MEMORANDUM

TO:
Joan Braddock, Dean, CNSM
Ron Davis, Dean, CLA
Doug Goering, Interim Dean, CEM
Mark Herrmann, Interim Dean, SOM
James Huesmann, Dean, Libraries
Bernice Joseph, Vice Chancellor, CRCD
Carol Lewis, Dean, SNRAS
Eric Madsen, Dean, SOEd
Pete Pinney, Interim Director, CES
Denis Wiesenburg, Dean, SFOS

FROM: Jayne Harvie, Office Manager
Governance Office

DATE: March 4, 2008

SUBJECT: UAF Faculty Senate Actions – Meeting #149

Enclosed for your information are actions approved by the UAF Faculty Senate at their March 3, 2008 meeting.

1. Motion to approve a Masters of Natural Resource Management and Geography
2. Motion to approve an Associate of Science

If you have any questions, please contact me at 474-7964.

Attachments

cc: Steve Jones, Chancellor
Susan Henrichs, Provost
Buck Sharpton, Vice Chancellor for Research
Larry Duffy, Graduate School
Tim Barnett, Student & Enrollment Services
Deanna Dieringer, University Registrar
Melissa McGinty, Graduation Office
Dana Thomas, Asst. Provost for General Studies
Linda Hapsmith, Academic Advising Center
Lael Oldmixon, Admissions
Michelle Bartlett, Summer Sessions
Debbie Toopetlook, Rural Student Services
Rick Caulfield, Tanana Valley Campus

MOTION:
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The UAF Faculty Senate moves to approve a Masters of Natural Resource Management and Geography.

EFFECTIVE:	Fall 2008 and/or Upon Board of Regents approval.
RATIONALE:	See the full program proposal #29 from the Fall 2007 review cycle on file in the Governance Office, 312 Signers' Hall.

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President, UAF Faculty Senate Date

APPROVAL: _____ DATE: _____
Chancellor's Office

DISAPPROVED: _____ DATE: _____
Chancellor's Office

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Masters of Natural Resource Management and Geography Program Goals:

The goals of the MNRMG degree are to provide coursework and training for (1) students who are currently working in or wish to work in the NRM/Geography (NRM/G) fields in a professional capacity, but who lack specific training or an appropriate undergraduate degree; (2) students seeking additional skills or advanced training in NRM/G in order to enhance their professional effectiveness and/or advance in their professional careers; and (3) students who wish to pursue the NRM/Peace Corp Masters program and focus on applying existing NRM/G technologies and knowledge in the context of the developing world and in conjunction with their Peace Corps assignment.

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 in a manner similar to our current MS degree. 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. It will not require review by the graduate school.

Natural Resources Management and Geography
School of Natural Resources and Agricultural Sciences

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
   i. 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
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, as determined by the student's committee, may be required to take courses to

fulfill these deficiencies. These credits will not count towards the 35 credits required for the degree.

ii. Complete and successfully defend opus

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*

RESOURCE COMMITMENT TO THE PROPOSED DEGREE PROGRAM

Resources*	**Existing**	**New**		**Total**
	College/School	College/School	Others (Specify)	
Regular Faculty (FTE's & dollars)	8 FTE $800,000	None	None	8 FTE $800,000
Adjunct Faculty (FTE's & dollars)	0.3 FTE $9,000	None	None	0.3 FTE $9,000
Teaching Assistants (Headcount)	3	None	None	3
Instructional Facilities (in dollars and/or sq. footage)	2500 sq ft	None	None	2500 sq ft
Office Space (Sq. footage)	2400 sq ft	None	None	2400 sq ft
Lab Space (Sq. Footage)	5800 sq ft	None	None	5800 sq ft
Computer & Networking (in dollars)	$250,000 (this includes value of existing computers used for instruction or by students)	None	None	$250,000
Research/ Instructional/ office Equipment (in dollars)	$500,00	None	None	$500,00
Support Staff (FTE's & dollars)	4.5 FTE $450,000	None	None	4.5 FTE $450,000
Supplies (in dollars)	$25,000	None	None	$25,000
Travel (in dollars)	$5,000	None	None	$5,000

*Note: These data include only resources which are used directly or indirectly in instructional programs.

University of Alaska Board of Regents
Program Approval Summary Form
Requirements:
1. 2 pages or less
2. Must be a stand-alone document

MAU: UAF
Title: Master's Degree in Natural Resources Management and Geography

Target admission date: Fall 2008

How does the program relate to the **Education** mission of the University of Alaska and the MAU?

The development of this program was suggested and promoted by the faculty of the School of Natural Resources and Agricultural Sciences in response to a growing recognition of the inadequacies of the non-thesis option of the natural resources management M.S. program. Thus, a committee was formed to develop the program, but with input from all faculty in the school. An external survey was administered to assess need for the program.

This program is fully compatible with UAA's and UAF's missions as it is designed to enrich Alaska through teaching and research as it relates to development and conservation of Alaska's natural resources and it advances and disseminates knowledge in Alaska and the Circumpolar North by enhancing student's knowledge to in the management of Alaska's natural resources. This in turn will result in more opportunities for career advancement and will improve management of Alaska's natural resources.

What **State Needs** met by this program.

Many of the practitioners in natural resource public agencies and private firms in Alaska were trained outside of Alaska and many have degrees not closely related to natural resources or geography. Because of this, their knowledge of Alaska and its resources is often limited and their opportunities for advancement in their careers are limited. This degree option will allow students to become well versed in the latest knowledge and in cutting edge techniques for managing Alaska's resources and will enhance opportunities for career advancement. Thus, it will enhance work-force development in Alaska.

What are the **Student** opportunities and outcomes? Enrollment projections?

This degree program will target students who are currently working in or wish to work in natural resources/geography fields but who lack specific training or an appropriate undergraduate degree and students seeking advanced training in order to advance their professional effectiveness or advance their professional careers. It will replace the current non-thesis option of the NRM M.S. degree. A recent web survey indicated more than 50 people currently employed in natural resources and geography fields in Alaska are likely to

pursue this degree, with most indicating they would use it to advance their current career and to increase and update their technical skills.

We anticipate 5-10 students enrolled in the program each year.

Describe **Research** opportunities:

While students in this program will not be expected to conduct primary research requiring scientific sampling or experimentation, each student will be required to complete a project in which the student addresses some existing natural resources management or geography issue or problem and will therefore require background research and problem solving by the student. It will also enhance students' abilities to evaluate and conduct research in their profession.

Describe Fiscal Plan for development and implementation:
*Identify funding requirement, sources and plan to generate revenue and meet identified costs to include:

The degree program will replace a current degree program (non-thesis option of M.S. in NRM) and will use existing courses and thus will not require any new resources. Thus, the only anticipated change will be an increase in enrollment, and may require some changes in faculty workloads to allow for increased demands for graduate student advising.

MOTION:
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The UAF Faculty Senate moves to approve an Associate of Science degree program.

EFFECTIVE: Fall 2008 and/or
Upon Board of Regents approval.

RATIONALE: See the full program proposal #100 from the Fall 2007 review cycle on file in the Governance Office, 312 Signers' Hall.

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President, UAF Faculty Senate Date

APPROVAL: _____ DATE: _____
Chancellor's Office

DISAPPROVED: _____ DATE: _____
Chancellor's Office

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Brief Statement of the Proposed Program

Overview: An increasing number of students are seeking degrees in the sciences. Many of these students, however, have limited high school experience with and preparation for the rigor and investigation required by science courses. In addition, many of the potential students have been out of school for several years and their learning skills may be dormant. Finally, many students are interested in acquiring specific vocationally related science skills that they can immediately use while enroute to a baccalaureate degree. According to an October 2005 report entitled "A Profile of the American High School Senior in 2004: A First Look" released by the National Center for Educational Statistics (NCES) a third of the students who planned to get a four-year degree had not mastered "simple problem solving, requiring the understanding of low-level mathematics concepts." And almost one-half of those who anticipate getting a graduate or professional degree had only "an understanding of intermediate-level mathematical concepts" or "the ability to formulate multistep solutions to word problems." (http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006348) This proposed

AS degree provides the preparation needed to enter into a science-related baccalaureate while gaining the basic academic preparation and sought after vocationally related skills.
The Associate of Science degree will be offered through the Interior-Aleutians Campus of the College of Rural and Community Development (CRCD) and is designed to allow students to select a concentration area in a science related field.

Objectives:

- To prepare students for Baccalaureate of Science coursework.
- To provide an articulated pathway for science-related certificate students to progress to the Baccalaureate of Science.
- To prepare students for employment in science-related fields.

Proposed Catalog Description
Associate of Science Requirements

The associate of science degree represents the completion of a broad-based course of study with an emphasis in the sciences. This degree may serve as a stepping-stone to a science-related baccalaureate program. You may earn only one AS degree.

All credits for the AS degree must be at the 100 or above with 20 credits at the 200 level or above. Variation in credits would depend on the number of credits brought in via the Area of Concentration.

1. Complete the general university requirements (page ___).
2. Complete the following general AS requirements:

Communication 9
ENGL 111X -- Introduction to Academic Writing.....3
ENGL 213X -.....3
COMM 131X/141X -- 3

Humanities and Social Sciences 15
ANTH/SOC 100X – Individual, Society and Culture.....3
ECON or PS 100X – Political Economy.....3
HIST 100X – Modern World History.....3
ENGL/FL 200X – World Literature.....3
Complete on of the following 3 courses:
ART/MUS/THR 200X – Aesthetic Appreciation 3
HUM 201X – Unity in the Arts.....3
ANS 202X – Aesthetic Appreciation of Alaskan Native Performance.....3
Two semester length courses in a single Alaska Native language or other non-English language or three semester length courses (9 credits) in American Sign Language taken at the university level may substitute for two of the courses above.

Mathematics
Math 107X -- ..... 4 or
Math 200X or 272X.....4

Natural Sciences 16
1) Complete any two 4 credit science courses from Baccalaureate core
2) Complete a one year sequence in one natural science beyond the baccalaureate core.
3) The total natural science courses used to satisfy this requirement shall represent at least two different natural sciences.

Library and Information Research 0-1

Concentration Area
Complete Concentration Area of at least 15 credits from a science-focused area such as Veterinary Science, General Science, and High Latitude Range Management, or other Bachelor of Science degree areas as determined in coordination with your advisor.

4. Minimum credits required.....60

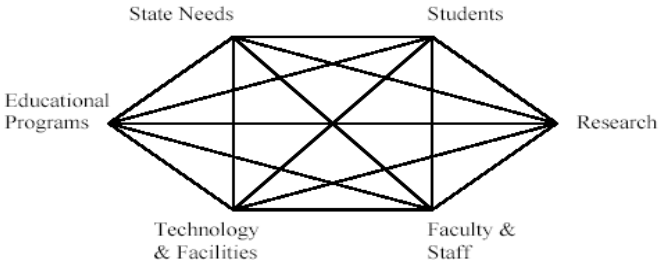
Note: Students intending on pursuing a Baccalaureate of Science degree should plan on completing a calculus course as part of the Math requirements.

RESOURCE COMMITMENT TO THE PROPOSED DEGREE PROGRAM

Resources	Existing	New		Total
	College/School	College/ School	Others(Specify)	
Regular Faculty (FTE's & dollars)	IAC: 10% Faculty time for development ($10,747). In excess of 10 additional faculty per semester will be involved in providing courses which will be used by students in this program. The amount of effort will vary per instructor based on the number of AS students in their classes.		**USDA Grant** Faculty 50% ($35,374)	$46,121
Adjunct Faculty (FTE's & dollars)				
Teaching Assistants (Headcount)				
Instructional Facilities (in dollars and/or sq. footage)			Communities of Ft. Yukon, Galena, Tok, McGrath, and Kotzebue will donate classroom space @ a minimum of 144 sf each	
Office Space (Sq. footage)	100 sf + 80 sf			
Lab Space (Sq. Footage)				
Computer & Networking (in dollars)				
Research/instructional/office Equipment (in dollars)				
Support Staff (FTE's & dollars)			**USDA Grant**: 50% Program Assistant; 20% Media Technician; 2% Web Technician	$31,9001
Supplies (in dollars)			**USDA Grant**: $3750	$3750
Travel (in dollars)			**USDA Grant**: $20,310	$20,310
Totals				**$102,082**

Signature_____ Date _____

Executive Dean of College Proposing the New Degree Program



University of Alaska Board of Regents
Program Approval Summary Form

MAU: UAF
Title: Associate of Science
Target admission date: Fall 2008

How does the program relate to the
Education Mission of the University of Alaska and the MAU?
The Associate of Science Program was created by the Interior-Aleutians Campus, in cooperation with employers and educators, and is focused on preparing students for entry into science-related employment and continued baccalaureate science-related education. This program is focused on preparing students for immediate jobs and for subsequent education.

The Associate of Science degree program provides students with quality academic instruction needed for baccalaureate and other advanced degrees in the sciences while providing an articulated pathway for certificate students to progress to the Baccalaureate of Science as well as to qualify program graduates for employment in science-related fields.

a) Objectives

- To contribute to an educated Alaskan workforce by providing coursework relevant to student science-focused degree goals.
- To reach out to and recruit prospective students and listen to rural and urban communities and employers, linking learning with real life.
- To prepare students for baccalaureate or other course work in the sciences.
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This program relates to and supports the goals of the UAF 2005 Strategic Plan by:

- Serving as the premiere higher educational center for Alaska Natives by both increasing the number of Alaska Native students at UAF and by increasing the proportion of degrees awarded to Alaska native students
- Providing high quality undergraduate education for traditional and non-traditional students by increasing the numbers of students who enroll in and successfully complete their 100-level and above coursework and degrees
- Forming active collaborations with communities, organizations, businesses and government to meet identified state, national and global needs through increased numbers of students graduating with degrees in science related fields

What **State Needs** met by this program.
Immediate employment market needs relate to those concentration areas which students choose. Responses to the Veterinarian Technicians Program survey, for example, show the potential for 36-42 jobs in the 39 villages surveyed. These jobs include veterinary technician, tribal resource management, wildlife disease inspection, fish and game personnel and public health. In addition, outside employment (non- village) is readily available for licensed veterinary technicians, medical illustrators, or public health workers.

State statistics

State statistics from the Department of Labor substantiate workforce and skill development needs in rural Alaska. Figures provided by the Department of Labor Website (http://almis.labor.state.ak.us) project, by 2012, a 12.1% increase in jobs in Professional,

Scientific, and Technical Services, a 50% increase in jobs in Waste Management and Remediation, a 32.2% increase in jobs in Health and Social Services, and a 57.1% increase in jobs in the Mining industry. The Associate of Science degree and its associated concentration area will either prepare the student to directly enter this work force or will prepare the student for the baccalaureate degree which will provide entry to these jobs.

What are the **Student** opportunities and outcomes? Enrollment projections?
The Associate of Science degree will provide the student the opportunity to develop the skills and training necessary either for immediate employment in a variety of science-related fields or for entry into a science-related baccalaureate discipline.

Enrollment Estimates University-wide:

Year	Headcount*
08-09	25
09-10	40
10-11	65
11-12	90
12-13	110

*Includes both full and part time

Describe **Research** opportunities:
While research is not a primary focus of this program, it is a unique model which will be documented and shared throughout the academic community. This program will produce a wealth of information in student outcomes assessments, changes in academic programs and teaching style, and other information relating to workforce and skill development in rural Alaska. This Associate of Science program will allow for increased scientific inquiry and research opportunities on a local basis. Stronger collaboration between the scientific community and local entities should result from this program.

Describe Fiscal Plan for development and implementation:
*Indirect costs to other units (e.g. GERs)
Program development is supported by the United States Department of Agriculture Alaska Native/Native Hawaiian (AN/NH) Serving Institutions Education Grants program. This project addresses the USDA goal of increasing the number of AN/NHs engaged in USDA careers. These careers include, among others, increasing the number of students entering Associates of Sciences programs that articulate into Bachelor and Masters of Science degrees.

Because USDA's interest is, ultimately, in bringing more AN/NHs into USDA careers at the bachelors and masters level, the grant will fund the current effort until at least 2010. USDA support currently stands at one half-time science faculty member plus funding for a total of 12 Alaska Native students to complete the Associate of Science program within approximately three years. One fund 1 faculty member developed the Associate of Science degree contributing a total of $10,747 in fund 1 dollars. Another $42,650 in salaries and benefits will come from the grant for support staff (program assistant, web technician and media technician).

While the Interior-Aleutians Campus has developed this new program, other fund 1 faculty and staff from all campuses, both urban and rural, will potentially be involved with this program. The program will generate $62,700 per year with a minimum of 15 full-time

students. As student participation increases, tuition income will increase, gradually replacing grant funding.

The primary faculty are already employees of the University, current faculty of the College of Rural and Community Development as will Fairbanks-based UAF faculty. Fairbanks based classes will show a slight increase in student registrations.

Office and classroom space will be provided by existing University urban and rural campuses throughout Alaska. Some of the rural communities with available facilities include Galena, Fort Yukon, Tok, Nenana, McGrath, Unalaska, Dillingham, Bethel, Nome, Kotzebue, Barrow, and Sitka. In villages without a University facility, training space can be found in the private sector and reasonably supported by tuition fees. No new facilities or space will be required.