. **MANAGING PROBLEM BEHAVIOR IN THE CLASSROOM.** (3 cr, §SpEd 5151) ◉ 1630-1930 M, PtH 111, Wood
5152. **DISTURBED AND DISTURBING STUDENTS I: BACKGROUND AND ASSESSMENT.** (3 cr, §SpEd 5152) ◉ 1630-1930 W, Richfield HS 141, Wood
5160. **SUPERVISION AND ADMINISTRATION OF SPECIAL EDUCATION.** (3 cr, §SpEd 5160, §EdAd 5103) ◉ 1600-1745 T, SIP Schools, Weatherman
5181. **METHODS AND MATERIALS FOR HANDICAPPED INFANTS AND PRESCHOOL CHILDREN.** (3 cr, §SpEd 5181; prereq 12 cr in educ or #) ◉ 1610-1800 MW, PtH 215, Rynders
5200. **ASSESSMENT AND DECISION MAKING IN SPECIAL EDUCATION.** (4 cr) ◉ 1615-1830 T, addtl hrs ar, BuH 120, R Bruininks
5210. **FOUNDATIONS OF CAREER DEVELOPMENT.** (3 cr, §CSPP 5101) ◉ 1615-1830 W, BuH 125, L Hansen
5302. **WORKSHOP: SPECIAL EDUCATION.** (ar cr, §SpEd 5302; prereq #) ● Sec 1, 1 cr, 0900-1400 S, Oct 18, 25, PtH 102, Wesson, focus: increasing acceptance of handicapped people; ● sec 2, 2 cr, 1600-1800 T, PtH 204, Ilmer, Rynders, focus: motor assessment and instruction techniques for cross-categorical handicapping; ● sec 3, 1 cr, 1615-1700 T, ForH 130, Wesson, focus: educational techniques for Wise/Gise tutors
5601. **PRACTICUM: SPECIAL EDUCATION.** (ar cr; S-N optional; prereq #) ◉
5610. **PRACTICUM: DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITY I.** (3 cr, §SpEd 5610; S-N optional; prereq #5113, #) ◉ V Bruininks
5650. **PRACTICUM: PSYCHOLOGICAL EDUCATION.** (1-3 cr [max 9]; prereq #) ◉
5900. **INDEPENDENT STUDY.** (ar cr [max 12]; prereq #) ◉ Sec 1, spec ed maj only; ◉ sec 2, couns maj only; ◉ sec 3, sch psy maj only
8150. **PSYCHOLOGICAL ASPECTS OF COUNSELING SUPERVISION.** (3 cr, §CSPP 8150; prereq 8510, 8604 or CSPP 8510, CSPP 8604, #) ◉
8153. **NEW APPROACHES TO PSYCHOPATHOLOGY IN CHILDREN AND ADOLESCENTS.** (3 cr, §SchP 8512) ◉ 1615-1800 MW, PtH 102, Egeland
8302. **COUNSELING THEORY AND PROCEDURES I.** (3 cr, §CSPP 8302; prereq #8602, #) ◉ 1415-1800 Th, BuH 125, Shaffer
8305. **FIELD PLACEMENT IN COUNSELING AND STUDENT PERSONNEL PSYCHOLOGY.** (1-3 cr [max 9]; prereq MA student in CSPP, #8302, #8602) ◉
8310. **TECHNIQUES OF PSYCHOEDUCATIONAL ASSESSMENT.** (5 cr; prereq #) ◉ 1215-1400 TTh, EtH N647, Weinberg
8341. **DIAGNOSIS AND TREATMENT OF COLLEGE LEARNING DIFFICULTIES.** (3 cr, §CSPP 8341; prereq course in reading, #) ◉ 1415-1600 W, EdH 202, Raygor
8502. **SEMINAR: SPECIAL EDUCATION.** (ar cr; prereq #) ◉ 1815-2000 TTh, ChDev 105, Turnure
8505. **MASTER'S SEMINAR.** (ar cr [max 6]; prereq MA student in CSPP, #) ◉ 1315-1500 M, BuH 125, Tennyson
8508. **SEMINAR: SCHOOL PSYCHOLOGY.** (ar cr; prereq #) ◉ Weinberg
8510. **SEMINAR: ADVANCED COUNSELING THEORY.** (4 cr, §CSPP 8510; prereq PhD student, #) ◉ 0915-1100 TTh, BuH 125, Hummel
8520. **SEMINAR: RESEARCH IN SCHOOL PSYCHOLOGY.** (2 cr [max 6]; prereq #) ◉ 1215-1400 W, EtH N647, Egeland
8541. **COLLEGE STUDENT PERSONNEL WORK—HOUSING.** (2 cr, §CSPP 8541; prereq 8140 or CSPP 8140) ◉ 1515-1700 T, MorH 12, Zander
8600. **CLINICAL PRACTICE IN SCHOOL PSYCHOLOGY.** (1-5 cr; prereq 8310 or SchP 8310) ◉
8601. **ADVANCED PRACTICUM.** (ar cr; prereq #) ◉
8602. **COUNSELING PRACTICUM I.** (3 cr, §CSPP 8602; prereq #8302, #) ◉ 1515-1700 MW, BuH 123, Snoke
8605. **PSYCHOLOGICAL CONSULTATION: THEORY AND PRACTICE.** (5 cr, §CSPP 8605; prereq yr of grad study in psy or ed psy, #) ◉ 1315-1500 TTh, ChDev 105, Parker

8610. PRACTICUM: SCHOOL PSYCHOLOGICAL SERVICES. (1-5 cr; prereq #) ○ Lindberg
8613. COUNSELING PRACTICUM: STUDENT COUNSELING BUREAU. (3 cr [max 9], §CSPP 8613; prereq #) ○ 1415-1600 Th and hrs ar, EdH 202, Hagenah, Loeffler
8640. PRACTICE IN STUDENT PERSONNEL WORK. (1-3 cr [max 9], §CSPP 8640; prereq 8304, 8604, 8140, 5540 or CSPP 8340, 8604, 5540 or #) ○ 1515-1700 TTh, BuH 141, Snoko
8700. INTERNSHIP: SCHOOL PSYCHOLOGICAL SERVICES. (5-15 cr; prereq 8610 or SchP 8610, #) ○
8701. INTERNSHIP: COUNSELING AND STUDENT PERSONNEL PSYCHOLOGY. (0-6 cr, §CSPP 8701 [max 9 for MA, spec students, 18 for PhD students]) ○ Snoko
8710. INTERNSHIP: INSTRUCTIONAL AND SUPERVISION IN SCHOOL PSYCHOLOGY. (1-9 cr, §SchP 8710; prereq 8700 or SchP 8700 or #, doctoral candidate in school psy) ○ Weinberg
8900. RESEARCH PROBLEMS. (ar cr; prereq #) ○ Sec 1, spec ed maj only; ○ sec 2, couns maj only; ○ sec 3, sch psy maj only
8910. DIRECTED STUDY. (ar cr; prereq #) ○ Sec 1, spec ed maj only; ○ sec 2, couns maj only; ○ sec 3, sch psy maj only

WINTER QUARTER 1981

5101. EDUCATION OF EXCEPTIONAL CHILDREN. (4 cr, §SpEd 5101) ● 1820-2130 T (Robbinsdale HS)
5105. LAW AND THE HANDICAPPED: IMPLICATIONS FOR EDUCATION. (2-4 cr) ● 1600-2000 W, hrs ar
5107. MAINSTREAMING: ISSUES IN INDIVIDUALIZING INSTRUCTION. (3-5 cr) ● 1600-2000 Th, hrs ar
5108. PARENT AND PROFESSIONAL PLANNING FOR HANDICAPPED STUDENTS. (3 cr, §SpEd 5108) ● 1600-2000 W
5110. COUNSELING PROCEDURES. (3 cr, §CSPP 5110) ○ Sec 1, 1315-1545 M; ○ sec 2, 1615-1845 M, ○ sec 3, 1245-1500 Th
5113. DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITY I. (4 cr, §SpEd 5110; prereq #) ○ 1830-2130 Th, 1 hr ar
5114. DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITY II. (4 cr, §SpEd 5111; prereq 5113, f5611 or SpEd 5110, 5611, #) ○ 1600-2000 T
5117. CLINICAL USE OF TESTS IN PSYCHOLOGICAL SERVICES. (3 cr, §CSPP 5120; prereq PsyF 5110 or Psy 3801, PsyF 5121 or Psy 5862 or #) ○ 1315-1500 TF
5120. INTRODUCTION TO MENTAL RETARDATION. (4 cr, §SpEd 5120, §CPsy 5315; prereq 5101 or SpEd 5101 or #) ● 1615-1745 TTh
5123. METHODS AND MATERIALS FOR SEVERELY RETARDED PRESCHOOL AND SCHOOL-AGE PUPILS. (4 cr, §SpEd 5123; prereq 5101 or SpEd 5101) ● 1530-1830 Th, 1 hr ar
5135. EDUCATION OF STUDENTS WITH PHYSICAL DISABILITIES. (3 cr, §SpEd 5130; prereq 5101 or SpEd 5101 or #) ● 1615-1800 TTh
5141. METHODS OF TEACHING SCHOOL SUBJECTS TO THE HEARING IMPAIRED. (3 cr, §SpEd 5141; prereq #) ● 1610-1800 TTh
5143. TEACHING LANGUAGE TO THE HEARING IMPAIRED I. (3 cr, §SpEd 5143; prereq 5140 or SpEd 5140) ● 1610-1800 MW
5152. DISTURBED AND DISTURBING STUDENTS I: BACKGROUND AND ASSESSMENT. (3 cr, §SpEd 5152) ● 1615-1915 Th
5153. DISTURBED AND DISTURBING STUDENTS II: PROGRAM SELECTION, OPERATION, MODIFICATION, AND EVALUATION. (3 cr, §SpEd 5153; prereq 5152 or SpEd 5152) ● 1630-1930 W
5200. ASSESSMENT AND DECISION MAKING IN SPECIAL EDUCATION. (4 cr) ● 1615-1830 Th, hrs ar
5302. WORKSHOP: SPECIAL EDUCATION. (ar cr, §SpEd 5302; prereq #) ● Sec 4, 2 cr, 1600-1800 W, focus: mainstreaming in early education, issues, and problems; ● sec 5, 1 cr, 1615-1700 T, focus: educational techniques for Wise/Gise tutors
5306. BEHAVIORAL PROCEDURES WITH SEVERELY AND PROFOUNDLY HANDICAPPED PEOPLE. (4 cr, §SpEd 5301, 5304; PsyF 5149 or Psy 5017 recommended) ○ 1600-1900 W
5310. COUNSELING WOMEN FOR CAREER DEVELOPMENT. (3 cr, §CSPP 5310; S-N optional) ● 1545-1800 W
5331. CAREER DEVELOPMENT: THEORY AND COUNSELING APPLICATIONS. (3 cr, §CSPP 5331) ○ 1615-1830 T
5501. INTRODUCTION TO RESEARCH IN SPECIAL EDUCATION. (2 cr, §SpEd 5501; S-N only) ○ 1600-1800 W
5540. SEMINAR: THE COLLEGE STUDENTS. (3 cr, §CSPP 5540; prereq 6 cr in psy or ed psy) ○ 1300-1530 F
5601. PRACTICUM: SPECIAL EDUCATION. (ar cr; S-N optional; prereq #) ○ Sec 2, 1615-1715 M; sec 3, 1615-1730 T; sec 4, ar
5611. PRACTICUM: DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITY II. (3 cr, §SpEd 5611; S-N optional; prereq 5610 or SpEd 5610, f5114, #) ○

5650. PRACTICUM IN PSYCHOLOGICAL EDUCATION. (1-3 cr [max 9], §SchP 5650; prereq #) ○
5900. INDEPENDENT STUDY. (ar cr [max 12]; prereq #) ○
8120. PSYCHOLOGICAL THEORY AND RESEARCH IN MENTAL RETARDATION. (4 cr, §SpEd 8120; prereq #) ○
1315-1500 MW
8150. PSYCHOLOGICAL ASPECTS OF COUNSELING SUPERVISION. (3 cr, §CSPP 8150; prereq 8510, 8604 or CSPP 8510, CSPP 8604, #) ○
8301. BEHAVIORAL RESEARCH WITH HANDICAPPED STUDENTS. (ar cr [max 4]; prereq 5101 or SpEd 5101 or Psy 5017 or #) ○ 1015-1100 W
8303. COUNSELING THEORY AND PROCEDURES II. (3 cr, §CSPP 8303; prereq 8302, †8603, PsyF 5122, #) ○
1415-1800 Th
8306. FIELD PLACEMENT IN COUNSELING AND STUDENT PERSONNEL PSYCHOLOGY. (1-3 cr [max 9]; prereq MA student in CSPP, †8303, †8603) ○
8311. TECHNIQUES OF PSYCHOEDUCATIONAL ASSESSMENT: SPECIAL POPULATIONS. (5 cr, §SchP 8311; prereq 8310 or SchP 8310, #) ○ 1215-1400 TTh
8508. SEMINAR: SCHOOL PSYCHOLOGY. (ar cr; prereq #) ○
8511. SEMINAR: ADVANCED COUNSELING RESEARCH. (4 cr, §CSPP 8511; prereq PhD student, #) ○ 1015-1200 WF
8514. THEORIES AND METHODS OF INTERVENTION: GROUPS. (3 cr) ○ 1615-1800 MW
8520. SEMINAR: RESEARCH IN SCHOOL PSYCHOLOGY. (2 cr [max 6]; prereq #) ○ 1215-1400 W
8542. COLLEGE STUDENT PERSONNEL WORK—STUDENT ACTIVITIES. (2 cr, §CSPP 8542; prereq 8140 or CSPP 8140) ○ 1515-1700 T
8560. SEMINAR: ADMINISTRATION OF SPECIAL EDUCATION. (3 cr, §EdAd 5180; prereq 5160 or SpEd 5160, EdAd 5103 or #) ○ 1600-1745 M (StP)
8600. CLINICAL PRACTICE IN SCHOOL PSYCHOLOGY. (1-5 cr; prereq 8310 or SchP 8310) ○
8601. ADVANCED PRACTICUM. (ar cr; prereq #) ○
8603. COUNSELING PRACTICUM II. (3 cr, §CSPP 8603; prereq †8303, 8602, #) ○ 1515-1700 W
8610. PRACTICUM: SCHOOL PSYCHOLOGICAL SERVICES. (1-5 cr; prereq #) ○
8614. COUNSELING PRACTICUM: STUDENT COUNSELING BUREAU. (3 cr [max 9], §CSPP 8614; prereq 8613, #) ○
1415-1600 Th, 8 hrs ar
8640. PRACTICE IN STUDENT PERSONNEL WORK. (1-3 cr [max 9], §CSPP 8640; prereq 8304, 8604, 8140, 5540 or CSPP 8340, 8604, 8140, 5540 or #) ○ 1515-1700 TTh
8641. CLINICAL PRACTICE IN DIAGNOSIS AND TREATMENT OF COLLEGE LEARNING DIFFICULTIES. (3 cr, §CSPP 8641; prereq 8341 or CSPP 8341) ○ 1415-1600 W
8700. INTERNSHIP: SCHOOL PSYCHOLOGICAL SERVICES. (5-15 cr; prereq 8610 or SchP 8610, #) ○
8701. INTERNSHIP: COUNSELING AND STUDENT PERSONNEL PSYCHOLOGY. (0-6 cr [max 9 for MA, spec students, 18 for PhD students], §CSPP 8701) ○
8710. INTERNSHIP: INSTRUCTION AND SUPERVISION IN SCHOOL PSYCHOLOGY. (1-9 cr, §SchP 8710; prereq 8700 or SchP 8700 or #, doctoral cand in school psy) ○
8900. RESEARCH PROBLEMS. (ar cr; prereq #) ○
8910. DIRECTED STUDY. (ar cr; prereq #) ○

SPRING QUARTER 1981

5100. CHILDHOOD LANGUAGE DEVELOPMENT: CLASSROOM IMPLICATIONS. (3 cr, §SpEd 5100) ▶ 1820-2050 M
5101. EDUCATION OF EXCEPTIONAL CHILDREN. (4 cr, §SpEd 5101) ▶ 1615-1815 MW
5104. SOCIAL AND VOCATIONAL DEVELOPMENT OF HANDICAPPED STUDENTS. (4 cr, §SpEd 5104; prereq #) ▶
1810-2140 W
5107. MAINSTREAMING: ISSUES IN INDIVIDUALIZING INSTRUCTION. (3-5 cr) ▶ 1600-2000 Th
5110. COUNSELING PROCEDURES. (3 cr, §CSPP 5110) ○ Sec 1, 1315-1545 Th; ● sec 3, 1900-2130 M
5111. COUNSELING PROCEDURES II. (3 cr; prereq 5110) ○ 1315-1545 M
5112. EDUCATION OF LEARNING-DISABLED CHILDREN. (3 cr, §SpEd 5112) ▶ 1600-2000 T
5114. DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITY II. (4 cr, §SpEd 5111; prereq 5113, †5611 or SpEd 5110, 5611, #) ○ 1600-2000 Th, 1 hr ar

5120. **INTRODUCTION TO MENTAL RETARDATION.** (4 cr, §SpEd 5120, §CPsy 5315; prereq 5101 or SpEd 5101 or #) ○ 1315-1500 MW
5125. **EDUCATION OF HANDICAPPED INFANTS AND PRESCHOOL CHILDREN.** (4 cr, §SpEd 5125; prereq 5101 or 5120 or SpEd 5101 or 5120 or #) ● 1600-1930 Th
5126. **METHODS AND MATERIALS FOR TEACHING CHILDREN WITH SEVERE MULTIHANDICAPPING CONDITIONS.** (4 cr, §SpEd 5126; prereq 5101 or 5120 or SpEd 5101 or 5120 or CPsy 5315) ● 1530-1815 Th
5130. **INTRODUCTION TO GUIDANCE.** (3 cr, §CSPP 5130) ● 1615-1830 T
5144. **TEACHING LANGUAGE TO THE HEARING IMPAIRED II.** (3 cr, §SpEd 5144; prereq #) ● 1600-1900 W
5151. **MANAGING PROBLEM BEHAVIOR IN THE CLASSROOM.** (3 cr, §SpEd 5151) ● 1615-1915 M
5153. **DISTURBED AND DISTURBING STUDENTS II: PROGRAM SELECTION, OPERATION, MODIFICATION, AND EVALUATION.** (3 cr, §SpEd 5153; prereq 5152 or SpEd 5152) ● ar (Duluth only)
5155. **PSYCHOEDUCATIONAL INTERVENTIONS: PSYCHOTIC CHILDREN.** (3 cr, §SpEd 5155; prereq 12 cr in psy, child psy or special ed) ● 1820-2030 T
5180. **EDUCATION OF THE DISADVANTAGED.** (3 cr, §SpEd 5180; prereq 12 cr in ed psy, psy or soc) ● 1820-2050 M
5190. **EDUCATION OF THE GIFTED AND TALENTED.** (3 cr, §SpEd 5190) ○ 1615-1800 T, 1 hr ar
5301. **WORKSHOP IN DEVELOPMENTAL EDUCATION.** (3 cr [max 6], §SchP 5300) ● 0830-1630 four Saturdays during qtr beginning Apr 18. Focus: psychological assessment of the preschool child in educational programs.
5302. **WORKSHOP: SPECIAL EDUCATION.** (ar cr; prereq #) ● sec 6, 2 cr, 1600-1800 Th, focus: nonvocal communication techniques for cross-categorical handicapping, alternative symbol systems, use of manual signs, total communication approaches; ● sec 7, 1 cr, 1615-1700 T, focus: educational techniques for Wise/Gise tutors
5305. **BEHAVIOR ANALYSIS PROCEDURES WITH MILDLY AND MODERATELY HANDICAPPED PEOPLE.** (4 cr, §SpEd 5301, 5303, PsyF 5149 or Psy 5017 recommended) ○ 1600-1900 W
5313. **ASSESSMENT IN INFANCY AND EARLY CHILDHOOD.** (3 cr; S-N optional) ○ 1615-1800 Th
5320. **GROUP COUNSELING: PRINCIPLES AND PROCEDURES.** (3 cr, §CSPP 5320; prereq course in counseling theory) ○ 1515-1700 Th, 1 hr ar
5332. **CAREER DEVELOPMENT: ORGANIZATIONAL INTERVENTIONS AND PROGRAMS.** (3 cr, §CSPP 5332; prereq 5210 or 5331 or #) ● 1545-1800 W, 1 hr ar
5505. **CROSS-CULTURAL COUNSELING.** (3 cr, §CSPP 5505; prereq #) ○ 1615-1900 M
5550. **SEMINAR: PSYCHOLOGICAL EDUCATION.** (3 cr [max 9]; prereq #) ● Sec 1, 1930-2130 W; ○ sec 2, 1315-1500 Th
5601. **PRACTICUM: SPECIAL EDUCATION.** (ar cr; S-N optional; prereq #) ○ Sec 1, 1615-1730 T; sec 2, ar
5610. **PRACTICUM: DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITY I.** (3 cr, §SpEd 5610; prereq #5113 and #: S-N optional) ○
5650. **PRACTICUM IN PSYCHOLOGICAL EDUCATION.** (1-3 cr [max 9]; prereq #) ○
5900. **INDEPENDENT STUDY.** (ar cr [max 12]; prereq #) ○
8140. **COLLEGE STUDENT PERSONNEL WORK—FOUNDATIONS AND SCOPE.** (3 cr, §CSPP 8140; prereq course in higher ed or f or #) ○ 1415-1600 MWF
8150. **PSYCHOLOGICAL ASPECTS OF COUNSELING SUPERVISION.** (3 cr, §CSPP 8150; prereq 8510, 8604 or CSPP 8510, CSPP 8604, #) ○
8151. **THEORIES OF EDUCATING DISTURBED CHILDREN.** (3 cr, §SpEd 8151; prereq #) ○ 1615-1900 W
8304. **COUNSELING THEORY AND PROCEDURES III.** (3 cr, §CSPP 8304; prereq 8303, #8604, #) ○ 1415-1800 Th
8307. **FIELD PLACEMENT IN COUNSELING AND STUDENT PERSONNEL PSYCHOLOGY.** (1-3 cr [max 9]; prereq MA student in CSPP, #8304, #8604) ○
8312. **PERSONALITY APPRAISAL IN CHILDREN AND ADOLESCENTS.** (5 cr, §SchP 8312; prereq #) ○ 1615-1800 TTh
8501. **RESEARCH IN SPECIAL EDUCATION.** (1 cr [max 3]) ○ 1515-1700 W
8508. **SEMINAR: SCHOOL PSYCHOLOGY.** (ar cr; prereq #) ○
8512. **SEMINAR: ADVANCED COUNSELING RESEARCH.** (4 cr, §CSPP 8512; prereq PhD student, #) ○ 1015-1200 MF
8513. **THEORIES AND METHODS OF INTERVENTION: INDIVIDUALS.** (3 cr) ○ 1615-1800 MW
8515. **THEORIES AND METHODS OF INSTRUCTIONAL INTERVENTION.** (3 cr, §SchP 8515; prereq 8310, 8311, or SchP 8310, 8311 or #) ○ 1015-1200 TTh
8520. **SEMINAR: RESEARCH IN SCHOOL PSYCHOLOGY.** (2 cr [max 6]; prereq #) ○ 1215-1400 W

- 8561. SEMINAR: ADMINISTRATION OF SPECIAL EDUCATION.** (3 cr, §EdAd 5181; prereq 5160 or SpEd 5160, EdAd 5103 or #) ○ 1600-1745 M (StP)
- 8600. CLINICAL PRACTICE IN SCHOOL PSYCHOLOGY.** (1-5 cr; prereq 8310 or SchP 8310) ○
- 8601. ADVANCED PRACTICUM.** (ar cr; prereq #) ○
- 8604. COUNSELING PRACTICUM III.** (3 cr, §CSPP 8604; prereq 18304, 8603, #) ○ 1515-1700 MW, 2 hrs ar
- 8610. PRACTICUM: SCHOOL PSYCHOLOGICAL SERVICES.** (1-5 cr; prereq #) ○
- 8615. COUNSELING PROCEDURES: STUDENT COUNSELING BUREAU.** (3 cr [max 9], §CSPP 8615; prereq 8614, #) ○ 1415-1600 Th, addtl hrs ar
- 8640. PRACTICE IN STUDENT PERSONNEL WORK.** (1-3 cr [max 9], §CSPP 8640; prereq 8304, 8604, 8140, 5540 or CSPP 8340, 8604, 8140, 5540 or #) ○ 1515-1700 TTh
- 8641. CLINICAL PRACTICE IN DIAGNOSIS AND TREATMENT OF COLLEGE LEARNING DIFFICULTIES.** (3 cr, §CSPP 8641; prereq 8341 or CSPP 8341) ○ 1415-1600 W
- 8700. INTERNSHIP: SCHOOL PSYCHOLOGICAL SERVICES.** (5-15 cr; prereq 8610 or SchP 8610, #) ○
- 8701. INTERNSHIP: COUNSELING AND STUDENT PERSONNEL PSYCHOLOGY.** (0-6 cr, §CSPP 8701 [max 9 for MA, spec students, 18 for PhD students]) ○
- 8710. INTERNSHIP: INSTRUCTION AND SUPERVISION IN SCHOOL PSYCHOLOGY.** (1-9 cr, §SchP 8710; prereq 8700 or SchP 8700 or #, doctoral cand in school psy) ○
- 8900. RESEARCH PROBLEMS.** (ar cr; prereq #) ○
- 8910. DIRECTED STUDY.** (ar cr; prereq #) ○

SOCIAL, PSYCHOLOGICAL, AND PHILOSOPHICAL FOUNDATIONS OF EDUCATION

Psychological Foundations of Education (PsyF)

FALL QUARTER 1980

- 5110. INTRODUCTORY STATISTICAL METHODS.** (4 cr) ○ Sec 1, 0800-0900 MWF, BuH 123, Terwilliger; ● sec 1a, 1820-2050 W, Arch 55, Terwilliger; ● sec 2 (day) and 3a (CEE), 1615-1800 MW, WuH 230, Davison; ● sec 2a, 1820-2050 M, BuH 120, Davison; ○ sec 3, 1015-1200 MW, Pth 214, Merwin
- 5120. EDUCATIONAL MEASUREMENTS IN THE CLASSROOM.** (4 cr) ● 1615-1730 MW, FolH 102, Kellogg
- 5121. BASIC PRINCIPLES OF MEASUREMENT.** (3 cr; prereq 5110 or 8110 or Psy 3801) ○ 1615-1800 MW, EitH N-119, Merwin
- 5125. PRINCIPLES AND METHODS OF EVALUATION.** (3 cr) ○ 1015-1130 TTh, BuH 120, Welch
- 5148. PSYCHOLOGY AND PEDAGOGY OF READING.** (3 cr) ● 1830-2030 W, ChDev 216, Samuels
- 5149. BEHAVIOR ANALYSIS IN EDUCATION.** (4 cr) ● 1610-1900 W, PeikH 315, Deno
- 5152. KNOWING, LEARNING, AND THINKING.** (4 cr) ○ 1415-1500 MWF, Pth 214, P Johnson
- 5162. PERSONALITY AND SOCIAL DEVELOPMENT.** (3 cr; prereq 5 cr intro psy) ● 1820-2050 M, BuH 123, Rest
- 5163. SELF-CONCEPT: THEORY AND APPLICATIONS.** (3 cr) ● 1615-1845 Th, Pth 214, Norem-Hebeisen
- 5170. SOCIAL PSYCHOLOGY OF EDUCATION.** (4 cr) ● 1615-1900 T, FolH 202, D Johnson
- 5176. CHEMICAL USE: PSYCHOSOCIAL ASPECTS.** (3 cr) ● 1630-1900 T, JonesH 11, Norem-Hebeisen
- 5182. PSYCHOLOGY OF STUDENT LEARNING.** (3 cr) ● 1730-1930 T, WuH 230, Bart
- 5305. WORKSHOP IN HUMAN RELATIONS.** (6 cr, §CSPP 5305, §Educ 5305; S-N only) ● 1630-2130 M, SciCB 125, Oden
- 5330. COMPUTER PROGRAMMING.** (3 cr; prereq sr) ○ 1015-1100 MWF, EitH N-647, Anderson
- 5333. INTRODUCTION TO COMPUTER OPERATIONS: U OF M SYSTEMS, SPSS.** (1 cr; S-N grading) ○ 1515-1600 MTWThF, Oct 6-17, EitH N-647, Anderson
- 5520. EVALUATION COLLOQUIUM.** (1 cr [max 6]) ○ 1215-1330 alt F, EitH N-647, Corcoran
- 5900. DIRECTED STUDY.** (ar cr; prereq #) ○
- 8110. STATISTICAL METHODS.** (3 cr; prereq 5110 or Psy 3801) ○ Sec 1, 0915-1000 MWF, EitH N-647, Collier; ○ sec 2, 0915-1000 MWF, BuH 120, Terwilliger; ○ sec 3, 1615-1800 MW, EitH N-647, Collier
- 8112. STATISTICAL METHODS.** (3 cr; prereq 8111) ○ 0915-1000 MWF, BuH 123, MacEachern

- 8113. DESIGN AND ANALYSIS OF EXPERIMENTS.** (3 cr; prereq 8112 or #) ○ 0815-0900 MWF, BuH 120, MacEachern
- 8130. COMPUTER APPLICATION TO STATISTICAL ANALYSIS.** (3 cr; prereq 8112) ○ 1115-1200 MWF, Elth N-647, Anderson
- 8522. ADVANCED THEORY OF MEASUREMENT.** (3 cr; prereq 5121, 8111 or #) ○ 1415-1600 MW, PeikH 225, Davison
- 8562. PERSONALITY DEVELOPMENT AND SOCIALIZATION.** (3 cr; prereq one grad course in personality or child psy) ○ 1630-1750 TTh, NH 107, Rest
- 8571. PSYCHOLOGY OF CONFLICT RESOLUTION.** (4 cr; prereq 5170) ○ 1615-1900 Th, CD 218, D Johnson
- 8574. SOCIAL AND PSYCHOLOGICAL INFLUENCES ON INDIVIDUAL BEHAVIORS.** (3 cr; prereq intro course in soc psy or #) ○ 1215-1500 T, BuH 123, Maruyama
- 8721. INTERNSHIP: EVALUATION.** (3 cr [max 12]; prereq #) ○ 1015-1200 F, BuH 221, Corcoran
- 8900. RESEARCH PROBLEMS.** (ar cr; prereq #) ○
- 8910. PROBLEMS: STATISTICS FOR STUDENTS IN EDUCATION AND PSYCHOLOGY.** (ar cr) ○ Collier, MacEachern, Terwilliger
- 8920. PROBLEMS: MEASUREMENT.** (1-3 cr [max 9]) ○ Davison, Merwin, Terwilliger
- 8921. PROBLEMS: EVALUATION.** (ar cr; prereq 5621 or 8525) ○ Sec 1, 1215-1330 alt F, BuH 330, Welch; ○ sec 2, ar, Corcoran, Kellogg, Merwin, Welch
- 8930. RESEARCH PROBLEMS: COMPUTER APPLICATIONS.** (ar cr; prereq #) ○ Anderson
- 8940. RESEARCH PROBLEMS: LEARNING AND COGNITION.** (ar cr; prereq #) ○ Bart, P Johnson, Pitt
- 8960. RESEARCH PROBLEMS: PERSONALITY.** (ar cr [max 9]; prereq #) ○ Rest
- 8970. RESEARCH PROBLEMS: SOCIAL PSYCHOLOGY.** (ar cr; prereq #) ○ 1930-2100 alt T, BuH 330, D Johnson, Maruyama

WINTER QUARTER 1981

- 5110. INTRODUCTORY STATISTICAL METHODS.** (4 cr) ① Sec 1 (day) and sec 5 (CEE) 1615-1800 MW; ○ sec 2, 1015-1200 WF; ② sec 4, 1820-2050 W
- 5111. APPLIED MATRIX AND VECTOR CONCEPTS.** (1 cr; S-N only) ○ 0800-0900 MWF, 1st three weeks
- 5120. EDUCATIONAL MEASUREMENTS IN THE CLASSROOM.** (4 cr) ① 1615-1800 MW
- 5121. BASIC PRINCIPLES OF MEASUREMENT.** (3 cr; prereq 5110 or 8110 or Psy 3801) ○ 1515-1600 MWF
- 5147. INTELLIGENCE.** (3 cr, §5150) ① 1820-2030 W
- 5153. INTRODUCTION TO THE PSYCHOLOGY OF INSTRUCTION.** (3 cr) ○ 0845-1000 TTh; ● sec 1a, 1820-2050 T
- 5172. STRUCTURING LEARNING: SOCIAL PSYCHOLOGICAL APPROACHES.** (3 cr) ○ 0800-1600 S, 1st three and last S of qtr
- 5520. EVALUATION COLLOQUIUM.** (1 cr [max 6]) ○ 1215-1300 alt F
- 5621. PRACTICUM: INSTRUMENTS AND PROCEDURES FOR EVALUATION.** (3 cr; prereq 5121, 5125) ○ 1015-1130 TTh
- 5900. DIRECTED STUDY.** (ar cr; prereq #) ○
- 8110. STATISTICAL METHODS.** (3 cr; prereq 5110 or Psy 3801) ○ 0815-0900 MWF
- 8111. STATISTICAL METHODS.** (3 cr; prereq 8110) ○ Sec 1, 0915-1000 MWF; ○ sec 2, 1615-1730 MW
- 8114. MULTIPLE REGRESSION ANALYSIS.** (3 cr; prereq 5111, 8111 or f5111 or #) ○ 1115-1200 MWF
- 8120. METHODS IN EDUCATIONAL RESEARCH.** (3 cr; prereq MA students only winter qtr, PhD students only spring qtr) ○ 1515-1700 T
- 8520. SEMINAR: RESEARCH PLANNING.** (1 cr) ○
- 8554. INSTRUCTIONAL PSYCHOLOGY.** (3 cr; prereq course in learning and/or instructional psy) ○ 1315-1500 T
- 8572. ORGANIZATIONAL DEVELOPMENT AND CHANGE.** (4 cr; prereq 5170) ○ 1615-1900 T
- 8573. SMALL GROUP PROCEDURES USED FOR PERSONAL AND ORGANIZATIONAL CHANGE.** (4 cr; prereq 5170) ○ 1615-1900 T
- 8721. INTERNSHIP: EVALUATION.** (3 cr [max 12]; prereq #) ○ 1015-1200 F
- 8900. RESEARCH PROBLEMS.** (ar cr; prereq #) ○
- 8910. PROBLEMS: STATISTICS FOR STUDENTS IN EDUCATION AND PSYCHOLOGY.** (ar cr) ○
- 8920. PROBLEMS: MEASUREMENT.** (1-3 cr [max 9]) ○

8921. **PROBLEMS: EVALUATION.** (ar cr; prereq 5621 or 8525) ○ Lect 1215-1400 alt F, recit ar
 8940. **RESEARCH PROBLEMS: LEARNING AND COGNITION.** (ar cr; prereq #) ○
 8960. **RESEARCH PROBLEMS: PERSONALITY.** (ar cr [max 9]; prereq #) ○
 8970. **RESEARCH PROBLEMS: SOCIAL PSYCHOLOGY.** (ar cr; prereq #) ○ 1930-2100 alt T

SPRING QUARTER 1981

5110. **INTRODUCTORY STATISTICAL METHODS.** (4 cr) ○ Sec 1, 0800-0900 MWF; ● sec 2 (day) and sec 6 (CEE), 1615-1800 MW
 5120. **EDUCATIONAL MEASUREMENT IN THE CLASSROOM.** (4 cr) ● Sec 1 (day) and sec 3a (CEE), 1615-1800 MW; ● sec 4, 1820-2050 W
 5121. **BASIC PRINCIPLES OF MEASUREMENT.** (3 cr; prereq 5110 or 8110 or Psy 3801) ○ 1015-1130 TTh
 5125. **PRINCIPLES AND METHODS OF EVALUATION.** (3 cr) ○ 1615-1730 MW
 5149. **BEHAVIOR ANALYSIS IN EDUCATION.** (4 cr; prereq 5342) ● 1900-2200 T
 5162. **PERSONALITY AND SOCIAL DEVELOPMENT.** (3 cr; prereq 5 cr intro psy) ● 1820-2050 T
 5173. **ISSUES IN SCHOOL DESEGREGATION.** (4 cr; prereq survey course in soc psy or #) ● 1615-1900 Th
 5177. **CHEMICAL USE: REVIEW AND ANALYSIS OF PREVENTION APPROACHES.** (3 cr) ● 1615-1815 T
 5182. **PSYCHOLOGY OF STUDENT LEARNING.** (3 cr) ● 1730-1930 T
 5183. **ADULT LEARNING AND EDUCATIONAL PRACTICE.** (4 cr) ○ 1415-1500 MWF
 5305. **WORKSHOP IN HUMAN RELATIONS.** (1-6 cr [max 6], §CSPP 5305, §Educ 5305; S-N only) ● 1630-2130 M
 5333. **INTRODUCTION TO COMPUTER OPERATIONS: U OF M SYSTEMS, SPSS.** (1 cr, S-N grading) ○ 1515-1600 MTWThF, Apr 6-17
 5520. **EVALUATION COLLOQUIUM.** (1 cr [max 6]) ○ 1215-1300 alt F
 5570. **PROBLEM ANALYSIS AND DECISION MAKING.** (4 cr) ○ 1115-1200 MWF
 5899. **WORKSHOP: IMPROVEMENT OF SCHOOL SUPPORT SERVICES.** (3 cr [max 12]; prereq #) ● 1615-1900 Th
 5900. **DIRECTED STUDY.** (ar cr; prereq #) ○
 8111. **STATISTICAL METHODS.** (3 cr; prereq 8110) ○ 0815-0900 MWF
 8112. **STATISTICAL METHODS.** (3 cr; prereq 8111) ○ Sec 1, 0915-1000 MWF; ○ sec 2, 1615-1730 MW
 8117. **FACTOR ANALYSIS.** (3 cr; prereq 8111, 5111 or 15111 or #) ○ 1115-1200 MWF
 8120. **METHODS IN EDUCATIONAL RESEARCH.** (3 cr; prereq MA students only winter qtr, PhD students only spring qtr) ○ 1615-1730 TTh
 8130. **COMPUTER APPLICATION TO STATISTICAL ANALYSIS.** (3 cr; prereq 8112) ○ 0815-0900 MWF
 8525. **SEMINAR: SPECIAL TOPICS IN EDUCATIONAL EVALUATION.** (3 cr; prereq 5121, 5125, 8111 or #) ○ 1515-1700 T
 8530. **SEMINAR: DEVELOPING COMPUTER APPLICATIONS.** (3 cr; prereq 5330, #) ○ 1115-1200 MWF
 8547. **SEMINAR: COGNITIVE PROCESSES OF THE ADOLESCENT AND EDUCATIONAL IMPLICATIONS.** (3 cr; prereq 5151 or #) ○ 1415-1600 T
 8554. **INSTRUCTIONAL PSYCHOLOGY.** (3 cr; prereq course in learning and/or instructional psy) ○ 1315-1500 Th
 8565. **DEVELOPMENT OF MORAL-POLITICAL JUDGMENT AND PROGRAMS IN VALUE EDUCATION.** (2-4 cr; prereq #) ○ 1515-1630 MW
 8721. **INTERNSHIP: EVALUATION.** (3 cr [max 12]; prereq #) ○ 1015-1200 F
 8900. **RESEARCH PROBLEMS.** (ar cr; prereq #) ○
 8910. **PROBLEMS: STATISTICS FOR STUDENTS IN EDUCATION AND PSYCHOLOGY.** (ar cr) ○ 1015-1100 MWF or ar
 8920. **PROBLEMS: MEASUREMENT.** (1-3 cr [max 9]) ○
 8921. **PROBLEMS: EVALUATION.** (ar cr; prereq 5621 or 8525) ○
 8930. **RESEARCH PROBLEMS: COMPUTER APPLICATIONS.** (ar cr; prereq #) ○
 8940. **RESEARCH PROBLEMS: LEARNING AND COGNITION.** (ar cr; prereq #) ○
 8960. **RESEARCH PROBLEMS: PERSONALITY.** (ar cr [max 9]; prereq #) ○
 8970. **RESEARCH PROBLEMS: SOCIAL PSYCHOLOGY.** (ar cr; prereq #) ○ Sec 1, 1015-1200 TTh; ○ sec 2, 1930-2100 alt T
 8980. **RESEARCH PROBLEMS: INSTRUCTIONAL PSYCHOLOGY.** (ar cr [max 9]; prereq #) ○

Social and Philosophical Foundations of Education (SPFE)

FALL QUARTER 1980

5099. DIRECTED STUDY. (ar cr [max 9]; S-N optional; prereq #) ○
5101. HISTORICAL FOUNDATIONS OF MODERN EDUCATION. (3 cr) ● 1615-1800 M. ChDev 105, Bagley
5120. HISTORY OF CHILDHOOD EDUCATION. (3 cr; S-N optional) ● 1615-1800 T. FoIH 207, Bagley
5125. YOUTH IN MODERN SOCIETY. (4 cr, §Soc 5952) ○ 0815-0930 TTth, ChDev 216, Clark
5141. CRITICAL ISSUES IN CONTEMPORARY EDUCATION. (3 cr) ● 1615-1800 W. PIH 111, Beck
5175. INTRODUCTION TO SYSTEMS THEORY IN SOCIAL SCIENCE AND EDUCATION. (3 cr) ● 1615-1800 W, WuH 130, Harkins
5190. SOCIOLOGY OF EDUCATION. (4 cr, §Soc 5953) ● 1615-1800 T, WuH 130, Clark
5209. EDUCATION IN FUTURE SOCIAL SYSTEMS. (3 cr, §5212) ● 1615-1800 Th. ChDev 105, Harkins
8202. POLITICS OF EDUCATION. (3 cr, §EdAd 8202) ○ 1830-2030 W, ClaOff B25, Mazzoni
8220. SEMINAR: SOCIAL AND EDUCATIONAL FUTURES. (1-6 cr [max 6]; prereq 5209 or 5210 or 5211 or #) ○ 1415-1600 Th, ChDev 216, Harkins
8241. PROBLEMS. (ar cr; prereq #) ○
8260. SEMINAR: SOCIAL AND PHILOSOPHIC FOUNDATIONS OF EDUCATION. (3 cr; S-N optional) ○ 1330-1500 M. BuH 123, Bagley, Beck, Clark, Harkins

WINTER QUARTER 1981

5099. DIRECTED STUDY. (ar cr [max 9]; S-N optional; prereq #) ○
5102. EDUCATION IMAGERY IN EUROPE AND AMERICA. (3 cr; S-N optional) ● 1615-1800 M
5131. COMPARATIVE EDUCATION. (3 cr) ● 1615-1800 W
5171. ANTHROPOLOGY AND EDUCATION. (4 cr, §Anth 5145) ● 1615-1830 M
5174. FIELD METHODS FOR THE STUDY OF EDUCATION. (4 cr, §Anth 5316; S-N optional; prereq 5171 or 5172 or Anth 5145 or 5144 or 1502) ● 1615-1830 W
5180. INTRODUCTION TO THE ECONOMICS OF EDUCATION. (4 cr, §EdAd 5280) ● 1615-1900 T
5191. PROFESSIONALIZATION AND TEACHING. (3 cr) ● 1615-1800 Th
5192. SOCIOLOGY OF HIGHER EDUCATION. (4 cr, §Soc 5958; prereq intro stat or #) ● 1615-1800 T
5210. SOCIAL FORECASTING AND EDUCATIONAL FUTURES. (3 cr) ● 1615-1800 Th
8202. POLITICS OF EDUCATION. (3 cr, §EdAd 8202) ○ 1600-1745 M
8220. SEMINAR: SOCIAL AND EDUCATIONAL FUTURES. (1-6 cr [max 6]; prereq 5209 or 5210 or #) ○ 1415-1600 Th
8241. PROBLEMS. (ar cr; prereq #) ○

SPRING QUARTER 1981

5099. DIRECTED STUDY. (ar cr [max 9]; S-N optional; prereq #) ○
5156. HISTORY OF IDEAS IN AMERICAN EDUCATION. (3 cr) ● 1615-1800 M
5172. ANTHROPOLOGY OF AMERICAN EDUCATION. (3 cr, §Anth 5144; S-N optional; prereq Δ) ● 1615-1830 Th
5182. COMPARATIVE PHILOSOPHIES OF EDUCATION. (3 cr) ● 1615-1800 W
5211. SOCIAL DESIGN AND EDUCATIONAL FUTURES. (3 cr) ● 1615-1800 Th
8202. POLITICS OF EDUCATION. (3 cr, §EdAd 8202) ○ 1600-1745 W
8220. SEMINAR: SOCIAL AND EDUCATIONAL FUTURES. (1-6 cr [max 6]; prereq 5209 or 5210 or 5211 or #) ○ 1415-1600 Th
8241. PROBLEMS. (ar cr; prereq #) ○
8290. ADVANCED SOCIOLOGY OF EDUCATION. (3 cr; prereq 5190 or Soc 5953 or #) ● 1615-1800 T

VOCATIONAL AND TECHNICAL EDUCATION

Agricultural Education (AgEd)

FALL QUARTER 1980

5021. EDUCATION THROUGH EXTENSION METHODS. (3 cr, §HEEd 5021; prereq grad or #) ○ 1500-1730 Th, ClaOff 143, Norenberg
5026. EXTENSION ADMINISTRATION. (3 cr, §HEEd 5026; prereq #) ○ 1500-1730 T, ClaOff 143, Borich

5027. **PRACTICUM: PLACEMENT FOR EXTENSION EXPERIENCE.** (2-6 cr [max 6], §HEEd 3605 or 5027; S-N optional) ○ Norenberg
5028. **TEACHING METHODS.** (5 cr; prereq SeEd 3155 or fSeEd 3155) ○ Lect 0900-0945 MTWThF, ClaOff 143, lab ar, Peterson
5071. **SUPERVISED OCCUPATIONAL EXPERIENCES IN AGRICULTURE.** (3 cr) ○ 1000-1145 MTThF, ClaOff 143, Leske
5072. **PRACTICUM: AGRICULTURAL BUSINESS AND INDUSTRY.** (1-3 cr [max 9]; prereq 5071 or #) ○ Lect 0800-0845 T, ClaOff 143, lab ar, Leske
5090. **INDEPENDENT STUDY.** (1-3 cr; prereq sr) ○
5095. **INDEPENDENT STUDY.** (3 cr; prereq MEd student in agri ed) ○
8001. **RESEARCH.** (ar cr; prereq 15 cr educ) ○
8010. **CURRENT ISSUES.** (ar cr; prereq #) ○ 1600-1745 M, ClaOff 143, Marvin

WINTER QUARTER 1981

5023. **EXTENSION METHODS FOR AGRICULTURAL PRODUCTION IN DEVELOPING COUNTRIES.** (3 cr, §HEEd 5023) ○ 1500-1730 M
5025. **EXTENSION PROGRAM DEVELOPMENT.** (3 cr; §HEEd 5025) ○ 1500-1730 Th
5027. **PRACTICUM: PLACEMENT FOR EXTENSION EXPERIENCE.** (2-6 cr [max 6], §HEEd 3605 or 5027; S-N optional) ○
5049. **AGRICULTURAL EDUCATION FOR ADULTS.** (5 cr) ○ 0900-0945 MTWThF, 0800-0845 F
5061. **PROGRAM PLANNING AND EVALUATION.** (3 cr; prereq sr) ○ 1400-1445 MWF
5071. **SUPERVISED OCCUPATIONAL EXPERIENCES IN AGRICULTURE.** (3 cr) ○ 1000-1145 MTThF
5090. **INDEPENDENT STUDY.** (1-3 cr; prereq sr) ○
5095. **INDEPENDENT STUDY.** (3 cr; prereq MEd student in agri ed) ○
5130. **EFFECTIVE TEACHING IN A COLLEGE OF AGRICULTURE.** (3 cr; prereq 1 yr grad study in agri or #) ○ 1300-1430 Th
8001. **RESEARCH.** (ar cr; prereq 15 cr educ) ○
8020. **SEMINAR.** (ar cr) ○ 1600-1745 T
8091. **FIELD PROBLEMS.** (3 cr) ○

SPRING QUARTER 1981

5021. **EDUCATION THROUGH EXTENSION METHODS.** (3 cr, §HEEd 5021; prereq grad or #) ○ 1500-1730 Th
5024. **EXTENSION HISTORY AND PHILOSOPHY.** (3 cr, §HEEd 5024; prereq #) ○ 1400-1630 T
5027. **PRACTICUM: PLACEMENT FOR EXTENSION EXPERIENCE.** (2-6 cr [max 6], §HEEd 3605 or 5027; S-N optional) ○
5028. **TEACHING METHODS.** (5 cr; prereq SeEd 3155 or fSeEd 3155) ○ 1000-1045 MTWThF
5049. **AGRICULTURAL EDUCATION FOR ADULTS.** (5 cr) ○ 0900-0945 MTWThF, 0800-0845 F
5061. **PROGRAM PLANNING AND EVALUATION.** (3 cr; prereq sr) ○ 1400-1445 MWF
5072. **PRACTICUM: AGRICULTURAL BUSINESS AND INDUSTRY.** (1-3 cr [max 9]; prereq 5071 or #) ○ Lect 0800-0845 T, lab ar
5090. **INDEPENDENT STUDY.** (1-3 cr; prereq sr) ○
5095. **INDEPENDENT STUDY.** (3 cr; prereq MEd student in agri ed) ○
5128. **METHODS OF TEACHING.** (3 cr; prereq non-agri-ed maj and/or #) ○ 1015-1130 TTh
5129. **CURRICULUM PLANNING.** (3 cr; prereq 5128 or f5128, non-agri-ed maj and/or #) ○ 1500-1545 MWF
8001. **RESEARCH.** (ar cr; prereq 15 cr educ) ○
8091. **FIELD PROBLEMS.** (3 cr) ○
8303. **SEMINAR: GRADUATE STUDIES REVIEW.** (1-3 cr) ○ 1600-1745 M

Business And Distributive Education (BDE)

FALL QUARTER 1980

5158. **OFFICE MANAGEMENT TECHNIQUES AND TECHNOLOGY.** (4 cr, §BsEd 5121) ○ 1600-1830 Th, PeikH 265, Lambrecht
5353. **CURRICULUM CONSTRUCTION IN BUSINESS AND DISTRIBUTIVE EDUCATION.** (4 cr, §BsEd 5108, §DE 5110, 5111) ○ 1600-1830 W, PeikH 245, Klaurens

5359. OCCUPATIONAL EXPERIENCE. (1-18 cr; S-N optional; prereq #) ○ 1900-2100 M, PeikH 255, 1 hr ar, Satterwhite
5360. PROGRAM DEVELOPMENTS IN BUSINESS AND DISTRIBUTIVE EDUCATION: TEACHING LEADERSHIP/ COMMUNICATION SKILLS. (1-6 cr) ○ 1615-1800 M, PeikH 245, Satterwhite
5600. SCHOOL-BASED PROJECTS IN BUSINESS AND DISTRIBUTIVE EDUCATION. (1-12 cr [max 12]; prereq #) ○ Ashmun, Hopkins, Klaurens, Lambrecht, McLean
5900. DIRECTED STUDY IN BUSINESS AND DISTRIBUTIVE EDUCATION. (1-6 cr [max 6]; S-N optional; prereq Δ) ○ Sec 1, 1845-1930 M, PeikH 245, Klaurens; ○ sec 2, ar, Ashmun, Hopkins, Klaurens, Lambrecht, McLean
8300. SEMINAR: RESEARCH IN BUSINESS, DISTRIBUTIVE, AND ECONOMIC EDUCATION. (1 cr; prereq #) ○ Ashmun, Hopkins, Klaurens, Lambrecht, McLean
8600. INTERNSHIP: BUSINESS AND DISTRIBUTIVE EDUCATION. (1-12 cr; prereq #) ○ Ashmun, Hopkins, Klaurens, Lambrecht, McLean
8900. PROBLEMS: BUSINESS AND DISTRIBUTIVE EDUCATION. (1-9 cr [max 9]; prereq #) ○ Ashmun, Hopkins, Klaurens, Lambrecht, McLean

WINTER QUARTER 1981

5156. RESEARCH AND METHODS IN TEACHING SHORTHAND AND TRANSCRIPTION. (3 cr, §BsEd 5119) ○ 1615-1800 M
5252. TEACHING MERCHANDISE DISPLAY. (3 cr, §DE 5305; prereq #) ○ 1315-1500 TTTh
5352. COORDINATION TECHNIQUES IN BUSINESS AND DISTRIBUTIVE EDUCATION. (4 cr, §BsEd 5104, §DE 5105, 5106) ○ 1600-1830 W
5355. BUSINESS AND DISTRIBUTIVE PROGRAMS FOR ADULTS. (3 cr, §BsEd 5130, §DE 5120) ○ 1615-1800 Th
5357. RESEARCH PROCEDURES IN BUSINESS AND DISTRIBUTIVE EDUCATION. (4 cr, §BsEd 5115) ○ 1600-1830 T
5600. SCHOOL-BASED PROJECTS IN BUSINESS AND DISTRIBUTIVE EDUCATION. (1-12 cr [max 12]; prereq #) ○
5900. DIRECTED STUDY IN BUSINESS AND DISTRIBUTIVE EDUCATION. (1-6 cr [max 6]; S-N optional; prereq Δ) ○ 1715-1830 M or ar
8300. SEMINAR: RESEARCH IN BUSINESS, DISTRIBUTIVE, AND ECONOMIC EDUCATION. (1 cr; prereq #) ○
8900. PROBLEMS: BUSINESS AND DISTRIBUTIVE EDUCATION. (1-9 cr [max 9]; prereq #) ○

SPRING QUARTER 1981

5151. RESEARCH AND METHODS IN TEACHING TYPEWRITING. (3 cr, §BsEd 5118) ○ 1715-1900 Th
5157. MATERIALS AND METHODS IN OFFICE EDUCATION. (4 cr, §BsEd 5107) ○ 1700-1930 T
5250. ISSUES AND TRENDS IN DISTRIBUTIVE EDUCATION. (3 cr, §DE 5125; prereq #) ○ 1615-1800 W
5251. MATERIALS AND METHODS IN COOPERATIVE VOCATIONAL EDUCATION. (4 cr, §DE 5300, 5301) ○ 1600-1830 T
5256. MATERIALS LABORATORY: OCCUPATIONAL ADJUSTMENT. (3 cr, §DE 5315; prereq 3305 or 5251 or DE 3303, 5300 or 5301 or #) ○ 1615-1800 Th
5351. ORGANIZATION AND ADMINISTRATION OF BUSINESS AND DISTRIBUTIVE EDUCATION. (4 cr, §BsEd 5106, §DE 5100) ○ 1600-1830 M
5359. OCCUPATIONAL EXPERIENCE. (1-18 cr; S-N optional; prereq #) ○ 1900-2100 M, addtl hrs ar
5600. SCHOOL-BASED PROJECTS IN BUSINESS AND DISTRIBUTIVE EDUCATION. (1-12 cr [max 12]; prereq #) ○
5900. DIRECTED STUDY IN BUSINESS AND DISTRIBUTIVE EDUCATION. (1-6 cr [max 6]; S-N optional; prereq Δ) ○
8300. SEMINAR: RESEARCH IN BUSINESS, DISTRIBUTIVE, AND ECONOMIC EDUCATION. (1 cr; prereq #) ○
8600. INTERNSHIP: BUSINESS AND DISTRIBUTIVE EDUCATION. (1-12 cr; prereq #) ○
8900. PROBLEMS: BUSINESS AND DISTRIBUTIVE EDUCATION. (1-9 cr [max 9]; prereq #) ○

Home Economics Education (HEEd)

FALL QUARTER 1980

5021. EDUCATION THROUGH EXTENSION METHODS. (3 cr, §AgEd 5021; prereq grad or #) ○ 1500-1730 Th, ClaOff 143, Norenberg
5026. EXTENSION ADMINISTRATION. (3 cr, §AgEd 5026; prereq #) ○ 1500-1730 T, ClaOff 143, Borich

- 5027. PRACTICUM: PLACEMENT FOR EXTENSION EXPERIENCES.** (2-6 cr [max 6], §HEEd 3605, §AgEd 5027; S-N optional) ○ Norenberg
- 5320. ADULT EDUCATION IN HOME ECONOMICS.** (3 cr) ○ 1600-1830 M, McNH 395, Rossmann
- 5331. HOME ECONOMICS OCCUPATIONAL EDUCATION.** (3 cr [max 12]; prereq sr or tchg exper or #) ○ 1600-1830 W, McNH 395, Whiteford
- 5336. HOME ECONOMICS OCCUPATIONAL EXPERIENCE.** (3-6 cr [max 12], §3330; S-N optional; prereq jr, sr or in-service tchr, #; max of 3 cr may apply toward a grad degree) ○ 1600-1645 M, McNH 386A, addtl hrs ar, Whiteford
- 5410. WORKSHOP: FOODS AND NUTRITION.** (1-4 cr [max 12]) ○ 1300-1430 TTh, McNH 375
- 5430. WORKSHOP: CONTEMPORARY PROBLEMS IN HOME ECONOMICS EDUCATION.** (1-6 cr [max 12]) ○ 1600-1830 Th, McNH 375, Whiteford
- 5500. PROSEMINAR: HOME ECONOMICS EDUCATION.** (2 cr; required of new grad students) ○ 1600-1745 Th, McNH 395, Rossmann
- 5505. SEMINAR: SUPERVISION OF STUDENT TEACHING.** (2 cr) ○ 1600-1745 T, McNH 375, Smith
- 5900. READINGS: HOME ECONOMIC EDUCATION.** (1-3 cr [max 12]; prereq #) ○ 1100-1145 TTh, McNH 395
- 5920. DIRECTED STUDIES.** (1-6 cr; prereq #) ○
- 8530. SEMINAR.** (1 cr [max 3]) ○
- 8631. PRACTICUM: HOME ECONOMICS TEACHER EDUCATION.** (3 cr [max 6]; S-N optional; prereq #) ○

WINTER QUARTER 1981

- 5023. EXTENSION METHODS FOR DEVELOPING COUNTRIES.** (3 cr, §AgEd 5023) ○ 1500-1730 M
- 5025. EXTENSION PROGRAM DEVELOPMENT.** (3 cr, §AgEd 5025) ○ 1500-1730 Th
- 5027. PRACTICUM: PLACEMENT FOR EXTENSION EXPERIENCES.** (2-6 cr [max 6], §HEEd 3605, §AgEd 5027; S-N optional) ○
- 5106. COORDINATION TECHNIQUES: HOME ECONOMICS OCCUPATIONAL EDUCATION.** (3 cr) ○ 1600-1830 M
- 5305. HOME ECONOMICS CURRICULUM: COLLEGE LEVEL.** (3 cr; prereq #) ○ 1600-1830 T
- 5315. EVALUATION: THEORETICAL AND TECHNICAL ASPECTS.** (3 cr) ○ 1600-1830 Th
- 5337. HOME ECONOMICS OCCUPATIONAL SEMINAR.** (3-9 cr [max 9]; prereq #) ○ 1600-1745 W
- 5405. WORKSHOP: CHILD DEVELOPMENT AND FAMILY RELATIONS.** (1-4 cr [max 12]) ○ 1600-1830 T
- 5407. FAMILY LIFE EDUCATION: CURRICULUM METHODS AND MATERIALS.** (1-3 cr [max 12]) ○ 1600-1830 M
- 5415. WORKSHOP: MATERIALS FOR INSTRUCTION.** (1-4 cr [max 12]) ○ 1600-1830 M
- 5600. PRACTICUM: ADULT EDUCATION.** (3 cr; prereq #) ○ 1600-1745 W
- 5900. READINGS IN HOME ECONOMICS EDUCATION.** (1-3 cr [max 12]; prereq #) ○
- 5910. INTEGRATING PAPER.** (3 cr; prereq MEd student) ○
- 5920. DIRECTED STUDIES.** (1-6 cr; prereq #) ○
- 8631. PRACTICUM: HOME ECONOMICS TEACHER EDUCATION.** (3 cr [max 6]; prereq #) ○
- 8900. PROBLEMS.** (1-9 cr; prereq 8300, #) ○

SPRING QUARTER 1981

- 5003. COOPERATIVE EDUCATION PROGRAM: INTERNSHIP.** (3 cr [max 9]; S-N only; prereq 1500, HE 1003, #) ○
- 5021. EDUCATION THROUGH EXTENSION METHODS.** (3 cr, §AgEd 5021; prereq grad or #) ○ 1500-1730 Th
- 5024. EXTENSION HISTORY AND PHILOSOPHY.** (3 cr, §AgEd 5024; prereq #) ○ 1400-1630 T
- 5027. PRACTICUM: PLACEMENT FOR EXTENSION EXPERIENCES.** (2-6 cr [max 6], §HEEd 3605, §AgEd 5027; S-N optional) ○
- 5300. HOME ECONOMICS CURRICULUM.** (3 cr) ○ 1600-1830 W
- 5301. CURRICULA, MATERIALS, AND METHODS IN HOME ECONOMICS OCCUPATIONAL EDUCATION.** (3 cr) ○ 1600-1830 M
- 5331. HOME ECONOMICS OCCUPATIONAL EDUCATION.** (3 cr [max 12]; prereq sr or tchg exper or #) ○
- 5336. HOME ECONOMICS OCCUPATIONAL EXPERIENCE.** (3-6 cr [max 12], §3330; S-N optional; prereq jr, sr or in-service tchr, #; max of 3 cr may apply toward a grad degree) ○ 1600-1645 T, addtl hrs ar
- 5407. FAMILY LIFE EDUCATION: CURRICULUM METHODS AND MATERIALS.** (1-3 cr [max 12]) ○ 1600-1830 Th

5910. **INTEGRATING PAPER.** (3 cr; prereq MEd student) ○
8525. **SEMINAR: ADMINISTRATION AND SUPERVISION OF HOME ECONOMICS PROGRAMS.** (2 cr; prereq 5320, 8520 or #...EdAd 8201 or 8253 recommended) ○ 1600-1745 T
8631. **PRACTICUM: HOME ECONOMICS TEACHER EDUCATION.** (3 cr [max 6]; prereq #) ○
8900. **PROBLEMS.** (1-9 cr; prereq 8300, #) ○

Industrial Education (Ind)

FALL QUARTER 1980

5100. **COMMUNICATIONS OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15]; prereq #) ○ Miletich
5101. **PRODUCTION/MANUFACTURING OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15]; prereq #) ○ Miletich
5102. **POWER/ENERGY OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15]; prereq #) ○ Miletich
5103. **CONSTRUCTION OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15]; prereq #) ○ Miletich
5112. **CONSTRUCTION: SPECIALIZATION.** (1-9 cr; prereq Δ) ○ Miletich
5122. **GRAPHIC COMMUNICATIONS: SPECIALIZATION.** (1-9 cr; prereq Δ) ○ Miletich
5132. **MANUFACTURING: SPECIALIZATION.** (1-9 cr; prereq Δ) ○ Miletich
5142. **POWER AND ENERGY: SPECIALIZATION.** (1-9 cr; prereq Δ) ○ Miletich
5152. **TRANSPORTATION: SPECIALIZATION.** (1-9 cr; prereq Δ) ○ Miletich
5303. **INSTRUCTIONAL AIDS.** (3 cr) ○ 1615-1800 M, PeikH 41A, Kavanaugh
5305. **CRITICAL ISSUES IN INDUSTRIAL EDUCATION.** (3 cr) ○ 1615-1800 Th, PeikH 315, Miletich
5320. **VOCATIONAL GUIDANCE.** (3 cr) ○ 1615-1800 T, ChDev 218, Swanson
5330. **INDUSTRIAL COURSE CONSTRUCTION.** (3 cr) ○ 1615-1800 W, PeikH 225, Kavanaugh
5360. **INDUSTRIAL INSTRUCTION.** (3 cr) ○ 1615-1800 Th, PeikH 225, Irvin
5900. **SCHOOL-BASED PROJECT IN INDUSTRIAL EDUCATION.** (1-6 cr [max 12]; S-N optional; prereq 5305, 5325, MEd student) ○
8700. **SEMINAR.** (no cr) ○ 1215-1300 T, PeikH 41A, Swanson
8900. **RESEARCH PROBLEMS.** (3-6-9 cr; prereq approval of cand) ○
8901. **RESEARCH PROBLEMS.** (3-6-9 cr; prereq approval of cand) ○
8902. **RESEARCH PROBLEMS.** (3-6-9 cr; prereq approval of cand) ○

WINTER QUARTER 1981

5100. **COMMUNICATIONS OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15]; prereq #) ○
5101. **PRODUCTION/ MANUFACTURING OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15]; prereq #) ○
5102. **POWER/ENERGY OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15]; prereq #) ○
5103. **CONSTRUCTION OCCUPATIONAL EXPERIENCE.** (1-5 cr [max 15]; prereq #) ○
5112. **CONSTRUCTION: SPECIALIZATION.** (1-9 cr; prereq Δ) ○
5122. **GRAPHIC COMMUNICATIONS: SPECIALIZATION.** (1-9 cr; prereq Δ) ○
5132. **MANUFACTURING: SPECIALIZATION.** (1-9 cr; prereq Δ) ○
5142. **POWER AND ENERGY: SPECIALIZATION.** (1-9 cr; prereq Δ) ○
5152. **TRANSPORTATION: SPECIALIZATION.** (1-9 cr; prereq Δ) ○
5301. **TESTS IN INDUSTRIAL SUBJECTS.** (3 cr) ○ 1615-1800 M
5310. **COORDINATION.** (3 cr) ○ 1615-1800 M
5344. **FACILITIES AND MANAGEMENT.** (3 cr; prereq 1300 or 5330 or #) ○ 1615-1800 T
5360. **INDUSTRIAL INSTRUCTION.** (3 cr) ○ 1615-1800 T
5900. **SCHOOL-BASED PROJECT IN INDUSTRIAL EDUCATION.** (1-6 cr [max 12]; S-N optional; prereq 5305, 5325, MEd student) ○
8300. **LITERATURE OF INDUSTRIAL EDUCATION.** (3 cr; prereq #) ○ 1615-1800 Th
8700. **SEMINAR.** (no cr) ○ 1215-1300 T

- 8900. RESEARCH PROBLEMS. (3-6-9 cr; prereq approval of cand) ○
- 8901. RESEARCH PROBLEMS. (3-6-9 cr; prereq approval of cand) ○
- 8902. RESEARCH PROBLEMS. (3-6-9 cr; prereq approval of cand) ○

SPRING QUARTER 1981

- 5100. COMMUNICATIONS OCCUPATIONAL EXPERIENCE. (1-5 cr [max 15]; prereq #) ○
- 5101. PRODUCTION/MANUFACTURING OCCUPATIONAL EXPERIENCE. (1-5 cr [max 15]; prereq #) ○
- 5102. POWER/ENERGY OCCUPATIONAL EXPERIENCE. (1-5 cr [max 15]; prereq #) ○
- 5103. CONSTRUCTION OCCUPATIONAL EXPERIENCE. (1-5 cr [max 15]; prereq #) ○
- 5112. CONSTRUCTION: SPECIALIZATION. (1-9 cr; prereq Δ) ○
- 5122. GRAPHIC COMMUNICATIONS: SPECIALIZATION. (1-9 cr; prereq Δ) ○
- 5132. MANUFACTURING: SPECIALIZATION. (1-9 cr; prereq Δ) ○
- 5142. POWER AND ENERGY: SPECIALIZATION. (1-9 cr; prereq Δ) ○
- 5152. TRANSPORTATION: SPECIALIZATION. (1-9 cr; prereq Δ) ○
- 5303. INSTRUCTIONAL AIDS. (3 cr) ○ 1015-1200 F
- 5312. SUPERVISION OF INDUSTRIAL EDUCATION. (3 cr) ○ 1615-1800 T
- 5325. FOUNDATIONS OF INDUSTRIAL EDUCATION. (3 cr) ○ 1615-1800 M
- 5330. INDUSTRIAL COURSE CONSTRUCTION. (3 cr) ○ 1615-1800 W
- 5900. SCHOOL-BASED PROJECT IN INDUSTRIAL EDUCATION. (1-6 cr [max 12]; S-N optional; prereq 5305, 5325, MEd student) ○
- 8310. RESEARCH. (3 cr; prereq #) ○ 1615-1900 Th
- 8700. SEMINAR. (no cr) ○ 1215-1300 T
- 8900. RESEARCH PROBLEMS. (3-6-9 cr; prereq approval of cand) ○
- 8901. RESEARCH PROBLEMS. (3-6-9 cr; prereq approval of cand) ○
- 8902. RESEARCH PROBLEMS. (3-6-9 cr; prereq approval of cand) ○

Vocational Education (VoEd)

FALL QUARTER 1980

- 5300. PHILOSOPHY AND PRACTICE OF VOCATIONAL EDUCATION. (3 cr) ○ 1615-1800 M, PeikH 315, McLean
- 5600. PLANNING VOCATIONAL EDUCATION. (3 cr) ○ 1615-1800 W, FraH B-1, Smith
- 8100. VOCATIONAL EDUCATION TUTORIAL. (3-18 cr; prereq #) ○ 0800-0945 T, ClaOff B-26, Swanson

WINTER QUARTER 1981

- 5274. TWO-YEAR POSTSECONDARY INSTITUTIONS. (3 cr, §EdAd 5274 or 8274) ○ 1615-1800 T
- 5300. PHILOSOPHY AND PRACTICE OF VOCATIONAL EDUCATION. (3 cr) ○ 1615-1800 W
- 5400. EDUCATION FOR WORK. (3 cr; prereq 5300 or #) ○ 1600-1745 T (StP)
- 8100. VOCATIONAL EDUCATION TUTORIAL. (3-18 cr; prereq #) ○ 0800-0945 T (StP)

SPRING QUARTER 1981

- 5500. INTRODUCTION TO VOCATIONAL EDUCATION ADMINISTRATION. (3 cr) ○ 1615-1800 M
- 5800. WORKING WITH SPECIAL NEEDS STUDENTS. (3 cr) ○ 1615-1800 T
- 8100. VOCATIONAL EDUCATION TUTORIAL. (3-18 cr; prereq #) ○ 0800-0945 T (StP)
- 8500. SEMINAR: GENERAL EDUCATION ASPECTS OF THE VOCATIONAL FIELDS. (3 cr; prereq #) ○ 1615-1800 W

CALENDAR FOR ACADEMIC YEAR 1980-81

FALL QUARTER

August

- 15 Graduate School application deadline for fall quarter.

September

- 1 Labor Day, holiday.
- 2-26 Fee payment due dates for undergraduates (including adult special students, except teachers in service).
- 29 Fall quarter classes begin.

October

- 3 Last day to register and pay fees for graduate students and teachers in service.
- 18 Homecoming.
- 22 Last day for undergraduates and students in professional degree programs to pay graduation fees for fall quarter.

November

- 12 Last day for students in Graduate School to pay graduation fee for fall quarter.
- 27-28 Thanksgiving holiday. Classes excused.
- 25 Graduate School application deadline for winter quarter.

December

- 3-January 2 Fee payment due dates for undergraduates (including adult special students, except teachers in service).
- 9 Last day of instruction.
- 10 Study Day.
- 11-17 Final examinations.
- 17 Commencement. End of fall quarter.
- 24-26 Christmas holidays.

WINTER QUARTER

January

- 5 Winter quarter classes begin.
- 9 Last day to register and pay fees for graduate students and teachers in service.

February

- 9 Last day for undergraduates and students in professional degree programs to pay graduation fees for winter quarter.
- 13 Last day for students in Graduate School to pay graduation fee for winter quarter.
- 25 Graduate School application deadline for spring quarter.

March

- 9-27 Fee payment due dates for undergraduates (including adult special students, except teachers in service).
- 13 Last day of instruction.
- 14 Study Day.
- 16-21 Final examinations.
- 21 End of winter quarter.

SPRING QUARTER

March

- 30 Spring quarter classes begin.

April

- 3 Last day to register and pay fees for graduate students and teachers in service.
- 8 Last day for undergraduates and students in professional degree programs to pay graduation fees for spring quarter.

May

- 8 Last day for students in Graduate School to pay graduation fee for spring quarter.
- 15 Graduate School application deadline for first term of summer session.
- 25 Memorial Day, holiday. Classes excused.

June

- 5 Last day of instruction.
- 6 Study Day.
- 8-13 Final examinations.
- 9 Last day to pay graduation fees for first term of summer session.
- 13 Graduate School commencement. End of spring quarter.

SUMMER SESSION

FIRST TERM

June

- 15 Last day to register and pay fees for first term. Graduate School application deadline for second term of summer session.
- 16 First term classes begin.

July

- 3 Independence Day, holiday. Classes excused.
- 17 End of first term. Last day to pay graduation fees for second term.

SECOND TERM

July

- 20 Second term classes begin. Last day to register and pay fees for second term.

August

- 21 End of second term.

SUMMARY OF REGISTRATION PROCEDURES Day School Classes

Adult Special Students

- Begin admission and registration process at the Education Career Development Office, 1425 University Avenue S.E.
- Secure approval from any adviser in the area in which you are taking courses (e.g., elementary, secondary) or from a Student Progress Committee representative in the Education Career Development Office.
- Return all forms to the Education Career Development Office for College of Education approval.
- Secure fee statement at the Registration Center, 202 Fraser Hall.

Master of Education (M.Ed.) Degree Students

- Follow the same procedure as adult special students but secure approval from your assigned adviser.

Master of Arts (M.A.), Doctor of Education (Ed.D.), Doctor of Philosophy (Ph.D.) Degree, and Specialist in Education Certificate Students

- If registered during the previous quarter, obtain registration materials in your departmental office; if not registered during the previous quarter, obtain registration materials in 316 Johnston Hall.
- Secure the approval of your adviser and the director of graduate studies.
- Secure fee statement at the Registration Center, 202 Fraser Hall.

Extension Classes

- Register in 101 Wesbrook Hall from noon to 8 p.m. on September 10 and 11 and 15 through 18, and from noon to 4:30 p.m. on Friday, September 12.