Crookston Campus

Golf and Sports Turf Management B.S.

Agriculture and Natural Resources

Academic Affairs

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2023
- Required credits to graduate with this degree: 120
- Required credits within the major: 67
- This program requires summer terms.
- Degree: Bachelor of Science

Golf course superintendents, sports turf managers, and turfgrass professionals within the green industry use technology and science to balance the needs of people with those of nature. The golf and sports turf management degree provides students with hands-on skills to maintain functional and aesthetically pleasing turfgrass environments. Extensive coursework in agronomy, soil science, horticulture, and turfgrass science help students develop the technical skills needed to be successful. Complementary courses in business management and communication provide the fundamentals for managing employees and interacting with customers.

Student learning incorporates experiential hands-on activities along with technological applications in an applied, career-oriented environment. Internships may be completed at golf courses, athletic fields, park and recreation areas, or with green industry suppliers. Graduates will hold positions in the golf industry, sports field management, lawn care, sod production, grounds maintenance, sales, or pursue advanced degrees.

Program outcomes: graduates will
Provide recommendations for the primary (fertilization, mowing, and irrigation) and secondary (cultivation, topdressing, and rolling) cultural practices based on the area of use and turfgrass species.
Culturally manage both cool-season and warm-season turfgrasses which will allow flexibility when searching for jobs and internships within the turfgrass industry.
Devise and implement renovation plans for various turfgrass areas including soil testing, soil modification/preparation, species selection, establishment techniques, and post-care management.
Examine how physical, chemical, and biological soil properties and the environment influence the availability of nutrients and devise fertility management plans that are environmentally sustainable.
Create integrated pest management (IPM) programs for turfgrass diseases, insects, and weeds.
Enhance turfgrass performance by developing cultural management practices to reduce turfgrass injury caused by environmental stress factors.
Develop cultural turf management plans and annual maintenance budgets for various turfgrass areas such as golf courses, athletic fields, and home lawns.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Admission Requirements

For information about University of Minnesota admission requirements, visit the Office of Admissions website.

General Requirements

All students are required to complete general University and college requirements. For more information, see the graduation requirements.

Program Requirements

Students must complete 40 upper-division credits.

A maximum of two D grades are allowed for courses under the program, major, and technology requirements. This includes grades earned at UMC or transferred in from another institution.

Golf and Turf Management Core

Take exactly 20 course(s) totaling exactly 55 credit(s) from the following:
AGRO 2573 - Entomology (3.0 cr)
AGRO 3230 - Introduction to Plant Pathology (3.0 cr)

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HORT 1010 - Introduction to Horticulture (3.0 cr)
HORT 1021 - Woody Plant Materials (4.0 cr)
HORT 3040 - Landscape Installation and Maintenance (3.0 cr)
MGMT 3210 - Supervision and Leadership (3.0 cr)
NATR 4652 - Seminar (1.0 cr)
SOIL 1293 - Soil Science (3.0 cr)
SOIL 3414 - Soil Fertility and Plant Nutrition (4.0 cr)
SPAN 1104 - Beginning Spanish I [GLOB PERSP] (4.0 cr)
TURF 1072 - Principles of Turf Management (3.0 cr)
TURF 3072 - Turfgrass Science (3.0 cr)
TURF 3073 - Sports Turf Management (3.0 cr)
TURF 3074 - Turfgrass Pest Management (3.0 cr)
TURF 3076 - Turfgrass Management Systems (3.0 cr)
Choose one of the following:
BIOL 2020 - Plant Anatomy and Physiology [BIOL SCI, PEOPLE/ENV] (3.0 cr)
or BIOL 2022 - General Botany [BIOL SCI, PEOPLE/ENV] (3.0 cr)
Choose one of the following:
COMM 3008 - Business Writing (3.0 cr)
or COMM 3431 - Persuasion (3.0 cr)
or WRIT 3303 - Writing in Your Profession (3.0 cr)
Pre-Internship Seminar
NATR 2899 - Pre-Internship Seminar (0.5 cr)
or NATR 3899 - Pre-Internship Seminar (0.5 cr)
Internship
Take 2 or more credit(s) from the following:
•NATR 3900 - Internship (0.5 - 4.0 cr)
Post-Internship Seminar
NATR 3901 - Post-Internship Seminar (0.5 cr)

Golf and Turf Management Electives
Take 3 or more course(s) totaling 12 or more credit(s) from the following:
•AGRO 2640 - Applied Agriculture Chemicals (3.0 cr)
•ASM 1034 - Facility Maintenance and Safety (4.0 cr)
•ASM 2043 - Welding and Manufacturing Processes (3.0 cr)
•ASM 2250 - Agricultural Machinery Management (3.0 cr)
•ASM 3009 - Surveying (4.0 cr)
•BIOL 3131 - Plant Physiology (3.0 cr)
•CHEM 1401 - Elementary Bioorganic Chemistry [PHYS SCI] (4.0 cr)
•HORT 1025 - Introduction to Arboriculture (2.0 cr)
•HORT 3025 - Applications in Arboriculture (3.0 cr)
•HORT 3030 - Landscape Design (4.0 cr)
•HORT 3031 - Herbaceous Perennial Plant Materials (2.0 cr)
•HORT 3034 - Commercial Floriculture Crops-Spring (4.0 cr)
•HORT 3036 - Plant Propagation (4.0 cr)
•HORT 3045 - Urban Forestry Planning and Management (3.0 cr)
•MGMT 3200 - Principles of Management (3.0 cr)
•MGMT 3220 - Human Resource Management (3.0 cr)
•MGMT 3250 - Operations Management (3.0 cr)
•NATR 2630 - Introduction to Geographic Information Systems (3.0 cr)
•NATR 3203 - Park and Recreation Management (3.0 cr)
•NATR 3344 - Land Use Planning (3.0 cr)
•NATR 3468 - Wildlife Habitat Management Techniques (3.0 cr)
•PHYS 1012 - Introductory Physics [PHYS SCI, PEOPLE/ENV] (4.0 cr)
•SPAN 1204 - Beginning Spanish II [GLOB PERSP] (4.0 cr)
•SRM 2020 - Foundations of Sport and Recreation Management (3.0 cr)
•SRM 3003 - Sport Facility and Activities Management (3.0 cr)
•SWM 3225 - Watershed Management (3.0 cr)
•TURF 3075 - Turf Stress Management (3.0 cr)
•TURF 3078 - Integrated Turfgrass Diagnostics (1.0 - 3.0 cr)

Liberal Education
This program requires a minimum of 40 credits of liberal education and completion of the ten goal areas of the Minnesota Transfer Curriculum. The following are specific required liberal education courses.
Take exactly 6 course(s) totaling exactly 20 credit(s) from the following:
•BIOL 1009 - General Biology [BIOL SCI, PEOPLE/ENV] (4.0 cr)
•CHEM 1001 - Introductory Chemistry [PHYS SCI] (4.0 cr)

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•COMP 1011 - Composition I [COMMUNICAT] (3.0 cr)
•COMP 1013 - Composition II [COMMUNICAT] (3.0 cr)
•COMM 1101 - Public Speaking [COMMUNICAT] (3.0 cr)
•MATH 1031 - College Algebra [MATH THINK] (3.0 cr)
or MATH 1150 - Introduction to Statistics [MATH THINK] (3.0 cr)

Technology

Take exactly 1 course(s) totaling exactly 3 credit(s) from the following:
•CA 1xxx
•CA 2xxx

Open Electives

Students must take enough electives to meet the 120 credit graduation requirement. The number needed will depend on how a student satisfies the Minnesota Transfer Curriculum and major electives requirements. Approximately 9 credits will be needed.

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