

## Program Learning Outcomes Microbiology

- Describe the molecular and structural unity of microbial life, explaining how this diversity is generated and perpetuated and how it allows microbes to thrive in so many different environmental niches.
- Demonstrate knowledge of how genetics and biochemistry are used to elucidate the organization and function of microorganisms.
- Use classical, molecular, and genomic methods to identify microorganisms isolated from natural environments.
- Explain and be able to use good microbiological practices in a laboratory setting.
- Evaluate how microorganisms interact with animals, plants, other microbes, and the environment in beneficial, neutral, or detrimental ways.
- Demonstrate scientific quantitative skills, such as the ability to evaluate experimental design, read graphs, and use information from scientific papers.
- Effectively communicate scientific data and ideas in standard formats.