Biology & Pre-Med

Western’s Cell Biology/Pre-medicine, Pre-Allied Health and Biochemistry programs prepare you for postgraduate work in a variety of medical fields.

What Is the Western Difference?

Western provides a strong foundation in fundamental, scientific concepts essential to finding your place in the continually evolving disciplines leading to health-related careers.

With faculty focused on teaching, small classes and hands-on learning, you’ll delve deeply into your program, as well as the supporting sciences of physics, chemistry and mathematics. Faculty advisors regularly meet with students, helping them explore career options. Western’s course of study across disciplines allows students to readily shift academic focus should their career interests change. Small classes also mean more time on lab equipment.

Our Thornton Biology Undergraduate Research Program involves undergraduate students with high-quality, original research in biology and related fields. Students participate in all aspects of research, including experiment design, field or laboratory work, data analysis and presentation of findings. Students have conducted research in such areas as cell biology and microbial genetics. Stipends are available, allowing students to learn as they earn.

91 percent of students who complete pre-medical studies at Western and apply for post-graduate programs are accepted.

The student-teacher ratio in Biology classes is a low 17-to-1.

Western students have participated in summer research at Vanderbilt University, Montana State University, the University of Wyoming and other institutions.

Many faculty-recommended students are named Colorado Collegiate Health Professions scholars, who spend a year developing the skills and competencies required to be competitive for graduate school in health care fields after graduation.

More Information: 800.876.5309 | admissions@western.edu
What Skills Will I Learn?

You’ll learn laboratory techniques and gain the knowledge needed to successfully apply to postgraduate schools. Research opportunities help you develop the problem-solving skills needed to get into medical school.

Cell Biology graduates leave Western as classically trained biologists. That includes an introduction to all the fundamental concepts that underlie our modern understanding of biology.

Pre-Allied Health majors receive broad training in the life sciences. The curriculum includes hands-on learning through laboratory and field experience. Students are encouraged to conduct research projects with faculty, and to participate in internships with private entities and local agencies.

Biochemistry majors study the function and chemical reactions that take place in living systems.

What Can I Do With My Degree?

The Cell Biology/Pre-medicine emphasis is one of the best options to prepare students for medical, dental, physician’s assistant, veterinary and pharmacy schools.

Cell Biology graduates find jobs in the biotechnology industry, in hospitals, in higher education and in other related industries. They may continue their studies in professional and graduate schools, studying cellular biology, molecular biology, biochemistry, neurobiology, immunology, genetics, molecular genetics and related fields.

The Pre-Allied-Health emphasis prepares students for entry into nursing, dental hygienist and physical therapy programs.

Biochemistry prepares students for research in health and medicine, including drug development, gene therapy and stem cells. Biochemists also work in nutrition, forensic science, toxicology and environmental preservation.

Meet Sarah Foster

It’s not easy being a medical student. But Sarah Foster says Western prepared her to succeed at the University of Colorado’s Anschutz Medical School.

She praises her Organic Chemistry instructor, Dr. Jason Mullins, and Dr. Shan Hays for her solid grounding in Cellular Biology. But she also says, “I found myself. …” Western taught me so much about work-life balance. I was a full-time student and had a job,” Foster recalls, noting how she was also in the Honors program, a performer at WordHorde events and a rock-climbing enthusiast – who also played ice hockey and rugby. During summers, she worked on ranches, waited tables and even spent time as a nanny.

“You don’t have to be one thing at Western,” she says.

Heading into her third year of medical school and beginning residency work, Foster still juggles her wide interests and responsibilities. She recently ran a half marathon and is writing a book, even as she explores medical specialties, with an eye toward practicing rural medicine.