CGS Agenda Item: 13-49
Effective: Spring 2014

Eastern Illinois University
New Course Proposal
BIO 4842 (replaces BIO 5370), Wildlife Ecology and Management

Please check one: _ **X** _ New course ___ Revised course

PART I: CATALOG DESCRIPTION

1. **Course prefix and number, *such as ART 1000*:** BIO 4842 (replaces BIO 5370)
2. **Title (*may not exceed 30 characters, including spaces*):** Wildlife Ecology
3. **Long title, if any (*may not exceed 100 characters, including spaces*):** Wildlife Ecology and Management
4. **Class hours per week, lab hours per week, and credit [*e.g., (3-0-3)*]:** 3-0-3
5. **Term(s) to be offered:** ___ Fall _**X**_ Spring ___ Summer ___ On demand
6. **Initial term of offering:** ___ Fall _**X**_ Spring ___ Summer **Year:** __2014__

Course description: Principles of managing wildlife resources with emphasis on population ecology, habitat management and the social context of wildlife management.

7. **Registration restrictions:**
   a. **Equivalent Courses**
      - **Identify any equivalent courses** (e.g., cross-listed course, non-honors version of an honors course). There are no equivalent courses. BIO 5370 will be removed from the catalog when BIO 4842 is approved. BIO 5370 has not been taught in several years, so no current students have credit for the course on their records.

      - Indicate whether coding should be added to Banner to restrict students from registering for the equivalent course(s) of this course. ___ Yes _**X**_ No

   b. **Prerequisite(s)**
      - **Identify the prerequisite(s),** including required test scores, courses, grades in courses, and technical skills. Indicate whether any prerequisite course(s) MAY be taken concurrently with the proposed/revised course. BIO 3800 or permission of instructor

      - Indicate whether coding should be added to Banner to prevent students from registering for this course if they haven't successfully completed the prerequisite course(s). _**X**_ Yes ___ No

        If yes, identify the minimum grade requirement and any equivalent courses for each prerequisite course: D

   c. **Who can waive the prerequisite(s)?**
      ___ No one ___ Chair _**X**_ Instructor ___ Advisor ___ Other (Please specify)

   d. **Co-requisites** (course(s) which MUST be taken concurrently with this one):

   e. **Repeat status:** _**X**_ Course may not be repeated.

      ___ Course may be repeated once with credit.

      Please also specify the limit (if any) on hours which may be applied to a major or minor.

f. Degree, college, major(s), level, or class to which registration in the course is restricted, if any: N/A

g. Degree, college, major(s), level, or class to be excluded from the course, if any: N/A

8. Special course attributes [cultural diversity, general education (indicate component), honors, remedial, writing centered or writing intensive]
N/A

9. Grading methods (check all that apply): **_X_** Standard letter ___ CR/NC ___ Audit ___ ABC/NC
("Standard letter"—i.e., ABCDF--is assumed to be the default grading method unless the course description indicates otherwise.)

Please check any special grading provision that applies to this course:

___ The grade for this course will not count in a student's grade point average.

___ The credit for this course will not count in hours towards graduation.

If the student already has credit for or is registered in an equivalent or mutually exclusive course, check any that apply:

___ The grade for this course will be removed from the student's grade point average if he/she already has credit for or is registered in _____ (insert course prefix and number).

___ Credit hours for this course will be removed from a student's hours towards graduation if he/she already has credit for or is registered in _____ (insert course prefix and number).

10. Instructional delivery method: (Check all that apply.)

_ X _ lecture ___ lab ___ lecture/lab combined ___ independent study/research
___ internship ___ performance ___ practicum or clinical ___ study abroad
___ Internet ___ hybrid ___ other (Please specify)

PART II: ASSURANCE OF STUDENT LEARNING

1. List the student learning objectives of this course:

a. If this is a general education course, indicate which objectives are designed to help students achieve one or more of the following goals of general education and university-wide assessment:
- **EIU graduates will write and speak effectively.**
- **EIU graduates will think critically.**
- **EIU graduates will function as responsible citizens.**

b. If this is a graduate-level course, indicate which objectives are designed to help students achieve established goals for learning at the graduate level:
- **Depth of content knowledge**
- **Effective critical thinking and problem solving**

- **Effective oral and written communication**
- **Advanced scholarship through research or creative activity**

Students will:

- Describe the scope of wildlife ecology and management and evaluate ecological concepts as they apply to wildlife management
  (depth of knowledge, critical thinking, written communication)
- Identify major problems encountered in wildlife ecology
  (depth of knowledge, critical thinking)
- Evaluate approaches for solving/addressing management issues
  (depth of knowledge, critical thinking, problem solving, research)
- Gain appreciation for social, political and economic context of wildlife management
  (depth of knowledge, critical thinking)
- Apply lecture concepts to address questions/problems in wildlife ecology and management
  (depth of knowledge, problem solving, written communication, research/creative activity)

2. Identify the assignments/activities the instructor will use to determine how well students attained the learning objectives:

	Lecture exams (40%)	Quizzes (10%)	Class discussions & activities (15%)	Written management plan (25%)	Presentation of management plan (10%)
Describe scope of field and evaluate ecological concepts as they apply to wildlife management	X	X		X	X
Identify major problems in wildlife ecology	X	X	X	X	X
Evaluate approaches for addressing management issues			X	X	X
Appreciate social, political & economic aspects	X	X	X	X	X
Apply concepts to contemporary questions/problems			X	X	X

3. Explain how the instructor will determine students' grades for the course:
Course grade will be based on:
Lecture midterm and final exams (40%), quizzes (10%), preparation for and participation in class discussions and activities (e.g., field trips) (15%), preparation of written management plan (25%), presentation of management plan (10%)

4. For technology-delivered and other nontraditional-delivered courses/sections, address the following:

a. Describe how the format/technology will be used to support and assess students' achievement of the specified learning objectives:

b. Describe how the integrity of student work will be assured:

c. Describe provisions for and requirements of instructor-student and student-student interaction, including the kinds of technologies that will be used to support the interaction (e.g., e-mail, web-based discussions, computer conferences, etc.):

N/A

5. For courses numbered 4750-4999, specify additional or more stringent requirements for students enrolling for graduate credit. These include:

a. course objectives;

b. projects that require application and analysis of the course content; and

c. separate methods of evaluation for undergraduate and graduate students.

Students taking this course for graduate credit will be held to higher expectations and more stringent grading criteria. This will be evaluated on level of development of essay answers on lecture exams and written assignments (i.e., written management plan). Graduate students will work in pairs to develop and present their management plans, although their written plans will be completed independently. Undergraduate students, on the other hand, will be allowed to work in groups of three or four students to develop, write and present their management plans.

6. If applicable, indicate whether this course is writing-active, writing-intensive, or writing-centered, and describe how the course satisfies the criteria for the type of writing course identified. (See Appendix *.)

N/A

PART III: OUTLINE OF THE COURSE

Provide a week-by-week outline of the course's content. Specify units of time (e.g., for a 3-0-3 course, 45 fifty-minute class periods over 15 weeks) for each major topic in the outline. Provide clear and sufficient details about content and procedures so that possible questions of overlap with other courses can be addressed. For technology-delivered or other nontraditional-delivered courses/sections, explain how the course content "units" are sufficiently equivalent to the traditional on-campus semester hour units of time described above.

Week	Topic
1	Introduction, general concepts, history
2	Ecosystems & communities
3	Population ecology, landscape ecology
4	Wildlife diseases, hunting & trapping
5	Applied population ecology: sustainable yields, animal behavior (habitat selection)
6	Animal behavior (dispersal, migration, foraging behavior, reproductive behavior); ***Exam 1***
7	Management plans, Rocky Branch Nature Preserve (Invited lecture from IDNR or EIU Biological Sciences Natural Areas Committee), Saturday morning field trip to Rocky Branch
8	Grassland management, forest management
9	Wetland management, urban ecology
10	Wildlife and agriculture, parks & refuges
11	Invasive species; ***Exam 2***
12	Non-game and endangered wildlife
13	Wildlife legislation, economics of wildlife
14	Human dimensions, ***Student presentations: management plans***

15 Careers in wildlife management (DNR guest lecture), current issues and future of wildlife management

PART IV: PURPOSE AND NEED

1. Explain the department's rationale for developing and proposing the course.

A significant proportion of EIU undergraduate and graduate students are interested in some aspect of wildlife, including exploited (i.e., game) and non-exploited species (e.g., endangered species), because they are an integral part of our society and have much value in terms of resources, ecosystem services, and recreation (e.g., sport hunting). Many EIU students are interested in pursuing careers in wildlife management and ecology or resource management in the public or private sector, including government agencies, academic institutions and non-governmental/nonprofit organizations. To satisfy the needs and interests of our students and prepare them for such careers, the Department of Biological Sciences offers a rich curriculum in wildlife and ecology-oriented courses, including Wildlife Ecology and Management (currently listed as BIO 5370). As a 5000 level course, Wildlife Ecology and Management traditionally has been aimed at graduate students with little participation by undergraduates. The objective of this course proposal is to replace BIO 5370 with BIO 4842, so that it is readily available to undergraduate students. This change will allow our department and the university to fill an important gap in our current undergraduate curriculum, while maintaining our ability to properly prepare graduate students for entry into these careers. Wildlife Ecology and Management, like Ecology, Mammalogy, Ornithology, Herpetology and Vertebrate Natural History (all of which are currently taught at the 3000 or 4000 level), is a central course for preparing undergraduate students for entry into state and federal Wildlife or Natural Resource agencies (e.g., Illinois DNR, US Geological Survey, US Fish and Wildlife Service, etc.), non-governmental organizations (The Nature Conservancy), and graduate programs in wildlife ecology, resource management, conservation biology and ecology. Without this course, undergraduate students are improperly prepared for these wildlife-oriented careers or programs and, consequently, are less competitive than their peers graduating from other wildlife programs in the country. A review of major wildlife ecology programs in the United States revealed that all of them offer at least one undergraduate course in Wildlife Ecology and/or Management. Additionally, many EIU undergraduates demonstrate an interest in wildlife but lack sufficient exposure to the diversity of fields and careers associated with wildlife. By offering this course as BIO 4842 it will increase the exposure of many undergraduates with a general interest in wildlife to specific fields and career options.

a. If this is a general education course, you also must indicate the segment of the general education program into which it will be placed, and describe how the course meets the requirements of that segment.

N/A

b. If the course or some sections of the course may be technology delivered, explain why.

N/A

2. Justify the level of the course and any course prerequisites, co-requisites, or registration restrictions.

The level of this course will change from a 5000 level course to a 4750-4999 level course. The revised level of this course is in accord with other similar courses in the wildlife ecology and general ecology curriculum (BIO 4818 Conservation Biology, BIO4950 Ichthyology, BIO4952 Herpetology, BIO4954 Ornithology and BIO4964 Entomology).

BIO 3800 is a prerequisite for this course, because BIO 4842 will build on foundational concepts, such as population growth and predator-prey interactions, learned in BIO3800. BIO 4842 conceptually and mathematically develops some of these basic concepts further for specific application to problems in wildlife management.

3. If the course is similar to an existing course or courses, justify its development and offering.

a. If the contents substantially duplicate those of an existing course, the new proposal should be discussed with the appropriate chairpersons, deans, or curriculum committees and their responses noted in the proposal.

This course is a reworking of the materials covered in BIO 5370. That course will be removed from the catalog when this new course is approved. The proposed does not substantially duplicate any other existing course. BIO 4842 briefly reviews a few concepts covered in Ecology (BIO3800) (e.g., population growth and predator-prey dynamics), because these concepts form the starting point for discussions and further conceptual development of topics covered in Wildlife Ecology and Management (e.g., Wildlife Ecology and Management uses basic concepts of population growth to understand and estimate sustainable yield of game species). Wildlife Ecology and Management also includes a small subset of concepts covered in Conservation Biology (BIO 4818) (e.g., reserve design, habitat fragmentation); however, Wildlife Ecology and Management focuses on vertebrates and manipulation of populations, whereas Conservation Biology includes all taxa and focuses on maintenance of populations. Wildlife Ecology and Management covers the following topics not covered in Conservation Biology: development of management plans, management of particular ecosystems, sustainable yield, hunting and trapping, wildlife diseases, and economics and human dimensions of wildlife management. It also places greater emphasis on game species. Wildlife Ecology and Management does not cover concepts related to conservation genetics, zoos or translocations and reintroductions, which are covered in depth in Conservation Biology.

b. Cite course(s) to be deleted if the new course is approved. If no deletions are planned, note the exceptional need to be met or the curricular gap to be filled.

This course will delete BIO 5370.

4. Impact on Program(s):

a. For undergraduate programs, specify whether this course will be required for a major or minor or used as an approved elective.

This course will be an approved elective for undergraduate students in the Biological Sciences.

b. For graduate programs, specify whether this course will be a core requirement for all candidates in a degree or certificate program or an approved elective.

This course will be an approved elective for graduate students in the Biological Sciences.

If the proposed course changes a major, minor, or certificate program in or outside of the department, you must submit a separate proposal requesting that change along with the course proposal. Provide a copy of the existing program in the current catalog with the requested changes noted.

PART V: IMPLEMENTATION

1. **Faculty member(s) to whom the course may be assigned:**
   The course will be taught by Dr. Jill Deppe or any qualified member of the Biological Sciences Department.

   If this is a graduate course and the department does not currently offer a graduate program, it must document that it employs faculty qualified to teach graduate courses.

2. **Additional costs to students:**
   None. We will use vehicles from the Department of Biological Science's fleet to transport students to the Rocky Branch Nature Preserve (owned and managed by EIU) for one Saturday field trip. The vehicles are maintained by the department. The use of the vehicles will be contingent upon their availability and the department's budget in any given year.

   Include those for supplemental packets, hardware/software, or any other additional instructional, technical, or technological requirements. (Course fees must be approved by the President's Council.)

3. **Text and supplementary materials to be used (Include publication dates):**
   Bolen, E. G., and W. L. Robinson. 2003. Wildlife Ecology and Management. 5th edition. Prentice Hall, New Jersey, U.S.A.

PART VI: COMMUNITY COLLEGE TRANSFER

If the proposed course is a 1000- or 2000-level course, state either, "A community college course may be judged equivalent to this course" OR "A community college course will not be judged equivalent to this course." A community college course will not be judged equivalent to a 3000- or 4000-level course but may be accepted as a substitute; however, upper-division credit will not be awarded.

PART VII: APPROVALS

Date approved by the department or school: August 21, 2013

Date approved by the college curriculum committee: August 30, 2013

Date approved by the Honors Council *(if this is an honors course):*

Date approved by CAA: September 12, 2013 CGS:

*In **writing-active courses**, frequent, brief writing activities and assignments are required. Such activities -- some of which are to be graded – might include five-minute in-class writing assignments, journal keeping, lab reports, essay examinations, short papers, longer papers, or a variety of other writing-to-learn activities of the instructor's invention. Writing assignments and activities in writing-active courses are designed primarily to assist students in mastering course content, secondarily to strengthen students' writing skills. In **writing-intensive courses**, several writing assignments and writing activities are required. These assignments and activities, which are to be spread over the course of the semester, serve the dual purpose of strengthening writing skills and deepening understanding of course content. At least one writing assignment is to be revised by the student after it has been read and commented on by the instructor. In writing-intensive courses, students' writing should constitute no less than 35% of the final course grade. In **writing-centered courses** (English 1001G, English 1002G, and their honors equivalents), students learn the principles and the process of writing in all of its stages, from inception to completion. The quality of students' writing is the principal determinant of the course grade. The minimum writing requirement is 20 pages (5,000 words).

Student Success Center		Career Services	Disability Services
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581-6696	**581-3413**	**581-2412**	**581-6583**