## **GRADUATE STUDIES**

# Biology





Join the Department of Biology at Villanova for research training and advanced coursework in a broad range of the biological sciences. The graduate programs in Biology will prepare you for a life of continuing inquiry and are built on the principle that science is an ongoing human endeavor that encompasses research, learning and teaching. Our graduate programs seek to build a diverse, intellectual community that enhances the scholarship of all members.

#### **CHOOSE YOUR COURSE OF GRADUATE STUDY**

#### **Master of Science in Biology**

- Degree requires 30 credits, including a minimum of 20 in coursework and the remainder in thesis research
- · Program culminates with an original written thesis that you will prepare under the direction of a faculty mentor and two additional committee members
- Most MS students receive stipend and tuition waiver

#### **Master of Arts in Biology**

- Degree requires 33 credits, with no thesis requirement
- You may choose a concentration in Cell, Molecular and Developmental Biology (CMDB) or Ecology, **Evolution and Organismal Biology** (EEOB)
- · Research available in all areas of
- Program culminates in a comprehensive written and oral examination

#### **Certificate Programs**

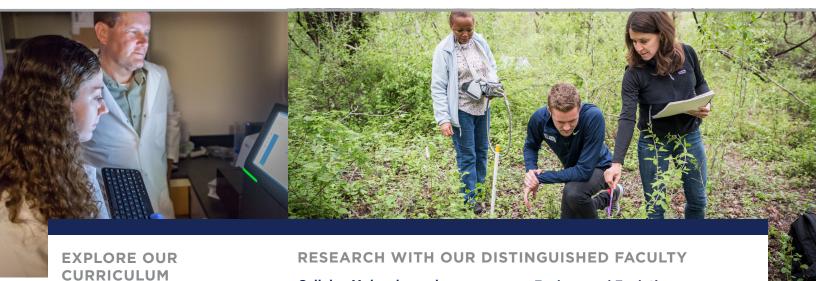
If you want to develop a particular skill set or explore further options for study, you may choose one of our graduate certificate programs. You may complete the certificate programs on a full or part-time basis, and coursework generally focuses on one of two areas, CMDB or EEOB. The Certificate of Graduate Study requires 16 credit hours, including at least three lab courses. The Certificate of Advanced Graduate Study requires 24 credit hours, including at least four lab courses.

#### WHAT OUR STUDENTS SAY

"The faculty at Villanova are incredibly accomplished and passionate about their field, and are respected members of their scientific communities. After seeing them excel in both research and teaching, I look to them as examples of the kind of scientist I want to be in my career."

- Emily Geoghegan '19 MS

## GRADUATE STUDIES Biology



#### **Recent course offerings include:**

- Advanced Bacteriology
- Biodiversity and Systematics
- Biology of Aging
- Biomechanics
- Biostatistics and Experimental Design
- Cancer Biology
- · Directed Research
- Ecosystem Ecology
- Endocrinology
- Functional Morphology
- Genomics
- Imaging Technology
- Immunology
- Molecular Evolutionary Genetics
- Neurophysiology
- Pharmacology, Experimental Cell/ Molecular Methods
- Plant Ecophysiology
- Reptile Evolution
- Stem Cells
- · Thesis Research

You will find a complete list of courses at gradbio.villanova.edu.

## Cellular, Molecular and Developmental

ANIL BAMEZAI, PHD
Immunology

SARAH FRITZ, PhD RNA biology

MEGAN POVELONES, PhD Molecular parasitology

LOUISE RUSSO, PhD Cell Biology

TROY SHIRANGI, PhD Developmental biology

JAMES WILSON, PhD Bacterial pathogens

DENNIS WYKOFF, PhD Molecular genetics of yeast

MATTHEW YOUNGMAN, PhD Molecular genetics of aging

#### **Ecology and Evolution**

SAMANTHA CHAPMAN, PhD Ecosystem ecology of coastal wetlands

ROBERT CURRY, PhD
Behavioral and conservation biology

### **Ecology and Evolution** (continued)

VIKRAM IYENGAR, PhD Entomology, mating systems

DANA OPULENTE
Microbial ecology, bioinformatics

MICHAEL RUSSELL, PhD Marine biology

ADAM LANGLEY, PhD Global change ecology

R. KELMAN WIEDER, PhD Peatland biogeochemistry

#### **Organismal**

AARON BAUER, PhD
Phylogenetics & biogeography of
squamate reptiles

STEPHANIE CAMPOS, PhD Animal behavior, neuroethology

TODD JACKMAN, PhD Evolutionary genetics

JOHN OLSON, PhD

Bird and mammal ecophysiology

ALYSSA STARK, PhD

Functional morphology and biomechanics

FOR MORE INFORMATION OR TO APPLY: 610.519.7424 | GRADBIO@VILLANOVA.EDU | GRADBIO.VILLANOVA.EDU

