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# BIOCHEMISTRY, MICROBIOLOGY, AND MOLECULAR BIOLOGY

## **Learning Outcomes**

### Master of Science (M.S.)

- Each student will be able to engage in a knowledgeable scientific conversation across BMMB topics.
- Each student will have detailed knowledge on the specific subject of their thesis research.
- Each student will be able to critically evaluate science and use the scientific method.
- Each student will have the skills to conduct experiments effectively, safely, and with high rigor and reproducibility.
- · Each student will be prepared to work in a collaborative environment.
- Each student will be able to conduct research in an ethical manner and understand the impact of science on society.
- · Each student will be able to communicate their work to scientists.
- · Each student will demonstrate effective teaching strategies.
- Each student will have acquired the skills necessary to succeed in their chosen careers.

### **Doctor of Philosophy (Ph.D.)**

- Each student will be able to engage in a knowledgeable scientific conversation across BMMB topics.
- Each student will be a world expert on the specific subject of their dissertation research.
- Each student will be able to critically evaluate science and use the scientific method.
- Each student will have the skills to conduct experiments effectively, safely, and with high rigor and reproducibility. These skills will be used to make a significant scientific contribution to the field of BMMB.
- Each student will be prepared to work in a collaborative environment to address cross-disciplinary questions.
- Each student will conduct research in an ethical manner and understand the impact of science on society.
- Each student will be able to communicate with experts in the field, non-expert scientists, and non-scientists.
- Each student will demonstrate effective teaching strategies.
- · Each student will be able to lead a research endeavor.
- Each student will have acquired the skills necessary to succeed in their chosen careers.