

INDIANA UNIVERSITY

University Graduate School
2006-2007
Academic Bulletin

Animal Behavior

Bloomington

Director

Associate Professor Emilia Martins*

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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), Edmund D. Brodie III* (Biology), Preston E. Garraghty* (Neuroscience, Psychology), Kevin D. Hunt* (Anthropology), Ellen D. Ketterson* (Biology), Curtis M. Lively* (Biology), Val Nolan Jr.* (Emeritus, Biology), Milos Novotny* (Chemistry), George V. Rebec* (Program in Neural Science, Psychology), Dale R. Sengelaub* (Program in Neural Science, Psychology), Joseph E. Steinmetz* (Program in Neural Science, Psychology), Roderick A. Suthers* (Psychology), William D. Timberlake* (Psychology), Michael J. Wade* (Biology)

Associate Professor

Emilia P. Martins* (Biology)

Assistant Professors

Gregory D. Demas* (Biology), Laura Hurley (Biology), Troy G. Smith* (Biology)

Academic Advisor

Associate Professor Emilia P. Martins*, Jordan 136, (812) 856-5840

Adjunct Professors

Peter Cherbas* (Biology), Robert de Ruyter van Steveninck* (Physics), Robert DeVoe* (Emeritus, Optometry), Julia R. Heiman* (Psychology), Elisabeth Lloyd* (History and Philosophy of Science), Rudolph Raff* (Biology), J. C. Randolph* (Public and Environmental Affairs), Kathy D. Schick* (Anthropology), Nicholas Toth* (Anthropology), Meredith J. West* (Psychology)

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Adjunct Associate Professors

Henry D. Prange* (Health Sciences), Whitney M. (Reilly) Schlegel (Biology), S. Holly Stocking* (School of Journalism)

Adjunct Assistant Professors

Armin P. Moczek (Biology), Christine C. Quirk (Medicine), Laura L. Scheiber* (Anthropology), Sima Setayeshgar* (Physics)

Adjunct Associate Scientist

Stephanie Sanders* (Gender Studies)

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
MED P548 Neuroethology
BIOL L560 Physiological Ecology

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

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

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

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

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.

Cross-Listed Courses

Anthropology

B568 Evolution of Primate Social Behavior (3 cr.)

B600 Evolutionary Theory of Anthropology (3 cr.)

Biology

L560 Physiological Ecology (3 cr.)

L567 Evolution (3 cr.)

L573 Quantitative Genetics and Microevolution (3 cr.)

L581 Behavioral Ecology (3 cr.)

Z540 Genetics of Population (3 cr.)

Medical Sciences

M555 Medical Neuroscience (5 cr.)

P548 Neuroethology (2 cr.)

Neural Science

N500 Neural Science I (4 cr.)

N501 Neural Science II (3 cr.)

N550 Seminar in Sensorimotor Neuroplasticity (3 cr.)

Psychology

P504 Learning and Motivation (3 cr.)

P526 Neurobiology of Learning and Memory (3 cr.)

P527 Developmental Psychobiology (3 cr.)

P667 Neuropsychopharmacology (3 cr.)

P717 Evolutionary Bases of Learning (3 cr.)