Biochemistry/Molecular Biology

At UW-Eau Claire

If you love biology and chemistry then biochemistry/molecular biology (B/MB) might be the major for you. B/MB involves the study of life processes at the molecular level. Students study how molecules such as DNA and proteins control our heredity, development, aging and mental activity, and how abnormalities in these molecules can lead to diseases such as cancer.

High-tech labs

The laboratories are well-equipped with up-to-date instruments not often found in undergraduate laboratories, including a DNA synthesizer and sequencer, a gas chromatograph/mass spectrometer, a 3-D molecular graphics workstation, a superconducting nuclear magnetic resonance spectrometer, a Fourier transform infrared spectrometer, a real time PCR analyzer, and transmission and scanning electron microscopes to name a few!

Hands-on research

Fully equipped laboratories are available for teaching and research in biotechnology genetics, recombinant DNA techniques, plant and animal physiology, microbiology, biochemistry, organic chemistry and physical chemistry. Students receive experience in problem-solving and in modern techniques, experimental design and data analysis. Through our student/faculty collaborative research program, students participate in fascinating research projects while working one-on-one with a professor in their field and gaining in-depth knowledge for their careers or graduate school. Students also participate in weekly seminars featuring presentations by top researchers.

Our graduates

Typical biochemistry/molecular biology graduates diagnose and treat human diseases and develop new therapeutic agents in the medical or pharmaceutical fields; conduct research in biotechnology firms, pharmaceutical companies, universities, government agencies, foundation laboratories, hospitals or clinics; work in sales and purchasing or marketing and marketing research for a scientific manufacturing company; teach chemistry and/or biology in secondary schools, or obtain a doctorate degree to be eligible for research/teaching positions at universities, foundations and clinics.

Prestigious scholars

Several UW-Eau Claire students have received the prestigious Barry M. Goldwater Scholarship. The Goldwater Scholarship is considered to be the premier undergraduate award of its type in the United States in the field of mathematics, the natural sciences and engineering. Goldwater scholars receive scholarships that cover the cost of undergraduate tuition, fees and room and board up to $7,500 for one or two years.

“From the ecosystem down to the cellular and atomic levels, the biochemistry and molecular biology courses are always exciting; especially with the help of the outstanding professors at UW-Eau Claire.”

— Heidi

Majors

Biochemistry/Molecular Biology, (comprehensive major, no minor required)

Suggested freshman curriculum

Chemical Principles
Cell Biology and Genetics
Calculus and Analytical Geometry
Quantitative Analysis
Organismal Form and Function
University writing requirement — depending on placement exam.
For test-out options, see uwec.edu/Blugoldseminar/testout.
General electives

Health Careers Center

To learn more about health careers, students can utilize the Health Careers Center, where they will find advising resources, workshop information, program materials and course information to help them prepare for a biomedical graduate program or health professional program.

Places you’ll find recent graduates:

- Laboratory Technologist, Medical College of WI, Milwaukee, WI
- Assistant Scientist, PDD, Inc., Middleton, WI
- Medical Student, UW-Madison Medical School, Madison, WI
- Scientist, Boston Scientific, Minneapolis, MN
- Nephrologist/Transplant Physician, Mayo Clinic Health System, Eau Claire, WI
- Graduate School, Ph.D., Molecular Genetics, Ohio State University, Columbus, OH

Did you now?

Data from the Mayo Clinic indicates that 10-15 percent of their employees in laboratory medicine are Biochemistry/Molecular Biology (B/MB) graduates from UW-Eau Claire. Additionally, of 33 recent B/MB graduates, 45 percent are in regional graduate programs, 18 percent are in area professional schools and 12 percent are employed in academic or industrial laboratories.