The Bachelor of Science in Molecular Biology and Biotechnology at Clarion University of Pennsylvania is a unique college degree, designed in collaboration with graduate school programs in molecular biology and the biotechnology industry. This degree prepares students for one of the most important career fields in modern biology (it was recently rated as one of the "hot" careers by *U.S. News & World Report*), and reflects the fact that Clarion is a first-rate, comprehensive university.

The molecular biology/biotechnology major is a thorough academic degree program. Students gain practical experience through hands-on work in the laboratories which accompany all courses, as well as an in-depth theoretical understanding from classroom discussion.

**Faculty**

As a teaching university, Clarion University of Pennsylvania provides an excellent undergraduate education in molecular biology and biotechnology. The Biology Department at Clarion University has 15 full-time faculty. There are 5 full-time faculty in the molecular biology/biotechnology program with the Ph.D. and research experience from some of the most prestigious universities in the United States and Europe.

This size makes it possible to have expertise in nearly all of the enormously diverse fields which make up modern biology. However, the most important responsibility for all Clarion faculty is excellent teaching. Upper-class sizes are small so that faculty can carefully assess the students' progress, provide individualized help, and assist the student in finding a suitable career. Our large and diverse faculty, combined with the emphasis on teaching of a small school, gives students an excellent opportunity to realize their fullest academic potential.

**Curriculum**

The curriculum teaches not only biology and molecular biology, but gives students the competency in chemistry and mathematics that gains them an "edge" after graduation. The junior and senior years provide the student with a solid background in molecular biology, cell physiology, microbial genetics, and biochemistry. A final course in biotechnology gives students the opportunity to apply their knowledge in a research oriented setting. Students majoring in the Molecular Biology/Biotechnology Program are particularly encouraged to participate in undergraduate research.

**Employment Opportunities**

Employment opportunities in basic or applied research are among the best in science. For those who wish to work immediately after graduation, the B.S. in Molecular Biology/Biotechnology provides graduates with the knowledge of molecular biology and experimental techniques needed to qualify as an entry-level scientist in the biotechnology industry. Clarion graduates are employed by biotech companies, pharmaceutical companies and basic research labs at universities.
Graduate Schools

The molecular biology/biotechnology degree from Clarion University provides an excellent background for graduate study, at the master's or Ph.D. levels. Graduates from Clarion University are extremely competitive for graduate school, and almost always receive teaching and research fellowships as well.

Our graduates are also attending leading veterinary schools.

Undergraduate Research and Internships

Undergraduate research and internships are an integral part of the training our students receive in biotechnology. Scientists learn their profession in the same way that students in art and other professions learn theirs - by doing it. Hands-on research in close collaboration with an experienced scientist shows students the creative process of designing and carrying out an experiment and the critical thinking involved in analyzing the data. The experience of doing rigorous research demonstrates to employers and graduate schools an ability to work and think independently and the persistence needed to complete a major project. One-hundred percent of biotechnology majors have the opportunity to do undergraduate research.

Internships are especially beneficial because they are frequently used as a mechanism for attracting and evaluating prospective employees and graduate students. Clarion students successfully compete with students nation-wide for paid summer internships.