

NATURAL RESOURCES MANAGEMENT

School of Natural Resources and Extension
907-474-7083
www.uaf.edu/snre/

B.S. Degree

Minimum Requirements for Degree: 120 credits

The complexity and interrelatedness of society and the environment require an interdisciplinary approach to making and implementing sustainable natural resource decisions. The natural resources management degree integrates knowledge in natural science, policy, economics and human values to advance the sustainable management of natural resources and agricultural systems. Students learn through a variety of approaches, including classroom instruction, hands-on laboratory experiences, and opportunities for internships and independent research under the guidance of a faculty mentor. Successful graduates will be qualified for employment in a broad range of private enterprise, government agencies and nonprofit organizations in the various natural resources fields, and will be well-equipped for graduate studies.

Major — B.S. Degree

- Complete the general university requirements. (See page 184. As part of the core curriculum requirements, complete CHEM F105X, NRM F303X and a MATH—Calculus course.)
 - Complete the B.S. degree requirements. (See page 184. As part of the B.S. degree requirements, complete BIOL F115X, BIOL F116X and STAT F200X*.)
 - Complete the following (major) requirements:*

NRM F101—Natural Resources Conservation and Policy.....	3
NRM F111—Introduction to Sustainability.....	3
NRM F240—Natural Resource Measurements.....	3
NRM F210—Introduction to Sustainable Agriculture.....	3
ECON F235—Introduction to Natural Resource Economics.....	3
NRM F277—Conservation Biology.....	3
NRM F290—Resource Management Issues at High Latitudes.....	2
NRM F366—Survey Research in Natural Resources Management.....	3
NRM F370—Introduction to Watershed Management.....	3
NRM F375—Natural Resource Ecology.....	3
NRM F380W—Soils and the Environment.....	3
NRM F403W/O—Environmental Decision Making.....	3
NRM F430—Resource Management Planning.....	3
NRM/GEOG F483W—Research Design, Writing, and Presentation Methods.....	3

 - Complete one of the following GIS courses:

NRM F338—Introduction to Geographic Information Systems.....	3
NRM F369—GIS and Remote Sensing for Natural Resources.....	3
NRM F435—GIS Analysis.....	4
 - Complete one of the following policy/law courses:

NRM F204—Public Lands Law and Policy.....	3
NRM F407—Environmental Law.....	3
 - Complete a minor, pre-vet, or 15 credits in a support field which is a group of courses selected for its clear pertinence to a cohesive program. Support fields may include but are not limited to natural resources management, chemistry, communications, education, art, fisheries and wildlife management. Courses must be approved by the student's academic advisor and department head prior to attaining senior standing. Note: students must take a total of 39 upper division credits.
 - Minimum credits required.....120
- * Students must earn a C- grade or better in each course.

Minors

Natural Resource Management

- Complete the following:

NRM F101—Natural Resources Conservation and Policy.....	3
NRM electives*.....	15
 - Minimum credits required.....18
- * At least 6 credits must be upper-division. The minor program must be approved by an NRM advisor.

Forest Management *

- Complete the following:**

NRM F240—Natural Resources Measurement and Inventory.....	3
NRM F251—Silvics and Dendrology.....	4
NRM F375—Natural Resource Ecology (3) or BIOL F371—Principles of Ecology (3).....	3
 - Complete at least 6 credits from the following:**

NRM F370—Introduction to Watershed Management.....	3
NRM F440—Silviculture.....	3
NRM F450—Forest Management.....	3
NRM F452—Forest Health and Protection.....	3
NRM F453—Harvesting and Utilization of Forest Products.....	3
 - Minimum credits required.....16
- Note: Students must complete at least 16 credits dedicated to the minor. If the student has taken courses to complete major requirements, the credits must be made up from additional minor-specific courses.
- * Potential accreditation as a certified forester by the Society of American Foresters will require completion of the following NRM courses: F251, F440, F450, F452 and F453 in combination with the NRM B.S. degree. Prerequisites required for the courses listed are part of the NRM degree program, but students from other programs will be required to complete the prerequisites specified for individual classes. NRM F452 also requires the completion of either BIOL F239 or NRM F211 as a requisite. These two courses are not required for the general NRM program and will not apply to the number of credits for the Forest Management Minor.
- ** Students must earn a C grade or better in each course.

Baccalaureate Core Requirements

Communication 9 Credits

- ENGL F111X—Introduction to Academic Writing.....(3)

Complete one of the following:

- ENGL F211X—Academic Writing about Literature.....(3)
- ENGL F213X—Academic Writing about the Social and Natural Sciences.....(3)

Complete one of the following:

- COMM F121X—Introduction to Interpersonal Communication.....(3)
- COMM F131X—Fundamentals of Oral Communication: Group Context.....(3)
- COMM F141X—Fundamentals of Oral Communication: Public Context.....(3)

Perspectives on the Human Condition 18 Credits

Complete all of the following four courses:

- ANTH F100X/SOC F100X—Individual, Society and Culture.....(3)
- ECON F100X or PS F100X—Political Economy.....(3)
- HIST F100X—Modern World History.....(3)
- ENGL/FL F200X—World Literature.....(3)

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Complete one of the following three courses:

- ART/MUS/THR F200X—Aesthetic Appreciation: Interrelationship of Art, Drama and Music.....(3)
- HUM F201X—Unity in the Arts.....(3)
- ANS F202X—Aesthetic Appreciation of Alaska Native Performance.....(3)

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Complete one of the following six courses:

- BA F323X—Business Ethics.....(3)
- COMM F300X—Communicating Ethics.....(3)
- JUST F300X—Ethics and Justice.....(3)
- NRM F303X—Environmental Ethics and Actions.....(3)
- PS F300X—Ethics and Society.....(3)
- PHIL F322X—Ethics.....(3)

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Or complete 12 credits from the above courses plus one of the following:

- Two semester-length courses in a single Alaska Native language or other non-English language
- Three semester-length courses (9 credits) in American Sign Language taken at the university level.

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Mathematics 3 Credits

Complete one of the following:

- MATH F113X—Concepts and Contemporary Applications of Mathematics.....(3)
- MATH F151X—College Algebra for Calculus*.....(4)
- MATH F152X—Trigonometry.....(4)
- MATH F156X—Precalculus.....(4)
- MATH F122X—Algebra for Business and Economics**.....(3)
- STAT F200X—Elementary Probability and Statistics.....(3)

* No credit may be earned for more than one of MATH F151X or F122X.

Or complete one of the following*:

- MATH F251X—Calculus I**.....(4)
- MATH F252X—Calculus II.....(4)
- MATH F253X—Calculus III.....(4)
- MATH F222X—Calculus for Business and Economics.....(4)
- MATH F232X—Calculus for Life Sciences.....(4)

* Or any math course having one of these as a prerequisite

** No credit may be earned for more than one of MATH F251X, F222X or F232X.

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Natural Sciences 8 Credits

Complete any two (4-credit) courses.

- ATM F101X—Weather and Climate of Alaska.....(4)
- BIOL F100X—Human Biology.....(4)
- BIOL F101X—Introduction to Animal Behavior.....(4)
- BIOL F103X—Biology and Society.....(4)
- BIOL F104X—Natural History.....(4)
- BIOL F115X—Fundamentals of Biology I.....(4)
- BIOL F116X—Fundamentals of Biology II.....(4)
- BIOL F120X—Introduction to Human Nutrition.....(4)
- BIOL F213X—Human Anatomy and Physiology I.....(4)
- BIOL F214X—Human Anatomy and Physiology II.....(4)
- CHEM F100X—Chemistry in Complex Systems.....(4)
- CHEM F103X—Basic General Chemistry.....(4)
- CHEM F104X—Beginnings in Biochemistry.....(4)
- CHEM F105X—General Chemistry.....(4)
- CHEM F106X—General Chemistry.....(4)
- GEOG F111X—Earth and Environment: Elements of Physical Geography.....(4)
- GEOS F100X—Introduction to Earth Science.....(4)
- GEOS F101X—The Dynamic Earth.....(4)
- GEOS F106X—Life and the Age of Dinosaurs.....(4)
- GEOS F112X—History of Earth and Life.....(4)
- GEOS F120X—Glaciers, Earthquakes and Volcanoes.....(4)
- GEOS F125X—Humans, Earth and Environment.....(4)
- MSL F111X—The Oceans.....(4)
- PHYS F102X—Energy and Society.....(4)
- PHYS F103X—College Physics.....(4)
- PHYS F104X—College Physics.....(4)
- PHYS F115X—Physical Science I.....(4)
- PHYS F175X—Astronomy.....(4)
- PHYS F211X—General Physics.....(4)
- PHYS F212X—General Physics.....(4)
- PHYS F213X—Elementary Modern Physics.....(4)

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Library and Information Research 0-1 Credit

- Successful completion of library skills competency test or LS F100X or LS F101X prior to junior standing

0-1

Upper-Division Writing and Oral Communication

Complete the following at the upper-division level:

- Two writing intensive courses designated (W) and one oral communication intensive course designated (O), or two oral communication intensive courses designated (O/2) (see degree and/or major requirements)

Total credits required 38-39

All degrees (e.g. B.A., B.S., etc.) require additional courses.

Refer to specific degree and program requirements.

Students must earn a C- grade or better in each course used toward the baccalaureate core.

