New Course Request

Check Appropriate Boxes: Undergraduate credit ☑️ Graduate credit ☐ Professional credit ☐

1. School/Division CLAS
2. Academic Subject Code BIOL
3. Course Number L434 (must be cleared with University Enrollment Services) 4. Instructor Greens, Ann
5. Course Title Marine Community Ecology
   Recommended Abbreviation (Optional) (Limited to 32 Characters including spaces)

6. First time this course is to be offered (Semester/Year): Summer 2007
7. Credit Hours: Fixed at _____ or Variable from _______ to _______
8. Is this course to be graded S-F (only)? Yes ☐ No ☑
9. Is variable title approval being requested? Yes ☐ No ☑
10. Course description (not to exceed 50 words) for Bulletin publication: 
    (See attached)

11. Lecture Contact Hours: Fixed at _____ or Variable from _______ to _______
12. Non-Lecture Contact Hours: Fixed at _____ or Variable from _______ to _______
13. Estimated enrollment: 20 of which 100 percent are expected to be graduate students.
14. Frequency of scheduling: every other yr. Will this course be required for majors? No
15. Justification for new course: No equivalent course for in-service teachers
16. Are the necessary reading materials currently available in the appropriate library? Yes
17. Please append a complete outline of the proposed course, and indicate instructor (if known), textbooks, and other materials.
18. If this course overlaps with existing courses, please explain with which courses it overlaps and whether this overlap is necessary, desirable, or unimportant. (See attached)
19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of the new course with existing courses or areas of strong concern, with instructions that they send comments directly to the originating Curriculum Committee. Please append a list of departments, schools, or divisions thus consulted.

Submitted by: [Signature]
Department Chairman/Division Director
Date 11/14/06

Approved by: [Signature]
Dean
Date 12/18/06

Dean of Graduate School (when required)
Date

Chancellor/Vice-President
Date

University Enrollment Services
Date

After School/Division approval, forward the last copy (without attachments) to University Enrollment Services for initial processing, and the remaining four copies and attachments to the Campus Chancellor or Vice-President.

U/P 724 University Enrollment Services Final—White; Chancellor/Vice-President—Blue; School/Division—Yellow; Department/Division—Pink; University Enrollment Services Advance—White
Curriculum Committee Members;

Under current Indiana state law, teachers are required to continue their education beyond graduation in order to maintain their teaching licensure. Continuing education coursework can be either graduate-level professional Education courses, or courses in the teacher's content area at either the upper-level undergraduate or graduate level. As IU South Bend is the originator and current training site for IU's Advance College Project (ACP) program in Biology, the ACP coordinator and I meet every year with high school Biology teachers from around the state. Over the past several years I've heard repeatedly at these meetings that there is a real interest in, and need for, advanced undergraduate or graduate level courses that will accommodate their academic schedule, provide them with professional development experiences, and apply to their continuing licensure requirements. Consultations with School of Education faculty here at IU South Bend have further reinforced the idea that a field course specifically designed for high school science teachers would be well received.

In response to this identified need, we are seeking permission to teach one new course (Marine Community Ecology), and one course from the IU Master List (Field Exercises for Biology Education, L509). The two courses will be offered as a pair of linked summer offerings which can be tailored for in-service teachers with limited amounts of time to take classes.

The first course, Marine Community Ecology is didactic in nature and will provide in-service high school teachers with the necessary content-area knowledge to participate in the Field Exercises for Biology Education (L509) course which will take place in Belize immediately following the conclusion of the Marine Community Ecology course. Since students will be required to enroll in both courses, we
anticipate that linking the lecture material to the upcoming field class will make for a very exciting and valuable learning experience, as well as providing the teachers with the opportunity to explore the connections between the lecture content and "the real world". To further strengthen the concept, we have temporally interwoven the preparatory lab exercises for the Belize marine biology field trip (L509) throughout the three week period they are taking Community Ecology lectures.

While the Belize field course will not occur until the Marine Community Ecology course concludes in mid-July, we will begin meeting as a class in mid-March, as shown on the syllabus (attached). We have done this because the students will need time to organize and develop the research projects that they will conduct in Belize. We also have financial obligations that must be met well in advance of the trip, so this will give us the opportunity and ability to collect funds in a timely fashion.

Finally, we are well aware that the Belize trip, like any course with an international component, also requires approval from the IU Overseas Study Program. A detailed proposal has already been written and is being submitted concurrently with the course approval requests. Based on our previous experience teaching an undergraduate Tropical Marine Biology Field Study course (Biology L391) for the past 10 years, we are not anticipating any problem in securing approval for this course.

Sincerely yours,

[Signature]

Peter Bushnell

[Signature]

Ann Greens
Attachment for Marine Community Ecology

Proposed copy for IU South Bend Bulletin

Marine Community Ecology (3 cr.). P: One year of college biology. Concurrent registration in Field Exercises for Biology Education (L509) required. Survey of physical and chemical oceanography and marine environments and communities. Credit allowed for only one of L304 or L434.

18. Course overlap

There is some overlap between this class and Introductory Marine Biology (L304). However, the emphasis of this course will be more ecological in nature, and will be specifically designed for in-service high school teachers concurrently registered in Field Exercises for Biology Education (L509).
Marine Community Ecology (3 cr.)

Summer 2007
Class #XXXX
Lecture MTWRF 9:00 AM - 12:00, June 25th - July 13th

Instructor:
Dr. Ann Grens
128A Northside
574-520-4426
agrens@iusb.edu

Course Description and Goals
This is the lecture component of a linked pair of classes encompassing lecture, laboratory exercises and field experiences (L509) all focused on marine community ecology. These classes are intended for in-service middle school and high school science teachers and graduate students in the School of Education who hold or are seeking licensure in Secondary Education with certification to teach Life Sciences or Earth and Space Sciences. Credit is not allowed for this course and Biology L304 - Marine Biology.

This course is intended to:
- introduce the student to fundamental principles of community ecology and their application to marine ecosystems
- provide an overview of the organisms and abiotic factors present in a variety of marine environments
- develop critical thinking, analytical, and communication skills, as this course will require you to:
  > use information you have learned to analyze and interpret experimental data
  > synthesize information on multiple related topics
  > use previously learned concepts to make and support predictions when faced with a novel situation or problem
  > provide a written explanation of a process, justification of a prediction or interpretation of experimental data

Required Texts:

Assessment and Grading
Marine Community Ecology will be graded on basis of 3 written, in-class exams which will assess your mastery of the concepts discussed in lecture and your ability to apply those concepts to provide explanations for observations made in marine environments. Exams will be a mixture of multiple choice, true/false, fill in the blank, and short answer questions, with one longer essay question per exam. Each exam will focus primarily on material covered since the preceding exam but due to the nature of the material, each exam will be to some extent comprehensive, so you should expect to be asked to relate material learned early in the course to subsequent topics. You are responsible for all material covered in lecture, whether or not it is
assigned reading from the text. Any material from the text that will not be covered in class but for which you will be responsible will be explicitly defined in lecture. Each exam will represent one-third of your final score, and course grades will be assigned on a 10% scale:

90 - 100% = A range
80 - 89% = B range
70 - 79% = C range
60 - 69% = D range
59% or less = F

"+" and "−" modifiers may be added to grades near the end of a score range if appropriate - for example, to reflect steadily improved performance on each exam.

### Tentative Schedule of Lectures

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Topic and/or Activity</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon.</td>
<td>25 June</td>
<td>Abiotic factors in marine ecosystems: geological, physical and chemical oceanography</td>
<td>Ch 1-3</td>
</tr>
<tr>
<td>Tues.</td>
<td>26 June</td>
<td>Abiotic factors continued Introduction to biological oceanography</td>
<td>Ch 3-4</td>
</tr>
<tr>
<td>Wed.</td>
<td>27 June</td>
<td>Microbes, algae, seaweeds and plants</td>
<td>Ch 5-6</td>
</tr>
<tr>
<td>Thur.</td>
<td>28 June</td>
<td>Marine invertebrates</td>
<td>Ch 7</td>
</tr>
<tr>
<td>Fri.</td>
<td>29 June</td>
<td>Marine invertebrates</td>
<td>Ch 7</td>
</tr>
<tr>
<td>Mon.</td>
<td>2 July</td>
<td>EXAM 1 (covers Ch 1-7) Marine vertebrates - fishes</td>
<td>Ch 8</td>
</tr>
<tr>
<td>Tues.</td>
<td>3 July</td>
<td>Marine vertebrates - reptiles, birds, mammals</td>
<td>Ch 9</td>
</tr>
<tr>
<td>Wed.</td>
<td>4 July</td>
<td>NO CLASS - INDEPENDENCE DAY HOLIDAY</td>
<td></td>
</tr>
<tr>
<td>Thur.</td>
<td>5 July</td>
<td>Principles of community ecology</td>
<td>Ch 10</td>
</tr>
<tr>
<td>Fri.</td>
<td>6 July</td>
<td>Intertidal communities</td>
<td>Ch 11</td>
</tr>
<tr>
<td>Mon.</td>
<td>9 July</td>
<td>EXAM 2 (covers Ch 8-11) Estuarine communities</td>
<td>Ch 12</td>
</tr>
<tr>
<td>Tues.</td>
<td>10 July</td>
<td>Coral reef communities Epipelagic zone communities</td>
<td>Ch 14-15</td>
</tr>
<tr>
<td>Wed.</td>
<td>11 July</td>
<td>Open ocean communities: mesopelagic and bathypelagic zones</td>
<td>Ch 16</td>
</tr>
<tr>
<td>Thur.</td>
<td>12 July</td>
<td>Human impacts on marine communities: use of the sea as a resource, marine pollution, climate change</td>
<td>Ch 17-19</td>
</tr>
<tr>
<td>Fri.</td>
<td>13 July</td>
<td>EXAM 3 (covers Ch 12-16)</td>
<td></td>
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</tbody>
</table>
Withdrawals and Incompletes

The last day to withdraw from this course and receive a grade of "W" is Monday July 2nd; if you wish to withdraw, all paperwork must be signed and submitted to the Registrar's Office by 5:00 p.m. on this date. After that time, in order to withdraw you must present an "urgent and compelling reason" for withdrawing to the Dean of the College of Liberal Arts and Sciences. Please note that College policy explicitly states that poor performance (i.e. a low grade) does not constitute an "urgent and compelling" reason and requests to withdraw for that reason are routinely denied. Please also note that if you withdraw you will probably not receive a full refund of all the money you have deposited, as we will have made non-refundable deposits based on the understanding that you would be participating in all aspects of the course - we will refund as much of your money as we can recover. Once we have a purchased an airline ticket in your name, the ticket is non-refundable but can be exchanged for a ticket to a different destination on a different date once you pay a "change fee" to the airline.

The College also has a firm policy on the issuance of a grade of "I" (Incomplete). To receive an Incomplete in this course, you must have completed 75% of the course work and have a passing grade in the course at the time that you request a grade of "I". You must "present evidence of circumstances of hardship, under which it would be unjust to hold a student to the time limits ordinarily fixed for completion of the course work" when you request the "Incomplete". At the time an "Incomplete" is issued an agreement will be reached as to what is required in order for you to complete the course and the time limit within which you must complete the work. Please note that any grade of "I" not completed within one year of issuance will automatically be changed to an "F" by the Registrar's Office.

Academic Misconduct/Cheating

Cases of academic misconduct (cheating) will be dealt with as described in the Indiana University Academic Handbook and the Code of Student Rights, Responsibilities and Conduct. Misconduct includes but is not limited to the use of unauthorized materials or assistance during a quiz or exam, deliberate efforts to obtain information from other students during a quiz or exam (with or without the knowledge or consent of the other students), and possession of a quiz or exam in advance of the scheduled exam period. If you are caught cheating on an exam, you will receive a grade of "F" for the course and the incident will reported to the Vice Chancellor for Student Affairs for notation in your permanent academic record. The School of Education may also impose additional penalties or sanctions pursuant to State of Indiana licensure requirements regarding academic integrity.

Accommodation

If you have a disability and need assistance, arrangements can be made to accommodate many needs. Please contact the Office of Disabled Student Services (520-4832, Admin 120B) as soon as possible to work out the details. Before we can make any arrangements for you, we will need to receive official documentation of your disability and the appropriate accommodations from this office.
Please note that in order to participate in the required field course linked to this course, you must be capable of passing the swim test and able to participate in other physically challenging outdoor activities. If you anticipate that you may be unable to complete a substantial fraction of the course activities, these are not an appropriate classes for you; please consult with your academic advisor to withdraw from them. See the Biology L509 "Physical Demands of the Course" handout for additional information about what exactly will be expected of you.

If you have a non-visible disability that will cause you to need assistance should it be necessary to evacuate the building or take shelter in the basement (for instance, if you are hard of hearing, are subject to panic attacks, or are unable to ascend and descend stairs), please either indicate that in the appropriate space on the student information form distributed in class, or discuss the situation with me outside of class early in the semester.

If you wish to request academic accommodation for a religious observance, please provide me with a written explanation no later than the end of the second class meeting so that we can discuss a reasonable accommodation.