

1. Proposal Summary

Biol 348: Animal Behavior

Prerequisites: Biol 122

Biol 348, Animal Behavior, will be available for student enrollment as a Biology Elective. It will provide students an opportunity to explore an area of biology not currently available in the list of 300-level offerings. The course will use an evolutionary approach to explore why animals do the things that they do. Behavior is a product of natural selection and students will be able to apply what they have learned in General Biology I and II to asking specific questions about the costs and benefits of a particular behavior. For example, the payback for some behavior may be rather obvious (eg, foraging dominance at bird feeders), while the advantages of other behavior may require further investigation (eg, blood meal sharing in vampire bats).

Students will be introduced to the study of animal behavior by exploring its historical roots. Some early behaviorists focused their studies in the lab and sought to control all incoming stimuli in order to manipulate the one behavior of interest. Other early behaviorists embraced individual variation and observed their subjects in their natural habitat in order to identify successful strategies. Both views made the study of Animal Behavior what it is today.

The remaining sections of the course will delve into the world through the senses of an array of animals. Students will learn to examine behavior from both its proximate cause (ie, underlying physiological process), as well as an ultimate cause (ie, product of selective pressure). Perspectives on Animal Behavior, 2nd edition, Goodenough et al, (2001) is an excellent textbook from cover to cover. All 472 pages of the book are easily covered in a single semester. To give students a flavor of behavior in the wild, I will also assign Ravens in Winter by Bernd Heinrich, a non-fictional story of how to conduct a scientific investigation or interestingly ask "why do they do that?" and get an answer. By the end of the semester, students will develop a new appreciation for what many animals have to go through to survive a migratory trip, raise a simple family, or even acquire a single meal. It becomes a great reminder that we are not alone on this planet we consider to be our own.

2. Summary of All Course Action Required*

a. **Newly Created Courses to FSU:**

Prefix	Number	Title
Biol	348	Animal Behavior

b. **Courses to be Deleted From FSU Catalog: NONE**

Prefix	Number	Title
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c. **Existing Course(s) to be Modified: NONE**

Prefix	Number	Title
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d. **Addition of existing FSU courses to program: NONE**

Prefix	Number	Title
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e. **Removal of existing FSU courses from program: NONE**

Prefix	Number	Title
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*Contact Senate Secretary or UCC Chair if spaces for additional courses are needed.

LIBRARY & INSTRUCTIONAL SERVICES CONSULTATION FORM

To be completed by the liaison librarian and approved by the Dean of LIS. All returned forms should be included in the proposal. **Library & Instructional Services must respond within 20 calendar days of receipt of this form to insure that the form is included in the final proposal.**

FAILURE TO RESPOND IS CONSIDERED AS SUPPORT OF THE CHANGE.

RE: Proposal Title: Biol 348: Animal Behavior

Projected number of students per year affected by proposed change: 40

Initiator(s): <u>Paul H. Klatt</u>
Proposal Contact: <u>Paul H. Klatt</u> Date Sent: <u>08 May 2007</u>
Department: <u>Biological Sciences</u> Campus Address: <u>2114 ASC</u> (Please print)

Liaison Librarian signature: <u>Muneer Watson</u>	Date: <u>11-14-07</u>
Dean of LIS Signature: <u>Paul M. G...</u>	Date Returned: <u>11-14-07</u>

Based upon our review on 11-14-07 (date), Library & Instructional Services concludes that:

- Library resources to support the proposed curriculum change are currently available.
- Additional Library resources are needed but can be obtained from current funds.
- Support, but significant additional Library funds/resources are required in the amount of \$_____.
- Does not support the proposal for reasons listed below.

Comment regarding the impact this proposal will have on library resources, collection development, programs, etc. Use additional pages if necessary:

NEW COURSE INFORMATION FORM*See Sample: Limit to One Page.***Course Identification:**

Prefix: **Number** **Title**
Biol **348** **Animal Behavior**

Course Description:

In this course, we explore the diversity of animal behavior in order to understand how behavior is organized and controlled, how it develops, why it is performed, and why it takes a particular form. The theme of the course is that behavior is the product of natural selection. The emphases are on viewing behavior as a species attribute, following the approach of comparative ethology, and as an individual attribute, interpreting behavior to be a "strategy" that contributes to an organism's fitness.

Course Outcomes:

1. Demonstrate understanding and depth of knowledge in Animal Behavior (learning, spatial distribution, foraging, sexual selection, parental care, mating systems, conflict, altruism, and communication).
2. Demonstrate the ability to understand and apply the scientific methods and techniques used by researchers in the field.
3. Demonstrate effective written communication skills.

Course Outline including Time Allocation:

Topic:	Time Required*	Week:
Introduction	1	1
History of the study of behavior	2	1
Methods in Behavior	1	2
Genetic analysis of behavior	1	2
Natural selection and ecological analysis	2	3
Learning	2	3
Physiological analysis: nerve cells and behavior	2	4
Physiological analysis: endocrinology	2	4
Development of behavior	1	5
Biological clocks	2	5
Mechanisms of orientation	2	6
Ecology and evolution of spatial distribution	2	6
Foraging	2	7
Anti-predator behavior	2	8
Sexual selection	4	9
Parental care and mating systems	3	11
Sociality, conflict, and resolution	3	12
Cooperation and altruism	3	13
Description and function of communication	2	14
Evolution of communication	2	15

* lecture hours (50 min.)

CREATE A NEW COURSE

FORM F
Create Course
rev. 2/14/05

Course Date Entry Form

I. ACTION TO BE TAKEN: CREATE A NEW COURSE

Notes

1. Complete each item in section I and section II.
2. : If this course is to be used as a prerequisite for other university courses, Form Fs that reflect the prerequisite change must be submitted for those courses as well.

Term Effective: a. Semester Spring b. Year 2008 See instructions.

II. PROPOSED FOR NEW COURSE: Complete all sections of this part through Prerequisites. See instructions in manual for further clarification.

a. Course Prefix Biol b. Number 348 c. Enter Contact Hours or check Independent Study (X).
 LECTure 3 hr/week LAB hr/week INDEpendent Study
 Practicum: hr/semester Seminar: hr/week

d. Full Course Title: Animal Behavior

e. Abbreviated Course Title: Animal Behavior. (Abbreviate only if necessary. Use Arabic numerals. Limit to 26 characters and spaces.)

f. Semester(s) Offered: Spring (See instructions for listing.) g. Max. Section Enrollment : 40

Credit Hours: Check (x) type and enter maximum and minimum hours in boxes.

h. Type: Variable Fixed i. Maximum Credit Hours 3 j. Minimum Credit Hours

k. Grade Method: Check (x) Normal Grading Credit/No Credit only (Pass/Fail)

m. May Be Repeated for Added Credit: Check (x) Yes No

n. Levels: Check (x) Undergraduate Graduate Professional

o. Does proposed new course replace an equivalent course? Check (x) Yes No

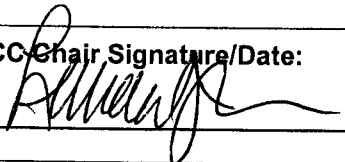
p. Equivalent course: Prefix Number See instructions on Replacement courses.

q. CATALOG DESCRIPTION – Limit to 75 words – PLEASE BE CONCISE.

In this course, we explore the diversity of animal behavior in order to understand how behavior is organized and controlled, how it develops, why it is performed, and why it takes a particular form. Natural selection is a major theme with emphases on viewing behavior as a species attribute, following the approach of comparative ethology, and as an individual attribute, interpreting behavior to be a "strategy" that contributes to an organism's fitness

r. Prerequisites: (if no prerequisites, write "None") Limited to 60 spaces. BIOL 122.

UCC Chair Signature/Date:

 11/21/07

Academic Affairs Approval Signature/Date:

 11/29/07

To be completed by Academic Affairs Office: - Standard & Measures Coding and General Education Code

Basic Skill (BS) General Education (GE) Occupational Education (OC) G.E. Codes

Office of the Registrar use ONLY

Date Received: _____ Date Completed: _____ Entered: SIS [125 ___ 1D4 ___ 12R ___, 131 ___]

TEMPLATE FOR NEW COURSE PROPOSALS

COURSE PREFIX, NUMBER AND TITLE: Biol 348 - Animal Behavior

CURRENT DATE: 08 May 2007

STUDENT LEARNING OUTCOMES FOR PROPOSED COURSE

1. Demonstrate understanding and depth of knowledge in Animal Behavior (learning, spatial distribution, foraging, sexual selection, parental care, mating systems, conflict, altruism, and communication).
2. Demonstrate the ability to understand and apply the scientific methods and techniques used by researchers in the field.
3. Demonstrate effective written communication skills.

EVALUATION OF STUDENT ACHIEVEMENT

1. Quizzes and examinations will demonstrate an understanding of the material.
2. Students will read, discuss, and take quizzes over *Ravens in Winter* by Bernd Heinrich, a realistic field account of the scientific process in action.
3. Specific portions of regular exams will contain essay questions where students will have to synthesize theory and concept into organized written passages.

COURSE EVALUATION STRATEGIES (How will course successes be measured?)

1. My strategy for Student Learning Outcome #1 is to measure the success of students through the use of a pretest which will be administered at the beginning of the semester. Answers to the pretest questions will be compared to the performance on regular course exams throughout the semester. Students will be provided with a specific rubric and outline clearly showing what will be expected of them. I will use the same rubric to make course improvements during subsequent semesters.
2. For Student Learning Outcome #2, I will assess student performance with a clearly-defined rubric related to 1) their ability to organize multiple hypotheses through a unified behavioral concept (such as winter foraging behavior in Ravens) and 2) their ability to display and administer the results of the tests of those hypotheses (desired outcome of research endeavors). I will use the same rubric to make course improvements during subsequent semesters.
3. Student Learning Outcome #3 will be assessed through grading with an organized rubric. Given that some writing is better none, writing in response to exam questions does challenge students to think clearly and subsequently express those thoughts in a concise manner on paper. I will then use the same rubric to initiate changes needed create more stimulating written questions on future exams.
4. I realize that student performance on exams and quizzes and even comments on SAJ/IDEA evaluation forms do not provide the best measurements for course successes. However, they really help me to gauge how students are doing as compared to each other and previous semesters. Therefore, I will carefully review trends in a) quiz and exam scores and b) student comments, especially those on format and course structure, from course evaluation forms administered at the end of each semester.

According to current College of Arts and Sciences policy, the department head may be required to identify a course that will not be offered in the semester the new course is first offered.

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