INDIANA UNIVERSITY

University Graduate School 2008-2009 Academic Bulletin

University Graduate School
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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* (Psychology), 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 (Biology), Val Nolan Jr.* (Emeritus, Biology), Milos Novotny* (Chemistry), Rudolph Raff* (Biology), J. C. Randolph* (Public and Environmental Affairs), George V. Rebec* (Neuroscience Program, Psychology), 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* (Psychology), Peter M. Todd* (Cognitive Sciences), Michael J. Wade* (Biology), Meredith J. West* (Psychological and Brain Sciences)

Associate Professors
Heather B. Bradshaw* (Psychological and Brain Sciences), Gregory E. Demas* (Biology), James L. Goodson (Biology), Henry D. Prange (Emeritus, Health Sciences), S. Holly Stocking* (Journalism), Gregory J. Velicer* (Biology), Suresh Viswanathan* (Optometry), Cara L. Wellman (Psychological and Brain Sciences)

Assistant Professors
John M. Beggs* (Physics), Richmond Harbaugh* (Business), Laura Hurley (Biology), Daniel B. Kearns* (biology), Armin P. Moczek* (Biology), Michael P. Muehlenbein (Anthropology), Christine C. Quirk (Medical Sciences), Laura L. Scheiber* (Anthropology), Whitney M. Schlegel (Human Biology, Biology), Sima Setayeshgar* (Physics), G. Troy Smith* (Biology), Sari M. van Anders* (Psychological and Brain Sciences).

Senior Scientist
Andrew King (Psychological and Brain Sciences)

Associate Scientist
Marcy A. Kingsbury (Biology)

Academic Advisor
Associate Professor Gregory E. Demas, Jordan Hall 265, (812) 856-0158

Admission Requirements
Students must be admitted to a Ph.D. program in the Department of Biology, the Department of Psychology, or the program in neural science or other related departments or programs (e.g., program in medical sciences, anthropology). 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 neural science is expected. For students whose home department or program is the Department of Psychology or the program in neural science, 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.

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.