

# BIOLOGICAL SCIENCES

COLLEGE OF ARTS + SCIENCES

with a Concentration in Cell + Molecular Biology



**LIFE'S FUNNY, ISN'T IT?** That's one thing people say. Or amazing. Or chaotic, beautiful, unfair, and too short. But a biologist says that life is discoverable. Medicine, dentistry, pharmacy, environmental service, molecular genetics, virology, botany, ecology, marine biology, microbiology, physiology, zoology—our program is the first step toward all of these fields and more. Whether your interest is micro or macro, we'll turn you into an expert-level life scientist.

## Possible Careers:

- Physician
- Molecular Geneticist
- Epidemiologist
- Food Scientist

**ATTENDING LOYOLA** means being in the heart of New Orleans. Our campus is located in the city's historic Uptown neighborhood, just a short drive from the Central Business District, the city's hub of innovation and strategic thinking. You'll learn to hone your talents in the city named #1 new brainpower city in America and the #5 city in the U.S. for women in tech.

## COURSES

In your first two years, you'll take the four core biology courses. Two of these classes are linked with labs so that as you learn the fundamental concepts of the biological sciences, you'll also get some hands-on field experiences. Here's a sample of what you can expect to learn and do:

### Developmental Biology

The study of animal development from fertilization through organogenesis. Major developmental events, embryo anatomy, the origin of major cell types, cell-cell interactions as well as the molecular mechanisms guiding development are explored.

### Molecular Genetics

This course investigates the structure and function of nucleic acids, mechanisms of DNA replication, RNA transcription, protein translation, and the tools of modern research. The laboratory focuses on four major experiments spanning multiple lab sessions exploring practical aspects of genetic engineering, DNA barcoding, and GMO detection.

### Parasitology

This course is designed to actively engage students in the study of parasitology. The course emphasizes parasites of public health concern reviewing recent studies using current technologies. Major conceptual themes include evolutionary relationships, virulence, origins of a parasitic life, life histories, manipulation of hosts, host immune responses, and consequences for hosts.