

Texas Lutheran University

# BIOLOGY



**BACHELOR OF SCIENCE OR BACHELOR OF ARTS IN BIOLOGY**

# What Is A Biologist?

The field of biology is vast. From ecology and genetics to anatomy and neuroscience, biology majors are interested in studying life to discover its variety and characteristics. This curiosity and desire for learning by doing is embraced by professors who mentor their students and engage them in challenging research and professional development opportunities outside the classroom.



## DEGREE PATHS

While there are four different degree tracks for biology majors, many courses overlap across specializations and have common career paths.

- The general track (B.A. or B.S.) is geared toward pre-health professions like pre-physical therapy, pre-occupational therapy, and careers like science writing, illustration, or sales.
- The molecular biology specialization (B.S.) is popular for students interested in pre-med, pre-dental, pre-physician assistant or graduate school in genetics, physiology, cell biology or microbiology.

- The environmental biology specialization (B.S.) prepares graduates for positions in environmental labs or field work, and graduate work in ecology, botany, zoology, or physiology, and is a possible pre-veterinary track.

Courses students might take include: Biodiversity, Biological Systems, Anatomy & Physiology, Genetics, Microbiology, Neuroscience, Biochemistry, Molecular Biology, Immunology, Cell Biology, Evolutionary Biology, Plant Biology, and Aquatic Biology.

Majors also take courses in chemistry, math, and physics to better understand the full scope of biology and how these areas work together.

# → The Science Behind It All

## RESEARCH OPPORTUNITIES & INTERNSHIPS

The Biology Department's cutting-edge research programs are an opportunity to gain hands-on experience in specialized areas including lab work and project design. Students have the chance to conduct work most won't even have the chance to see until graduate school.

The Weston Ranch summer research program studies the biodiversity of plants and insects of the Weston Ranch near Marion, TX. Professors have most recently worked with students to extract DNA from plants to gather specific sequences called DNA barcodes. These sequences have been added to an international barcode database, enabling scientists to identify species from these DNA sequences.

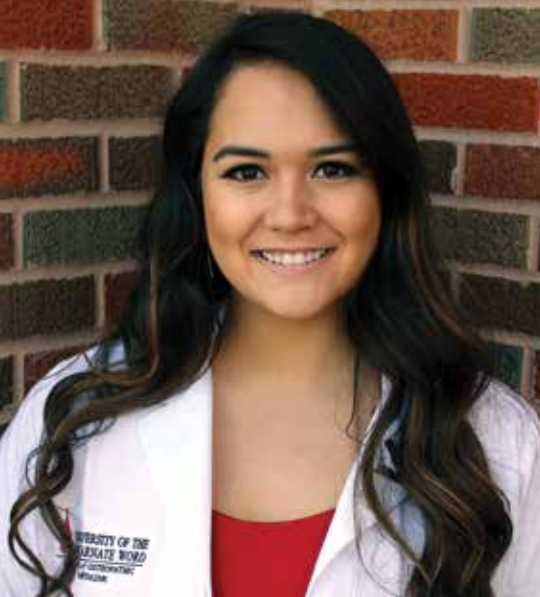


Other recent faculty-led projects have included the growing of neurons in sterile cell culture and microbiological research centered on bacterial cells that had been separated from each other for over 2000 generations.



## INTERNSHIP OPPORTUNITIES

Working with their professors, our students have secured internships at universities such as Harvard and Ohio State as well as dental clinics and medical centers including MD Anderson Cancer Center and Guadalupe Regional Medical Center.



**OUR ALUMNI AT WORK**

"The TLU Biology Department laid a foundation in medicine for me through rigorous education that facilitated critical thinking, integrated learning, and group work. With their guidance, I was able to develop my leadership skills, face challenges with confidence, and chase my passion. They showed me not only the importance of building concrete relationships for mentorship and support but—above all—to believe in myself."

**SIONED KIRKPATRICK '16**

Biology Major Molecular Biology Specialization  
 Master of Medical Sciences *University of North Texas Health Science Center*  
 Osteopathic Medical Student *University of the Incarnate Word*

TLU alumni have gone off to work or graduate school at places like...

The Mayo Clinic  
 MD Anderson  
 TEXAS  
 A & M  
 VETERINARY  
 SCHOOL  
 V A N D E R B I L T

Rice  
 UNIVERSITY  
 BAYLOR UNIVERSITY

The San Antonio  
 ZOO  
 PROCTOR  
 & GAMBLE  
 Cornell

and many other prestigious institutions.

For more information, visit [tlu.edu/biology](http://tlu.edu/biology).

Schedule a personalized campus tour at [tlu.edu/visit](http://tlu.edu/visit).

