TExAS STATE UNIVeRSITY
COURSe ADDITION FORM

1. Effective Semester: Fall 2016
2. College: Science and Engineering
3. Department/School/Program: Biology

4. Prefix/Subject Number
   B I O 7 4 1 4

5. Course Title:
   Proposed Long: Ecology of Infectious Diseases of Wildlife
   Abbreviated (18 characters only including spaces):
   D I S E A S E E C O L O G Y

6. Course Description (complete sentences in 50 words or less): Concepts of the ecology of infectious diseases in wildlife are studied in depth with emphasis on their application to the management and conservation of wildlife species and for the control of zoonotic diseases.

7. Prerequisites (Including Minimum Grade Required): Consent from the instructor.
8. Co-Requisites (Including Concurrent Enrollment Allowed):
9. Restrictions:
10. Course Data

CIP Code (10 digits - no spaces or periods)

0 3 0 6 0 1 0 0 0 5

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Lecture Contact Hours</th>
<th>Lab Contact Hours</th>
<th>Credit Hours</th>
<th>Repeatable for Credit?</th>
<th>Maximum Credit Hours Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Lecture</td>
<td>X</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>Yes</td>
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<td>2-Lab</td>
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<td>No</td>
<td>X</td>
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<td>3-Practicum/Internship/Student Teaching</td>
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<td>4-Seminar</td>
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<td>5-Independent Study</td>
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<td>6-Private Lesson</td>
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<td>8-Thesis</td>
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<td>9-Dissertation</td>
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<td>0-Individualized</td>
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<td>C-Clinical</td>
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Writing Intensive? | Topics Course?

Yes [ ] Yes [ ]
No [X] No [X]

Valid Grade Mode (choose only one)

(See PPS 4.07 for definitions.)

- Standard Letter [X]
- Credit/ No Credit
- Leveling/Assistantships/ESL
- Developmental

Course Equivalency(s)

(Prefix and Number)

Bio 5424B

11. Justification for the course action:

Degree: PhD
Major: Aquatic Resources
Minor: Certificate:

Explain why the new course is needed.
This permanent course is necessary to replace the corresponding topics course in Wildlife Disease Ecology.
12. Course Goals and Objectives:

- Must be stated in measurable terms using action verbs. Please refer to Bloom's Taxonomy of Measurable Verbs.

Students will describe basic aspects of the ecology and evolution of infectious diseases as well as the interactions that exist among the diseases, host and the environment. Also, students will identify the historical aspects and tendencies of infectious diseases to spread as related to dynamics of modern society. Finally, students will identify the environmental services that lessen the impact and spread of zoonoses (diseases spread from animals to humans). Specific topics that will be covered are emergent infectious diseases, dilution effect, taxonomic transmission rule, wildlife zoonoses, biological diversity, disease dynamics, human activities and spread of disease.

13. Description of Instructional Methodologies:

- Examples include lecture, discussions, group projects, role playing, simulations, modeling, field-based activities, writing, cooperative learning, inquiry, experimentation, product design, creative activities, case studies, seminars, internship activities, coaching, etc.

Course is based on a combination of lectures, discussion of scientific articles, group or individual projects, report writing, and presentation of results.

14. Assessment of Student Learning:

- Examples include tests, projects, presentations, performances, creative works, papers, etc.
- Must include percentages of total grade assigned.
- Must have distinct differences between a graduate level course and an undergraduate course (in case of stacked courses).

Students will be evaluated through written exams, presentations, and reports as well as with their participation in group discussions. The distribution of grading will be as follows:

Mid-term exam 30%
Semester project 45% (Mid-term report, 10%; final written report, 25%; presentation, 10%)
Citation exercise 5%
Documentary critical reviews 10%
Paper discussion lead 10%
### 15. Course Outline:
- Provide a weekly outline as appropriate for an example semester in which the course will be taught.

<table>
<thead>
<tr>
<th>Week 1: Introduction to course. Definitions and general concepts.</th>
<th>Week 9: Disease emergence factors.</th>
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<tbody>
<tr>
<td>Week 3: Evolutionary aspects of disease.</td>
<td>Week 11: Disease management.</td>
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<td>Week 4: Dynamics of infection.</td>
<td>Week 12: Disease management II.</td>
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<td>Week 5: Influences of parasites in host populations.</td>
<td>Week 13: Global change and disease.</td>
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<td>Week 6: Community ecology and diseases.</td>
<td>Week 14: Future challenges and research in disease ecology.</td>
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<td>Week 7: Community ecology and diseases II.</td>
<td>Week 15: Student presentations for semester project.</td>
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<td>Week 8: Spatial aspects of disease spread.</td>
<td>Week 16 (Finals Week): Student presentations and final exam.</td>
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</tbody>
</table>

### 16. Suggested Textbook(s) and Other Learning Resources:
- Must list the required and/or recommended resources (e.g., relevant textbooks, course packets, websites), with complete bibliographical data (author, title, date and other publication data) in a standard academic format (e.g., CBE, APA, MLA, Chicago, etc.)

RECOMMENDED:


17. Bibliography:
- Must include literature other than required textbooks and other learning resources.
- Must demonstrate familiarity with current research. Ordinarily, the bibliography should include scholarship published during the last five years.
- Must conform to a standard academic format (e.g., CBE, APA, MLA, Chicago, etc.) Each bibliography will use only one format.


18. Approvals:

Department Chair/Program Director/School Director

Chair of College Curriculum Committee

Dean of College

Dean of The Graduate College (if applicable)

Chair of University Curriculum Committee (if applicable)