X Change a Course - Abbrev & Number: BIOSC- 468
Corresponding Lab Course: BIOSC-L-468
Corresponding Honors course: ---
   . Add Honors course: ---
Corresponding Graduate course: BIOSC- -668
   . Add Graduate course: ---
Course Title: HERPETOLOGY

Brief Statement of Change:
We would like to increase the credits for the course and update the course description.

Last Term Taught: 1005   .. Change Abbrev to:  .. Change Number to:  
Effective Term: 01/2011  .. Change Catalog Title:  .. Change Transcript Title: 
                       from: HERPETOLOGY  to: HERPETOLOGY
                       From: Fixed Credit: 3 (2,3)  To: Fixed Credit: 4 (3,3)
Change of Credit: Variable Credit: - (-), (-)   Variable Credit: - (-),(-)

   . Add cross-listing with the following child course(s):
   .. Delete cross-listing with the following child course(s):
   .. Reverse Parent/Child relationship with:

<table>
<thead>
<tr>
<th>Change Method of Instruction</th>
<th>Change Course Modifier</th>
<th>Change General Education Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>from:</td>
<td>to:</td>
<td>from: English Composition</td>
</tr>
<tr>
<td>A-Lecture Only</td>
<td>X Graded</td>
<td>to: Oral Communication</td>
</tr>
<tr>
<td>B-Lab (w/fee)</td>
<td>X Graded</td>
<td>to: Mathematics</td>
</tr>
<tr>
<td>D-Seminar</td>
<td>X Graded</td>
<td>to: Natural Science w/Lab</td>
</tr>
<tr>
<td>E-Independent Study</td>
<td>X Graded</td>
<td>to: Math or Science</td>
</tr>
<tr>
<td>F-Tutorial (w/fee)</td>
<td>X Graded</td>
<td>to: A&amp;H (Literature)</td>
</tr>
<tr>
<td>G-Studio</td>
<td>X Graded</td>
<td>to: A&amp;H (Non-Literature)</td>
</tr>
<tr>
<td>H-Field course</td>
<td>X Graded</td>
<td>to: Social Science</td>
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<tr>
<td>L-Study Abroad</td>
<td>X Graded</td>
<td>to: CCA</td>
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<tr>
<td>L-Lab (no/fee)</td>
<td>X Graded</td>
<td>to: STS</td>
</tr>
<tr>
<td>X N/B-Lecture/Lab(w/fee)</td>
<td>X Graded</td>
<td>X N/L-Lecture/Lab(no fee)</td>
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X Change Catalog Description:
from: Systematics, life history, distribution, ecology, and current literature of amphibians and reptiles. Laboratory study of morphology and identification of world families and U.S. genera, as well as southeastern species. Field trips are required.
to: Physiology, functional morphology, ecology, evolution, biomechanics, and current literature of amphibians and reptiles. Laboratory study will examine morphology and identification of world families and U.S. genera, as well as southeastern species. Field trips are required.

Change Prerequisite(s):
from: to:

Learning Objectives: 1. To investigate the diversity in reptiles and amphibians throughout the world and in South Carolina
2. To understand the physiological systems of reptiles and amphibians
3. To investigate the methods involved in the capture and study of reptiles and amphibians
4. To gain experience with field work associate with reptiles and amphibians
5. To conduct experiments (behavioral and physiological) using live amphibians and reptiles
6. To be able to identify, based on morphology, different genera of amphibians and reptiles
7. To enhance the writing and presentation skills of the students.

Topical Outline: Lecture topical outline (and hours devoted to each topic):

1. Syllabus and introduction (1)
2. Tetrapod relationships and evolution (2)
3. Anatomy of amphibians and reptiles (2)
4. Fossil record (2)
5. Reproduction and life history (2)
6. Water balance and gas exchange (2)
7. Thermoregulation (2)  
8. Energetics (2)  
9. Spacing, movements, and orientation (2)  
10. Communication and social behavior (2)  
11. Foraging ecology and diets (2)  
12. Feeding kinematics and morphology (2)  
13. Defense and escape (1)  
14. Locomotor performance and diversity (2)  
15. Biogeography and phylogeography (1)  
16. Conservation biology (1)  
17. Diversity of caecilians (1)  
18. Diversity of salamanders (2)  
19. Diversity of frogs (1)  
20. Diversity of turtles (1)  
21. Diversity of crocodilians (1)  
22. Diversity of tuatars and lizards (2)  
23. Anoles - evolution and diversity (1)  
24. Diversity of snakes (1)  
25. Research methods (1)  
26. Bioinspiration (1)  
27. Exams (2)  
28. Presentations (2)  

Total = 44 hours

Laboratory topical outline (one week per topic)

External and skeletal anatomy  
Skeletal anatomy continued  
Internal anatomy  
Diversity of salamanders and frogs  
Diversity of lizards and tuatars  
Diversity of snakes and turtles  
Lab exam #1  
Behavior experiment with lizards or snakes  
Biomechanics experiment  
Physiology experiment  
No lab (weekend field trip to North Carolina)  
No lab (weekend field trip to Ocala National Forest)  
Field trip to Clemson Experimental Forest  
Lab exam #2

**Evaluation:** Graded course requirements for undergraduates (out of 200 points total):

1) 2 Lecture midterm exams: 40 points each for a total of 40% of final grade  
2) Lecture final exam: 50 points for 25% of final grade  
3) Laboratory: 70 points for a total of 35%

Requirements for graduate students:

 Graduate students will be required to write a literature review paper on a topic given to them in class. Several appropriate topics will be provided. These papers will be 7-10 pages long and will cite at least 10 scientific journal articles. Students will be required to formulate a “next logical step” that would extend the research associated with the topic. For graduate students, the two midterms will be worth a total of 30%, the lecture final exam will be worth 20%, and the laboratory will be worth 30%. Thus, the additional paper will be worth 20% of the final grade.

Grading scale: 90-100% = A, 80-89% = B, 70-79% = C, 60-69% = D, below 60% = F

**Duplication (if applicable):** The course already exists, and serves a wide campus audience. We have recently cross-listed it with WFB.

**Add course requirements for honors and/or 600-level courses (if applicable):** Covered under "Evaluation."

**Form Originator:** THIGHAM, Tim Higham  **Date Form Created:** 9/3/2010  
**Form Last Updated by:** ,  **Date Form Last Updated:** 10/7/2010  
**Form Number:** 3350  

Approval
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<tbody>
<tr>
<td>Chair, Department Curriculum Committee</td>
<td>1/13/11</td>
<td>Chair, Undergraduate Curriculum Committee</td>
<td>2/4/2011</td>
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<tr>
<td>Department Chair</td>
<td>1/13/11</td>
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<td>Chair, College Curriculum Committee</td>
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<td>Provost</td>
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<tr>
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<td>President</td>
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<td>Director, Calhoun Honors College</td>
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