COURSE JUSTIFICATION FOR “APPLIED FOREST ECOLOGY (NREM 480)”

1. What is the course modification?
N/A

2. Why is this course being requested or modified?
Currently (Spring 2009), this class is being offered as an experimental class (NREM 491). The course has 11 students enrolled, 7 from NREM, 2 from Botany, 1 from Geography, and 1 unclassified graduate student.

We request that this course be approved as a regular course for the following reasons:

a. Applied Forest Ecology will be offered by a recently hired Assistant Professor (Dr. Creighton M. Litton). Part of Dr. Litton’s contract is to develop new coursework in the areas of forest ecology and silviculture.

b. This course will fill a gap in current coursework available to undergraduate students in NREM, and from across campus. The topic is of considerable importance to the missions of both the Department and College, specifically the science and management of forest resources.

c. This course will be the second in a series of courses designed to give undergraduate students in NREM an in-depth background in forestry and will be a critical component for students choosing to specialize in forestry. The first course, NREM 380 – Tropical Forestry and Agroforestry (Formerly NREM 480), will be taught in alternate Spring semesters and will be a prerequisite for this course. Together, NREM 380 and 480 will provide the backbone for a series of educational requirements designed, in conjunction with the State of Hawai‘i Department of Forestry and Wildlife, to make NREM undergraduates pre-qualified to apply for forestry positions with the state upon graduation.

3. How will the content be organized?
See attached syllabus.

4. What other courses at UHM closely parallel the proposed course and in what way will the latter make a distinct contribution?
No other course at UHM closely parallels the proposed course.

5. Where or how does the proposed course fit into the current and future curriculum?
NREM is actively expanding the coursework available to both graduate and undergraduate students in our department, as well as the college and university. This has been largely possible through the recent hires of new faculty members. One area of focus for course expansion is in forestry and forest ecology. As described above, this course, in conjunction with NREM 380, will provide the backbone for undergraduate students specializing in forestry and for meeting the educational requirements for employment in forestry with the State of Hawai‘i.
6. Why is the number of credits and level justified? Explain the prerequisites and the absence thereof.

a. This is a lecture course that will meet for 150 minutes/week (= 3 credit hours). In the future, we hope to develop a laboratory component for this course that would make it a 4 credit course.

b. Prerequisites are NREM 301 (Natural Resource Management) and NREM 380 (Tropical Forestry and Agroforestry). In addition, the instructor would like to reserve the right to allow students who do not meet these prerequisites to enroll (consent). This latter option is to allow students from outside of NREM (Botany, Geography, etc.) to enroll who have had appropriate coursework but have not taken NREM classes previously.

7. How will the course assist students to achieve the critical skills and competencies expected of CTAHR graduates?

1. Written Communications: One of the course requirements is to write a term paper.

2. Oral Communications: Students are encouraged to participate actively in class lectures and discussions. In addition, each student will make a 20 minute presentation of their term paper to their classmates near the end of the semester.

3. Analytical Problem Solving Skills: Students will use the information learned in lecture to choose and develop a term project that will require them to identify and define an important topic area, and then develop an evaluation of the problem.

4. Personal Characteristics: As with all coursework in CTAHR, this course will help students develop personal skills through interactions with their professor and one another.

5. Human Relations skills: See #4.

6. Business Management Skills: N/A

7. Real World Experience: N/A

8. Leadership Skills: N/A

9. Computer Skills: The term project and presentation will help students hone their skills with a word processor and presentation software (e.g., Power Point).

10. Global Perspective: While emphasis is placed on Hawaiian and Pacific Island ecosystems, students are exposed regularly to forestry as a global natural resource. The concepts and principles covered are largely applicable to any forest ecosystem in the world and, in as much, examples covered in class span a wide range of geographic settings and ecological systems from across the globe.

8. How will students be evaluated?

See syllabus. Student evaluation will be based on participation in class (10%), two mid-term exams (30% each), a term paper (15%) and the presentation of their term paper (15%).
9. What are the minimum qualifications for teaching this course? Is a qualified instructor now available?

An instructor is currently available to teach this course. Dr. Creighton M. Litton is a newly hired Assistant Professor in NREM with considerable experience in forest ecology in Hawai‘i and beyond. If the instructor were to become unavailable, qualifications for future instructors would include advanced degrees in ecology and experience (courses and/or research) in forest ecology. Currently, NREM has two other rank 3 instructors who would be qualified to teach this course (Drs. Chris Lepczyk and Travis Idol).

10. How will the course be financed, assuming no further cutbacks?

No funds are required above and beyond normal departmental operating funds.

11. Has the course been offered before? Is there a demand for it?

This course is being offered in Spring 2009 as an experimental course (NREM 491) by Dr. Creighton Litton. Student enrollment is 11. To our knowledge, this is a new course that has not otherwise been offered in CTAHR or the University of Hawaii at Manoa. We expect total enrollment of 10-12 students/semester (limit of 20, with preference given to students from NREM), with the majority of these coming from NREM and other departments within CTAHR (TPSS, PEPS). Additional students will likely come from the Departments of Botany and Geography.

12. Is the course cross-listed with another department?

No.