College of
Education and Human
Development

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General Information

The College of Education and Human Development (CEHD) offers undergraduate programs in a wide range of disciplines. Students can prepare for careers in school, business, government, and community settings.

Some programs prepare students to teach in preK-12 classrooms, while other programs prepare students for careers in areas of business and marketing, health and fitness, as well as government and social service agencies. All CEHD programs prepare students to combine knowledge of subject matter with leadership, communication, teamwork, and problem solving—valuable skills in any school or work setting.

CEHD offers a unique blend of academic excellence and applied knowledge, allowing students to learn from faculty members conducting research on educational and childhood development issues. Most programs require students to apply classroom and textbook knowledge to work situations of student teaching or internships.

Consistently ranked as one of the top professional schools of education in the country—public or private—the college is a state, national, and international leader in teaching, research, and outreach. The college was ranked 19th among all professional schools of education in the nation, by U.S. News and World Report in April 2004. Several of the college’s academic units are ranked in the top 10 nationally and its graduate programs place the college as one of the University’s leading academic units in conferring graduate degrees.

CEHD’s mission is to generate and apply knowledge about teaching, learning, and human development and to improve education for all individuals. The college prepares students to meet the challenges of teaching and leading in increasingly culturally diverse classrooms, schools, and society. Strongly committed to diversity, the college offers several financial and mentoring programs to support students of underrepresented populations. Because community outreach also plays an important role in its mission, the college has developed an extensive network of community ties allowing transfer of classroom and research knowledge to practice in schools and the workplace, and the incorporation of community viewpoints into the college’s teaching and research missions.

CEHD consists of six departments: Institute of Child Development; curriculum and instruction; educational policy and administration; educational psychology; kinesiology; and work, community, and family education. Classrooms, offices, computer labs, and more than 20 research and service centers occupy several buildings on the Minneapolis and St. Paul campuses. Founded in 1905, the college has approximately 723 undergraduate students, 2,750 graduate students, and 126 faculty.

Prospective students are strongly encouraged to attend an information session or meet with an adviser before applying. Register on the Web site at www.education.umn.edu/SPSevents/InfoSession or contact the college’s Office of Student and Professional Services (SPS), 110 Wulling Hall, 86 Pleasant Street S.E., Minneapolis, MN 55455 (612-625-6501 or e-mail: spsinfo@umn.edu).

Procedures

Applying to undergraduate programs at the College of Education and Human Development (CEHD) requires submission of separate sets of application materials to the University of Minnesota and to CEHD.

Applicants must submit the following items:

**University Application**—Students who have not been admitted to a degree program at any University of Minnesota campus must complete the University’s undergraduate application. The form is available from the Office of Admissions, 240 Williamson Hall, 231 Pillsbury Dr. S.E., Minneapolis, MN 55455 (612-625-2008 or 800-752-1000) or on the Web at http://admissions.tc.umn.edu. Contact the admissions office for application deadlines; submit the completed application to the admissions office.

Students who have previously been admitted to any University of Minnesota campus and college must complete the Application for Undergraduate Change of College or the Application for Admission to Second Undergraduate Degree Program. These forms are available from the One Stop Student Services Center, 200 Fraser Hall, 106 Pleasant St. S.E., Minneapolis, MN 55455 (612-624-1111) or on the Web at http://onestop.umn.edu/Forms/. Contact the registrar’s office for application deadlines.

**CEHD Application**—Applicants must submit the completed Application Materials form for individual degree programs to the college’s office of Student and Professional Services (SPS) (110 Wulling Hall, 86 Pleasant St. S.E., Minneapolis, MN 55455; 612-625-6501; fax: 612-626-1580) by the deadlines listed below. Application forms are available at SPS or can be downloaded from the Web at www.education.umn.edu/SPS/Forms. Required application materials vary by program.

**Application Deadlines**—Most CEHD undergraduate programs admit students twice a year according to the schedule below. CEHD application materials are due by these deadlines:

- March 1 for fall term admission
- October 1 for spring term admission.

The sport studies program admits students only once per year; application deadline for fall term admission is March 1.

Programs of Study

CEHD offers undergraduate and graduate degrees. CEHD programs include bachelor of science (B.S.) degrees, minors, certificates, master of education (M.Ed.)/initial teacher licensure, (M.Ed.)/professional studies, and additional licensure. The University’s Graduate School offers the master of arts (M.A.), specialist certificate, doctor of education (Ed.D.), and doctor of philosophy (Ph.D.) degrees 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.

The two main categories of CEHD undergraduate programs are described below.

• **Teaching and teaching preparation programs**—These programs prepare students to meet requirements for preK–12 teaching licensure in the state of Minnesota, in areas of early childhood education, elementary education, or business and technology education.

• **Human development programs**—These programs can lead to careers in agricultural industry, business and marketing education, kinesiology, or sport studies.

Some undergraduate programs appear in both categories because they offer teaching preparation and human development programs (e.g., agricultural education).

For information about other CEHD programs, see the college’s Professional Studies Catalog at [http://education.umn.edu/catalogs/catalog_intro.html](http://education.umn.edu/catalogs/catalog_intro.html) or the University of Minnesota Graduate School Catalog at [www.catalogs.umn.edu/grad](http://www.catalogs.umn.edu/grad).

Teaching and Teaching Preparation Programs
These programs prepare students for K–12 teaching licensure by the state of Minnesota. Other states may have different requirements. Contact state teaching licensure agencies for more information.

Some undergraduate programs in the following list offer a direct path to licensure (e.g., technology education). Others require further study in related master of education (M.Ed.)/initial licensure programs. For example, students who want to teach in K–6 classrooms may complete several separate steps leading to a teaching license: first earning approximately 60 semester credits at a freshman-admitting college (e.g., College of Liberal Arts), then completing a CEHD undergraduate program in elementary education and the M.Ed./initial licensure program in elementary education.

• agricultural education
• business and industry education: career and technical education
• foundations of education: early childhood education
• foundations of education: elementary
• kinesiology
• music education—See College of Liberal Arts section.
• technology education

For more information, contact a program adviser at Student and Professional Services, 612-625-6501, or e-mail spsinfo@umn.edu.

Human Development Programs
These programs prepare students for leadership, supervisory, or administrative positions by developing the leadership and communication skills needed for a career in business or fitness and recreation settings. Graduates work in areas ranging from sales and marketing, human resource development, coaching, health and fitness clubs, state parks, and youth and community recreation agencies.

• agricultural education
• business and marketing education
• child psychology—See College of Liberal Arts section.

• human resource development
• kinesiology
• recreation, park, and leisure studies
• sport studies
• technology education

Minors
Two minors are available: coaching and leadership. The coaching minor is available to all University students. For more information, call 612-625-5300. The undergraduate leadership minor is open to students who have completed EdPA 1301/PA 1961 with a grade of at least S (or C- or better). For more information, call the Office for Student Affairs at 612-625-6531. See also the coaching and leadership minors in the CEHD degree program section.

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 at [http://onestop.umn.edu/schedule/html/tc.html](http://onestop.umn.edu/schedule/html/tc.html) 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).

Researchers at the college’s Center for Applied Research and Educational Improvement (CAREI) authored a study that showed the negative impact of early school starting times on teenage students. Many schools across Minnesota and the country adopted later start times as a result of this research.

Graduation Requirements
Amount and Quality of Work—Completion of at least 120 credits with a C (2.00) average, including the specified coursework in psychology (minimum grade of C-) and writing, is required for graduation. Students in teaching licensure programs (agricultural education, business and industry education: career and technical education, music education, and technology education) must earn a minimum 2.50 GPA to be recommended for state licensure. 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.

Applying for a Degree—Students must apply to graduate one full semester before completion of the final coursework. The Application for Degree form may be completed at any of the One Stop Student Services Centers, 612-624-1111, or downloaded from the Web at [http://onestop.umn.edu/Forms/](http://onestop.umn.edu/Forms/). The final program form or degree audit must also be submitted to the faculty adviser at that time. In addition, students whose major fields are agricultural education; business and industry education; human resource development; kinesiology; recreation, park, and leisure studies; or technology education must file an adviser-approved program with the college’s Student Scholastic Standing Committee.
Teaching Licensure

To teach in a public school classroom, students must be licensed by the state. Several CEHD teacher licensure programs are offered at the undergraduate level: agricultural education; business and industry education; career and technical education; music education; and technology education. Other CEHD initial 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 adult basic education, agricultural education, art education, business and marketing education, early childhood education and early childhood special education, elementary education, English education, family education, industrial education (technology education), mathematics education, physical education, science education, second languages and cultures education (including English as a second language), social studies education, and special 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 meet specific competencies. This requirement is met through a combination of required and elective coursework at the graduate level. Candidates also must pass the Praxis Series tests, which assess basic skills of reading, writing, and mathematics; content knowledge; and pedagogy and teaching methods. Minnesota state law also requires all initial licensure applicants to be fingerprinted and pass criminal background checks.

Accreditation

Periodic accreditation reviews ensure that CEHD programs maintain high academic and professional standards. CEHD programs are accredited by the following organizations: National Council for the Accreditation of Teacher Education (NCATE), American Psychological Association (APA), Minnesota State Board of School Administrators, American Psychological Association (APA), Council on Education of the Deaf, Council on Accreditation (National Recreation and Park Association), and Council for Exceptional Children (CEC).

Early Admission Option

This program allows undergraduate juniors or seniors at the University of Minnesota to get a head start on a teaching career by offering preferred admission to a master of education (M.Ed.)/initial licensure program. Students in the early admission program explore the teaching profession by attending a one-credit course (EdHD 3001) with other pre-education students each semester. Students also spend at least 100 hours working in an educational setting, which fulfills one of the M.Ed./initial licensure program admission requirements. Students are expected to complete the undergraduate degree within two years of starting the early admission program and begin the M.Ed./initial licensure program within two years of receiving the B.S. or B.A. degree.

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 or on the Web at www.education.umn.edu/SPS). 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 during specific times each weekday to answer general questions regarding admission, program requirements, academic planning, registration, academic progress, scholarships, career services, teacher licensure, commencement, and other student-affairs issues. SPS also offers information sessions for individual degree programs. The meetings cover information on admission and program requirements.

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) or visit the Web site at www.education.umn.edu/SPS/prospective/diversity.

Computing Facilities

CEHD students have access to several instructional computing labs, 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 5,000 members, the society sponsors programs and scholarships for current students and offers a variety of opportunities for alumni to stay connected to the college. Benefits include the CEHD alumni magazine, The Link; the UMAA magazine, Minnesota; discounts on Internet access; discounts on theatre and athletic tickets; and library access. For membership information, call 612-625-1310 or 800-UMALUMS or visit the Web site at www.education.umn.edu/alum.

Scholarships

In addition to financial aid offered by the University, CEHD administers several scholarship programs of its own. Students are encouraged to apply for scholarships to further their studies; most CEHD awards are made on an annual basis. Find out more about available scholarships, application materials and instructions from department offices or SPS, 110 Wulling Hall (612-625-6501; e-mail: spsinfo@umn.edu) or on the Web at www.education.umn.edu/SPS/awards.

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.

Students can search for job openings on Ed Jobs U Seek, a free listing of job openings in the education and human development fields on the Web at www.education.umn.edu/jobs/. Prospective students can learn more about the current employment outlook for teachers during information sessions, through individual advising, and from the college’s annual survey of graduates, How Their Careers Began. For more information, contact SPS Career Services (612-625-9884) or see the Web site at www.education.umn.edu/SPS/career.

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.education.umn.edu
625-6606

Student & Professional Services (SPS)
110 Wulling Hall, Minneapolis
www.education.umn.edu/SPS
625-6501
fax: 626-1580
e-mail spsinfo@umn.edu

SPS offers the following services:
- Academic Progress
- 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
www.education.umn.edu/CI
Deborah Dillon, chair
625-1362

Educational Policy and Administration
330 Wulling Hall, Minneapolis
www.education.umn.edu/EdPA
David Chapman, chair
626-8728

Educational Psychology
206 Burton Hall, Minneapolis
www.education.umn.edu/EdPsych
John Romano, chair
625-2046

Institute of Child Development
180 Child Development Building, Minneapolis
www.education.umn.edu/ICD
Ann Masten, director
624-0526

Kinesiology
110 Cooke Hall, Minneapolis
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.education.umn.edu/WCFE
Roland Peterson, chair
624-4736

 Organizations

Association of Students in Education and Human Development
110 Wulling Hall, Minneapolis
625-6501

College of Education and Human Development Alumni Society
105 Burton Hall, Minneapolis
www.education.umn.edu/alum
625-1310
College of
Education and Human Development

Degree Programs, Minors, and Certificates

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. Three specializations are available; the following two prepare students for Minnesota state teaching licensure:

- Agricultural science and technology education
- Natural and managed environmental education

The agricultural leadership, training, and development specialization prepares students for agricultural industry and leadership careers, focusing on development of interpersonal skills. It does not lead to teaching licensure.

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. The specialization’s broad agricultural science and technology background also prepares graduates for a wide range of agriculturally related positions in sales, management, finance, and production aspects of agriculture.

Admission Requirements—Students may be admitted to this program after completing at least 60 semester credits. A minimum GPA of 2.50 is recommended.

Degree Requirements

Students may graduate from this program with a minimum 2.00 overall GPA, but a minimum 2.50 overall GPA is required for recommendation for Minnesota teaching licensure. Major coursework (courses with AFEE, BIE, EHD, HRD, and WCFE designators) must be completed with a minimum 2.00 GPA with no grade lower than C-. A minimum grade of C- is also required for general psychology.

Students must complete at least 128 credits to graduate, including required courses in the major. Students must also complete the University’s liberal education requirements, including approved writing intensive (W) courses. For more information, see the Liberal Education Requirements section 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.

Major Foundation Courses

Communications (11 cr)
Rhet 1101—Writing to Inform, Convince, and Persuade (4 cr)
or
Rhet 1421—Writing Laboratory: Basic Writing (3 cr)
and
Rhet 1422—Writing Laboratory: Communicating in Society (3 cr),
GC 1423—Writing Laboratory: Community Service Writing (3 cr),
or
Rhet 1424—Writing Laboratory: Communicating in a Diverse Society (3 cr)
Rhet 1223—Oral Presentations in Professional Settings (3 cr)
or
GC 1461—Oral Communication in the Public Sphere (3 cr)
Rhet 3562W—Technical and Professional Writing (4 cr)

Physical and Biological Sciences (19-21 cr)
Agro 1101—Biology of Plant Food Systems (4 cr)
or
Biol 1009—General Biology (4 cr)
or
Biol 1051—Introduction to Environmental Science (3 cr)
or
GC 1131—Principles of Biological Science (4 cr)
BioC 2011—Biochemistry for the Agricultural and Health Sciences (3 cr)
Chem 1011—General Principles of Chemistry (4 cr)
MicB 2022—General Microbiology (2 cr)
Phys 1001W—Energy and the Environment (4 cr)
or
Phys 1101W—Introductory College Physics I (4 cr)
ScAg 1501—Biotechnology, People, and the Environment (3 cr)
or
GC 1163—Physical Systems: Principles and Practices (4 cr)

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

Social Science (8 cr)
HSci 1714—Technology and Western Civilization: To the Industrial Revolution (4 cr)
or
HSci 1715—Technology and Western Civilization: Since the Industrial Revolution (4 cr)
or
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)
or
any history course that meets HP or IP liberal education requirements

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

Agricultural Sciences and Applied Economics (40 cr)

Plant Science (6-7 cr)
Agri 3001—Pests and Crop Protection (3 cr)
Plus 3-4 credits from the following:
Agro 1103—Crops, Environment, and Society (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 (5-7 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 1101—Introductory Animal Science (4 cr)
AnSc 1511—Food Animal Products for Consumers (3 cr)
AnSc 2012—Livestock and Carcass Evaluation (3 cr)
AnSc/Agro 3203W—Environment, Global Food Production, and the Citizen (3 cr)
AnSc 3221—Animal Breeding (4 cr)

Natural Resources (6 cr)
At least 6 credits from the following:
Agro/AnSc 3203W—Environment, Global Food Production, and the Citizen (3 cr)
EEB 3001—Ecology and Society (3 cr)
ES 1011—Issues in the Environment (3 cr)
ES 1051—Introduction to Environmental Science (3 cr)
FW 1002—Wildlife: Ecology, Values, and Human Impact (3 cr)
ENR 1201—Conservation and Management of Natural Resources (3 cr)

Physical and Biological Sciences (19-21 cr)
Agro 1101—Biology of Plant Food Systems (4 cr)
or
Biol 1009—General Biology (4 cr)
or
Biol 1051—Introduction to Environmental Science (3 cr)
or
GC 1131—Principles of Biological Science (4 cr)
BioC 2011—Biochemistry for the Agricultural and Health Sciences (3 cr)
Chem 1011—General Principles of Chemistry (4 cr)
MicB 2022—General Microbiology (2 cr)
Phys 1001W—Energy and the Environment (4 cr)
or
Phys 1101W—Introductory College Physics I (4 cr)
ScAg 1501—Biotechnology, People, and the Environment (3 cr)
or
GC 1163—Physical Systems: Principles and Practices (4 cr)

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

Social Science (8 cr)
HSci 1714—Technology and Western Civilization: To the Industrial Revolution (4 cr)
or
HSci 1715—Technology and Western Civilization: Since the Industrial Revolution (4 cr)
or
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)
or
any history course that meets HP or IP liberal education requirements

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

Agricultural Sciences and Applied Economics (40 cr)

Plant Science (6-7 cr)
Agri 3001—Pests and Crop Protection (3 cr)
Plus 3-4 credits from the following:
Agro 1103—Crops, Environment, and Society (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 (5-7 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 1101—Introductory Animal Science (4 cr)
AnSc 1511—Food Animal Products for Consumers (3 cr)
AnSc 2012—Livestock and Carcass Evaluation (3 cr)
AnSc/Agro 3203W—Environment, Global Food Production, and the Citizen (3 cr)
AnSc 3221—Animal Breeding (4 cr)

Natural Resources (6 cr)
At least 6 credits from the following:
Agro/AnSc 3203W—Environment, Global Food Production, and the Citizen (3 cr)
EEB 3001—Ecology and Society (3 cr)
ES 1011—Issues in the Environment (3 cr)
ES 1051—Introduction to Environmental Science (3 cr)
FW 1002—Wildlife: Ecology, Values, and Human Impact (3 cr)
ENR 1201—Conservation and Management of Natural Resources (3 cr)

Soils (4 cr)
Soil 1125—The Soil Resource (4 cr)
or
Soil 2125—Basic Soil Science (4 cr)
Students must complete at least 128 credits to graduate, included required courses in the major. Students must also complete the University’s liberal education requirements, including approved writing intensive (W) courses. For more information, see the Liberal Education Requirements section 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.

**Major Foundation Requirements**

**Communications (11 cr)**
- Rhet 1101—Writing to Inform, Convince, and Persuade (4 cr)
  - or GC 1421—Writing Laboratory: Basic Writing (3 cr)
  - and GC 1422—Writing Laboratory: Communicating in Society (3 cr)
  - or GC 1423—Writing Laboratory: Community Service Writing (3 cr)
  - or GC 1424—Writing Laboratory: Communicating in a Diverse Society (3 cr)
- Rhet 1223—Oral Presentations in Professional Settings (3 cr)
- or GC 1461—Oral Communication in the Public Sphere (3 cr)
- Rhet 3562W—Technical and Professional Writing (4 cr)

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

**Physical and Biological Science (19-21 cr)**
- Agro 1101—Biology of Plant Food Systems (4 cr)
  - or Biol 1009—General Biology (4 cr)
  - or Biol 1051—Introduction to Environmental Science (3 cr)
  - or GC 1131—Principles of Biological Science (4 cr)
  - BioC 2011—Biochemistry for the Agricultural and Health Sciences (3 cr)
  - Chem 1011—General Principles of Chemistry (4 cr)
  - MicB 2022—General Microbiology (2 cr)
  - Phys 1001W—Energy and the Environment (4 cr)
  - or Phys 1101W—Introductory College Physics I (4 cr)
- ScAg 1501—Biotechnology, People, and the Environment (3 cr)
  - or GC 1163—Physical Systems: Principles and Practices (4 cr)

**Degree Programs**

**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 after completing at least 60 semester credits. A minimum GPA of 2.50 is recommended.

**Degree Requirements**

Students may graduate from this program with a minimum 2.00 overall GPA, but a minimum 2.50 overall GPA is required for recommendation for Minnesota teaching licensure. Major coursework (courses with AFEE, BIE, EdHD, HRD, and WCFE designators) must be completed with a minimum 2.00 GPA with no grade lower than C-. A minimum grade of C- is also required for general psychology.

**Applied Economics and Agribusiness (8-9 cr)**
- ApEc 1101—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)**
- AFEF 2051—Current Technical Competencies (3 cr)
  - Select one of the following courses:
    - AFEF/BIE 3112—Technical Drawing and Production Technologies (3 cr)
    - AFEF/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 Development Core (37.5-38.5 cr)**

**Foundations (14.5-15.5 cr)**
- EdHD 5001—Learning, Cognition, and Assessment in the Schools (3 cr)
- EdHD 5002—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 cr)

**Agricultural Education (15 cr)**
- AFEF 1001—Introduction to Agricultural Education and Extension (1 cr)
- AFEF 1002—Principles of Career Planning for Agricultural Professionals (1 cr)
- AFEF 2096—Professional Practicum in Agricultural Education: Early Experience (1 cr)
- AFEF 5111—Agricultural Education: Methods of Teaching (4 cr)
- AFEF 5112—Agricultural Education Program Organization and Curriculum for Youth (3 cr)
- AFEF 5114—Agricultural Education Teaching Seminar (1 cr)
- AFEF 5115—Coordinating of SAE Programs: Work-based Learning (2 cr)
- AFEF 5118—Strategies for Managing and Advising the FFA Organization (2 cr)

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

Completion of standard first aid and cardiopulmonary resuscitation (CPR) training is required for licensure.

**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 after completing at least 60 semester credits. A minimum GPA of 2.50 is recommended.

**Degree Requirements**

Students may graduate from this program with a minimum 2.00 overall GPA, but a minimum 2.50 overall GPA is required for recommendation for Minnesota teaching licensure. Major coursework (courses with AFEE, BIE, EdHD, HRD, and WCFE designators) must be completed with a minimum 2.00 GPA with no grade lower than C-. A minimum grade of C- is also required for general psychology.

**Plus 2-3 credits from the following:**
- AFEF 2096—Professional Practicum in Agricultural Education: Early Experience (1 cr)
  - or AFEF 5111—Agricultural Education: Methods of Teaching (4 cr)
  - or AFEF 5112—Agricultural Education Program Organization and Curriculum for Youth (3 cr)
  - or AFEF 5114—Agricultural Education Teaching Seminar (1 cr)
  - or AFEF 5115—Coordinating of SAE Programs: Work-based Learning (2 cr)
  - or AFEF 5118—Strategies for Managing and Advising the FFA Organization (2 cr)

The college's Institute of Child Development (ICD) is in the midst of its 26th year of a longitudinal study of the effects of poverty on parenting.
College of Education and Human Development

Soil Science (7 cr)
Soil 2125—Basic Soil Science (4 cr)
**Plus 3-4 credits from the following:**
ENR 1201—Conservation and Management of Natural Resources (3 cr)
Soil 1425—The Atmosphere (4 cr)
Soil 3221—Soil Conservation and Land-Use Management (3 cr)
Soil 3416—Plant Nutrients in the Environment (3 cr)

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

Plant Science (6 cr)
Agri 3001—Pests and Crop Protection (3 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 1511—Food Animal Products for Consumers (3 cr)
AnSc 2012—Livestock and Carcass Evaluation (3 cr)
AnSc 3203W—Environment, Global Food Production, and the Citizen (3 cr)

Agricultural Mechanization (6 cr)
AFEE 2051—Current Technical Competencies (3 cr)
Select one of the following courses:
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 Development Core (37.5-38.5 cr)
Foundations (14.5-15.5 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)
EdPD 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 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 (3 cr)
AFEE 5114—Agricultural Education Teaching Seminar (1 cr)
AFEE 5116—Coordination of SAE Programs: Work-based Learning (2 cr)
AFEE 5118—Strategies for Managing and Advising the FFA Organization (2 cr)

Work, Community, and Family Education (8 cr)
WCFE 5697—Teaching Internship: School and Classroom Settings (2 cr)
WCFE 5698—Teaching Internship (6 cr)
Completion of standard first aid and cardiopulmonary resuscitation (CPR) training is required for licensure.

Agricultural Leadership, Training, and Development Specialization
This specialization provides a unique, futuristic educational opportunity combining agricultural science, management, 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, extended, and communications in statewide, national, and international situations.

Admission Requirements—Students may be admitted to this program after completing at least 60 semester credits. A minimum GPA of 2.50 is recommended.

Degree Requirements
Students may graduate from this program with a minimum 2.00 overall GPA. major coursework (courses with AFEE, BIE, EdHD, HRD, and WCFE designators) must be completed with a minimum 2.00 GPA with no grade lower than C-. A minimum grade of C- is also required for general psychology.

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

Major Foundation Requirements
Communications (11 cr)
Rhet 1101—Writing to Inform, Convince, and Persuade (4 cr)
or GC 1421—Writing Laboratory: Basic Writing (3 cr)
and GC 1422—Writing Laboratory: Communicating in Society (3 cr),
GC 1423—Writing Laboratory: Community Service Writing (3 cr),
or GC 1424—Writing Laboratory: Communicating in a Diverse Society (3 cr)
Degree Programs

Business and Industry Education: Career and Technical Education

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

The major in business and industry education: career and technical education is a professional development degree program offering professional preparation in career and technical education. Students may select one of several program options.

The licensure program option prepares students for Minnesota teaching licensure for grades 9-12 in one of eight career and technical education fields in the following list:

- communication technology careers
- construction careers
- creative design careers
- early childhood careers
- hospitality service careers
- manufacturing careers
- medical careers
- transportation careers

The general career and technical education option also prepares students to teach in technical and community college CTE programs.

For more information on program and licensure requirements, contact the program adviser at 612-625-7250.
Admission Requirements—To be admitted to this program, students must have completed at least 30 semester credits (or sufficient verified and approved technical work experience to be awarded 30 credits toward the degree). Applicants to the general career and technical education option must have a minimum 2.50 GPA; applicants to the licensure program option must have a minimum 2.00 GPA.

Degree Requirements
Students may graduate from this 120-credit program with a minimum 2.00 GPA, but a minimum 2.50 GPA is required for recommendation for Minnesota teaching licensure. A minimum 2.00 GPA with no grade lower than C- is required for major courses with the following designators: BIE, HRD, and WCFE. A minimum grade of C- is also required for general psychology.

Students must also complete at least 30 credits at the University of Minnesota after admission to CEHD as a student in the bachelor of science program.

Students must complete the University’s liberal education requirements, including approved writing intensive (W) courses. Courses that meet these requirements may be found on the Web at http://onestop.umn.edu/Student/index.html.

Required Courses
TES (Teacher Education Series) notation indicates that the course fulfills TES state licensure requirements.

Business and Industry Education Pedagogical Studies (19-22 cr)
BIE pedagogical studies includes courses in curriculum, teaching methods, testing, career guidance, and working with special-needs students, as well as in the history and purposes of business and industry education.

BIE 5325—Foundations of Industrial Education (3 cr)
or BIE 5401—Introduction to Business and Marketing Education (3 cr)
EdHD 5001—Learning, Cognition, and Assessment in the Schools (3 cr)
WCFE 1301—Introduction to Career and Technical Education Teaching (2 cr)
TES (required for initial state licensure but not required of students who have completed two of the other TES courses)
WCFE 3601—Foundations of Student and Trainee Assessment (2 cr) TES
or HRD/WCFE 5601—Student and Trainee Assessment (2 cr) TES
WCFE 3629—Foundations of Course Development for Business and Industry (2 cr) TES
or HRD/WCFE 5629—Course Development for Business and Industry (2 cr) TES
WCFE 3661—Foundations of Instructional Methods for Business and Industry (2 cr) TES
or HRD/WCFE 5661—Instructional Methods for Business and Industry (2 cr) TES
WCFE 5801—Educating Special Populations in Work, Community, and Family Settings (3 cr)

In addition to WCFE 3661 or HRD/WCFE 5661, students pursuing two focus areas of the general career and technical education program (marketing; or business and office focus areas) may choose from the following courses:

BIE 5463—Methods of Teaching Keyboarding and Word Processing (2 cr)
or BIE 5452—Methods of Teaching Business and Marketing Concepts (3 cr)
or BIE 5457—Methods of Teaching Business Employment and Marketing Employment (3 cr)

Two courses from the following list, as approved by an adviser:
BIE 5321—Vocational Guidance in Business and Industry Education (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 and Marketing Concepts (3 cr)
BIE 5457—Methods of Teaching Business Employment and Marketing Employment (3 cr)
BIE 5628—Multimedia Presentations in Business (3 cr)

Core Courses (44 cr)

Issues, structures, and functions of business and industry (8 cr)
Course 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 and industry or career and technical specialization courses (30 cr)
At least 10 credits must be earned through BIE 5596 or verified work experiences.
BIE 3151—Technical Development: Advanced (1-30 cr)
BIE 5151—Technical Development: Specialized (1-12 cr)
BIE 5596—Occupational Experience in Business and Industry (1-10 cr)

Technical/occupational development in business or industry (6 cr)
BIE 3111—Exploring Technology Systems (3 cr)
BIE 3112—Technical Drawing and Production Technologies (3 cr)
BIE 3113—Manufacturing Technology (3 cr)
BIE 3114—Construction Technology (3 cr)
BIE 3121—Communication, Power and Energy, Transportation and Machinry Technologies (3 cr)
BIE 3122—Communication and Information Technology (3 cr)
BIE 3123—Energy, Power, and Transportation Technology (3 cr)
BIE 5011—Introduction to Computer Applications (3 cr)
BIE 5012—Advanced Word Processing (3 cr)
BIE 5013—Spreadsheet Analysis Using Computers (3 cr)
BIE 5014—Database Computer Applications (3 cr)
BIE 5015—Integrated Computer Applications in Business and Marketing Education (3 cr)
BIE 5511—Technical Development: Specialized (1-12 cr)
BIE 5596—Occupational Experience in Business and Industry (1-10 cr)

Additional requirements (12-17 cr)
AdEd 5102—Perspectives of Adult Learning and Development (3 cr)
BIE 1396—Supervised Career and Technical Teaching (4 cr) (required only of those students without teaching experience)
BIE 5011—Introduction to Computer Applications (3 cr)
EdHD 5009—Human Relations: Applied Skills for School and Society (1 cr)
PubH 3004—Basic Concepts of 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 cr)

Required for state career and technical licensure, and recommended for business education:
WCFE 3301—Foundations of Philosophy and Practice of Career and Technical Education (2 cr) TES
or WCFE 5301—Philosophy and Practice of Career and Technical Education (2 cr) TES

Electives—selected in consultation with adviser to complete 120 credits. American Red Cross standard first aid and personal safety certificates must be current at graduation.

Business and Marketing Education

Department of Work, Community, and Family Education

B.S.

This undergraduate program focuses on business and marketing education, with a choice of computer or sales and marketing emphasis areas.

Coursework includes computer training, business communication, management, and marketing. The program prepares students to work as educators in business settings or to work in technical support and administration positions. This area of study can also prepare students for careers in office systems, accounting, marketing, sales, entrepreneurship, and international business.

Admission Requirements—To be admitted to this program, students must complete at least 30 semester credits, including credits in progress at the time of application, and have a minimum 2.00 GPA in all previous college work.

Degree Requirements
Students may graduate from this 120-credit program with a minimum 2.00 GPA, but a minimum 2.80 GPA is required for preferred admission to the M.Ed./initial licensure program. Undergraduate degree requirements include a minimum 2.00
Students must complete at least 13 semester credits of coursework in the college, with at least 20 credits completed in the senior year.

Students must complete the University’s liberal education requirements, including approved writing intensive courses.

Required Courses (20-21 credits)

**University’s writing intensive requirement, including**

- Rhet 3562W—Technical and Professional Writing (4 cr)
- Comm 1101—Introduction to Public Speaking (3 cr)
- or Rhet 1223—Oral Presentations in Professional Settings (3 cr)
- Econ 1101—Principles of Microeconomics (4 cr)
- or Econ 1102—Principles of Macroeconomics (4 cr) (both courses required for Minnesota teaching licensure.)
- GC 1281—General Psychology (4 cr)
- or Psy 1001—Introduction to Psychology (4 cr)
- Math 1001—Excursions in Mathematics (3 cr)
- or Math 1031—College Algebra and Probability (3 cr)
- or a higher level math course
- WCFC 3011—Introduction to Technology and Public Ethics (3 cr)

Business and Marketing Education Courses (21 credits)

A total of 21 credits is required in this category. Students must complete coursework for one of the following two focus areas:

- computer focus
- sales and marketing focus

**Note:** Students seeking Minnesota teaching licensure for grades 5-12 business education must select the program’s computer focus area.

Computer Focus Area (18 cr)

**Required for students seeking grades 5-12 business education licensure**

- BIE 5001—Introduction to Computer Applications (3 cr)
- BIE 5011—Advanced Word Processing (3 cr)
- BIE 5013—Spreadsheet Analysis Using Computers (3 cr)
- BIE 5014—Database Computer Applications (3 cr)
- BIE 5015—Integrated Computer Applications in Business and Marketing Education (3 cr)
- BIE 5626—Multimedia Presentations in Business (3 cr)

Sales and Marketing Focus Area (15 cr)

- BIE 5001—Teaching Marketing Promotion (3 cr)
- BIE 5011—Introduction to Computer Applications (3 cr)
- BIE 5015—Integrated Computer Applications in Business and Marketing Education (3 cr)
- BIE/HRD 5624—Sales Training (3 cr)
- BIE/HRD 5626—Customer Service Training (3 cr)

All students must also complete enough credits from the following list to fulfill the 21-credit requirement for the business and marketing education category.

Addtional Courses

- BIE 5597—Internship: Business and Industry Education (1-8 cr)
- BIE 5627—Management and Supervisory Development (3 cr)
- BIE/HRD 5662—Computer Training in School and Industry Settings (3 cr)
- HRD 5201—Training and Development of Human Resources (3 cr)
- HRD 5301—Organization Development (3 cr)
- HRD 5302—Managing Work Teams in Business and Industry (3 cr)
- WCFC 5121—Principles of Supervisory Management (3 cr)
- WCFC 5301—Philosophy and Practice of Career and Technical Education (2 cr)
- WCFC/HRD 5601—Student and Trainee Assessment (2 cr)
- WCFC/HRD 5629—Course Development for Business and Industry (2 cr)
- WCFC/HRD 5661—Instructional Methods for Business and Industry (2 cr)

Supporting Program (13 credits)

Students must create a supporting program of at least 13 credits with a business content. Students may choose one of the three following options, but pre-licensure students seeking Minnesota teaching licensure for grades 5-12 business education must select the Option 3—Licensure supporting program.

Option 1—Programmatic. Students select 13 business-related credits, all of which have a common course designator. Frequently selected designators include Mgmt (management), ApEc (applied economics), ABus (applied business), Econ (economics), Fina (finance), HRIR (human resources and industrial relations), Ins (insurance and risk management), Mktg (marketing), and OMS (operations and management sciences).

**Option 2—Thematic.** Students select 13 credits that support a general business theme, regardless of course designator.

**Option 3—Licensure.** Pre-licensure students must complete at least 13 credits from the following list of courses during the undergraduate program. However, students are strongly advised to complete all courses in the following list during their undergraduate program because all courses are required for Minnesota teaching licensure.

- Accr 2050—Introduction to Financial Reporting (4 cr)
- BLaw 3058—The Law of Contracts and Agency (4 cr)
- HRIR 3021—Human Resource Management and Industrial Relations (3 cr)
- IDS 3001—Information Systems for Business Processes and Management (3 cr)
- Mgmt 3001—Fundamentals of Management (3 cr)
- Mgmt 3014—Topics in International Business, Government, and Society (4 cr)
- Mgmt 4008—Entrepreneurial Management (4 cr)
- Mktg 3001—Principles of Marketing (3 cr)

One additional marketing course, selected in consultation with a WCFC faculty adviser (e.g., Mktg 4030—Selling and Sales Management)

American Red Cross standard first aid and personal safety certificates must be current at graduation. Requirement may be waived for business and marketing education majors with adviser approval.

Coaching

**School of Kinesiology**

**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 a certificate in coaching. For more information, see the Certificates section.

**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) and InMd 3002—Human Anatomy Laboratory (1 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 5697—Student Teaching: Coaching (1–10 cr)
- Two courses from Kin 3112, 4385, 5126, 5136, SpSt 3621, 3641
- Two courses from Kin 3168, 3169, 3170, 3171, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3181, 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: Early Childhood**

*Department of Curriculum and Instruction*

**B.S.**

The foundations of education (FOE): early childhood program prepares upper-division (typically junior or senior) students to work with young children and their families and to work with both typically and atypically developing children. The curriculum includes an extensive core of liberal education courses that are central to early childhood teaching and child development.

The program prepares graduates to move into non-licensure educational settings (including day-care centers or youth community programs), pursue advanced degrees, or work in other settings where a strong liberal education base is useful.

In addition, the undergraduate degree program prepares students to enter the master of education (M.Ed.)/initial licensure program in early childhood and early childhood special education. M.Ed. admission requirements include successful completion of all requirements for the B.S. degree, and successful school practicum experiences. Preferred admission to the M.Ed. program requires a minimum 2.80 GPA.

**Admission Requirements**—To be admitted to this program, students must complete at least 60 semester credits in specified courses (contact SPS program adviser), and have a 2.00 minimum overall GPA; a higher GPA is recommended.

**Degree Requirements**

Students must have a total of 120 credits with a minimum 2.00 overall GPA to complete this program. A minimum 2.00 GPA with no grade lower than C- is required for major courses with the following designators and course numbers: CI, CPsy, EdHD, EPsy, and Kin 4132. A minimum grade of C- is also required for general psychology. Students seeking to pursue the M.Ed./initial licensure program in early childhood and early childhood special education and Minnesota state teaching licensure must have a 2.80 GPA in the undergraduate program and meet other requirements.

Students must complete the University’s liberal education requirements, including the writing intensive (W) requirement. For more information, see the Liberal Education section in this catalog.

Content areas 1-6 listed below correspond to both the University’s liberal education requirements and the college’s FOE: early childhood requirements for the B.S. degree. By planning carefully, students can select courses that apply to both sets of requirements.

**Content Areas**

Courses prepare students for competency in Standard 1 of the Minnesota Standards of Effective Practice for Teachers (SEPT)—The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.

**Note:** All exceptions to these requirements must have written approval of the SPS program adviser.

1. **Basic Requirements**

**Pre-admission coursework**

(2 courses, must be completed before admission)

- **Psy 1001**—Introduction to Psychology (4 cr)
- or **GC 1281**—General Psychology (4 cr)
- **CPsy 2301**—Introductory Child Psychology (4 cr)
- or **CPsy 3301**—Introductory Child Psychology for Social Sciences (4 cr)
- **EPsy 2345**—Language Development (4 cr)
- or **EPsy 5603**—Childhood Language Development: Classroom Teaching and Learning Implications (3 cr)
- or **Ling 5501**—Introduction to Language Acquisition (3 cr)

2. **Language and Communication (3 courses)**

**Two courses in language and communication**

- **Comm 1101**—Introduction to Public Speaking (3 cr)
- or **Comm 3402**—Introduction to Interpersonal Communication (3 cr)
- or **GC 1461**—Oral Communication in the Public Sphere (3 cr)
- **Ling 1701**—Language and Society (4 cr)

3. **Mathematics (3 courses)**

**One course in college algebra**

- **Math 1031**—College Algebra and Probability (3 cr)
- or **EPsy 3264**—Basic and Applied Statistics (3 cr)
- or **EPsy 5603**—Childhood Language Development: Classroom Teaching and Learning Implications (3 cr)
- or **GC 1454**—Statistics (4 cr)
- or **Stat 1001**—Introduction to the Ideas of Statistics (3 cr)

4. **Science (3 courses)**

For course selection, see liberal education requirements at

http://onestop.umn.edu/registrar/libed/edu/

**Biological science with a lab**

Select any course that satisfies the diversified core requirement for Biol/L (biological science with laboratory).

**Physical science with a lab**

Select any physics or chemistry course that satisfies the diversified core requirement for Phys/L (physical science with laboratory).

**One science elective with or without a lab**

Select any one course in the diversified cores of Biol, Phys, or Envt.

5. **Social Studies (3 courses)**

**American history**

- **Hist 1302W**—U.S. History from 1865 to Present (4 cr)
- or **Hist 1308**—U.S. History: 1880 to Present (3 cr)
- or **GC 1231W**—U.S. Growth of National Power (4 cr)

**Human geography**

- **Geog 1301W**—Introduction to Human Geography (4 cr)
- or **Geog 3381W**—Population in an Interacting World (4 cr)
Foundations of Education: Elementary

Department of Curriculum and Instruction

B.S.

The B.S. in foundations of education (FOE): elementary prepares students to work with children, including those with special needs and in urban school settings.

The program serves as preparation for the master of education (M.Ed.)/initial licensure program in elementary education, which leads to state of Minnesota teaching licensure. It also prepares graduates to work in non-licensure educational settings (day-care centers or youth community programs) or other settings where a strong liberal education base is useful. The curriculum includes an extensive core of liberal education coursework that is central to elementary school teaching.

Students are eligible to pursue the M.Ed./initial licensure program in elementary education with an urban education emphasis after successfully completing all requirements for the B.S. degree with a minimum 2.80 GPA and successful school practicum experiences. Licensure requirements can be completed with a designated cohort in approximately two additional semesters of courses and clinical experience.

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 K–6, and experience with diverse populations.

Degree Requirements

Students must have a total of 120 credits with a minimum 2.00 overall GPA to complete this program. A minimum 2.00 GPA with no grade lower than C- is required for major courses with the following designators and course numbers: CI, EdHD, EPsy 5613, and EPsy 5616. A minimum grade of C- is also required for general psychology. Preferred admission to the M.Ed./initial licensure program in elementary education requires a 2.80 GPA in the undergraduate program and meeting other requirements.

Students must complete the University’s liberal education requirements, including the writing intensive (WI) requirement. For more information, see Liberal Education Requirements in the General Information section in this catalog.

Content areas 1-6 listed below correspond to both the University’s liberal education requirements and the college’s FOE: elementary requirements for the B.S. degree. By planning carefully, students can select courses that apply to both sets of requirements.

Curriculum—Students in the FOE: elementary program who decide to pursue the M.Ed./initial licensure program in elementary education must meet all content area requirements for the B.S. degree and an additional set of requirements for one of five preadmission specialty areas: preprimary education (ages 3–4) or one of the four middle school specialty areas (grades 5–8) in math, science, social studies, or communication arts and literature. Students must complete at least 15 credits in a specialty area. Child or adolescent psychology may not be applied to the 15-credit total.
Content Areas
Courses allow students to work toward competency in Standard 1 of the Minnesota Standards of Effective Practice for Teachers (SEPT)—The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.

Note: All exceptions to these requirements must have written approval of the SPS program adviser.

1. Basic Requirements (4 courses)

Pre-admission courses
(These courses must be completed before admission)
CI 1001—Introduction to the Elementary School (3 cr)
Psy 1001—Introduction to Psychology (4 cr)
or GC 1281—General Psychology (4 cr)

Language and communication
Ling 1701—Language and Society (4 cr) (recommended course)
or EngL 3601—Analysis of English Language and Culture (4 cr)
or Ling 3001—Introduction to Linguistics (4 cr)
or Ling 5001—Introduction to Linguistics (4 cr)

Musical aptitude
Mus 1001—Fundamentals of Music (3 cr)
This requirement may be waived for students who have musical aptitude equivalent to five-six years’ study of an instrument, through high school. Contact the SPS program adviser for more information.

2. Mathematics (4 courses)

One course in college algebra
Math 1031—College Algebra and Probability (3 cr)

Mathematics for elementary education
Math 3113—Topics in Elementary Mathematics I (4 cr)
Math 3118—Topics in Elementary Mathematics II (4 cr)

One course in statistical reasoning, calculus, or logic
EPsy 3264—Basic and Applied Statistics (3 cr) *
or GC 1454—Statistics (4 cr) *
or GC 1456—Functions and Problems of Logic (3 cr)
or Math 1142—Short Calculus (4 cr) *
or Math 1271—Calculus I (4 cr) *
or Phi 1001—Introduction to Logic (4 cr)
or Stat 1001—Introduction to the Ideas of Statistics (3 cr) *

* Students pursuing a middle-school specialty area in mathematics must complete one course in statistics and one course in calculus from the preceding list.

3. Science (4 courses)

Biological science with a lab
Biol 1001—Introductory Biology: Evolutionary and Ecological Perspectives (4 cr)
or Biol 1009—General Biology (4 cr)
or GC 1131—Principles of Biological Science (4 cr)

Physical science with a lab
Phys 3071W—Laboratory-Based Physics for Teachers (4 cr) (recommended course)
or Chem 1011—General Principles of Chemistry (4 cr)
or Chem 1021—Chemical Principles I (4 cr)
or Chem 1022—Chemical Principles II (4 cr)
or GC 1163—Physical Systems: Principles and Practices (4 cr)
or Phys 1001W—Energy and Environment (4 cr)
or Phys 1101W—Introductory College Physics I (4 cr)
or Phys 1201W—Introductory College Physics II (4 cr)

Earth science with a lab
Ast 1001—Exploring the Universe (4 cr)
or GC 1171—Physical Geology (4 cr)
or GC 1172—Historical Geology (4 cr)
or GC 1173—Geology of the National Parks (4 cr)
or Geo 1001—The Dynamic Earth: An Introduction to Geology (4 cr)
or Geo 1002—Earth History (4 cr)

One science elective with or without a lab
Select any one course in biological sciences, physical sciences, earth sciences, or environmental sciences.

FSC 1112—Principles of Nutrition (3 cr) (recommended course) (high school or college chemistry is a prerequisite to this course.)

4. Social Studies (4 courses)

American history
Hist 1302W—U.S. History from 1865 to Present (4 cr)
or Hist 1308—U.S. History: 1880 to Present (3 cr)
or GC 1231W—U.S. Growth of National Power (4 cr)

Non-U.S. history elective
Select any one historical perspective course in world history, European history, western civilization, or the history of another country (other than the United States).

Human geography
Geog 1301W—Introduction to Human Geography (4 cr)
or Geog 3381W—Population in an Interacting World (4 cr)

Cultural pluralism/diversity in the United States
CSCL 3979—Issues in Cultural Pluralism (3 cr)
or GC 1851—Multicultural Relations (3 cr)
or Soc 1001—Introduction to Sociology (4 cr)
or Soc 3211W—American Race Relations (3 cr)

5. Communication Arts and Literature (4 courses)

First-year writing
EngC 1011, 1012, 1013, 1014—University Writing and Critical Reading (4 cr)
or GC 1421—Writing Laboratory: Basic Writing (3 cr)
and GC 1422—Writing Laboratory: Communicating in Society (3 cr)
or equivalent

Literature of American minorities
Afro 3591W/EngL 3591W—Introduction to African American Literature (4 cr)
or Afro 3592/EngL 3592—Introduction to Black Women Writers in the United States (3 cr)
or AmIn 3201W—American Indian Literature (3 cr)
or EngL 1301W—Introduction to Multicultural American Literature (4 cr)
or EngL 3300—Topics in Multicultural American Literatures: Fiction Across Cultures (3 cr)
or GC 1364—Literature of the American Immigrant Experience (3 cr)
or GC 1816—African American Literature (3 cr)
or GC 1836—Asian American Literature (3 cr)

Contemporary literature: international perspectives
Afro 3601—Introduction to African Literature (3 cr)
or EngL 1401W—Introduction to World Literatures in English (4 cr)
or EngL 3004W—Historical Survey of British Literatures II (4 cr)
or EngL 3171—Modern British Literatures and Cultures (3 cr)
or EngL 3180—Contemporary Literatures and Cultures (3 cr)
or GC 1367W—Contemporary Literature: International Perspectives (4 cr)

Arts and humanities elective
Students must complete one additional elective course in arts and humanities from the following areas: art, creative writing, dance, humanities, literature, theatre, philosophy, or speech.

Students pursuing the middle-school specialty area in communication arts and literature are required to take one of the following courses in creative writing to fulfill this requirement.
EngW 1101W—Introduction to Creative Writing (4 cr)
or EngW 1102—Introduction to Fiction Writing (3 cr)
or EngW 1103—Introduction to Poetry Writing (3 cr)
or EngW 1104—Introduction to Literary Nonfiction Writing (3 cr)
or EngW 3102—Intermediate Fiction Writing (3 cr)
or EngW 3104—Intermediate Poetry Writing (3 cr)
or EngW 3106—Intermediate Literary Nonfiction Writing (3 cr)

6. Second Language
(Completion recommended before admission)
One year of college-level study in a second spoken language (8 cr)
or one year of college-level study in American Sign Language (8 cr)
or proficiency exam

7. Major Courses (taken after admission to the program)

Introduction to elementary education
(Must be taken as a block during first semester in the program)
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
(Taken as a block one year after the first block)
CT 5183—Applying Instructional Methods in the Elementary Classroom (1 cr)
EPsy 5613—Foundations of Special Education I (3 cr)
EPsy 5616—Behavior Analysis and Classroom Management (3 cr)

Foundations of education courses
EdHD 5003—Developmental and Individual Differences in Educational Contexts (3 cr)
EdHD 5005—School and Society (2 cr)
EdHD 5007—Teaching for Teaching and Learning (1.5 cr)
EdHD 5009—Human Relations: Applied Skills for School and Society (1 cr)
PubH 3003/5003—Fundamentals of Alcohol and Drug Abuse (2 cr/1 cr)

Course for middle-school specialty area (grades 5-8)
Students selecting a grades 5-8 middle-school specialty in mathematics, science, social studies, or communication arts and literature
CPsy 4303—Adolescent Psychology (4 cr)

Courses for preprimary specialty area (ages 3-4)
CPsy 2301—Introductory Child Psychology (4 cr)
or CPsy 3301—Introductory Child Psychology for Social Sciences (4 cr)
or GC 2283—The Psychology of Human Development (4 cr)
CPsy 4331—Social and Personality Development (4 cr)
CPSy 4993—Directed Experiences/Early Childhood Education (3 cr)

Additional recommended courses:
CPsy 4343—Cognitive Development (4 cr)

Human Resource Development
Department of Work, Community, and Family Education
B.S.
The B.S. in human resource development prepares students for positions in training, career development, organization development, employee assistance, and workplace learning and development.

Undergraduate students prepare for entry-level employment in human resource development. Typical careers in the field include instructional designer, technical trainer, training coordinator, organization development specialist, performance consultant, training facilitator, or learning and development specialist.

Undergraduates can also develop a foundation for advanced study and degrees (M.Ed., M.A., PhD., or Ed.D.), which is typically required for advancement in the field.

All students select a programmatic or thematic supporting program. Although there are few restrictions on the choice of supporting program, students usually choose to focus on fields of human resources and industrial relations, psychology, adult education, management, communication studies, or rhetoric.

The program core requires students to develop a baseline understanding of training and development, organization development, and adult education. Students who complete the B.S. degree in human resource development also earn a certificate in human resource development. For more information on the certificate, see the Certificates section.

Students who complete a supporting program in human resources and industrial relations through the University’s Carlson School of Management can earn a minor in the field. A minor in management is also an option.

Admission Requirements—Admission requirements include 60 semester credits, completed or in progress. Admission to this program is competitive due to program capacity; a minimum GPA of at least 2.50 is recommended. Typically a 2.80 GPA is needed for admission.

Degree Requirements
Students must complete this program with a total of 120 credits including at least 40 credits in the major, with a minimum 2.00 overall GPA. A minimum 2.00 GPA with no grade lower than C- is required for major courses with the following designators:

AdEd, BIE, FE, HRD, and WCFE. A minimum grade of C- is also required for general psychology.

Students also must complete the University’s liberal education requirements, including approved writing intensive (W) courses. For more information, see Liberal Education Requirements in the General Information section in this catalog.

Students must complete a core of 21 credits consisting of courses in training and development, organization development, and adult education; and an internship.

Required Courses
Comm 1101—Fundamentals of Speech Communications (4 cr)
or Rhet 1223—Oral Presentations in Professional Settings (3 cr)
Econ 1101—Principles of Microeconomics (4 cr)
or Econ 1102—Principles of Macroeconomics (4 cr)
Math 1001—Excursions in Mathematics (3 cr)
or Math 1031—College Algebra and Probability (3 cr)
or a higher level math course

Psy 1001—Introduction to Psychology (4 cr)
or GC 1281—General Psychology (4 cr)
WCIC 3011W—Introduction to Technology and Public Ethics (3 cr)
Writing intensive (W) requirement, including Rhet 3562W—Technical and Professional Writing (4 cr) or other advanced composition course

All students must have basic competence in computer applications. Students lacking such competence at the time of admission must take the following course:

BIE 5011—Introduction to Computer Applications (3 cr)
Students with basic competence must take one advanced course, in consultation with adviser.

Human Resource Development (21 cr min)
HRD/WCFE 5661—Instructional Methods in Business and Industry (2 cr)
or AdEd 5101—Strategies for Teaching Adults (3 cr)
or HRD 3001—Introduction to Human Resource Development (3 cr)
HRD 5196—Internship: Human Resource Development (4 cr)
HRD 5201—Training and Development of Human Resources (3 cr)
HRD 5301—Organization Development (3 cr)

Additional courses, to meet the 21-credit total, are to be selected from other HRD courses and the following:

FE 5201—Family and Work Relationships (3 cr)
WCIC 5121—Principles of Supervisory Management (3 cr)

Supporting program (13 cr min)
Students choose at least 13 credits of coursework to fulfill programmatic or thematic requirements.

As part of their School of Kinesiology programs, many students get a taste of life with Minnesota’s professional sports teams by interning with the Vikings, Timberwolves, Twins, Wild, Lynx, or St. Paul Saints.

Kinesiology
School of Kinesiology
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, 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 fitness/wellness industries or the allied health sciences, such as 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, or clinical settings.

Emphasis areas in the kinesiology major include 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 and a coaching minor.

Admission Requirements—Admission is based on the following:

- A 2.50 overall GPA
- At least sixty credits, completed or in progress, at the time of application
- At least five of the six prerequisite courses, completed and/or in progress at the time of application. (Content area course list is available online at www.education.umn.edu/SPS/programs/und/kin-contentarea.htm.)

The following courses are strongly recommended, but not required, before admission to the program.

- Kin 3027—Human Anatomy for Kinesiology Students (3 cr) or InMd 3001—Human Anatomy (3 cr)
- Kin 1871—Introduction to Kinesiology (2 cr)
- Five physical activity courses (1 cr each) chosen from at least four of the following categories: aquatics, conditioning and weight training, dance, individual and dual sports/activities, team sports/activities. Students seeking K-12 physical education licensure must complete additional requirements; consult with a faculty adviser.

Degree Requirements

Students must complete this program with a total of 120 credits including 54 credits in the major, with a minimum 2.00 overall GPA.

Students pursuing physical education teaching licensure must earn a minimum 2.00 GPA with no grade lower than C- for major courses with the following designators and numbers: CPsy 2301, CPsy 4303, EdHD, and Kin. Students pursuing non-teaching emphasis areas must earn a minimum 2.00 GPA with no grade lower than C- for major courses with Kin designators. For all kinesiology emphasis areas, a minimum grade of C- is also required for general psychology.

Students pursuing the M.Ed./initial licensure program in physical education must have a 2.80 GPA in the undergraduate program and meet other requirements.

Students must also complete the University’s liberal education requirements, including approved writing intensive (W) courses. For more information, see Liberal Education Requirements in the General Information section in this catalog.

Required Courses

- Kin 1871—Introduction to Kinesiology (2 cr) (recommended prerequisite)
- Kin 3027—Human Anatomy for Kinesiology Students (3 cr)
- Kin 3027—Human Anatomy for Kinesiology Students (3 cr)
- Kin 3101W—History and Philosophy of Sport (3 cr)
- Kin 3103—Motor Control, Learning, and Development (3 cr)
- Kin 3104—Physical Activities for Persons with Disabilities (3 cr)
- PubH 3004—Basic Concepts in Personal and Community Health (4 cr)

Core Electives (15 cr)

Students select 15 credits from four of the five categories in the following list (students must complete 6 credits in one of the categories.)

Exercise Science

- Kin 5122—Applied Exercise Physiology (3 cr)
- Kin 5141—Nutrition for Health and Physical Performance (3 cr)
- Kin 5385—Exercise for Special Populations (2 cr)
- Kin 5435—Advanced Theory and Techniques of Exercise Science (3 cr)
- Kin 5485—Advanced Electrocardiogram, Graded Exercise Testing, and Prescription (3 cr)

Human Performance

- HumF/Kin 5001—Foundations of Human Factors/Ergonomics (3 cr)
- Kin 4132—Motor Development (3 cr)
- Kin 4135—Motor Control and Learning (3 cr)
- Kin 5722—Human Factors Psychology (3 cr)

Motor Control

- Kin 5235—Advanced Biomechanics II: Kinetics (3 cr)
- Kin 5941—Neural Basis of Movement (3 cr)
- PMed 5135—Advanced Biomechanics I: Kinematics (2 cr)
- PMed 5841—Rehabilitation Science Instrumentation and Methodology (4 cr)

Sport Sociology/Psychology

- Kin 5316—Psychology of Coaching (3 cr)
- Kin 5371—Sport and Society (3 cr)
- Kin 5375—Competitive Sport for Children and Youth (3 cr)
- Kin 5511—Women in Sport and Leisure (3 cr)
- Kin 5723—Psychology of Sport Injury (3 cr)

Sport Management

- Kin 5111—Sports Facilities (3 cr)
- Kin 5461—Foundations of Sport Management (3 cr)
- Kin 5621—Programming and Promotion in Sport (3 cr)
- Kin 5725—Organization and Management of Physical Education and Sport (3 cr)
- Kin 5801—Legal Aspects of Sport and Recreation (4 cr)

Emphasis Electives (10-17 cr)

Students in all non-teaching emphasis areas must complete 10-17 credits of 1xxx-5xxx coursework approved by a faculty adviser.

Students pursuing the pre-physical education (PPE) teaching emphasis area must complete the following courses:

- CPsy 2301—Introductory Child Psychology (4 cr)
- CPsy 4303—Adolescent Psychology (4 cr)
- Kin 3143—Organization and Management of Sport (3 cr)
- Kin 5103—Developmental/Adapted Physical Education (3 cr)
- Kin 5104—Physical Activities for Persons with Disabilities (3 cr)
- PubH 3004—Basic Concepts in Personal and Community Health (4 cr)

Special Requirements

First aid and CPR certification must be current at time of graduation.
Field Experience/Directed Study/Coaching
All upper division students are required to complete 10 credits in practical experiences, coaching, or directed study in their selected area of focus. Students select from the following courses:
- Kin 3993—Directed Study in Kinesiology (1-10 cr)
- Kin 3696—Supervised Practical Experience (1-10 cr)
- Kin 5697—Student Teaching: Coaching (1–10 cr)
- Kin 5196—Practicum: Developmental/Adapted Physical Education (1-4 cr)

Kinesiology honors program
The undergraduate kinesiology honors program offers rigorous academics and unique research opportunities. Participants graduate with one of the traditional honors designations: *cum laude, magna cum laude, or summa cum laude.*

The honors program emphasizes directed research in the physical activities sciences, with students completing research that warrants publication in a professional journal. Program requirements include a kinesiology honors seminar (two semesters) and an undergraduate research symposium.

Students may apply to the honors program at the same time they apply for admission to the undergraduate kinesiology program. Applicants must have a minimum 3.50 GPA in University of Minnesota coursework and present evidence of academic potential to attain the GPA required for graduation with honors.

For more information, contact honors program coordinator Michael Wade, 612-626-2094, e-mail mwade@umn.edu; or visit the School of Kinesiology Web site at www.education.umn.edu/KLS/honors.html.

Recreation, Park, and Leisure Studies

School of Kinesiology

BS.
The undergraduate program in recreation, park, and leisure studies prepares students to assume leadership, supervisory, or beginning administrative responsibilities in various park, recreation, leisure service, and sport management agencies and for therapeutic recreation certification and practice. The program also prepares students for graduate study in outdoor recreation/education, park and recreation administration, sport management, and therapeutic recreation. Many students combine recreation, park, and leisure studies with coursework in other disciplines, such as management, social work, physical and occupational therapy, 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 include commercial parks and 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 and a coaching minor.

For more information, see the Certificates section.

Admission Requirements—To be admitted to this program, students must complete at least 30 credits of the University’s liberal education requirements, including the writing intensive 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 31 in this catalog. Appropriate related and major courses may be applied toward these requirements.

Degree Requirements
Students must have a total of 120 credits with a minimum 2.00 overall GPA to complete this program. A minimum 2.00 GPA with no grade lower than C- is required for Rec-designated courses. A minimum grade of C- is also required for general psychology.

Required Courses
- Psy 1001—Introduction to Psychology (4 cr)
- or GC 1281—General Psychology (4 cr) (grade of C- or higher)
- Soc 1001—Introduction to Sociology (4 cr)
- or GC 1211—People and Problems (4 cr)

Leisure services management courses
- Pol 1001—American Democracy in a Changing World (4 cr)
- or GC 1233—U.S. Government and Politics (4 cr)
- Econ 1101—Principles of Microeconomics (4 cr)
- or ApEc 1101—Principles of Microeconomics (3 cr)

Therapeutic recreation course
- CPsy 2301—Introductory Child Psychology (4 cr)

College requirements
- Comm 1101—Introduction to Public Speaking (3 cr)
- or Comm 1313W—Analysis of Argument (3 cr)
- or GC 1461—Oral Communication in the Public Sphere (3 cr)
- or Rhet 1223—Oral Presentations in Professional Settings (3 cr)
- Physical activity courses (3 courses, 1 cr each)
- Psy 1001—Introduction to Psychology (4 cr)
- or GC 1281—General Psychology (4 cr) (grade of C- or higher)
- 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)

For additional college requirements, consult with an SPS program adviser.

The Tucker Center for Research on Girls and Women in Sport—
the first center of its kind in the world—explores how sport, recreation, and physical activity affect the lives of girls and women.

Curriculum Requirements
- Rec 1501—Orientation to Leisure and Recreation (3 cr)
- Rec 3281—Research and Evaluation in Recreation, Park, and Leisure Studies (4 cr)
- Rec 3541W—Recreation Programming (3 cr)
- Rec 3551—Administration and Finance of Leisure Services (4 cr)
- Rec 3601W—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)

16 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, 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 contact 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
B.S.
The sport studies major focuses on contemporary sport as a product of social, psychological, and economic phenomena. Because of its prominent role in our culture, economy, and societal behavior, sport is a popular subject for academic inquiry. Graduates may find employment in sport marketing and management, coaching, sport administration, sport or other fitness-related occupations. The program also prepares students for graduate study in sport management.

Coursework in sport studies addresses such topics as ethics and sport, psychology of sport performance, sport as a sociocultural phenomenon, sport management, sport marketing and promotion, and event management.

Features of the program include an 10-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 and a coaching minor.

For more information, see the Certificates section.

Admission Requirements—To be admitted to this program, students must have 60 credits completed or in progress at the time of application. Admission preference is given to students who have completed liberal education requirements and have an overall GPA of 2.00 before the March 1 admission deadline. Because of a large number of applicants, a 2.50 GPA is recommended. For more information about liberal education requirements, see the Liberal Education Requirements section of this catalog.

Degree Requirements
Students must have a total of 120 credits with a minimum 2.00 overall GPA to complete this program. A minimum 2.00 GPA with no grade lower than C- is required for SpSt-designated courses. A minimum grade of C- is also required for general psychology.

Required Courses

Social science course requirements (12 cr min)
Psy 1001—Introduction to Psychology (4 cr)
or GC 1281—General Psychology (4 cr) (minimum grade of C)
Soc 1001—Introduction to Sociology (4 cr)
or GC 1211—People and Problems (4 cr)
Recommended for the sport management focused elective
Econ 1101—Principles of Microeconomics (4 cr)
or ApEc 1101—Principles of Microeconomics (3 cr)
Recommended for the youth service/development or coaching focused electives
4 additional credits including historical perspective liberal education requirement

Major Courses (27 cr)
SpSt 1701—Introduction to Sport Studies (2 cr) (recommended before admission to the program)
SpSt/Kin 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 3881W—Senior Seminar in Sport Studies (3 cr)
SpSt 3996—Practicum: The Sport Experience (10 cr)

College and Curriculum Requirements (24 cr min)
Comm 1101—Introduction to Public Speaking (3 cr)
or Comm 1313W—Analysis of Argument (3 cr)
or GC 1461—Oral Communication in the Public Sphere (3 cr)
or Rhet 1223—Oral Presentations in Professional Settings (3 cr)
Psy 1001—Introduction to Psychology (4 cr)
or GC 1281—General Psychology (4 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)
Soc 1001—Introduction to Sociology (4 cr)
or GC 1211—People and Problems (4 cr)
Education and human development electives (not including Kin, Rec, or SpSt courses) (6 cr)
Physical education activity courses (3 courses, 1 cr each)

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:

Coaching
FScN 1112—Principles of Nutrition (3 cr)
GC 1571—Introduction to Microcomputer Applications (4 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 may choose courses from the following list to meet requirements for coaching certification or the coaching focused elective. For more information, contact SPS advisers:
Kin 3111—Human Anatomy (2 cr)
or Kin 3027—Human Anatomy (3 cr)
or InMd 3001—Human Anatomy (3 cr)
Kin 3113—First Responder for Coaches and Athletic Trainers (3 cr)
Kin 3114—Prevention and Care of Athletic Injuries (3 cr)
Kin 3133—Motor Control, Learning, and Development (3 cr)
Kin 5697—Student Teaching: Coaching (1–10 cr)

Two of the following courses:
Kin 3112, 4385, 5126, 5136, SpSt 3621, 3641

Two of the following courses:
Kin 3168, 3169, 3171, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3181, 5720

Sport Management
BIE 3061—Professional Sales Management (3 cr)
BLaw 3058—The Law of Contracts and Agency (4 cr)
BLaw 5078—Partnerships and Corporations (2 cr)
Comm 3201—Introduction to Electronic Media Production (3 cr)
Comm 3441—Introduction to Organizational Communication (3 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 Computer Applications (3 cr)
HRD 5201—Training and Development of Human Resources (3 cr)
HRIR 3021—Human Resource Management and Industrial Relations (3 cr)
Kin 5115—Event Management in Sport (3 cr)
Mktg 3001—Principles of Marketing (3 cr)
Mgmt 3001—Fundamentals of Management (3 cr)
SpSt 3111—Sports Facilities (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)
or
GC 1571—Introduction to Microcomputer Applications (4 cr)
or
BIE 5011—Introduction to Computer Applications (3 cr)
Kin 5115—Event Management in Sport (3 cr)
Kin 5375—Competitive Sport for Children and Youth (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 5031—Youth in the World (3 cr)
YoSt 5402—Youth Policy: Enhancing Healthy Development in Everyday Life (3 cr)

Other elective courses may be included with the adviser’s approval.

Technology Education

Department of Work, Community, and Family Education

B.S.
This program prepares students to meet Minnesota state licensure requirements for teaching technology education to grades 5-12.
The curriculum surveys the broad range of technology use and application in the areas of manufacturing, construction, transportation, communication, energy, and power. Coursework includes liberal education, technology education, and professional/clinical experiences and student teaching.
Graduate study in this field is available. A career and technical education certificate is also available; see the following page for more information.

Admission Requirements—Applicants may be admitted to this program with a 2.50 minimum overall GPA and completion of at least 60 credits, including credits in progress at the time of application.

Degree Requirements
Students must complete the University’s liberal education requirements, including the writing intensive (W) requirement. Courses that meet these requirements may be found online at http://onestop.umn.edu/Student. Students may complete their degree in four years by completing 15 credits each semester.

Students must have a total of 120 credits with a minimum 2.00 overall GPA to complete this program. A minimum 2.50 GPA is required for recommendation for Minnesota teaching licensure. A minimum 2.00 GPA with no grade lower than C- is required for major courses with the following designators: BIE, EdHD, HRD, and WCFE. A minimum grade of C- is also required for general psychology.

Required Courses
Comm 1101—Introduction to Public Speaking (3 cr)
or
Rhet 1223—Oral Presentations in Professional Settings (3 cr)
or
GC 1461—Oral Communication in the Public Sphere (3 cr)
Math 1031—College Algebra and Probability (3 cr)
Psy 1001—Introduction to Psychology (4 cr)
or
GC 1281—General Psychology (4 cr)
Rhet 1101—Writing to Inform, Convince, and Persuade (4 cr)
Rhet 3562W—Technical and Professional Writing (4 cr)
or
BA 3033W—Business Communication (4 cr)*

* Required course for students who are also completing a business minor through the University’s Carlson School of Management

Technology Education (47 cr)

Technical Skills (36 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, Power and Energy, Transportation and Machinery Technologies (3 cr)
BIE 3122—Communication and Information Technology (3 cr)
BIE 3123—Energy, Power, and Transportation Technologies (3 cr)
BIE 3151—Technical Development: Advanced (1-30 cr)
BIE 5101—Technological Problem Solving (3 cr)
BIE 5151—Technical Development: Specialized (1-12 cr)
BIE 5344—Facilities Management in Business and Industry (3 cr)
BIE 5596—Occupational Experience in Business and Industry (1-10 cr)
Note: A limited number of technical college credits can be applied to BIE 3151 or BIE 5151.

Technological Knowledge (11 cr)
BIE 5011—Introduction to Computer Applications (3 cr)
or substitution approved by adviser
BIE 5365—Curriculum Development in Technology Education (3 cr)
HRD/WCFE 5661—Instructional Methods in Business and Industry (2 cr)
WCFE 3011W—Introduction to Technology and Public Ethics (3 cr)
or
WCFE 5011W—Technology and Public Ethics (3 cr)

Professional/ Clinical Studies (24 cr)

Foundations of Education (12 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)
PubH 3003/5003—Fundamentals of Alcohol and Drug Abuse (2 cr/1 cr)

Clinical Experience (12 cr)
WCFE 5696—Teaching Internship: Introduction (1 cr)
WCFE 5697—Teaching Internship: School and Classroom Settings (2 cr)
WCFE 5698—Teaching Internship (3-8 cr)
WCFE 5699—Teaching Internship: Extended Practice (1 cr) (May session)

General electives to complete 120 credits.
First aid and cardiopulmonary resuscitation (CPR) certification must be current at the time of licensure completion.
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 minor 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 Affairs.

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).

Minor 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
- or PA 3961W—Leadership, You, and Your Community (3 cr)
- EdPA 4303W—Leadership in the World
- or 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 June Nobbe in the Office for Student Affairs, 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 at 612-625-5300.

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 undergraduates who have completed at least 60 undergraduate semester credits or equivalent, as well as graduate students and community professionals. For more information, contact Marijo McBride, 612-624-6830 at the Institute on Community Integration (ICI).

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, contact Gary McLean (612-624-4901) at the Department of Work, Community, and Family Education (WCFE).

Career and 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 program adviser in the Department of Work Community, and Family Education (WCFE) at 612-625-7250.