# **DREXEL UNIVERSITY COLLEGE OF ARTS AND SCIENCES**

# Biological Sciences (BS)



# **PROGRAM OVERVIEW**

Home to one of the largest undergraduate student bodies at Drexel, the Department of Biology is a leader in STEAM education, incorporating the latest techniques and leading the design of new curricular approaches to enhance student learning.

Discoveries in the biological sciences influence many aspects of our daily lives and have become the foundation of many new developments in biotechnology and medicine.

In the past two decades, advances in molecular biology, cell biology and genetics have been rapid, opening many new and exciting career opportunities in biotechnology, genetic engineering and the development of new diagnostics and therapeutics.

Biology graduates have pursued careers in **MEDICINE**, **RESEARCH OR COMMERCIAL LABORATORIES**,

PRIVATE AND GOVERNMENT AGENCIES,
ACADEMIA, GENETIC COUNSELING, CLINICAL
TRIALS COORDINATION, BIOINFORMATICS,
GENOMICS, CLINICAL LAB MEDICINE, PUBLIC
HEALTH, POLICY, SCIENCE JOURNALISM AND
LAW.

### **DEGREES OFFERED**

THE BACHELOR OF SCIENCE IN BIOLOGICAL

SCIENCES provides the breadth of knowledge needed in biology, while allowing students the flexibility to choose their area of focus. Five concentrations are available: **Cell, Molecular Biology, Genetics and Biochemistry;** 

Organismal Biology and Physiology;

Pathobiology; Ecology, Evolutionary Biology and Genomics; and General Biology.

THE ACCELERATED BS/MS PROGRAM enables academically qualified students to earn both a BS and MS in Biological Sciences degree within five years of study. Students may apply for admission to the program after completing 90-120 credits toward their BS degree and must have at least a 3.5 GPA.

#### **MINORS**

**Bioinformatics** combines coursework in biology, computer science and software engineering. This minor is ideal for students interested in a more computational approach to studying the life sciences.

**Neuroscience** integrates content from cellular, molecular and systems neurobiology with neuropsychology, providing students with a strong foundation in basic principles of neurobiology and neuropsychology.



#### PATHS TO MEDICAL SCHOOL

#### **TRADITIONAL PATH**

Students apply to medical schools across the country in the spring of their junior year.

### **BS + MD EARLY ASSURANCE**

An opportunity to enter the Drexel University College of Medicine after four years of undergraduate study at Drexel, including a sixmonth co-op experience. Qualified incoming freshmen must be ranked in the top 10 percent of their class, have a minimum 3.5 GPA on a weighted 4.0 scale and a combined SAT of at least 1420 or ACT score of 31.

## INNOVATIVE CURRICULUM

The BS in Biological Sciences curriculum helps students to Notable courses offered within this department include:

- SEA-PHAGES and SEA-GENES
- Biology of Cancer
- STEM Cell Research
- Pathophysiology
- Discovering Antibiotics
- Neurobiology of Autism Disorders
- Virology
- Biology of Stress

# **DREXEL CO-OP**

Co-operative education options prepare biology students to pursue advanced education and careers across wideranging areas. Previous co-op placements include:

GLAXOSMITHKLINE • ASTRAZENECA
VIROPHARMA • FOX CHASE CANCER INSTITUTE
MOSS REHAB • CHILDREN'S HOSPITAL OF
PHILADELPHIA AND MANY MORE.

## **BEYOND THE CLASSROOM**

#### **GLOBAL ADVENTURES**

Biology students are invited to expand their horizons by participating in study and research abroad opportunities which allow for great personal growth, academic enrichment and the chance to explore the world while gaining hands-on experience in the discipline. Biology students have studied endangered primates in the forests of Bioko Island, Africa; examined health care in Costa Rica; conducted research in molecular biology labs in China; observed biodiversity and conservation in Equatorial Guinea; and explored diversity in culture and education in London, Scotland, Germany and Australia, just to name a few.

#### **RESEARCH OPPORTUNITIES**

The biology department is housed in the state-of-the-art Papadakis Integrated Sciences Building, a Gold LEED-certified research facility featuring a five-story biowall. Students have the opportunity to engage in research throughout their undergraduate years through the Drexel Co-op program or by joining the lab of a biology faculty member. Students engaging in research also have the opportunity to complete a senior thesis in biology.

#### STUDENT CLUBS AND ORGANIZATIONS

Beta Beta – National Biological Honor Society Association for Undergraduate Biological Science Students

