Graduate Program in Microbiology and Molecular Genetics
Master’s Degree Learning Goals and Assessment
Adopted January 2008

The doctoral program in Microbiology and Molecular Genetics trains students at the highest level to assume research and leadership roles in the biological sciences.

**Learning Goal 1 for Students:** Attain mastery of the essential aspects of practice and research in the fields of microbiology and molecular genetics in the biological sciences

Assessment of student achievement of Goal 1:
- Grades in graduate courses
- Review by faculty of student progress with close advising and mentoring
- Comprehensive examinations assessing depth and breadth of knowledge or a capstone paper or project or a research thesis
  - Assessment of student’s performance by committee of graduate faculty members
- Continuation of graduate studies or placement in a professional position that requires an understanding of the norms and practices of funereal sciences, as well as competency in the technical aspects of performing the work associated with funereal sciences.

Roles of the program in helping students to achieve Goal 1:
- Close advising to assure that students are being prepared in a coherent and academically rigorous way
- Effective monitoring of student progress
- Evaluations of teaching effectiveness of instructors in graduate courses
  - If effectiveness is below expectations, work with instructors to improve effectiveness
- Periodic review of curricular offerings, degree requirements and assessment tools
  - By program faculty
  - In consultation with the office of the dean of the graduate school and/or the unit dean

**Learning Goal 2 for Students:** Engage in and conduct original research (for Master’s degrees with thesis)

Assessment of graduate student achievement of Goal 2:
- Assessment of quality of Master’s thesis
  - Public defense of thesis
  - Critical reading of thesis by committee of graduate faculty members
  - Submission and acceptance of peer-reviewed articles and conference papers
- Achievement of students as evidenced by continuation of graduate studies or professional placement.

Role of the program in helping graduate students to achieve Goal 2:
- Provide early introduction to research methods and opportunities for research
- Provide opportunities to present research and receive feedback
- Provide comprehensive advising and assist in the identification of mentors
Learning Goal 3 for Students: Prepare to be professionals in the biological sciences

Assessment of graduate student achievement of Goal 3:
- Participation in internships and other work tailored to career goals, assessed accordingly
- Collection of data on professional placement data or continuation of graduate studies
- Review by external advisory committees, both inside of and external to the academy.

Role of the program in helping students achieve Goal 3:
- Develop internship opportunities
- Host external advisory committees

The leadership of the Microbiology and Molecular Genetics graduate program will regularly review the structure and content of the program and the feedback received from assessments and surveys. These reviews will be used to provide the best possible education to students in order to meet the needs for highly trained individuals in the biological sciences.