Central Lakes College, Brainerd Campus 2024-2025

Natural Resources Technology

Associate of Applied Science Degree (A260)

Total Credits 63

Required Courses

Required Discipline Courses

NATR 1112	Land Measurement	3 cr
NATR 1115	Plant Taxonomy	2 cr
NATR 1120	Dendrology	3 cr
NATR 1125	Ichthyology	3 cr
NATR 1130	Mammalogy	3 cr
NATR 1135	Ornithology	3 cr
NATR 1140	Limnology	3 cr
NATR 1200	Introduction to Natural Resources	3 cr
NATR 1280	Introduction to GPS and GIS (Arc)	2 cr
NATR 2110	Herpetology	2 cr
NATR 2120*	Wetland Ecology	3 cr
NATR 2130*	Wildlife Management	3 cr
NATR 2140*	Fisheries Management	3 cr
NATR 2155	Soil Science	3 cr
NATR 2161*	Ecosystem Management	2 cr
NATR 2170	Advanced GPS and GIS	2 cr
NATR 2201	Introduction to Parks and Interpretation	2 cr
NATR 2235*	Silviculture and Forest Management	3 cr

Required MnTC Courses

BIOL 2415	General Ecology (Goals 3,10)	4 cr
COMM 1410	Intro to Communication Studies (Goal 1) **OR**	
COMM 1420	Interpersonal Communication (Goal 1) **OR**	
COMM 1430	Public Speaking (Goals 1 and 2) **OR**	
COMM 2420	Intercultural Communication (Goals 1,7)	3 cr
ENGL 1410	Composition I (Goal 1)	4 cr
ENGL 1411	Composition II (Goal 1)	4 cr

An A.A.S. degree requires a minimum of 15 credits selected from at least three of the ten goal areas of the Minnesota Transfer Curriculum (MnTC).

**Denotes Prerequisites*

GRADUATION REQUIREMENT - 63 CREDITS

Description

For more than fifty years, the CLC Natural Resources Program has been providing students with a well-rounded background in natural resources, preparing them for work in a variety of fields. Courses in the natural resources program at Central Lakes College include a strong outdoor laboratory component, reinforcing classroom learning through application of these skills and knowledge in the field. Many of the first-year courses are blocked together to allow additional time for outdoor laboratories and opportunities to work on multidiscipline projects. Students also have the opportunity to experience additional extracurricular opportunities through paid summer internships offered by a variety of natural resources agencies, and participation in the Natural Resources Club that provides students with outdoor-based activities throughout the year, such as radio-tracking collared animals, administering deer check stations, and hosting interpretive programs. The relatively small size of the Natural Resource Program allows students the opportunity to know their instructors personally and to develop friendships with other students that last a lifetime.

Outcomes

By completing this program, students will achieve the following learning outcomes:

- Demonstrate field identification of regionally important plants, mammals, birds and fish and their communities;
- Use a broad range of technological tools to research, document, map, measure, record and analyze data relevant to natural resources;
- Interpret how ecological relationships influence plants, mammals, birds and fish distribution, succession and biodiversity in ecosystems;
- Analyze land characteristics and create land management plans;
- Communicate in oral and written forms with supervisors, peers, area visitors and natural resource agencies;
- Navigate and safely function in an outdoor workplace.

Pre-Program Requirements

Some courses may require students to meet College Placement Levels in reading, writing, and/or math. See an advisor for more information.

For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

- College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
- College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
- Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Career & Transfer

People in the natural resources work with environmental systems and human needs to manage a variety of resources in a sustainable fashion. Natural resources professionals regularly deal with issues such as biodiversity, economics, population trends, and the future quality of human life. The best opportunities for full-time work will require a bachelor's degree from a four-year university in one of the natural resource disciplines or from a more holistic natural resource management degree. Some agencies (e.g., MN DNR Forestry) are beginning to hire students with two-year degrees for permanent, full-time work. Potential careers include forestry technician, wildlife manager, fisheries manager, fisheries technician, parks manager, park naturalist, hydrologist, soils scientist, and botanist.

The Central Lakes College Natural Resources Program offers an affordable alternative to a four-year institution. Through a formal agreement, graduates of the program have the opportunity to transfer to the University of Wisconsin at Stevens Point, WI and Bemidji State University to complete a baccalaureate degree.

Academic Plan

Semester One First Year (12 credits)

NATR 1115	Plant Taxonomy	2 cr
NATR 1120	Dendrology	3 cr
NATR 1200	Introduction to Natural Resources	3 cr
NATR 1280	Introduction to GPS and GIS (Arc)	2 cr
NATR 2110	Herpetology	2 cr

Semester Two First Year (18 credits)

BIOL 2415	General Ecology	4 cr
NATR 1125	Ichthyology	3 cr
NATR 1130	Mammalogy	3 cr
NATR 1135	Ornithology	3 cr
NATR 1140	Limnology	3 cr
NATR 2170	Advanced GPS and GIS	2 cr

Semester Three Second Year (19 credits)

NATR 1112	Land Measurement	3 cr
NATR 2120*	Wetland Ecology	3 cr
NATR 2130*	Wildlife Management	3 cr
NATR 2155	Soil Science	3 cr
Minnesota Transfer Curriculum		7 cr

Semester Four Second Year (14 credits)

NATR 2140*	Fisheries Management	3 cr
NATR 2161*	Ecosystem Management	2 cr
NATR 2201	Introduction to Parks and Interpretation	2 cr
NATR 2235*	Silviculture and Forest Management	3 cr
Minnesota Transfer Curriculum		4 cr

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