

# **Biology** College of Arts and Sciences

#### Degree

Bachelor of Science in Biology

#### **Degree Options**

**Basic Medical Sciences** 

General

Pre-Physical Therapy/Pre-Occupational Therapy/Pre-Physician's Assistant

Plant Biology

Ecology and Evolutionary Biology

Education

Entomology

#### Minors

Biology

#### Certificates

Certificate in Quantitative Biology

## **Student Clubs of Interest**

- Biology Club
- Zoology Club
- Scientista
- Raptor Club and Rehabilitation Program
- Pre-Health Professions:
- Minority Association of Pre-Health Students (MAPS)
- Pre-Dental Club
- Pre-Health Club
- Pre-Nursing Club: Rho Nu
- Pre-Pharmacy Club
- Pre-Physician Assistant Club
- Pre-PT/OT Club
- Pre-Vet Club (AKA Organization of Future Veterinarians)

## **Career Options**

- Medicine, dentistry, and health fields
- · Physical and occupational therapy
- · Pharmacology, nutrition, and dietetics
- Veterinary medicine and animal care
- · Fisheries and wildlife ecology
- Plant biology, agriculture, and horticulture
- Entomology
- Conservation and resource management
- Environmental assessment
- Ecological restoration
- Ecologist
- Botanist
- Biotechnology and genetic engineering
- Forensics and pathology
- · Public policy, science writing, journalism
- Science education

## Admission to the Major Requirements

Admission to the Biology major requires a 2.0 GPA at WSU.

#### **Suggested Classes for First-Year Students**

Two science or math classes **OR** One science and one math **PLUS** Two non-science classes each semester

## Suggested Classes for Transfer Students

Core biology, physical sciences, mathematics, and statistics requirements and electives

## **Math Requirement**

Math 140: Calculus for Life Scientists **OR** Math 171: Calculus I



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#### **Core Courses**

Biology 106: Introductory Biology: Organismal Biology

Biology 107: Introductory Biology: Cell Biology and Genetics

**Biology 301: General Genetics** 

Biology 372: General Ecology **OR** Biology 370: Ecology of Health and Disease

Biology 395: Evolutionary Medicine **OR** Biology 403: Evolutionary Biology **OR** Biology 405: Principles of Organic Evolution

Chemistry 105: Principles of Chemistry I

Chemistry 106: Principles of Chemistry II

Chemistry 345: Organic Chemistry I

Math 140: Calculus for Life Scientists **OR** Math 170: Calculus I

Physics 101 and 102: General Physics **OR** Physics 201 and 202: Physics for Scientists and Engineers

Statistics 212: Introduction to Statistical Methods

**OR** Statistics 412: Statistical Methods in Research

## **Program Strengths**

- Build a strong foundation in the sciences.
  Use options to focus on depth and breadth of interest areas.
- Courses cover biology, including molecular and cell biology, physiology and development of animals and plants, conservation biology, disease biology, genetics and genomics, taxonomy and systematics, ecology, and evolutionary biology.
- Small class sizes in advanced courses.

- Opportunities for one-on-one research with biology faculty, including field and laboratory experiences.
- Gain skills in research design, data analysis, DNA and cell biological techniques, physiological diagnostics, ecological and environmental assessment, phylogenetic and evolutionary analysis, global complex systems analysis, computer modeling and simulations, scientific writing, and professional communications.
- Prepare for graduate and professional schools.
- Math, science, and engineering community residence halls with other entering students in shared classes provide opportunities for group study, free tutoring, and computer lab access.
- Conner Museum of Natural History and Marion Ownbey Herbarium offer specimens of animals and plants for research and study.

## For more information:

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## **Professional Advisors**

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