### PROGRAM/DEGREE REQUIREMENT CHANGE (MAJOR/MINOR)

**SUBMITTED BY:**

<table>
<thead>
<tr>
<th>Department</th>
<th>Resources Mgmt</th>
<th>College/School</th>
<th>SNRAS</th>
</tr>
</thead>
<tbody>
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<td>Susan Todd</td>
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</tbody>
</table>

See [http://www.uaf.edu/snrasmus/about/faculty/cd](http://www.uaf.edu/snrasmus/about/faculty/cd) for a complete description of the rules governing curriculum & course changes.

### PROGRAM IDENTIFICATION:

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<tr>
<th>DEGREE PROGRAM</th>
<th>School of Natural Resources &amp; Agricultural Sciences Master’s Degrees</th>
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</thead>
<tbody>
<tr>
<td>Degree Level: (i.e., Certificate, A.A., A.A.S., B.A., B.S., M.A., M.S., Ph.D.)</td>
<td>M.S. and MNRMG</td>
</tr>
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### A. CHANGE IN DEGREE REQUIREMENTS: (Brief statement of program/degree changes and objectives)

This is a minor change, editing and stream-lining the description of our two masters degrees and making the two of them symmetrical in terms of topics covered.

### B. CURRENT REQUIREMENTS AS IT APPEARS IN THE CATALOG:

**Natural Resources Management**

School of Natural Resources and Agricultural Sciences 907-474-7083 [www.uaf.edu/snras/](http://www.uaf.edu/snras/)

**B.S., M.S. DEGREE**

**Minimum Requirements for Degree: 30 – 35 credits**

Natural resources management is making and implementing decisions to develop, maintain or protect ecosystems to meet human needs and values. The core natural resources management curriculum provides students with a broad education in the various natural resources and their related applied fields. Programs can be tailored to enhance a student’s depth or breadth in a given field of interest. The program is designed for students desiring careers in resources management or in other fields requiring knowledge of resources management, students planning advanced study, as well as those wishing to be better informed citizens.

The School of Natural Resources and Agricultural Sciences offers an M.S. degree in natural resources management. The courses and curriculum for this program were developed in cooperation with groups and agencies that work professionally with resource management in Alaska.

The degree is designed for those intending to pursue management careers requiring thorough familiarity with research procedures and techniques in one or more of the resources fields, to proceed to doctoral programs, and/or to conduct research in management problems.

Thesis research in natural resources management is directed toward resource problems at high latitudes. Research by graduate students has centered on biological and physical aspects of land management in Alaska in relation to land ownership, land use planning, economic analysis and competing resources needs. Areas of emphasis have included forest management, land use planning, soil management, natural resource policy, parks and recreation management, horticulture, agronomy, and animal science.

State and federal agencies such as the Alaska Department of Natural Resources, Agricultural Research Service, U.S. Forest Service, Bureau of Land Management, Natural Resource Conservation Service, and U.S. Fish and Wildlife Service contribute significantly to the instructional program by providing guest
lecturers and internship and field work opportunities for students.

Graduate Program — M.S. Degree

A. Complete the following admission requirement:
B. Submit GRE scores.
C. Complete the general university requirements.
D. Complete the master's degree requirements.
E. Complete or have prior general familiarity with the major resource fields listed as concentrations under the B.S. degree requirements. Course requirements in any one field will depend on the needs of the candidate and the capabilities of the university.
F. Complete or have prior course work within the program in computer science, statistical methods and basic economics.
G. Complete the following:
   - NRM F601—Research Methods in Natural Resources—2 credits
   - or an approved research methods course
   - NRM F692—Graduate Seminar—3 credits
   - NRM F699—Thesis—6 – 12 credits
   - STAT course at the F400-level or above—3 credits
   - Additional approved courses—15 – 20 credits

H. Minimum credits required—30 credits
   * Requirement may be met with a research methods course in a discipline related to natural resources management.
   ** Requirement may be met with a statistics course in mathematical sciences or in a discipline related to natural resources management.

Master's of Natural Resources Management and Geography (MNRMG)
Minimum Requirements for the Degree: 35 credits

Natural resources management is making and implementing decisions to develop, maintain or protect ecosystems to meet human needs and values. The core natural resources management curriculum provides students with a broad education in the various natural resources and their related applied fields. Programs can be tailored to enhance a student's depth or breadth in a given field of interest.

The Master's Natural Resources Management and Geography is designed for those planning a management career involving largely non-research responsibilities such as general planning and administration, communication and public information, and impact assessment.

Because of the diversity and broad scope of the Natural Resources Management and Geography fields, the objectives of this degree will be tailored to each individual student. The graduate committee will be the main body that assesses the student's background, individual deficiencies, and specific coursework needs. There will, however, be a minimal number of common courses that all will take, plus a requirement for an individual academic project addressing some existing NRM/G problem or issue.

While not requiring scientific experimentation or sampling or the gathering of primary data, the work is expected to involve critical reflection, empirical inquiry, and intellectual honesty. A written product (opus) and an oral presentation demonstrating sound scholarship will be required. Final acceptance of the opus will be by the student's committee and the Associate Dean of SNRAS.

Graduate Program – MNRMG Degree

1. Complete the general university requirements
2. Complete the master's degree requirements
3. Complete or have prior general familiarity with the major resource fields through prior coursework or experience. Deficiencies will be identified by the student's committee. Course requirements in any one field will depend on the needs of the candidate and the capabilities of the university.
4. Complete or have prior course work within the program in computer science, statistical methods and basic economics. The student's committee will decide how any identified deficiencies in these areas will be met.
5. Complete the following requirements

NOTE: Courses (All of the required courses are currently distance delivered).

NRM 601--Research Methods in Natural Resources--2 credits or an approved research methods course*
NRM 692--Graduate Seminar--3 credits
NRM 698--Non-thesis research/project--6 credits
Statistics course at the 400-level or above**--3 credits
Complete and successfully defend a project

Additional approved courses as needed to sum to a total of 35 credits (these courses will be approved by the student’s committee and SNRAS dean). Up to 9 of these credits may be 400 level courses.

Students who have deficiencies in natural resources, geography, natural sciences, economics, or related fields, may be required to take courses to fulfill these deficiencies. These credits will not count towards the 35 credits required for the degree.

6. Minimum credits required: 35

*Requirements may be met with a research methods course in a discipline related to natural resources management or geography
**Requirements may be met with a statistics course in mathematical sciences or in a discipline related to natural resources management or geography

C. PROPOSED REQUIREMENTS AS IT WILL APPEAR IN THE CATALOG WITH THESE CHANGES:
(Underline new wording strike-through-old-wording and use complete catalog format)

Natural Resources Management
Graduate Degrees
School of Natural Resources and Agricultural Sciences
907-474-7083
www.uaf.edu/snras/

The School of Natural Resources and Agricultural Sciences offers two degrees at the master's level. The degrees are designed for students desiring careers in resources management and students planning doctoral work, as well as those wishing to be better informed citizens. The courses and curriculum for the two degrees were developed in cooperation with groups and agencies that work professionally with resource management in Alaska. These agencies, including the Alaska Department of Natural Resources, Alaska Department of Fish and Game, Agricultural Research Service, U.S. Forest Service, Bureau of Land Management, Natural Resources Conservation Service, and U.S. Fish and Wildlife Service contribute significantly to the instructional program by providing guest lecturers and internship and research opportunities for students.

Because of the diversity and broad scope of the field, each degree is customized according to the student's interests and their advisory committee's recommendations. The graduate committee will assess the student's background, individual deficiencies and specific coursework needs. Student research projects and theses have typically been in the fields of forest management, land use planning, soil management, natural resource policy, range management, parks and recreation management, horticulture, agronomy, and animal science, climate change, and GIS.

For acceptance into either of our two master's programs, you should have a Bachelor of Science or Bachelor of Arts degree in a discipline that can be applied to natural resources management. Candidates should have general familiarity with the major resource fields. Students who have deficiencies in natural resources, geography, natural sciences, economics or related fields, as determined by the student's committee, may be required to take courses to remedy these deficiencies. These credits will not count toward the credits required for the degree.

Applicants must submit the UAF Graduate Admission Application, which includes 3 letters of recommendation, official GRE scores (these scores are required, not optional, and unofficial copies are not acceptable), transcripts from undergraduate schools attended, and a serious statement of the applicant's goals. The latter should include why you are applying for the particular master's degree, why
you chose UAF and SNRAS, and how such a degree would fit into your career goals. Applications cannot be considered until all these items have been received by the Admissions Dept.

**Graduate Program—Master's of Science Degree in Natural Resources Management**

Minimum Requirements for Degree: 30 credits

This degree is designed for those intending to pursue a career conducting research in management problems and/or to proceed on to a doctoral program. Thesis research in natural resources management is directed toward resource problems and based on hypothesis testing.

1. Complete the general university requirements (page 191).
2. Complete the master's degree requirements (page 195).
3. Complete the following:
   - NRM F601—Research Methods in Natural Resources ...................2
   - or an approved research methods course*
   - NRM F692—Graduate Seminar ..................................................3
   - NRM F699—Thesis .................................................................6 - 12
   - Statistics course at the F400-level or above** .............................3

   Additional approved courses as needed to total 30 credits (these courses will be approved by the student's committee). Up to 6 of these credits may be 400 level courses.

   Minimum credits required ..........................................................30

4. Complete and successfully defend their thesis.

**Graduate Program—Master's Degree in Natural Resources Management & Geography (MNRMG degree)**

Minimum Requirements for Degree: 35 credits

This degree is designed to prepare students for a management career in natural resources planning and administration, communication and public information, and/or operational innovation, improvement and impact assessment. While not requiring scientific experimentation, sampling or the gathering of primary data, the work is expected to involve critical reflection, empirical inquiry and intellectual honesty. A written product (an "opus") and an oral presentation demonstrating sound scholarship will be required. Final acceptance of the project will be by the student's committee and the associate dean of SNRAS.

1. Complete the general university requirements (page 191).
2. Complete the master's degree requirements (page 195).
3. Complete the following:
   - NRM F601—Research Methods in Natural Resources ...................2
   - or an approved research methods course*
   - NRM F692—Graduate Seminar ..................................................3
   - NRM F698—Non-thesis research/project .....................................6
   - Statistics course at the F400-level or above** .............................3

   Additional approved courses as needed to total 35 credits (these courses will be approved by the student's committee and the SNRAS dean). Up to 9 of these credits may be 400 level courses.

   Minimum credits required ..........................................................35

4. Complete and successfully defend their "opus" or project.

* Requirement may be met with a research methods course in a discipline related to natural resources management.

** Requirement may be met with a statistics course in mathematical sciences or in a discipline related to natural resources management.

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**D. ESTIMATED IMPACT**

*WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.*

It will make it easier for students to see the differences in the two degrees and it is less wordy and hopefully more helpful to students.
E. IMPACTS ON PROGRAMS/DEPTS:

What programs/departments will be affected by this proposed action?
Include information on the Programs/Departments contacted (e.g., email, memo).

Only SNRAS master’s degrees

F. IF MAJOR CHANGE - ASSESSMENT OF THE PROGRAM:

Description of the student learning outcomes assessment process.)

Not applicable

JUSTIFICATION FOR ACTION REQUESTED

The purpose of the department and campus-wide curriculum committees is to scrutinize program/degree change applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. If you drop a course, is it because the material is covered elsewhere? Use as much space as needed to fully justify the proposed change and explain what has been done to ensure that the quality of the program is not compromised as a result.

There were several confusing statements in the old description and even some incorrect information, such as the number of credits, etc.

APPROVALS:

Signature, Chair, Program/Department of: SNRAS
Date 29 July 2009

Signature, Chair, College/School Curriculum Council for: SNRAS
Date 29 July 2009

Signature, Dean, College/School of: SNRAS
Date 29 July 2009

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION.

Signature, Chair, UAF Faculty Senate Curriculum Review Committee
Date

Signatures: