HUMBOLDT STATE UNIVERSITY

Natural Resources Graduate Program

Memorandum

To: Faculty in Environmental and Natural Resources Science, Fisheries Biology, Forestry and Watershed Management, and Wildlife

From: Jim Howard
Dean, CNRS

Re: Policies and Practices of the Natural Resources Graduate Program

Date: February 23, 2004

As many of you are aware, the Natural Resources Graduate Program recently underwent a program review. In their assessment of the program review, the CNRS Curriculum Committee and my office observed that there was considerable variance in the goals, admission standards, and graduation requirements among the options and recommended that a task force be established to study these issues. The task force met throughout 2002 academic year and submitted a draft document of Policies and Practices of the Natural Resources Graduate Program. This document has been subsequently reviewed and agreed to by the chairs of the NR departments.

By this memo, I am endorsing the Policies and Practices of the Natural Resources Graduate Program, effective August 1, 2004.

Highlights of the new Policy includes:

- Consistent admission standards that include a 3.0 gpa for the last 60 hours and minimum GRE combined verbal and quantitative score of 1000
- Prospective graduate students must be accepted by consensus of the faculty
- All options require a thesis as defined by Title 5, with the exception of the Comprehensive Exam option available in Foresty
- A required oral presentation and defense of the thesis
- Guidelines on the exceptions and extensions to the seven-year time limit mandated by Title 5.
- A statement of faculty obligation to graduate students
- Appointment, term, and duties of the Graduate Coordinator
- Establishment of the Graduate Advisory Council that serves as an appellate body for the Program.

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POLICIES AND PRACTICES OF THE NATURAL RESOURCES GRADUATE PROGRAM

1. AUTHORITY

1.1. All practices and procedures described in this document are based on Title 5 of the *California Code of Regulations* and the general practices outlined in the current edition of the *Handbook for Master's Students*. Exceptions to these policies are by petition to the Graduate Advisory Council (see Section 10)

2. PROGRAM GOALS

2.1. To contribute to academic excellence by engaging faculty and students in the exploration and advancement of knowledge.

2.2. To enhance effective verbal and written communication skills in all students.

2.3. To enhance in all students the quantitative and/or qualitative analytical skills necessary for problem solving in a complex society.

2.4. To provide students with the knowledge and experience necessary to address natural resource problems and to carry out scientific investigations including design, implementation, and evaluation of research in their specific area of study.

2.5. To provide students with an in-depth understanding of their specific area of study as well as an appreciation for the interdisciplinary character of natural resource problems.

2.6. To nurture open mindedness, professional ethics, and life-long learning in all students.

3. PROCEDURES FOR APPLICATION

3.1. Qualifications of Prospective Graduate Students

3.1.1. Applicants to any of the seven options must possess undergraduate course preparation equivalent to the baccalaureate degree. Adequate academic preparation can best be demonstrated by a baccalaureate degree in the chosen option or in a closely related field. Applicants who lack adequate preparation may be required to make up academic deficiencies through additional course work; such course work may not be used toward the graduate degree.

3.1.2. Normally, applicants must have a minimum GPA of 3.0 for the last sixty undergraduate units and a combined verbal and quantitative score of 1000 on the Graduate Record Exam (GRE). Applicants with extensive work experience, exceptional GPA, or GRE scores may be excepted by appeal of the department faculty to the Graduate Advisory Council (see Section 10) through the Graduate Coordinator.

3.2. Application and Selection Procedure

3.2.1. Students in the NR/MS Program may only be admitted as classified graduate students. Unclassified baccalaureate students who are interested in the NR/MS Program must go through the application and screening process described below.

3.2.2. In general, applicants must complete their files by February 1 for fall or summer matriculation, and by September 30 for the spring matriculation. Under special circumstances and when there is strong justification, a faculty member may request through the Department that applications for prospective students be accepted outside the normal fall or spring application cycles.

3.2.3. The student application file must include:

3.2.3.1. A statement of research interests.

3.2.3.2. Official transcripts of all college work undertaken, and (if needed) test scores from the verbal and quantitative sections of the GRE.

3.2.3.3. Three letters of recommendation.

3.2.4. Completed files are reviewed by the tenured and tenure-track faculty (to include individuals who, by written agreement, with the University have full faculty status (e.g., California Cooperative Fish Research Unit) in the particular option. Each applicant is compared against the applicant pool to ensure that the best applicants are accepted. In general, a student may be accepted if:

3.2.4.1. (S)He meets the minimum grade point average and the GRE score requirement.

3.2.4.2. (S)He has appropriate undergraduate preparation.

3.2.4.3. (S)He is acceptable by consensus to the faculty (as defined above) within the option and a tenured or tenure-track faculty member within the option (or other person as specified in paragraph 5.1) is

willing to direct the student's graduate program (i.e., chair the graduate committee).

4. PROGRAM REQUIREMENTS

4.1. All seven options in the Natural Resources Program share the following requirements:

4.1.1. A minimum of 30 units of academic work, including at least 15 units at the 500 or 600 level (*Title 5, California Code of Regulations*).

4.1.2. A minimum of 21 units must be taken in residence at HSU (*Title 5, California Code of Regulations*).

4.1.3. No more than 9 extension or transfer units may be accepted (*Title 5, California Code of Regulations*).

4.1.4. No more than 6 units of Thesis (690) and/or Research Problems (695) may count toward the degree total of 30 units (*Title 5, California Code of Regulations*).

4.1.5. No more than 8 units of any combination of Thesis (690), Professional paper (692), Research Problems (695), or Directed Study (699) may count towards the degree total of 30 units.

4.1.6. A grade point average of 3.0 or better in all courses taken to satisfy the requirements for the degree (*Title 5, California Code of Regulations*).

4.1.7. By University policy (*Handbook for Master's Students*), students are required to enroll for at least one unit per term for at least two terms (fall, spring, or summer) each academic year until their degree requirements have been completed. In the NR/MS Program, students who fail to maintain continuous enrollment without a Leave of Absence (see *Handbook for Master's Student)* must re-apply and be re-admitted to the NR/MS Program.

4.1.8. Upon advancement to candidacy, a student must submit a research proposal that has been approved by his/her thesis committee. The proposal consists of a statement of purpose or problem, a thorough review of the literature, and an explanation of the research methods.

4.1.9. Completion of a thesis or a comprehensive exam.

4.1.9.1. A **thesis** is the written product of a systematic study of a significant problem. It identifies the problem, states the major assumptions, explains the significance of the undertaking, sets

forth the sources for and methods of gathering information, analyzes the data, and offers a conclusion or recommendation. The finished product evidences originality, critical and independent thinking, appropriate organization and format, and thorough documentation (*Title 5, California Code of Regulations*).

4.1.9.2. The **comprehensive exam** (Forestry Option, only) consists of a written and oral portion and is an assessment of the student's ability to integrate the knowledge of the area, show critical and independent thinking, and demonstrate mastery of the subject matter. The written section of the examination is intended to cover a broad spectrum of topics. The student's Graduate Advisory Committee, supervised by the Major Advisor, prepares and grades the oral section. This part deals with topics specific to the student's area of interest and academic preparation. The results of the examination evidences independent thinking, appropriate organization, critical analysis and accuracy of documentation. A record of the examination questions and responses shall be maintained in accordance with the records retention policy of The California State University.

4.1.10. A public oral presentation and a closed formal defense is required for all thesis research.

5. SPECIFIC REQUIREMENTS BY OPTION

Fisheries
Required courses are FISH 310 (Ichthyology), FISH 450 (Introductory Fish Population Dynamics), FISH 460 (Principles of Fishery Management) or equivalents. Additional graduate courses include FISH 685 (Graduate Fisheries Seminar), FISH 690 (Thesis), FISH 695 (Research). All Fisheries Biology students must enroll in 3 units of FISH 690 and 3 units of FISH 695 during every semester in which they are a graduate student in residence at HSU. A thesis is required.

Forestry
A thesis or comprehensive exam is required.

Natural Resources Planning and Interpretation
Enrollment in NRPI 685 (Seminar) is required during each semeter of residence (note that only 2 units of 685 can be applied to the 30-unit requirement for the degree). Students must be enrolled for a minimum of 3 units of NRPI 690 (Thesis) during semester in which they graduate.

Rangeland Resources and Wildland Soils
Enrollment in RRWS/Soil 685 (Seminar) is required during each semester of residence (note that only 2 units of 685 can be applied to the 30-unit requirement for

the degree). Students must be enrolled for a minimum of 3 units of RRWS/Soil 690 (Thesis) during the semester in which they graduate.

Wastewater Utilization
Required courses include FISH 525, four courses in water quality, and two courses within each of three areas: (1) ecology and physiology, (2) elements of planning and design, and (3) non-technical problems in wastewater reuse/water quality issues. At least one unit each of FISH 690 (Thesis) and FISH 695 (Research Problems in Fisheries) are required during the first year in residence and 3 units each of FISH 690 and FISH 695 during all semesters in residence thereafter. A thesis is required.

Watershed Management
Each graduate student program must contain two semesters of WSHD 685 (Seminar in Watershed Management). A thesis is required.

Wildlife
Required courses include: WLDF 585 (Seminar in Wildlife Management), WLDF 690 (Thesis), and WLDF 695 (Advanced Field Problems). A thesis is required.

6. THE GRADUATE (THESIS) COMMITTEE

6.1. In the NR/MS Program, the graduate committee chair shall either be a tenured or tenure-track faculty member in the selected option, or a person who is recognized by written agreement with the University as having full faculty status (e.g., California Cooperative Fish Research Unit). Other persons, such as those participating in the Faculty Early Retirement Program (FERP) or those having *emeritus* status or adjunct faculty appointments, may serve as chair of the graduate committee with the consent of *all* of the tenured and tenure-track faculty in the selected option. When the faculty agree to allow retired or adjunct faculty serve as chair of the graduate committee, *it is their responsibility to ensure that the policies described in this document, as well as any University or State policies, are followed. They are also responsible for these students if the retired or adjunct faculty do not complete their obligation as chair of the student's graduate committee.*

6.2. In addition to the committee chair, the committee shall consist of two additional members who must have a terminal degree equivalent to the Ph.D (*Handbook for Master's Students*). In the NR/MS Program a minimum of one committee member must be a tenured or tenure-track HSU faculty member in the option. Individuals holding the master's as the terminal degree may serve as additional members to the committee (*Handbook for Master's Students*).

7. SEVEN YEAR LIMIT ON DEGREE COMPLETION

7.1. Master's students are allowed seven years to complete their graduate program (*Title 5, California Code of Regulations*). As such, graduate students in the NR/MS Program are expected to complete their degree program within the

seven-year time limit. Effective with this document, exceptions to this limit will be granted only under the following conditions:

7.1.1. A petition to extend the time limit must be made to the Graduate Coordinator *prior* to the end of the seven-year limit. No petitions for extension will be granted *ex post facto*.

7.1.2. Petitions for extension will be granted only for serious and compelling reasons and will be judged on an individual basis. The petition for extension must be unanimously approved by the thesis advisor, the graduate committee, and the Graduate Advisory Council (see Section 10).

7.1.3. A petition for extension will be granted only after the candidate has demonstrated current knowledge in the subject matter of all courses listed on the advancement to candidacy form that will be more than seven years old at the declared date of graduation. Currency can best be demonstrated by completing a comprehensive written examination provided by the instructor of record (or a designee approved by the department chair). A complete record of the examination (questions, the student's answers, and a signed evaluation of the examination) must be filed in the program office for a minimum of five years after the student has completed the degree (*Title 5, California Code of Regulations*). The instructor of record may request that the course be repeated in lieu of offering the student an exam.

7.1.4. Petitions for extension will be granted if the data supporting the thesis are sufficiently current such that the research remains a contribution to the discipline. This criterion shall also be used to assess the currency of 690, 695, and 699 courses.

7.1.5. If granted, petitions for extension will be for one calendar year from the date of approval. Only one such petition will be granted.

7.1.6. Students who are beyond the seven-year limit at the effective date of this policy may petition the Graduate Advisory Council for an extension. Petitions for extensions will be granted only under conditions 7.1.2-7.1.4 listed above.

8. FACULTY OBLIGATION TO GRADUATE STUDENTS

8.1. Faculty who agree to serve as thesis advisors or who agree to serve on thesis committees assume a responsibility to facilitate the student's progress to successful completion. These responsibilities include, but are not limited to:

8.1.1. Providing physical and intellectual resources.

8.1.1.1. Financial support for graduate students is not assumed *a priori*, but is by agreement between the student and the chair of the committee.

8.1.2. Providing administrative guidance and interpretation of the NR/MS Program practices and procedures.

8.1.3. Providing guidance on the graduate curriculum.

8.1.4. Providing guidance on research design and feasibility.

8.1.5. Providing timely input on drafts of the thesis proposal and the thesis. Timely is defined as within 20 working days during the Fall and Spring semesters. Because summer obligations vary among faculty, students must make specific arrangements in advance with committee members during the summer.

9. GRADUATE COORDINATOR

9.1. The Graduate Coordinator serves as the representative of the CNRS Dean to the Dean of Research and Graduate Studies and serves as a member of all NR/MS graduate committees. The primary role of the Graduate Coordinator is to ensure compliance with State, University, and College policy as they apply to the NR/MS graduate program. Responsibilities of the Graduate Coordinator include:

9.1.1. Sending Admission letters to new graduate students.

9.1.2. Supervising the Fee Waiver Program within the NR/MS Program.

9.1.3. Maintaining currency of the *Natural Resources Thesis Guide.*

9.1.4. Representing the NR/MS Program to the HSU Graduate Council.

9.1.5. Ensuring that Title 5, CSU, HSU, and the CNRS guidelines are followed for all aspects of the graduate experience. This includes (but may not be limited to) the student's graduate curriculum, the Graduate Committee (especially member eligibility), advancement to candidacy, and all aspects of the thesis.

9.1.5.1. Decisions or actions by the Graduate Coordinator may be appealed, in writing only, to the Graduate Advisory Council (see 10.1).

9.1.6. Assisting the coordination of student files and records with the Graduate Secretary. Such files include:

9.1.6.1. Application and supporting documentation

9.1.6.2. Letter of acceptance to the graduate program

9.1.6.3. Advancement to candidacy papers

9.1.6.4. Grades and grade reports

9.1.6.5. Degree check

9.1.6.6. All correspondence between the Graduate Coordinator and the student

9.1.7. The Graduate Coordinator serves a renewable term of three years and is selected by the CNRS Dean in consultation with the Chairs of the departments of Environmental and Natural Resources Science, Fisheries Biology, Forestry and Watershed Management, and Wildlife.

10. *THE GRADUATE ADVISORY COUNCIL*

10.1. The Graduate Advisory Council (GAC) reviews all petitions for extension to the seven-year time limit to complete the graduate program and serves as an appellate body for decisions/actions taken by the thesis committee or by the graduate coordinator. In addition, the GAC serves as the appellate body for exceptions to this policy and conflicts between graduate students, faculty, and/or the Graduate Coordinator.

10.2. The GAC shall consist of four voting members, one each from the departments of Environmental and Natural Resources Science, Fisheries Biology, Forestry and Watershed Management, and Wildlife. Terms shall be for three years with a minimum one-year break in service between terms. Terms shall be staggered among the three elected members, such that only one member shall be replaced each year. The Graduate Coordinator convenes the GAC but serves as a non-voting *ex offico* member.