41-GPCh. Related to #2-GPCh.

FORMAT 5

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PROGRAM/DEGREE REQUIREMENT CHANGE (MAJOR/MINOR)

SUBMITTED BY:

Department	**Graduate Program in Marine Sciences and Limnology (GPMSL)**	**College/School**	**School of Fisheries and Ocean Sciences (SFOS)**
Prepared by	**Christina Neumann/Katrin Iken**	**Phone**	**5840/5192**
Email Contact	**clneumann@alaska.edu** **kbiken@alaska.edu**	**Faculty Contact**	**Katrin Iken**

See http://www.uaf.edu/uafgov/faculty/cd for a complete description of the rules governing curriculum & course changes.

PROGRAM IDENTIFICATION:

DEGREE PROGRAM	**Marine Biology**
Degree Level: (i.e., Certificate, A.A., A.A.S., B.A., B.S., M.A., M.S., Ph.D.)	**MS**

A. CHANGE IN DEGREE REQUIREMENTS: (Brief statement of program/degree changes and objectives)

Changing the field course requirement component.

The bulk of these changes (everything regarding field course requirement, explanations and justifications in bold font) has already been approved by GAAC and the Provost on 10/16/2012. Here we ask for some additional changes regarding minimum grade requirements (explanations and justifications in normal font):

UAF degree requirements state that students have to earn a C grade or better (2.0) in each 600-level class to satisfy degree requirements. Our program supports a C grade in a 600-level core class as a passing grade, but the intent of this change is to require a B- grade or better in the 600-level CORE courses for students to be able to take the comprehensive exams.

B. CURRENT REQUIREMENTS AS IT APPEARS IN THE CATALOG:

Graduate Program -- M.S. Degree

1. Complete the following admission requirement:
    1. Submit GRE scores.
2. Complete the general university requirements.
3. Complete the master's degree requirements.
4. Complete a thesis.
5. Complete the following:
   MSL F610--Marine Biology--3 credits
   MSL F615--Physiology of Marine Organisms--3 credits
   MSL F650--Biological Oceanography--3 credits
   MSL F651--Marine Biology and Ecology Field Course (4)
   or MSL F611--Field Problems in Marine Biology (5)
   or an equivalent field course at another institution--4 - 5 credtis
   MSL F692--Seminar--3 credits
6. Minimum credits required--30 credits

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)

Graduate Program -- M.S. Degree

1. Complete the following admission requirement:
    1. Submit GRE scores.
2. Complete the general university requirements.
3. Complete the master's degree requirements.
4. Complete a thesis.
5. Complete the following: *
   MSL F610--Marine Biology--3 credits
   MSL F615--Physiology of Marine Organisms--3 credits
   MSL F650--Biological Oceanography--3 credits
   MSL F651--Marine Biology and Ecology Field Course (4) or an acceptable substitution **
   ~~or MSL F611--Field Problems in Marine Biology (5)~~
   ~~or an equivalent field course at another institution--4 - 5 credits~~
   MSL F692--Seminar--3 credits
6. Minimum credits required--30 credits

Note: Only 9 credits of the required 30 M.S. degree credits can be at the 400-level.

* In addition, students must earn a B- (2.7) or better grade in the core courses of the degree program before being eligible to take the comprehensive exam.

** The following is the official GPMSL policy regarding acceptable substitutions for the MSL F651Marine Biology Field Course to meet the field course requirement for the M.S. Marine Biology Program:

a. A combination of 4 credits from MSL 421 Subtidal Studies (2 credits) and a minimum of 8 days (for 2 credits through a preapproved Independent Study) aboard an oceanographic vessel or a coastal field station conducting biological research unrelated to the student's thesis research, if approved in advance by the Graduate Advisory Committee, Master's Comprehensive Exam Committee, and the Chief Scientist of the cruise. (Note: Assuming the student spends 10 hours per day on the vessel/field station, the student will accumulate 80 hours of experience, which is equivalent to a 2-credit lab course.) To obtain approval for this last substitution, the Chief Scientist of the cruise/field station must submit a memorandum to the Master's Comprehensive Exam Committee stating that the student will spend at least 8 days at sea substantially involved in a variety of cruise activities that are not related to the student's thesis research.

OR

b. MSL 656 Kelp Forest Ecology (4 credits).

OR

c. MSL 697 Field Problems in Marine Biology - Individual Study Course (4 credits). A faculty member other than the major advisor must supervise the Individual Study Course. The course work must involve:

(1) A minimum of 160 hours of student work with a substantial part of this being field work.
(2) A Project Proposal, which includes the following:
    i. Individual Study Approval Form
    ii. Add/Drop Form
    iii. Graduate Student Petition Form
    iv. Justification describing how the field research differs from the student's thesis research. The proposed project must be distinct from the student's thesis research in at least two out of three areas: topic, genus, or location/habitat.
(3) All paperwork must be submitted to the Master's Comprehensive Exam Committee, Program Head, and Associate Dean for final approval before field research begins.
(4) Field research, as designed in the Project Proposal.
(5) A Final Project Report (written).

D. ESTIMATED IMPACT

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

No negative impact is expected. The alternative courses (MSL 656 and MSL 697) to the original field course requirement (MSL 651) are already in existence and will not require any additional paperwork. With a possibly increased demand of individual study courses as alternatives, this action will afford additional teaching opportunities for our faculty, creating a positive impact.

The proposed action on minimum grade requirements for taking the comprehensive exam does not have an impact on the budget, facilities or faculty. Core courses for the GPMSL MS Marine Biology degree program are offered every year, which will not change with the requested change.

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)

The action will impact the GPMSL program by possibly increasing enrollment in the alternative courses now listed as substitutions. The proposed course flexibility will impact the program positively by tailoring field experiences most appropriately for our diverse student body.

The GPMSL Marine Biology Program will be affected by this action of changing minimum grade requirements for taking the comprehensive exam. Students will be required to earn a B- or better grade in the degree-specific core courses in order to take the comprehensive exams. Should a student not earn a B- or better grade in a core course, the student will have to repeat the respective core course until they earn the required minimum grade.

F. IF MAJOR CHANGE - ASSESSMENT OF THE PROGRAM:

Description of the student learning outcomes assessment process.)

This action will improve our ability to meet the program's specific outcomes assessment (OA) objectives. Meaningful field experience is an integral aspect of our OA plan to achieve our OA objectives 1. Graduates will be competent scientists, and adequately prepared to succeed in the job market in their field of study, 2. Graduates will have the knowledgebase to teach Marine Sciences at the community college or lower-division undergraduate level, 3. Graduates will be prepared to enter a Ph.D. program, 4. Graduates will be capable of accomplishing rigorous and unbiased scientific research. The metric that graduate students engage in a field component/experience is listed in the OA plan for the MS Marine Biology program. By broadening the possibilities for field experience by including other courses allows our program to better meet the OA objectives, i.e. students to be "prepared and competent in their field of study". The Individual Study course alternative has to differ from the student's thesis research; therefore, this substitution broadens and gives a more rounded field experience to the students, making them more competent.

The action of changing minimum grade requirements for taking the comprehensive exam is considered a minor degree change. This change will not change the student learning outcomes and their assessment process. The required change is in line with the existing student learning outcome assessment for the program.

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.

The justification of this action is two-fold:

1. **This action broadens the course offerings and allows students to gain a more rounded experience that is useful in their education and that better meets our program's OA objectives.**

2. **The originally required field course (MSL651) is now being offered only during odd summers and not every summer. Without alternative field courses, the reduced offering of MSL 651 can complicate the students' ability to meet the field requirement component and complete their degree in a timely manner. The requested action also allows students to take advantage of unique field opportunities outside of the regular class offering, providing them with field course options for any given semester, which they can**

chose to schedule around their own thesis work demands.

While it is not a frequent occurrence that a graduate student earns a C+ or worse grade in a core course, the occasional experience in past years has shown that students who do not earn at least a B- grade in a core course are not able to pass the comprehensive exam. This indicates that students with less than a B- grade did not successfully and sufficiently comprehend the core material to fulfill the purpose of the comprehensive exams. The GPMSL programs outcomes assessment plan states that "All students must pass a written Comprehensive Exam after the completion of their core courses to assess their broad disciplinary knowledge, their ability to apply that knowledge to interdisciplinary problems in the marine sciences, and their in-depth knowledge of the field of specialization". After discussion the GPMSL faculty decided that requiring a B- or better grade in 600-level core courses is a necessary prerequisite to minimize the potential for comprehensive exam failure. It seems prudent to give students the opportunity to learn and comprehend the knowledge necessary to successfully complete the degree before they fail at the comprehensive exam level. Students can only take the comprehensive exam twice before they have to leave the program, while there is no limitation to re-taking core classes. The GPMSL faculty feel that this requested degree change is in the best interest for our students to ensure that they successfully complete the degree.

APPROVALS:

	Date	2/13/13
Signature, Chair, Program/Department of:	GPMSL	
	Date	2/13/13
Signature, Chair, College/School Curriculum Council for:	SFOS	
	Date	Feb 13, 2013
Signature, Dean, College/School of:	SFOS	

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE

	Date	

Signature, Chair, UAF Faculty Senate Curriculum Review Committee