

INTRODUCTION TO THE BIOLOGY DEPARTMENT – Fall 2009

Faculty

Name:	Office:	Teaching Area(s):	Research Area:
Warren Abrahamson	BB308	Population/Community Biology; Conservation Biol.; Plant/Animal Interactions; Plant Systematics	Ecology and evolution of plant-animal relationships
Morgan Benowitz-Fredericks	BB203A	Introduction to Molecules and Cells; Endocrinology; General Biology II	Endocrinology in birds
Elizabeth Capaldi Evans	BB207	Animal Behavior; Social Insects; Tropical Ecology; Neuroethology	Neuroethology; social insects biology; behavioral ecology
Mitchell Chernin	BB202	Genetics; Molecular Biology; General Biology I; Tropical Marine Biology	Regulation of gene expression
Donald Dearborn	BB303	Genetics; Animal Behavior; Evolution; Ornithology; Behavioral Ecology	Behavioral ecology; ornithology; conservation biology
Ken Field (on leave 2009-2010 year)	BB202B	Introduction to Molecules and Cells; Immunology; Cell Biology; Controversies	Immunology; cancer
Julie Gates (on leave fall 2009)	BB204	General Biology I; Developmental Biology	Developmental biology of <i>Drosophila</i>
Mark Haussmann	BB209B	Biology of Aging; Comparative Animal Physiology	Organismal aging and life histories
Matthew Heintzelman	BB205	Introduction to Molecules and Cells; Cell Biology; Microanatomy	Cytoskeletal architecture and cell motility
Stephen Jordan	BB310	Pop/Community Biol.; Systematic Biology; Entomology; Invertebrate Biol.	Entomology; systematics of insects
Lisa Marin	BB209A	Molecular Biology; Biochemical Methods	Neurodevelopmental biology of <i>Drosophila</i>
Matthew McTammany	BB311	Population and Community Biology; Limnology; Ecosystem Ecology	Aquatic ecology
Kathleen Page	BB208	Intro. to Molecules and Cells; Neurophysiology; Intro. to Neuroscience	Cellular physiology and neuroendocrine regulation
Le Palilulis	BB206	Genetics; Cytogenetics	Chromosome structure and function
Marie Pizzorno (Dept. Chair)	BB236	Virology; Molecular Biology	Molecular and cellular biology of eukaryotic viruses
DeeAnn Reeder	BB337	Organismal Biology; Mammalogy; Comp. Physiology; Behavioral Neuroendocrin.	Behavioral neuroendocrinology and ecophysiology of bats
Mark Spiro (Dept. Associate Chair)	BB302	Organismal Biology; Plant Growth and Development;	Plant developmental biology
Tristan Stayton	BB305	Organismal Biology; Comparative Vertebrate Anatomy	Ecological morphology of lizards
Emily Stowe-Evans	BB306	Genetics; Microbiology; Functional Genomics	Molecular genetics of cyanobacteria

Support Faculty/Staff

Karin Knisely	BB110A	Intro to Molecules and Cells Labs, Organismal Biology Labs
Joseph Moore	BB013G	Introduction to Microscopy
Kate Toner	BB115B	General Biology I and II Labs
Karen Shrawder (Academic assistant)	BB203B	Coordinates departmental office, information about pre-elective poll.

THE REQUIREMENTS FOR THE B.S. DEGREE IN BIOLOGY:

Major Requirements -

Nine (9) courses in biology: The core sequence of **BIOL 205** (Introduction to Molecules and Cells), **BIOL 206** (Organismal Biology), **BIOL 207** (Genetics), and **BIOL 208** (Population and Community Biology) + five (5) additional biology courses at the 300-level.

At least one (1) course of the 300-level electives must be in each of the following three (3) organizational areas of biology: Area I – Molecules/Cells; Area II – Organismal; Area III – Ecological/Evolutionary. Two of these courses from **different areas** must be a laboratory or field course. BIOL 399 – Undergraduate Research may count for one of these courses.

Major Related Requirements –

CHEM 211 & 212	Organic Chemistry I and II
PHYS 211 & 212	Classical and Modern Physics I and II
MATH 201	Calculus I
MATH 216	Statistics I

Major-Related Areas –

Two additional courses in a major related area are also required. Chemistry 221 (Inorganic) and Chemistry 231 (Analytical) fulfill the pre-med requirement in inorganic chemistry. Other courses that fulfill the major related area requirement include:

CHEM 340	CHEM 351	CHEM 352	CSCI 203	CSCI 204	GEOL 103
GEOL 104	GEOL 106	GEOL 205	GEOL 213	GEOL 305	GEOL 310
MATH 202	MATH 211	MATH 217	PHIL 220	PHIL 272	PHYS 221
PSYC 250	PSYC 349	ANBE 266			

Biology Electives by Organizational Area – (L) = usually taught with a lab, * = sometimes taught with a lab

AREA I – Molecules/Cells

BIOL 302 Microbiology (L)
BIOL 322 Physiological Mechs.
BIOL 323 Microanatomy (L)
BIOL 324 Neurophysiology
BIOL 326 Cytogenetics (L)
BIOL 327 Molecular Biology (L)
BIOL 328 Endocrinology*
BIOL 331 Functional Genomics
BIOL 340 Biochemical Methods (L)
BIOL 343 Neural Plasticity
BIOL 347 Virology
BIOL 348 Immunology (L)
BIOL 352 Cell Biology (L)
BIOL 365 Intro. to Microscopy (L)

AREA II – Organismal

BIOL 303 Behav. Neuroendocrin.
BIOL 312 Vertebrate Anatomy (L)
BIOL 313 Mammalogy (L)
BIOL 316 Plant Growth & Development (L)
BIOL 318 Comparative Physiol.*
BIOL 337 Biology of Aging
BIOL 339 Developmental Biol. (L)
BIOL 342 Neuroethology
BIOL 346 Environ. Physiology
BIOL 357 Ornithology (L)
BIOL 358 Invertebrate Zoology (L)
BIOL 359 General Entomology (L)

AREA III – Ecological/Evolutionary

BIOL 315 Natural Hist. Vertebrates*
BIOL 321 Behavioral Ecology
BIOL 330 Plant Systematics (L)
BIOL 334 Limnology (L)
BIOL 341 Organic Evolution
BIOL 353 Ecosystem Ecology
BIOL 354 Tropical Ecology
BIOL 355 Social Insects (L)
BIOL 356 Plant/Animal Interactions (L)
BIOL 361 Systematic Biology
BIOL 370 Primate Behav. & Ecology (L)
BIOL 415 Conservation Biology

Additional Important Information:

- **BA degree only requires four (4) 300-level Biology electives and does NOT require physics or two courses in the major-related areas.**
- The Pre-Health Professions Advisor is Alison Patterson (alison.patterson@bucknell.edu). Her office is located in the Career Development Center, 103 Botany Building, 7-3886.
- **NOTE:** Several weeks before course registration each semester, the Biology Department carries out a pre-elective poll to fairly slot students into biology electives. You will **NOT** be allowed to register for a 300-level course if you do not participate in the poll. Watch your email or campus mailbox for information about this important process.