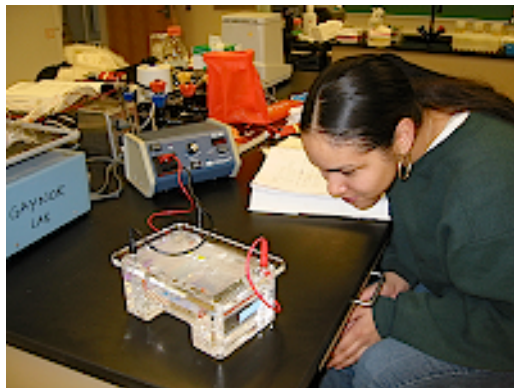

A Five-Year Program

BS/MS Combined Degree BIOLOGY



The BS/MS in Biology is an exciting, integrated, and research-intensive program designed for students exploring careers in experimental life science.

BS/MS in BIOLOGY

What is it?

This is a combined Bachelor of Science and Master of Science degree program in Biology. The program is concept-rich, rigorous, and contains a significant research component. It is designed for motivated undergraduates who wish to complete **both** degrees in an accelerated five-year program.

The combined degree has more biology content and research experience than the BS or the MS degrees alone. Separately, the two degrees would require a total of 152 credits (an average of six years to complete). The five-year BS/MS program requires a minimum of 143 credits.

Why a BS/MS?

The present job market for biologists, which in New Jersey includes pharmaceutical discovery and environmental management, requires familiarity and expertise with hands-on scientific research.

Students interested in professional and graduate studies also benefit from extensive research training.

Our 5-year BS/MS biology degree program contains elements of research training throughout, and gives our graduates a competitive edge in the job market and graduate study. Graduates of the program have both a strong conceptual background in biological science as well as the ability to design and conduct original scientific research.

How is the BS/MS different from other degree programs?

Although the program requires fewer credits and less time to complete than earning both degrees separately, it is a more rigorous and deeply engaging experience. All core courses, beginning with the first freshman semester, involve research experience and training. BS/MS students also have access to yearlong and multi-year research projects as they progress through the program.

What kinds of research do BS/MS students do?

The Department of Biology and Molecular Biology has 20 professors with diverse research interests ranging from molecular biology to physiology to ecology and evolution. Professors provide one-on-one research mentoring to BS/MS students in specialized laboratories. By the end of the program, students are proficient in designing and conducting original experimental research.

Recent student projects include:

- Does genetic structure differ between populations of endangered amphibians?
- Do heavy metal contaminants affect growth of cyanobacteria?
- How do lysosomal enzymes affect growth of breast cancer tumors?
- What factors affect vocal development in falcons?



- How can mutagenesis be induced in cell membrane co-receptors?
- How do animals make decisions about reproduction and parental care?
- How can computational analyses be applied to gene families?
- How do reptiles physiologically adapt to desert ecosystems?

- What molecular patterns underlie the biogeography of bay scallops?
- How does sequence diversion affect receptor binding in alphaviruses?
- How do snails develop different structures in the presence of predators?
- How does insect defoliation affect tree physiology?

Where can I apply?

Apply online! Application information and materials can be found at www.montclair.edu by clicking "Prospective Students."

How can I learn more?

You can always learn more about the Biology and Molecular Biology Department online at csam.montclair.edu by clicking "Departments" – or give us a call at 973-655-4397.
