

Biotechnology - Advanced

Program Learning Outcomes

Learning outcomes represent culminating demonstrations of learning and achievement. In addition, learning outcomes are interrelated and cannot be viewed in isolation of one another. As such, they should be viewed as a comprehensive whole. They describe performances that demonstrate that significant integrated learning by graduates of the program has been achieved.

The graduate has reliably demonstrated the ability to

1. Perform laboratory duties independently and in compliance with pertinent legislation and regulations, as well as biotechnology standards and guidelines.
2. Collaborate in implementing and evaluating quality control and quality assurance procedures to meet organizational standards and requirements.
3. Select and implement best practices for sustainability.
4. Complete complex biotechnological applications using advanced principles of chemistry, biology and biostatistics as well as basic principles of physics.
5. Co-ordinate, implement and validate laboratory procedures to carry out quantitative and qualitative tests and analyses.
6. Co-ordinate, implement and validate standard cell culture procedures under aseptic conditions.
7. Co-ordinate, implement and validate molecular biology procedures.
8. Manage biological data to support biological scientists and researchers in capturing, organizing/summarizing and storing their data.
9. Prepare, analyze, interpret, maintain and communicate scientific data effectively.
10. Develop and present a strategic plan for ongoing personal and professional development to enhance work performance.
11. Apply basic business principles to biotechnology practices.