Biochemistry/Molecular Biology

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.

Major
Comprehensive major (no minor required)
- Biochemistry/Molecular Biology

Where you'll find our grads
- 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

Prepared for Success
Typical biochemistry/molecular biology grads 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.

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.

At UW-Eau Claire students receive a liberal arts education that will prepare them with the technical expertise needed to be a successful scientist, while also shaping them into a well-rounded professional with skills in communication, problem-solving, and creative thinking.

Why UW-Eau Claire

Scholarships
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.

Research Opportunities
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 (some of which are paid experiences or can be done for credit) while working one-on-one with a professor in their field and gaining in-depth knowledge for their careers or graduate school. These research experiences make UW-Eau Claire students competitive applicants for internships at Mayo Clinic and other prestigious facilities, and those internships in medical labs as a student often lead to full-time jobs after graduation.

Students also participate in weekly seminars featuring presentations by top researchers. In the fall, speakers from academic institutions come to UW-Eau Claire to speak about opportunities related to graduate school, while in the spring, UWEC hosts industry speakers from companies like Univar, Ecolab, Hydrite Chemical, etc.

Innovative Facilities

The laboratories are well-equipped with up-to-date instruments not often found in undergraduate laboratories, including a DNA synthesizer and sequencer, a liquid chromatograph/mass spectrometer, a confocal microscopy, 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!

First-Year Suggested Curriculum

- Chemical Principles
- Cell Biology and Genetics
- Calculus and Analytical Geometry
- Quantitative Analysis
- Organismal Form and Function
- University writing requirement — depending on placement exam
- General electives

Think about taking the following courses to make sure you are well-prepared for your college coursework:

- Challenging chemistry (two courses if possible)
- Pre-calculus (must have strong algebra skills)
- Physics