## MICROBIOLOGY, PH.D.

## **LEARNING OUTCOMES**

- 1. Gain a broad understanding of the microbiology principles that underlie all biological processes.
- 2. Articulate, discuss and define limits to the theory and knowledge in microbiology.
- Think critically to address research challenges using a broad range of the theories, research methods, and approaches to scientific inquiry.
- 4. Communicates complex ideas in a clear and understandable matter.
- Collaborate with investigators within the program, university, and beyond to advance the science of microbiology.
- 6. Foster professional and ethical conduct in the sciences.
- 7. Ethical design of experimental protocols.
- 8. Reproducibility of experimental results.
- 9. Professional behavior in industrial, government and academic settings.
- 10. Develop communication skills that enable the articulation of research to fellow scientists and non-scientists.
- Develop teaching and mentoring skills in both lecture and laboratory settings.
- 12. Explore career development opportunities in industry, government, academia and private industry to realize professional goals.