College of Education and Human Development

This is the College of Education and Human Development section of the 2000-2002 University of Minnesota Undergraduate Catalog.

Admission ..........................................................113
Programs of Study ..............................................113
Minors ...............................................................114
Policies and Procedures ....................................114
Graduation Requirements .................................114
Certification/Licensure ......................................114
Advising ...........................................................115
Special Learning Opportunities, Resources, and Organizations ..115
Scholarships ......................................................116
Career Information ...........................................116
Student Organization ........................................116
Directory ........................................................116
Degree Programs ...............................................117
  Agricultural Education .....................................117
  Business and Industry Education .....................120
  Coaching .......................................................121
  Foundations of Education ...............................122
  Human Resource Development ......................122
  Kinesiology ...................................................123
  Recreation, Park, and Leisure Studies ...............124
  Sport Studies ................................................125
  Undergraduate Leadership Minor ...................126
  Coaching Certificate ......................................126
  Disability Policy and Services Certificate ..........126
  Human Resources Development Certificate ......126
  Sport Management Certificate .......................126
  Technical Education Certificate ......................126
The College of Education and Human Development (CEHD) consists of six departments: child psychology; curriculum and instruction; educational policy and administration; educational psychology; kinesiology and leisure studies; and work, community, and family education. Classrooms, offices, and more than 20 research and service centers occupy six buildings on the Minneapolis campus and one building on the St. Paul campus. Founded in 1905, the college has about 700 undergraduate students, 2,500 graduate students, and 128 faculty.

CEHD’s mission is to generate knowledge about teaching, learning, and human development and apply that knowledge to improve education for all individuals. A distinguishing feature of the college is the breadth, depth, and careful integration of its core disciplines and fields of study. Another is the college’s strong commitment to community outreach as well as intellectual development. This extensive network of community ties facilitates both the transfer of knowledge to practice and the incorporation of community viewpoints into the college’s teaching and research missions.

The roles and requirements of educators and human development professionals have expanded dramatically in the past decade. Administrators, practitioners, and researchers must have a new breadth and depth of knowledge. To meet the complex needs of 21st-century learners, colleges must prepare educational leaders who will shape policies, define agendas, and initiate fundamental change. Consistently ranked as one of the most productive professional schools of education in the country—public or private—the college is a state, national, and international leader in teaching, research, and outreach. Several of the college’s academic units are ranked in the top five nationally and its graduate programs place the college as one of the University’s leading academic units in conferring graduate degrees.

Admission

Students wishing to complete a CEHD major begin a course of study in a freshman-admitting college and transfer to CEHD after one or two years of specified courses, depending on their desired major.

CEHD admission criteria vary by program. Criteria may include prerequisite courses, grade point average (GPA), total credits, and experience related to the proposed career. Some undergraduate programs admit students fall and spring semesters; others admit students once per year.

Prospective students are strongly encouraged to attend an information group meeting or meet with an adviser before applying. For more information, contact the college’s office of Student & Professional Services (SPS), 110 Wulling Hall, 86 Pleasant Street S.E., Minneapolis, MN 55455 (612-625-6501).

Procedures

Students transferring to CEHD from other University of Minnesota colleges must submit an Application for Change of College or Status to the Office of the Registrar—Minneapolis, 200 Fraser Hall or 130 West Bank Skyway; St. Paul, 130 Coffey Hall. Students transferring from other colleges or universities should see “Transfer Admission” in the General Information section of this catalog.

In addition to the above step, students applying for majors in foundations of education: elementary; kinesiology; recreation, park, and leisure studies; and sport studies must complete the following step by the program application deadline:

Submit SPS application materials to Student & Professional Services, 110 Wulling Hall, 86 Pleasant Street S.E., Minneapolis, MN 55455.

The program application deadline may be found on the Web at <www.coled.umn.edu>, or contact a Student & Professional Services adviser.

Programs of Study

CEHD is a professional school focused on both undergraduate and advanced study, offering programs in a wide range of education and human development disciplines. Students can prepare for careers in government, business, and community settings as well as formal or informal education settings. Programs of study include bachelor of science (B.S.), certificates, initial teacher licensure, master of education (M.Ed.), and endorsement. The Graduate School offers the master of arts (M.A.), specialist certificate, doctor of education (Ed.D.), and doctor of philosophy (Ph.D.) in education and human development.

Undergraduate programs are described below. For information about other programs, see the college’s Professional Studies Catalog or the Graduate School Catalog.

Bachelor of Science (B.S.)

The college’s undergraduate majors prepare students for careers as educators and human development professionals in varied settings. All University of Minnesota students, whatever their declared major, may complement their degree programs by taking a variety of elective courses available in all six CEHD departments.

Agricultural Education—Prepare to teach agriculture-related subjects to grades 5-12 or adults by specializing in either agricultural science and technology or natural and managed environmental education. Also, prepare to work in agricultural industry and business settings by specializing in agricultural leadership, training, and development.

Business and Industry Education—Train and supervise others in industry and business or teach vocational and technical education in technical colleges. If students want to teach in public schools, this major is the foundation for the M.Ed./initial licensure program in business and industry education.
Child Psychology—See College of Liberal Arts section.

Foundations of Education—Work as an educator or human services professional in an informal setting or prepare for elementary teacher licensure. When students complete the B.S., they can go on to complete licensure with only two to three additional semesters at the master’s level.

Human Resource Development—Prepare for human resource development positions in business, training and development, quality improvement, career development, employee assistance, or other areas. Students also can prepare for graduate study in this field.

Kinesiology—Pursue a career in fitness/wellness, human performance, and health programs or prepare for teacher licensure at the master’s level in physical education. Students also can prepare for professional degrees in the health sciences, including physical/occupational therapy, athletic training, medicine, and nursing.

Music Education—See College of Liberal Arts section.

Recreation, Park, and Leisure Studies—Prepare for leadership, supervisory, or administrative positions in recreation, park, and leisure services agencies. Students can specialize in leisure services management or therapeutic recreation.

Sport Studies—This major focuses on contemporary sport as a product of social, psychological, and economic phenomena. Choose an emphasis in coaching, pre-sport management, or youth services/development.

More than 350
University of Minnesota programs for prekindergarten through 12th grade serve students throughout the state and beyond. Over 650,000 students and more than 1,000 Minnesota schools are affected by these programs.

Apply for a Degree—Students should apply for a degree at 200 Fraser Hall at least one semester before they expect to graduate. In addition, students whose major fields are agricultural education, business and industry education, human resource development, kinesiology, or recreation, park, and leisure studies must file an adviser-approved program with the college’s Student Scholastic Standing Committee.

Certification/Licensure

Certification

The college offers five certificates at the undergraduate level: coaching, sport management, human resource development, technical education, and disability policy and services. For more information about the certificate in coaching and sport management, contact the School of Kinesiology and Leisure Studies (612-625-5300). For more information about the certificate in human resource development, contact the Department of Work, Community, and Family Education (612-624-1221). For information about the certificate in technical education, call WCPE (612-624-1700). For information about the certificate in disability policy and services, call the Institute on Community Integration (612-624-6830).

Licensure

To teach in a public classroom, students must be licensed by the state. Except for the B.S. in agricultural education, all CEHD initial teacher licensure programs are offered at the master’s level; students must first complete an undergraduate degree with appropriate prerequisites.

The college offers initial licensure programs in agricultural education, art education, business education, early childhood education, elementary education, English education, family education, mathematics education, physical education, science education, second languages and cultures education (including English as a second language), social studies education, and technology education. These licensure programs reflect the most current thinking and research in the field, with strong clinical experiences and special attention to multicultural education. CEHD licensure programs are approved by the Minnesota State Board of Teaching and accredited by the National Council for the Accreditation of Teacher Education (NCATE).

Teaching licenses are awarded by the Minnesota State Board of Teaching; CEHD is responsible for recommending eligible candidates to the state. The CEHD recommendation for licensure is based on successful completion of coursework that includes a standards-based curriculum, favorable faculty judgment regarding teaching competence, and meeting minimum standards on state-required examinations.

Minnesota state law and a State Board of Teaching regulation require teacher licensure candidates to complete specific competencies. This requirement is met through a combination of required and elective coursework at the graduate level. Candidates also must pass or meet minimum standards on the Praxis I: Pre-Professional Skills Tests (PPST), which assess basic skills in reading, writing, and mathematics. Minnesota state law also requires all initial licensee applicants to be fingerprinted and pass national background checks.

Policies and Procedures

S-N Grading—CEHD strictly limits the use of S-N grading. All major coursework in an undergraduate program must be taken A-F unless otherwise indicated. See the Class Schedule to determine grading options for each course.

Change of Major—CEHD undergraduates who wish to change or add a major within the college should apply through SPS, 110 Wulling Hall (612-625-6501).

Graduation Requirements

Amount and Quality of Work—Completion of at least 120 credits (in some specialized curricula the number of credits is more than 120) with a C (2.00) average, including the specified coursework in psychology (minimum grade of C-) and writing, is required for graduation. All GPA requirements for student teaching, internships, and graduation are computed using University of Minnesota–Twin Cities coursework only. Contact SPS, 110 Wulling Hall (612-625-6501), or the major department for specific requirements for individual majors.
General Information

Elementary Education Teacher Licensure—Students take liberal education courses in a freshman-admitting college and apply to the foundations of education major after completing 60 credits. After successfully completing a B.S. in foundations of education, students can move directly into the M.Ed. elementary education teacher licensure program. For more information, see the foundations major on page 122 and contact SPS, 110 Wulling Hall (612-625-6501).

Prekindergarten Through Grade 12 Teacher Licensure—As undergraduates, students pursue a major related to the area in which they want to teach and may apply for early admission to the master of education (M.Ed.) program after 60 credits. If accepted and program requirements are fulfilled, students receive preferred admission to a licensure program upon timely completion of their undergraduate degree and completion of education admission requirements.

Early Admission Option
Students with early-admission status must
- attend a one-credit course (EdHD 3001—Exploring the Teaching Profession) with other pre-education students each semester they are part of the early-admission option.
- complete at least 100 hours of work experience in an educational setting (at least two hours per week over six to nine months) as part of EdHD 3001.
- complete their undergraduate degree in two years.
- maintain a 3.00 minimum GPA, overall and in their major.
- begin the licensure program within two years of graduating from their undergraduate program.
- attend a preregistration meeting.

Students may apply for early-admission status during the spring semester of the academic year in which they complete 60 credits. The deadline is April 15.

For more information about early-admission requirements, contact SPS, 110 Wulling Hall (612-625-6501).

Advising
Student & Professional Services (SPS) is CEHD’s centralized admissions and student services office (110 Wulling Hall, 612-625-6501). SPS provides general information, enrollment, registration, and career services for prospective students, applicants, enrolled students, and graduates. Professional advising staff are available by appointment or on a walk-in basis in the lobby a few hours each weekday to answer general questions regarding admission, program requirements, academic planning, registration, academic progress, scholarships, career services, teacher licensure, and commencement, among many other student affairs issues. SPS also offers information group meetings monthly for individual degree programs.

Special Learning Opportunities, Resources, and Organizations

Diversity Initiatives
CEHD is committed to recruiting, enrolling, and educating a diverse population of students who represent the overall composition of U.S. society. The college has several programs that provide support for increasing its student population diversity. In addition, the college has an ongoing Committee on Diversity made up of students, faculty, and staff. For more information on college diversity initiatives, contact SPS, 110 Wulling Hall (612-625-6501).

Computing Facilities
CEHD students have access to several instructional computing labs, four computer classrooms, and several smaller computer learning areas for students and faculty. For more information about University computing services and facilities, see “Computing” in the General Information section of this catalog.

College of Education and Human Development Alumni Society
Alumni can benefit from a combined membership in the Education and Human Development Alumni Society and the University of Minnesota Alumni Association (UMAA). With more than 3,800 members, the society conducts a variety of professional and social activities each year for CEHD graduates. Benefits include the CEHD alumni magazine, The Link; the UMAA magazine, Minnesota; Internet access; discounts on theatre and athletic tickets; and library access. For membership information, call 612-625-1310 or 800-UM ALUMS.
Scholarships
In addition to financial aid opportunities offered by the University, CEHD administers several scholarship programs of its own. Awards are subject to change or cancellation depending on availability of funds. Details about qualifications and application materials and instructions may be obtained from department offices or SPS, 110 Wulling Hall (612-625-6501).

Career Information
Education and human development fields are among the fastest growing career tracks in the country. Demographic changes expected over the next several decades will cause increased demand for professionals in such fields as early childhood education, special education, English as a second language, recreation and leisure studies, technology education, child psychology, and human resource development. CEHD graduates work in public school classrooms, higher education institutions, corporate education settings, human service agencies, schools and clinics, and a broad range of other settings. SPS can provide career counseling and information as well as referrals to other University career and employment services.

Prospective students can learn more about the current employment outlook for teachers during information sessions, through individual advising, and from the college’s annual placement report, The Occupational Status Report of Graduates: How Their Careers Began. For more information, contact SPS Career Services (612-625-9884).

Student Organization
The Association of Students in Education and Human Development (ASEHD) is open to all CEHD undergraduates as well as students in other University colleges who aspire to be educators or human development professionals. ASEHD has three subcommittees: intramurals, professional development, and community service. The intramural group participates in intramural sports organized by the University’s Department of Recreational Sports. Students interested in learning more about their chosen careers participate in the professional development group. The community service group serves the college, University, and Twin Cities metropolitan area. For more information, contact SPS, 110 Wulling Hall (612-625-6501).

Directory
(area code 612)
Administrative Offices
College Office
104 Burton Hall, Minneapolis
<www.coled.umn.edu>
625-6806
Student & Professional Services (SPS)
110 Wulling Hall, Minneapolis
<spso.coled.umn.edu/>
625-6501, fax: 626-1580
e-mail: spsinfo@tc.umn.edu
Academic Progress
Admission
Advising
Career Services (625-9884)
Commencement
Graduation Requirements
Registration (625-5815)
Teacher Licensure
Development and Alumni Relations
105 Burton Hall, Minneapolis
625-1310
Departments
Curriculum and Instruction
145 Peik Hall, Minneapolis
<ci.coled.umn.edu>
Fred Finley, chair
625-6372
Educational Policy and Administration
330 Wulling Hall, Minneapolis
<edpa.coled.umn.edu>
James Hearn, chair
624-1006
Educational Psychology
206 Burton Hall, Minneapolis
<edpsy.coled.umn.edu>
Mary McEvoy, acting chair
624-3543
Institute of Child Development
180 Child Development Building, Minneapolis
<icd.coled.umn.edu>
Ann Masten, director
624-0526
Kinesiology and Leisure Studies
110 Cooke Hall, Minneapolis
<www.kls.coled.umn.edu>
Michael Wade, director
625-5300
Bob Pickert, undergraduate contact
625-8868
Work, Community, and Family Education
210A Vocational and Technical Education Building, St. Paul
<www.wcfe.coled.umn.edu>
Jane Plital, chair
625-3757
Organizations
Association of Students in Education and Human Development
Student & Professional Services
110 Wulling Hall, Minneapolis
625-6501
College of Education and Human Development Alumni Society
105 Burton Hall, Minneapolis
<www.coled.umn.edu/alumni/>
625-1310

Through Web66, the college helped develop the nation’s first elementary school Web site at Hillside Elementary School in Cottage Grove, Minnesota.
College of Education and Human Development

Degree Programs

Agricultural Education
Department of Work, Community, and Family Education

B.S.
The undergraduate agricultural education program is a collaborative partnership between CEHD and the College of Agricultural, Food, and Environmental Sciences. Students may choose one of three specialization areas: agricultural science and technology education; agricultural leadership, training, and development; or natural and managed environmental education.

Agricultural Science and Technology Education Specialization
This specialization serves students preparing to teach agriscience, agribusiness, agriculture, horticulture, food systems, agrimechanics, and natural resource management under the licensure field of agricultural education in public schools at the 5-12 level. In addition, graduates of this specialization also are qualified for a broad array of agriculturally related positions in sales, management, finance, and production aspects of agriculture. The specialization allows students to have an emphasis area that includes a broad agricultural science and technology background.

Admission Requirements—Students may be admitted to this program as freshmen or may transfer into the program any semester. They must have a GPA of 2.50 for admission and complete the Praxis I: Pre-Professional Skills Tests (PPST).

Degree Requirements
Students may graduate from this program with a minimum 2.00 GPA, but a minimum 2.50 GPA is required for recommendation for a Minnesota teaching license.

Students must complete at least 128 credits to graduate, including required courses in the major. Students also must complete the University’s liberal education (LE) requirements, including approved writing intensive (W) courses. For more information, see page 35 in this catalog.

The specialization requires a broad study of agriculture, including plant science (horticulture, agronomy, plant pathology, and entomology), animal science, natural resources, soils, economics and agribusiness, agricultural mechanization, food science, foundations of education, foundations of agricultural education, and a full-year student teaching experience.

Required Courses
Communications (11 cr)
Rhet 1101—Writing to Inform, Convince, and Persuade (4 cr)
Rhet 1221—Oral Presentations in Professional Settings (3 cr)
Rhet 3562W—Technical and Professional Writing (4 cr)

Physical and Biological Sciences (19-20 cr)
Chem 1011—General Principles of Chemistry (4 cr)
BioC 2011—Biochemistry for the Agricultural and Health Sciences (3 cr)
Biol 1009—General Biology (4 cr)
or
Biol 1051—Introduction to Environmental Science (3 cr)
or
Agro 1103—Crops, Environment, and Society (4 cr)

Plus 3-4 credits from the following:
Agro 3003—Introduction to Integrated Weed Management (1 cr)
Ent 3001—Insects and Insect Management (1 cr)
PlPa 3001—Plant Disease Biology and Management (1 cr)

Plant Science (6 cr)
Agro 1101—Biology of Plant Food Systems (4 cr)
Agro/Hort 4401—Plant Genetics and Breeding (4 cr)
Hort 1001—Plant Propagation (4 cr)
Hort 1002—Home Horticulture (3 cr)
Hort 1012—Woody Landscape Plants (3 cr)
Hort 1013—Floral Design (2 cr)
Hort 3002—Greenhouse Management (3 cr)

Animal Science (6 cr)
AnSc 1511—Food Animal Products for Consumers (3 cr)
AnSc 2301—Systemic Physiology (4 cr)
AnSc/Agro 3203W—Environment, Global Food Production, and the Citizen (3 cr)
AnSc 3221—Animal Breeding (4 cr)

Natural Resources (6 cr)
FW 2001—Introduction to Fisheries, Wildlife, and Conservation Biology (3 cr)

Plus 3 credits from the following:
Agro/AnSc 3203—Environment, Global Food Production, and Citizens (3 cr)
EEB 3001—Ecology and Society (3 cr)
ES 1011—Issues in the Environment (3 cr)
NRES 1201—Conservation of Natural Resources (3 cr)

Soils (4 cr)
Soil 1125—The Soil Resource (4 cr)
or
Soil 2125—Basic Soil Science (4 cr)

Applied Economics and Agribusiness (8-9 cr)
ApEc 1021—Principles of Microeconomics (3 cr)
ApEc 3451—Food and Agricultural Sales (3 cr)

Plus 2-3 credits from the following:
ApEc 1251—Principles of Accounting (3 cr)
ApEc 3401—Markets, Marketing, and Prices (2 cr)
ApEc 3811—Principles of Farm Management (3 cr)
ApEc 3821—Retail Center Management (3 cr)

Agricultural Mechanization (6 cr)
Select two of the following courses:
AFEE 2001—Agricultural Systems (3 cr)
AFEE/BIE 3112—Technical Drawing and Production Technologies (3 cr)

Mathematics (3 cr)
Math 1031—College Algebra and Probability (3 cr)

Social Science (8 cr)
HSci 1814—Introduction to History of Science: Ancient Science to the Scientific Revolution (4 cr)
or
HSci 1815—Introduction to History of Science: Modern Science (4 cr)

Psych 1001—Introduction to Psychology (4 cr)
or
GC 1281—General Psychology (4 cr)

Agricultural Sciences and Applied Economics (40 cr)
Plant Science (6 cr)
Agro 3003—Introduction to Integrated Weed Management (1 cr)
Ent 3001—Insects and Insect Management (1 cr)
PlPa 3001—Plant Disease Biology and Management (1 cr)

Plus 3-4 credits from the following:
Agro 1101—Biology of Plant Food Systems (4 cr)
Agro/Hort 4401—Plant Genetics and Breeding (4 cr)
Hort 1001—Plant Propagation (4 cr)
Hort 1002—Home Horticulture (3 cr)
Hort 1012—Woody Landscape Plants (3 cr)
Hort 1013—Floral Design (2 cr)
Hort 3002—Greenhouse Management (3 cr)

Animal Science (6 cr)
AnSc 1511—Food Animal Products for Consumers (3 cr)
AnSc 2301—Systemic Physiology (4 cr)
AnSc/Agro 3203W—Environment, Global Food Production, and the Citizen (3 cr)
AnSc 3221—Animal Breeding (4 cr)

Natural Resources (6 cr)
FW 2001—Introduction to Fisheries, Wildlife, and Conservation Biology (3 cr)

Plus 3 credits from the following:
Agro/AnSc 3203—Environment, Global Food Production, and Citizens (3 cr)
EEB 3001—Ecology and Society (3 cr)
ES 1011—Issues in the Environment (3 cr)
NRES 1201—Conservation of Natural Resources (3 cr)

Soils (4 cr)
Soil 1125—The Soil Resource (4 cr)
or
Soil 2125—Basic Soil Science (4 cr)

Applied Economics and Agribusiness (8-9 cr)
ApEc 1021—Principles of Microeconomics (3 cr)
ApEc 3451—Food and Agricultural Sales (3 cr)

Plus 2-3 credits from the following:
ApEc 1251—Principles of Accounting (3 cr)
ApEc 3401—Markets, Marketing, and Prices (2 cr)
ApEc 3811—Principles of Farm Management (3 cr)
ApEc 3821—Retail Center Management (3 cr)

Agricultural Mechanization (6 cr)
Select two of the following courses:
AFEE 2001—Agricultural Systems (3 cr)
AFEE/BIE 3112—Technical Drawing and Production Technologies (3 cr)
AFEE/BIE 3121—Communication, Energy and Power, Transportation and Machinery Technologies (3 cr)

Food Science (3 cr)
FscN 1102—Food: Safety, Risks, and Technology (3 cr)

Professional Education (38-38.5 cr)

Foundations (15-15.5 cr)
EdH 5001—Learning, Cognition, and Assessment in the Schools (3 cr)
EdH 5003—Developmental and Individual Differences in Educational Contexts (3 cr)
EdH 5005—School and Society (2 cr)
EdH 5007—Technology for Teaching and Learning (1.5 cr)
EdH 5009—Human Relations: Applied Skills for School and Society (1 cr)
EdPA 5341—The American Middle School (3 cr)
PubH 3003—Fundamentals of Alcohol and Drug Abuse (2 cr)
or PubH 5003—Fundamentals of Alcohol and Drug Abuse (1.5 cr)

Agricultural Education (15 cr)
AFEE 1001—Introduction to Agricultural Education and Extension (1 cr)
AFEE 1002—Principles of Career Planning for Agricultural Professionals (1 cr)
AFEE 2096—Professional Practicum in Agricultural Education: Early Experience (1 cr)
AFEE 5111—Agricultural Education: Methods of Teaching (4 cr)
AFEE 5112—Agricultural Education Program Organization and Curriculum for Youth (4 cr)
AFEE 5113—Adult Agricultural Education Program Development and Technology (3 cr)
AFEE 5114—Agricultural Education Teaching Seminar (1 cr)

Work, Community, and Family Education (8 cr)
WCFE 5697—Teaching Internships: School and Classroom Settings (2 cr)
WCFE 5698—Teaching Internship (6 cr)

Agricultural Leadership, Training, and Development Specialization
This specialization provides a unique, futuristic educational opportunity combining agricultural science, communication, leadership, education, business and industry, training, and development. It provides a general background in agriculture, with agribusiness and industry associations. This specialization does not lead to teaching licensure.

The agricultural industry is faced with leadership and employee training and development challenges. This specialization provides students with opportunities and flexibility in employment ranging from human resource development, sales and marketing, extension, and communications in statewide, national, and international situations.

Admission Requirements—Students may be admitted to this program as freshmen or may transfer into the program any semester. They must have a GPA of 2.00 for admission.

Degree Requirements
Students must complete at least 124 credits, including required courses in the major. Students also must complete the University’s liberal education (LE) requirements, including approved writing intensive (W) courses. For more information, see page 35 in this catalog.

This specialization requires business experience as well as completion of courses. Students must maintain an overall GPA of 2.00.

Required Courses
Communications (11 cr)
Rhet 1101—Writing to Inform, Convince, and Persuade (4 cr)
Rhet 1223—Oral Presentations in Professional Settings (3 cr)
Rhet 3562W—Technical and Professional Writing (4 cr)

Mathematics (3 cr)
Math 1031—College Algebra and Probability (3 cr)

Physical and Biological Sciences (14 cr)
Agro 1101—Biology of Plant Food Systems (4 cr)
or Biol 1009—General Biology (4 cr)
BioC 2101—Biochemistry for the Agricultural and Health Sciences (3 cr)
Chem 1011—General Principles of Chemistry (4 cr)
ScAg 1501—Biotechnology: People and the Environment (3 cr)

Social Science (8 cr)
Phil 1003—Introduction to Ethics (4 cr)
Psy 1001—Introduction to Psychology (4 cr)
or GC 1281—General Psychology (4 cr)

Agricultural Sciences and Economics (52 cr)
Plant Science (9 cr)
Agro 3003—Introduction to Integrated Weed Management (1 cr)
Ent 3001—Insects and Insect Management (1 credit)
PIPa 3001—Plant Disease Biology and Management (1 cr)

Plus at least 6 credits from the following:
Agro 1101—Biology of Plant Food Systems (4 cr)
Agro 2501—Weed Biology and Systematics (2 cr)
Agro 3005—Applied Crop Physiology and Development (2 cr)
AnSc 320W—Environment, Global Food Production, and the Citizen (3 cr)

Hort 1001—Plant Propagation (4 cr)
Hort 1002—Home Horticulture (3 cr)
Hort 3005—Environmental Effects on Horticultural Crops (2 cr)

Animal Science (10 cr)
AnSc 1101—Introductory Animal Science (4 cr)
AnSc 1403—Companion Animal Nutrition and Care (2 cr)
or AnSc 2401—Animal Nutrition (3 cr)

Plus 3-4 credits from the following:
AnSc 1511—Food Animal Products for Consumers (3 cr)
AnSc 2102—Livestock and Carcass Evaluation (3 cr)
AnSc 320W—Environment, Global Food Production, and the Citizen (3 cr)

Soils (7 cr)
Soil 1125—The Soil Resource (4 cr)
or Soil 2125—Basic Soil Science (4 cr)

Plus 3 credits from the following:
Soil 1425—The Atmosphere (3 cr)
Soil 3221—Soil Conservation and Land-Use Management (3 cr)
Soil 3416—Plant Nutrients in the Environment (3 cr)

Applied Economics and Agribusiness (12 cr)
ApEc 1101—Principles of Microeconomics (3 cr)
ApEc 1251—Principles of Accounting (3 cr)
ApEc 3451—Food and Agricultural Sales (3 cr)

Plus 2-3 credits from the following:
ApEc 3401—Markets, Marketing and Prices (2 cr)
ApEc 3811—Principles of Farm Management (3 cr)
ApEc 3821—Retail Center Management (3 cr)

Agricultural Mechanization (3 cr)
AFEE 2051—Current Technical Competencies (3 cr)

Agricultural Leadership and Development (6 cr)
AFEE 4221—Rural Leadership Development (3 cr)
AFEE 5361—World Development Problems (3 cr)

Experiential Education (3 cr)
AFEE 3096—Experiential Learning: Production and Business (1–3 cr)

Agricultural Education and Extension (9 cr)
AFEE 1001—Introduction to Agricultural Education and Extension (1 cr)
AFEE 1002—Principles of Career Planning for Agricultural Professionals (1 cr)
AFEE 5111—Agricultural Education: Methods of Teaching (4 cr)
AFEE 5331—History, Philosophy, and Systems of Extension (3 cr)

Human Resource Development/Adult Education (15 cr)
HRD 5105—Strategic Planning in Human Resource Development (3 cr)
HRD 5201—Personnel Training and Development (3 cr)
HRD 5301—Organization Development (3 cr)
HRD 5001 W—Survey: Human Resource Development and Adult Education (3 cr)

Plus (three) elective credits in HRD courses.

Emphasis Areas

Students must select 10 credits in one of the following three emphasis areas:

Agricultural Science (10 cr)
- Agro 2105—Grain Grading and Crop Utilization (1 cr)
- Agro 2105—Seed Technology (1 cr)
- Agro 2501—Weed Biology and Systems (2 cr)
- Agro 3203 W—Environment, Global Food Production, and the Citizen (3 cr)
- Agro 3005—Applied Crop Physiology and Development (2 cr)
- AnSc 1511—Food Animal Products for Consumers (3 cr)
- AnSc 2012—Livestock and Carcass Evaluation (3 cr)
- AnSc 2211—Biometrics for Livestock (3 cr)
- AnSc 2301—Systemic Physiology (4 cr)
- FScn 1102—Food: Safety, Risks, and Technology (3 cr)
- PI P a 2002—Diseases of Field Crops (3 cr)
- PI P a 3002—Air Pollution, People, and Plants: The Science and the Ethics (3 cr)

Agricultural Business and Management (10 cr)
- ApEc 3041—Economic Development of U.S. Agriculture (3 cr)
- ApEc 3401—Markets, Marketing, and Prices (2 cr)
- ApEc 3411—Grain Marketing Economics (2 cr)
- ApEc 3421—Livestock and Meat Marketing Economics (2 cr)
- ApEc 3811—Principles of Farm Management (3 cr)

Communication (10 cr)
- Rhet 1152 W—Writing on Issues of Science and Technology (4 cr)
- Rhet 3221 W—Theories of Human Communication (4 cr)
- Rhet 3257—Scientific and Technical Presentations (3 cr)
- Rhet 3266—Group Process, Team Building, Leadership (3 cr)
- Rhet 3401—Accessing Information Through Electronic Media (3 cr)

Natural and Managed Environmental Education Specialization

This specialization serves students preparing to teach agriscience, agribusiness, agriculture, horticulture, food systems, agrimechanics, and natural resource management, all under the licensure field of agricultural education in public schools at the 5-12 level. In addition, graduates have an emphasis in natural resource management and education and are prepared for work in environmental learning centers.

Admission Requirements—Students may be admitted to this program as freshmen or may transfer into the program any semester. They must maintain an overall GPA of 2.00 and complete the Praxis I: Pre-Professional Skills Tests (PPST).

Degree Requirements

Students may graduate from this program with a minimum 2.00 GPA, but a minimum 2.50 GPA is required for recommendation for a Minnesota teaching license.

Students must complete at least 128 credits, including required courses in the major. Students also must complete the University’s liberal education (LE) requirements, including approved writing intensive (W) courses. For more information, see page 35 in this catalog.

The specialization requires a broad study in agriculture focused on the natural and managed environmental education areas. Areas of study include the environment, land, water, climate, economics, soil, plant science, animal science, and agricultural mechanization. It also includes foundations in education, foundations in agricultural education, and a full-year student teaching experience.

Required Courses

Communications (9-10 cr)
- Rhet 1101—Writing to Inform, Convince, and Persuade (4 cr)
- Rhet 1223—Oral Presentations in Professional Settings (3 cr)
- Rhet 3562 W—Technical and Professional Writing (4 cr)

Mathematics (3 cr)
- Math 1031—College Algebra and Probability (3 cr)

Physical and Biological Science (19-20 cr)
- BioC 2011—Biochemistry for the Agricultural and Health Sciences (3 cr)
- Biol 1009—General Biology (4 cr)
- or Biol 1051—Introduction to Environmental Science (3 cr)
- or Agro 1103—Crops, Environment, and Society (4 cr)
- Chem 1011—General Principles of Chemistry (4 cr)
- M  ic 2202—General Microbiology (2 cr)
- Phys 1001 W—Energy and the Environment (4 cr)
- or Phys 1101 W—Introductory College Physics I (4 cr)
- ScAg 1501—Biotechnology, People, and the Environment (3 cr)

Social Science (8 cr)
- Psy 1001—Introduction to Psychology (4 cr)
- or GC 1281—General Psychology (4 cr)
- HSci 1814—Introduction to History of Science: Ancient Science to the Scientific Revolution (4 cr)
- or 1815—Introduction to History of Science: Modern Science (4 cr)

Environmental Science (40 cr)

Environmental (8-9 cr)
- ES 1011—Issues in Environment (3 cr)
- FW 2001—Introduction to Fisheries, Wildlife, and Conservation Biology (3 cr)
- Plus 2-3 credits from the following:
  - EEB 3001—Ecology and Society (3 cr)
  - Fr 2104—Forest Measurement Techniques (1 cr)
  - Fr 3104—Forest Ecology (4 cr)
  - Fr 3251—Role of Renewable Natural Resources in Developing Countries (1 cr)
- FW 1002—Wildlife: Ecology, Values, and Human Impact (3 cr)
- FW 3003—Wildlife in Agricultural Land (2 cr)

Land, Water, Atmosphere (7 cr)
- Soil 2125—Basic Soil Science (4 cr)
- Plus 3-4 credits from the following:
  - NRES 1201—Conservation of Natural Resources (3 cr)
  - Soil 1425—The Atmosphere (3 cr)
  - Soil 3221—Soil Conservation and Land-Use Management (3 cr)
  - Soil 3416—Plant Nutrients in the Environment (3 cr)
- Plant Science (6 cr)
  - PIP a 3001—Plant Disease Biology and Management (1 cr)
  - Ent 3001—Insects and Insect Management (1 cr)
  - Agro 3003—Introduction to Integrated Weed Management (1 cr)
- Plus 3-4 credits from the following:
  - Agro/Hort 4401—Plant Genetics and Breeding (4 cr)
  - Agro or Hort (Electives)

Animal Science (6 cr)
- AnSc 2401—Animal Nutrition (3 cr)
- Plus 3-4 credits from the following:
  - AnSc 1101—Introductory Animal Science (4 cr)
  - AnSc 1403—Companion Animal Nutrition and Care (2 cr)
  - AnSc 1512—Food Animal Products for Consumers (3 cr)
  - AnSc 2012—Livestock and Carcass Evaluation (3 cr)
  - AnSc 3203 W—Environment, Global Food Production, and the Citizen (3 cr)

Agricultural Mechanization (6 cr)
- Select 6 credits from the following:
  - AFEE 2051—Current Technical Competencies (3 cr)
  - AFEE/BIE 3112—Technical Drawing and Production Technologies (3 cr)
  - AFEE/BIE 3121—Communication, Energy and Power, Transportation and Machinery Technologies (3 cr)
Food Science (3 cr)
FScN 1102—Food: Safety, Risks, and Technology (3 cr)

Professional Education (38–38.5 cr)

Foundations (15–15.5 cr)
EdHD 5001—Learning, Cognition, and Assessment in the Schools (3 cr)
EdHD 5003—Developmental and Individual Differences in Educational Contexts (3 cr)
EdHD 5005—School and Society (2 cr)
EdHD 5007—Technology for Teaching and Learning (1.5 cr)
EdHD 5009—Human Relations: Applied Skills for School and Society (1 cr)
EdPA 5341—The American Middle School (3 cr)
PubH 3003—Fundamentals of Alcohol and Drug Abuse (2 cr)
or PubH 5003—Fundamentals of Alcohol and Drug Abuse (1.5 cr)

Agricultural Education (15 cr)
AFEE 1001—Introduction to Agricultural Education and Extension (1 cr)
AFEE 1002—Principles of Career Planning for Agricultural Professionals (1 cr)
AFEE 2096—Professional Practicum in Agricultural Education: Early Experience (1 cr)
AFEE 5111—Agricultural Education: Methods of Teaching (4 cr)
AFEE 5112—Agricultural Education Program Organization and Curriculum for Youth (4 cr)
AFEE 5113—Adult Agricultural Education Program Development and Technology (3 cr)
AFEE 5114—Agricultural Education Teaching Seminar (1 cr)

Work, Community, and Family Education (8 cr)
WCFE 5697—Teaching Internship: School and Classroom Settings (2 cr)
WCFE 5698—Teaching Internship (6 cr)

Business and Industry Education

Department of Work, Community, and Family Education

B.S.
The undergraduate business and industry education major, offered through the Department of Work, Community, and Family Education, includes two possible focuses: general industrial education (prelicensure in technology education) and vocational and technical education (technical college teaching). Students may take courses meeting requirements for a combination of these focuses. This would require taking additional industrial training courses. Graduate study also is available in both focuses. Courses followed by TES (Teacher Education Sequence) fulfill TES state licensure requirements.

Business and Industry Education

A technical education certificate is also available. For more information, see the Certificates section on page 126.

General Industrial Education Focus

Degree Requirements

Students completing the general industrial education (prelicensure in technology education) focus are awarded the B.S. degree, which fulfills prerequisites for entry into the master of education (M.Ed./initial licensure program for public school teaching in technology education. Completing the M.Ed./initial licensure program usually results in recommendation for licensure to teach technology education in grades 5-12 in Minnesota public schools. Students may graduate from this program with a minimum 2.00 GPA, but a minimum 2.80 GPA is required for admission to the M.Ed./initial licensure program.

Students also must complete the University’s liberal education (LE) requirements, including approved writing intensive (W) courses. For more information, see page 35 in this catalog.

Admission Requirements—To be admitted to this program, students must complete 30 credits and have a minimum overall GPA of 2.00.

Required Courses

Industrial Education Pedagogical Studies

(19–21 credits)
The BIE pedagogical studies course block includes courses in curriculum, teaching methods, testing, vocational guidance, and working with special needs students, as well as in the history and purposes of business and industry education.

BIE 1301—Introduction to Vocational-Technical Teaching (2 cr)
TES—Required for initial state vocational licensure (not required of students who have completed two other TES courses).
BIE 5325—Foundations of Industrial Education (3 cr)
BIE/HRD 5601—Student and Trainee Assessment (2 cr) TES
BIE/HRD 5628—Multimedia Presentations in Business (3 cr)
BIE/HRD 5629—Course Development for Business and Industry (2 cr) TES
BIE/HRD 5661—Instructional Methods for Business and Industry (2 cr) TES
WCFE 5801—Educating Special Populations in Work, Community, and Family Settings (3 cr)
and BIE 5321—Vocational Guidance in Business and Industry (2 cr)
or BIE 5344—Facilities Management in Business and Industry (3 cr)

Core Courses (44 cr)

Issues, Structures, and Functions of Industry (8 cr)
Courses dealing with issues, structures, and functions of industry; selection must be approved by student’s adviser.

Technology Content (36 cr)

Basic Technology Content (24 cr)
BIE 3111—Exploring Technology Systems (3 cr)
BIE/AFEE 3112—Technical Drawing and Production Technologies (3 cr)
BIE 3113—Manufacturing Technology (3 cr)
BIE 3114—Construction Technology (3 cr)
BIE/AFEE 3121—Communication, Energy and Power, Transportation and Machinery Technologies (3 cr)
BIE 3122—Communication and Information Technology (3 cr)
BIE 3123—Energy, Power, and Transportation Technology (3 cr)
BIE 5101—Technological Problem Solving (3 cr)

Advanced Technology Content (12 cr)
BIE 3151—Technical Development: Advanced (1-4 cr)
BIE 5151—Technical Development: Specialized (1-12 cr)

Additional Requirements (9-14 cr)
BIE 1396—Supervised Vocational-Technical Teaching (2 cr)
BIE 5011—Introduction to Microcomputer Applications (3 cr)
EPsy 5135—Human Relations—Work and Society (4 cr)
or EdHD 5003—Developmental and Individual Differences in Educational Contexts (3 cr)
and EdHD 5009—Human Relations: Applied Skills for School and Society (1 cr)
PubH 3004—Basic Concepts in Personal and Community Health (4 cr)
or PubH 3001—Personal and Community Health (2 cr)
and PubH 3003/5003—Fundamentals of Alcohol and Drug Abuse (2 cr/1.5 cr)
WCFE 5301—Philosophy and Practice of Vocational Education (2 cr) TES—Required for initial state vocational licensure; required for industrial education.

Electives—Selected in consultation with adviser to complete 124 credits.
American Red Cross standard first aid and personal safety certificates must be current at graduation. Requirement may be waived for some students; adviser approval is required.

Vocational and Technical Education Focus

The vocational and technical education focus is a professional development degree program for current and prospective technical college instructors and teachers in selected secondary vocational programs. Students completing this focus are awarded the B.S. degree and complete the teacher education sequence and other requirements for Minnesota state vocational teaching licensure. Students should consult state licensing personnel regarding specific vocational requirements for the field in which they wish to teach.

Students also must complete the University’s liberal education (LE) requirements, including approved writing intensive (W) courses. For more information, see page 35 in this catalog.

Admission Requirements—To be admitted to this program, students must complete 30 credits or be awarded 30 credits for verified and approved technical work experience. Students must also have earned a minimum overall GPA of 2.50.

Required Courses

Business and Industry Education Pedagogical Studies (19-21 cr)

The BIE pedagogical studies course block includes courses in curriculum, teaching methods, testing, vocational guidance, and working with special needs students, as well as in the history and purposes of business and industry education.

BIE 1301—Introduction to Vocational and Technical Teaching (2 cr) TES — Required for initial state vocational licensure (not required of students who have completed two other TES courses).

or BIE 5325—Foundations of Industrial Education (3 cr)

or BIE 5401—Introduction to Business and Marketing Education (3 cr)

or BIE/HRD 5601—Student and Trainee Assessment (2 cr) TES

or BIE/HRD 5629—Multimedia Presentations in Business (2 cr) TES

or BIE/HRD 5661—Instructional Methods for Business and Industry (2 cr) TES

or BIE 5463—Methods of Teaching Keyboarding and Word Processing (2 cr)

or BIE 5452—Methods of Teaching Business Concepts (3 cr)

or BIE 5457—Methods of Teaching for Business Employment (3 cr)

or WCFE 5801—Educating Special Populations in Work, Community, and Family Settings (3 cr)

Two courses from the following list, as approved by an adviser:

BIE 5321—Vocational Guidance in Business and Industry (2 cr)

BIE 5344—Facilities Management in Business and Industry (3 cr)

BIE 5463—Methods of Teaching Keyboarding and Word Processing (2 cr)

BIE 5452—Methods of Teaching Business Concepts (3 cr)

BIE 5457—Methods of Teaching for Business Employment (3 cr)

Core Courses (44 cr)

Issues, Structures, and Functions of Business and Industry (8 cr)

Courses dealing with issues, structures, and functions of business and industry; selection must be approved by adviser.

WCFE 3011W—Introduction to Technology and Public Ethics (3 cr)

or WCFE 5011W—Technology and Public Ethics (3 cr)

Work experience in business or industry or vocational-technical specialization courses (30 cr)

30 credits, at least 10 of which must be earned through BIE 5596 or verified work experiences.

BIE 3151—Technical Development: Advanced (1-4 cr)

BIE 5151—Technical Development: Specialized (1-12 cr)

BIE 5596—Occupational Experience in Business and Industry (1-10 cr) or verified work experience in business or industry (30 cr max)

Technical/Occupational Development in Business or Industry (6 cr)

BIE 3151—Technical Development: Advanced (1-4 cr)

BIE 5012—Advanced Word Processing (3 cr)

BIE 5013—Spreadsheet Analysis Using Microcomputers (3 cr)

BIE 5014—Database Microcomputer Applications (3 cr)

BIE 5015—Integrated Microcomputer Applications in Business and Marketing Education (3 cr)

BIE 5151—Technical Development: Specialized (1-12 cr)

BIE 5596—Occupational Experience in Business and Industry (1-10 cr)

BIE/HRD 5628—Multimedia Presentations in Business (3 cr)

Additional Requirements (12-17 cr)

AdEd 5101—Strategies for Teaching Adults (3 cr)

BIE 1396—Supervised Vocational-Technical Teaching (2 cr) (required only of those students without teaching experience)

BIE 5011—Introduction to Microcomputer Applications (3 cr)

EPsy 5315—Human Relations Workshop (4 cr)

or EdEd 5003—Developmental and Individual Differences in Educational Contexts (3 cr)

and EdEd 5009—Human Relations: Applied Skills for School and Society (1 cr)

PubH 3001—Personal and Community Health (4 cr)

or PubH 3001—Personal and Community Health (2 cr)

and PubH 3003/5003—Fundamentals of Alcohol and Drug Abuse (2 cr/1.5 cr)

WCFE 5301—Philosophy and Practice of Vocational Education (2 cr) TES — Required for initial state vocational licensure; required for industrial education (recommended for business education).

Electives—selected in consultation with adviser to complete 124 credits.

American Red Cross standard first aid and personal safety certificates must be current at graduation. Requirement may be waived for some students with adviser approval.

Coaching

School of Kinesiology and Leisure Studies

Minor Only

The coaching minor offers an in-depth study of the theoretical and practical nature of coaching through a planned and integrated series of courses. Completion of the coaching minor also will qualify the student for the University of Minnesota Coaching Certificate.

Additional offerings include certificates in coaching and sport management. For more information, see the Certificates section on page 126.

Admission Requirements—Admission is open to all University students. A Coaching Program Application Form must be submitted (available in 220 Cooke Hall).

Students must maintain a 2.50 GPA in courses submitted for the completion of the coaching minor.

Required Courses

Kin 3027—Human Anatomy for Kinesiology Students (3 cr)

or Kin 3111—Human Anatomy (2 cr)

or InMd 3001—Human Anatomy (3 cr)

Kin 3113—First Responder for Coaches and Athletic Trainers (3 cr)

or current American Red Cross Standard First Aid and CPR certification

Kin 3114—Prevention and Care of Athletic Injuries (3 cr)

Kin 3133—Motor Control, Learning, and Development (3 cr)

Kin 3143—Organization and Management of Sport (3 cr)

or Kin 5725—Organization and Management of Physical Education and Sport (3 cr)

Kin 5607—Student Teaching: Coaching (1–10 cr)

Two courses from Kin 3112, Kin 3126/5126, Kin 3385, Kin 4385, Kin 5136, SpSt 3621, SpSt 3641
Two courses from Kin 3168, Kin 3169, Kin 3171, Kin 3172, Kin 3173, Kin 3174, Kin 3175, Kin 3176, Kin 3177, Kin 3178, Kin 3179, Kin 3181, Kin 5720

Final Project
Kin 5697—Student Teaching: Coaching consists of two parts. The first part is a supervised coaching experience with a professional in the field (student coaching practicum covering a specific sport season from beginning to end). The second part involves participation in coaching seminar classes and a written integrative paper delving into such topics as a personal coaching philosophy, the role of coaching in society, and the identification and solution of various issues/challenges in coaching.

Foundations of Education

Department of Curriculum and Instruction
B.S.
CEHD admits upper division (typically junior status) students to this undergraduate program that serves as preparation for the M.Ed./initial licensure program in elementary education. The curriculum includes an extensive core of liberal education courses central to elementary school teaching. The major coursework provides a foundation for working with children in a school setting and emphasizes the multicultural nature and special needs of an urban environment.

Students who complete this program receive a B.S. degree with a major in foundations of education. Students may move into the initial licensure program in elementary education if they meet the minimum entrance criteria for the M.Ed. degree (contact SPS at 612-625-6501). Licensure requirements can be completed with a designated cohort with additional coursework and clinical experience. This program also prepares graduates to move into settings in which a strong liberal education is useful.

Admission Requirements—To be admitted to this program, students must complete 60 credits in specified courses (contact SPS) and have an overall GPA of 2.50 (higher recommended), education-related experience with grades 1–6, and experience with diverse populations.

Degree Requirements

Students may graduate from this program with a minimum 2.00 GPA, but a minimum 2.80 GPA is required for admission to the M.Ed./initial licensure program. Students must complete at least 120 credits, including 24.5 credits in the major.

Students also must complete the University’s liberal education (LE) requirements, including approved writing intensive (W) courses. For more information, see page 35 in this catalog.

Required Courses

Prerequisites
CI 1001—Introduction to the Elementary School (3 cr)
Psy 1001—Introduction to Psychology (4 cr)
or GC 1281—General Psychology (4 cr)

Introductory Block
CI 5111—Introduction to Elementary School Teaching (3 cr)
CI 5183—Applying Instructional Methods in the Elementary Classroom (1 cr)
EdHD 5001—Learning, Cognition, and Assessment in the Schools (3 cr)

Special Education Core
CI 5183—Applying Instructional Methods in the Elementary Classroom (1 cr)
EPsy 5613—Foundations of Special Education I (3 cr)

Courses for Junior and Senior Year
CPsy 4303—Adolescent Psychology (4 cr)
EdHD 5003—Developmental and Individual Differences in Educational Contexts (3 cr)
EdHD 5005—School and Society (2 cr)
EdHD 5007—Technology for Teaching and Learning (1.5 cr)
EdHD 5009—Human Relations: Applied Skills for School and Society (1 cr)
PubH 5003—Fundamentals of Alcohol and Drug Abuse (1.5 cr)
or PubH 3003—Fundamentals of Alcohol and Drug Abuse (2 cr)

Human Resource Development

Department of Work, Community, and Family Education
B.S.

Undergraduate students prepare for entry-level employment in training and development and build the foundation for advanced work in the fields of human resource development or human resources and industrial relations. All students also select a programmatic or thematic supporting program, usually from the fields of business, human resources and industrial relations, speech communications, and rhetoric, though there are no restrictions on what this supporting program might be.

The program core requires all students to develop a baseline understanding of training and development, organization development, and adult education. With an international reputation for excellence, the program also supports the Human Resource Development Research Center and an outstanding student organization providing additional opportunities for students’ professional development.

A human resource development certificate is also available. For more information, see the Certificates section on page 126.

Admission Requirements—Admission to this program is competitive; all applicants with a minimum 2.50 overall GPA are considered. Admission decisions are made once each semester and once during the summer, based on availability of positions within the program. For more information about admission, contact the undergraduate HRD adviser.

Degree Requirements

Students must complete at least 120 credits, including at least 40 credits in the major. Students also must complete the University’s liberal education (LE) requirements, including approved writing intensive (W) courses. For more information, see page 35 in this catalog.

Human resource development students must complete the following: a core of 21 credits consisting of courses in training and development, organization development, and adult education; a supporting program of 13 credits (to be selected in conjunction with the student’s adviser); an internship; and the University’s liberal education requirements, including some specified courses within those requirements (contact SPS). An overall GPA of 2.00 is required for graduation.

Required Courses

General Courses
Psy 1001—Introduction to Psychology (4 cr)
One speech performance course
One microeconomics or macroeconomics course
One college-level math course (not statistics)

Human Resource Development (21 cr min)
BIE 5661—Instructional Methods in Business and Industry (2 cr)
or AdEd 5101—Strategies for Teaching Adults (3 cr)
HRD 5001—Survey: Human Resource Development and Adult Education (3 cr)

HRD 5196—Internship: Human Resource Development (4 cr)
(Students may take up to an additional 6 credits if those credits are not used to meet the minimum of 21 credits required by HRD)

HRD 5201—Personnel Training and Development (3 cr)

HRD 5301—Organization Development (3 cr)

Additional courses, to meet the 21 credit total, are to be selected from remaining HRD courses and may include:

FE 5201—Family and Work Relationships (3 cr)

WCFE 5121—Principles of Supervisory Management (3 cr)

Required Related Coursework

BIE 5011—Introduction to Microcomputer Applications (3 cr)
or an advanced computer course in BIE if the adviser agrees that the student already has the competencies included in BIE 5011

WCFE 3011W—Introduction to Technology and Public Ethics (3 cr)
or WCFE 5011W—Technology and Public Ethics (3 cr)

Supporting program (13 credits minimum)
Program electives to complete the 120 credit requirement for the B.S.

Electives—A significant number of elective credits is usually available. These may be selected in consultation with the student’s adviser.

Final Project

Students must complete 4 credits of internship.

Kinesiology

School of Kinesiology and Leisure Studies
B.S.

The bachelor of science program in kinesiology prepares individuals for roles in sports/health clubs or corporate fitness/exercise centers or serves as background for exercise rehabilitation, exercise physiology, biomechanics, social psychology of sport, motor behavior, ergonomics, human factors, and other human performance contexts. Kinesiology is an appropriate major for students seeking careers in the allied health sciences, such as athletic training, physical and occupational therapy, medicine, and nursing. It can be used as preparation for the M.Ed./initial licensure program in physical education.

The curriculum includes two years of liberal education; a core of basic and applied sciences; physical activity skills; courses in kinesiology’s major subdisciplines; and practicum experience in various sport, exercise, educational, or public service/workplace settings.

Emphasis areas in the kinesiology major include athletic training, exercise science/exercise physiology, fitness-wellness/corporate fitness, pre-physical education teaching, pre-physical therapy or pre-occupational therapy, sport psychology, sport sociology, and human factors/ergonomics.

Additional offerings include a coaching certificate, a coaching minor, and a sport management certificate.

Admission Requirements—Admission is based on the following:

• A 2.50 overall GPA

• Sixty credits, completed or in progress, including the following courses that partially fulfill the University’s liberal education requirements for graduation:
  • One 3-credit speech performance course
  • One course each in biology, chemistry, and physics (all with labs)
  • One course in statistics (preferred) or college algebra or calculus. Students must have an appropriate high-school math background or acceptable college-level course. Students who have satisfied the math prerequisite for physics should enroll in a statistics course (a junior/senior-level statistics class is required by the pre-physical therapy emphasis area.)
  • Psy 1001—Introduction to Psychology (4 cr) or GC 1281—General Psychology (4 cr) (grade of C- or higher recommended)
  • Kin 3027—Human Anatomy for Kinesiology Students (3 cr) or CBN 3001—Human Anatomy (3-4 cr) or equivalent
  • Kin 1871—Introduction to Kinesiology (2 cr)
  • Five physical activity courses (1 cr each) chosen from at least four of the following categories: aquatic, conditioning and weight training, dance, individual and dual sports/activities, team sports/activities

Degree Requirements

Students may graduate from this program with a minimum 2.00 GPA, but a minimum 2.80 GPA is required for M.Ed./initial licensure program.

Students completing this program with a total of 120 credits, including 54 credits in the major, and a 2.00 GPA both overall and in major courses receive the B.S. degree in kinesiology. Eligible Kin-designated courses are listed in the Class Schedule and numbered 18xx and above.

Students also must complete the University’s liberal education (LE) requirements, including approved writing intensive (W) courses. For more information, see page 35 in this catalog.

Required Courses

Kin 1871—Introduction to Kinesiology (2 cr) (recommended prerequisite)

Kin 3027—Human Anatomy for Kinesiology Students (3 cr)
or
Kin 3111—Human Anatomy (3 cr) or equivalent
or
InMd 3001—Human Anatomy (3 cr)
The undergraduate program in recreation, park, and leisure studies prepares students to assume leadership, supervisory, or beginning administrative responsibilities in various park, recreation, and leisure service agencies and for therapeutic recreation certification and practice. The program also prepares students for graduate study in outdoor recreation/education, park and recreation administration, and therapeutic recreation. Many students couple recreation, park, and leisure studies with coursework in other disciplines, such as management, social work, physical and occupational therapy, forestry, creative arts, human growth and development, special education, and psychology.

Students pursuing a B.S. degree in recreation, park, and leisure studies may choose one of two options:

- leisure services management emphasis areas that include commercial recreation, outdoor recreation/education, or public parks and recreation
- therapeutic recreation emphasis areas that include community-based or clinical-based recreation. (Completion of this program meets the requirements for certification by the National Council on Therapeutic Recreation Certification.)

Additional offerings include a coaching certificate, a coaching minor, and a sport management certificate. For more information, see the Certificates section on page 126.

**Admission Requirements**—To be admitted to this program, students must complete a minimum of 30 credits of the University’s liberal education requirements, including the writing skills requirement; have earned a minimum overall GPA of 2.00, with preference given to applicants with a higher average; and have relevant education- or career-related experience, paid or volunteer. For more information about liberal education requirements, see page 35 in this catalog. Appropriate related and major courses may be applied toward these requirements.

**Degree Requirements**

Students completing this curriculum with a total of 120 credits, including 78 credits in the major, and a minimum 2.00 GPA in Rec-designated courses receive the B.S. degree in recreation, park, and leisure studies. A minor is not required of majors in this program. Certain emphasis areas require specific courses to meet curriculum requirements; consult the School of Kinesiology and Leisure Studies (612-625-5300). A preliminary program of coursework should be filed during the second term after admission.

**Required Courses**

- Leisure services management courses
  - PubH 3004—Basic Concepts in Personal and Community Health (4 cr)
  - Econ 1101—Principles of Microeconomics (4 cr)
- Therapeutic recreation course
  - CPsy 2301—Introductory Child Psychology (4 cr)
- College and curriculum requirements
  - Physical activity courses (3 courses, 1 cr each)
  - GC 1281—General Psychology (4 cr) (grade of C- or higher)
  - GC 1461—Oral Communication in the Public Sphere (3 cr)
  - PubH 3001—Personal and Community Health (2 cr)
  - PubH 3003—Fundamentals of Alcohol and Drug Abuse (2 cr)
  - Spch 1101—Introduction to Public Speaking (3 cr)
  - GC 1461—Oral Communication in the Public Sphere (3 cr)
  - Rhet 1223—Oral Presentations in Professional Settings (3 cr)
  - Spch 3131—Analysis of Argument (3 cr)
  - Rec 1501—Orientation to Leisure and Recreation (3 cr)
  - Rec 3281—Research and Evaluation in Recreation, Park, and Leisure Studies (4 cr)
  - Rec 3541—Recreation Programming (3 cr)
  - Rec 3551—Administration and Finance of Leisure Services (4 cr)
  - Rec 3601—Leisure and Human Development (3 cr)
  - Rec 5271—Community Leisure Services for Persons with Disabilities (3 cr)
  - Rec 3796—Senior Internship in Recreation, Park, and Leisure Studies (12 cr)
  - 9 credits in recreation courses related to an emphasis area, selected in consultation with a major adviser.

24 credits related to the selected emphasis area (no more than three 1xxx courses), selected in consultation with an appropriate academic adviser. To become professionally certified as a therapeutic recreation specialist, certain specific courses also are required in the therapeutic recreation option, including abnormal psychology, anatomy, and physiology.

**Electives**—Any course for which a student has appropriate prerequisites and has been approved by the adviser relative to programmatic focus can be used toward this degree.

**Final Project**

After meeting eligibility requirements, students complete an intensive 12-credit senior internship (Rec 3796). Students should see their adviser and the internship coordinator no later than the early part of the semester preceding registration for Rec 3796. An internship manual may be obtained from the division office or from the internship coordinator.
Sport Studies

School of Kinesiology and Leisure Studies

B.S.

The sport studies major focuses on contemporary sport as a product of social, psychological, and economic phenomena. Because of its predominant role in our culture, economy, and societal behavior, sport is a fertile subject for academic inquiry. While open to all who meet the admission requirements, the sport studies major addresses in part the need of those students who have a primary interest in sport as an activity that has been and continues to be a major force in their lives. Graduates may find employment in sport or other fitness-related occupations. The program also prepares students for graduate study in sport management and kinesiology. Coursework in sport studies addresses such topics as ethics and sport, psychology of sport performance, sport as a sociocultural phenomenon, sport history and philosophy, sport facilities and equipment, sport promotion, sport law, and the business of sport.

Features of the program include an 8-credit experiential course, a senior seminar, and a set of focused electives. Each student selects electives from one of the following three emphasis areas: coaching, sport management, or youth services/development.

Additional offerings include a coaching certificate, a coaching minor, and a sport management certificate. For more information, see the Certificates section on page 126.

Admission Requirements—To be admitted to this program, students must have 60 credits completed or in progress. Admission preference is given to students who have completed liberal education requirements and have an overall GPA of 2.00 before the April 1 admission deadline. For more information about liberal education requirements, see page 35 in this catalog.

Degree Requirements

The sport studies program totals 120 credits, including 48 credits of liberal education requirements, 25 credits of required major courses, 16 credits of college and curriculum requirements, 20 credits of focused electives, and elective courses to satisfy the 120-credit graduation requirement. A GPA of 2.00 in courses with a SpSt designator is required to graduate.

Required Courses

Major Courses (25 cr)

- SpSt 1701—Introduction to Sport Studies (2 cr)
- SpSt/Rin 3143—Organization and Management of Sport (3 cr)
- SpSt 3501—Sport in a Diverse Society (3 cr)
- SpSt 3611—Sport Psychology (2 cr)
- SpSt 3601—Ethics and Values in Sport (2 cr)
- SpSt 3861—Legal Aspects of Sport (2 cr)
- SpSt 3881—Senior Seminar in Sport Studies (3 cr)
- SpSt 3996—Practicum: The Sport Experience (10 cr)

College and Curriculum Requirements (16 cr min)

Education and human development electives (not including Kin, Rec, or SpSt courses) (6 cr)
- PubH 3004—Basic Concepts in Personal and Community Health (4 cr)
- or PubH 3001—Personal and Community Health (2 cr)
- and PubH 3003—Fundamentals of Alcohol and Drug Abuse (2 cr)
- Physical education activity courses (3 courses, 1 cr each)
- Spch 1101—Introduction to Public Speaking (3 cr)
- or GC 1461—Oral Communication in the Public Sphere (3 cr)
- or Rhet 1223—Oral Presentations in Professional Settings (3 cr)
- or Spch 1313—Analysis of Argument (3 cr)

PSY 1001—Introduction to Psychology (4 cr)
- or GC 1281—General Psychology (4 cr)
- or Soc 1001—Introduction to Sociology (3 cr)

Focused Elective (20 cr min)

In consultation with the sport studies major adviser, each student selects at least 20 credits from one of the following three sets of focused electives as listed below:

Coaching
- FScNi 1112—Principles of Nutrition (3 cr)
- GC 1571—Introduction to Microcomputer Applications (4 cr)
- SpSt 3111—Sports Facilities (2 cr)
- SpSt 3112—Applied Sport Science (2 cr)
- SpSt 3621—Applied Sport Psychology (2 cr)
- SpSt 3641—Training and Conditioning for Sport (2 cr)

Students also must choose at least 5 credits from courses in the following list to earn coaching certification or a coaching minor:
- Kin 3027—Human Anatomy for Kinesiology Students (3 cr)
- or Kin 3111—Human Anatomy (2 cr)
- or equivalent course
- Kin 3113—First Responder for Coaches and Athlete Trainers (3 cr)
- Kin 3114—Prevention and Care of Athletic Injuries (3 cr)
- Kin 3133—Motor Control, Learning, and Development (3 cr)
- Kin 3143—Organization and Management of Sport (3 cr)
- or Kin 5725—Organization and Management of Physical Education and Sport (3 cr)

- Kin 5697—Student Teaching: Coaching (1–10 cr)

Two of the following courses:
- Kin 3112, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3181, 5720

Sport Management
- BLaw 3085—The Law of Contracts and Agency (4 cr)
- Econ 1101—Principles of Microeconomics (4 cr)
- Econ 1102—Principles of Macroeconomics (4 cr)
- GC 1540—Accounting Fundamentals 1 (3 cr)
- or Acct 2050—Introduction to Financial Reporting (4 cr)
- GC 1571—Introduction to Microcomputer Applications (4 cr)
- or BIE 5011—Introduction to Microcomputer Applications (3 cr)

HRIR 3021—Human Resource Management and Industrial Relations (2 cr)
- Mktg 3001—Principles of Marketing (2 cr)
- Mgmt 3001—Fundamentals of Management (2 cr)
- or Spch 3201—Introduction to Electronic Media Production (3 cr)
- Spch 3441—Introduction to Organizational Communication (3 cr)
- SpSt 3111—Sports Facilities (2 cr)
- SpSt 3112—Applied Sport Science (2 cr)
- SpSt 3421—The Business of Sport (2 cr)
- SpSt 3631—Sport Promotion and Programming (2 cr)

Youth Services/Development
- CPsy 3301—Introductory Child Psychology for Social Sciences (4 cr)
- CPsy 4303—Adolescent Psychology (4 cr)
- CPsy 4331—Social and Personality Development (4 cr)
- CPsy 4334W—Children, Youth in Society (4 cr)
- EdPA 5372—Youth in Modern Society (3 cr)
- FSoS 1101—Intimate Relationships (3 cr)
- GC 1571—Introduction to Microcomputer Applications (4 cr)
- or BIE 5011—Introduction to Microcomputer Applications (3 cr)
- Kin 1998—Health and Society (3 cr)
- Kin 5575—Competitive Sport for Children and Youth (3 cr)
- Rec 1501—Orientation to Leisure and Recreation (3 cr)
- Rec 2151—Outdoor and Camp Leadership (3 cr)
- Rec 3541W—Recreation Programming (3 cr)
- SpSt 3112—Applied Sport Science (2 cr)
- SpSt 3631—Sport Promotion and Programming (2 cr)
- SW 2001—Introduction to Social Welfare and Community Services (4 cr)
- Soc 3111—Introduction to Crime and Criminal Justice (3 cr)
- YoSt 2001—Introduction to Youth Studies (2 cr)
Undergraduate Leadership Minor

Interdisciplinary Minor Only
The undergraduate leadership minor is a 16-credit interdisciplinary program that helps students gain understanding and experience in multiple frameworks of leadership. The program develops the leadership and social change skills of undergraduates for their roles as citizens on the University campus and in the larger global community. This program is a collaborative effort of the college’s department of Educational Policy and Administration (EdPA), the University’s Hubert H. Humphrey Institute, and the Office for Student Development.

Admission Requirements—To be admitted to this minor, students must complete EdPA 1301/PA1961 with a grade of at least S (or C- or higher).

Program Completion Requirements
Students must complete at least 16 credits in the following areas:

Core Courses (9 cr)
EdPA 1301W/PA 1961W—Personal Leadership in the University (3 cr)
EdPA 3302W—Leadership in the Community/PA 3961W—Leadership, You, and Your Community (3 cr)
EdPA 4303W—Leadership in the World/PA 4961W—Self-Developed Leadership in the World (3 cr)

Field Experience (2 cr)
These credits are designed with a leadership program adviser.

Electives (5 cr min)
Courses from other departments that have been approved by the leadership program’s advisory team.

For more program information, contact Verna Cornelius Simmons in the Office for Student Development, 612-625-6531.

Certificates

Coaching
This program prepares students to coach sports in public schools and youth organizations. It also meets the certification requirements needed to be a head coach in Minnesota high schools. Admission is open to all University students. For more information, call the School of Kinesiology and Leisure Studies at 612-625-3500.

Disability Policy and Services
This program offers an interdisciplinary study of contemporary theories and practices of service delivery for people with disabilities. While focusing on the needs of people with all types of disabilities, the program emphasizes the needs of people with developmental disabilities.

Admission is open to individuals from the community as well as students enrolled in the graduate programs (Graduate School or professional studies) at the University of Minnesota. For more information, call the Department of Educational Policy and Administration at 612-624-1006.

Human Resource Development
Coursework includes study of adult education, personnel training, and organization development Admission to this certificate program is open to degree-seeking or non-degree-seeking students or to individuals working in the HRD field who are seeking additional credentials. For more information about the program and monthly introduction sessions, contact Gary McLean (612-624-3004) at the Department of Work, Community, and Family Education (WCFE).

Sport Management
This interdisciplinary program offers specialized educational and professional preparation for careers in sport management. The program complements a student's academic program in business/management, kinesiology, recreation, or journalism.
Typical careers in sport management include sport organization management (budgeting, accounting, facility management), sport information management (marketing, promotion, advertising), and exercise and sport science or the “fitness/wellness” industry (testing, evaluating, and monitoring exercise and fitness programs). For more information, contact Bruce Anderson (612-625-4380) in the School of Kinesiology and Leisure Studies.

Technical Education
This program prepares students to become instructors in technical and community colleges, allows current instructors to upgrade their teaching skills, or offers a credential for workplace advancement. Students may be either degree seeking or non-degree seeking students. For more information on this program, contact the WCFE Student Information Office at 612-624-1221.