Animal Behavior

Bloomington

Director
Associate Professor Gregory E. Demas*

Departmental E-mail
cisab@indiana.edu

Departmental URL
www.indiana.edu/~animal

Graduate Faculty

(An asterisk [*] denotes membership in the University Graduate School faculty with the endorsement to direct doctoral dissertations.)

Professors
Jeffrey R. Alberts* (Psychological and Brain Sciences), Colin Allen* (History of Philosophy and Science), Randall D. Beer* (Cognitive Science), Peter Cherbas* (Biology), Robert de Ruyter van Steveninck* (Physics), Robert DeVoe* (Emeritus, Optometry), Preston E. Garraghty* (Neuroscience Program, Psychological and Brain Sciences), Julia R. Heiman* (Kinsey Institute, Psychological and Brain Sciences), Kevin D. Hunt* (Anthropology), Ellen D. Ketterson* (Biology), Curtis M. Lively* (Biology), Elisabeth Lloyd* (History and Philosophy of Science), Emilia P. Martins* (Biology), Craig E. Nelson* (Emeritus, Biology), Milos Novotny* (Chemistry), Rudolph Raff* (Biology), J. C. Randolph* (Public and Environmental Affairs), George V. Rebec* (Neuroscience Program, Psychological and Brain Sciences), Stephanie Sanders* (Gender Studies), Kathy D. Schick* (Anthropology), Dale R. Sengelaub* (Neuroscience Program, Psychological and Brain Sciences), Roderick A. Suthers* (Health Sciences, Neuroscience Program), William D. Timberlake* (Psychological and Brain Sciences), Peter M. Todd* (Cognitive Sciences), Michael J. Wade* (Biology), Meredith J. West* (Psychological and Brain Sciences)

Associate Professors
Gregory E. Demas* (Biology), James L. Goodson* (Biology), Armin P. Moczek* (Biology), Whitney M. Schlegel (Human Biology, Biology), G. Troy Smith* (Biology), S. Holly Stocking* (Emeritus, Journalism), Gregory J. Velicer* (Biology), Suresh Viswanathan* (Optometry), Cara L. Wellman* (Psychological and Brain Sciences)

Admission Requirements
Students must be admitted to a Ph.D. program in the Department of Biology, the Department of Psychology, or the program in Neuroscience or other related departments or programs (e.g., program in Medical Sciences, Anthropology, History and Philosophy of Science). They must also apply to the program in Animal Behavior.

Students should select an advisory committee made up of at least three members of the graduate faculty. For students whose home department or program is Biology, at least one member of the advisory committee from the Department of Psychology or the program in Neuroscience is expected. For students whose home department or program is the Department of Psychology or the program in Neuroscience, at least one member of the advisory committee from Biology is expected. At least two of the student’s committee members must be members of the program in Animal Behavior.

Ph.D. Minor in Animal Behavior

Course Requirements
At least FOUR courses taken from at least two different departments/graduate programs, as specified below:

(1) ONE ABEH A501 Seminar in the Integrative Study of Animal Behavior

(2) ONE course from the following list, emphasizing mechanisms of behavior:

NEUS N500 Neural Science I
NEUS N501 Neural Science II
NEUS N550 Seminar in Sensorimotor Neuroplasticity  
BIOL L560 Physiological Ecology  
MED P548 Neuroethology  

(3) ONE course from the following list, emphasizing evolutionary perspectives:  

ANTH B568 Evolution of Primate Social Behavior  
ANTH B600 Evolutionary Theory of Anthropology  
BIOL L567 Evolution  
BIOL L573 Quantitative Genetics and Microevolution  
BIOL L581 Behavioral Ecology  
BIOL Z540 Population Genetics  

(4) ONE additional course from above or from the list below:  

BIOL L505 Evolution and Development  
BIOL Z460 Ethology  
BIOL Z466 Endocrinology  
COGS Q551 Brain and Cognition  
COGS Q700 Theoretical Issues in Animal Cognition  
MED P561 Comparative Animal Physiology  
PSY P417 Animal Behavior  
PSY P504 Learning and Motivation  
PSY P526 Neurobiology of Learning and Memory  
PSY P527 Developmental Psychobiology  
PSY P717 Evolutionary Bases of Learning  

Examination  
As required by home department or program.  

**Graduate Area Certificate in Animal Behavior**  

**Course Requirements**  
The requirements for the Area Certificate in Animal Behavior include all of the requirements of the minor, plus the following:  

(1) One additional ABEH A501 Seminar in the Integrative Study of Animal Behavior  

(2) ABEH A502 Professional Ethics for the Bio-Behavioral Sciences or PSY P595 First-Year Research Seminar  

(3) One additional course from 1-4 above.  

**Examination**  
As required by home department or program.  

**Statistics Requirement**  
As required by home department or program.  

**Thesis**  
Required.  

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**Courses**  

**A500 Introduction to Animal Behavior Research (1 cr.)** Introduces students to research opportunities in animal behavior. Local researchers will present their recent research efforts, emphasizing the integrative aspects of their work and its application to functional and mechanistic explanations of behavior.  

**A501 Seminar in the Integrative Study of Animal Behavior (2-3 cr.)** Investigation of functional behavior of animals (e.g., migration, parental behavior, mate choice) using an interdisciplinary approach that attempts to integrate the perspectives of developmental psychology, ecology and evolutionary biology, neural science, and the science of learning and memory. Topic will vary. May be repeated for credit.  

**A502 Research and Professional Ethics in Bio-Behavioral Sciences (1 cr.)** Readings and discussion dealing with general ethical issues in science, with a particular focus on animal behavior. Topics include treatment and protection of animals; the acquisition, analysis, and use of data; student-mentor and student-teacher relations; credit, authorship, and peer review.