

Department: Molecular Biology and Microbiology  
 Chair: Dr. Robert Gennaro  
 Participating faculty: Drs. Daniell, Gennaro,  
 Naser, White & Chai

**Program Name & CIP Code: 26.05051 Level: MS-Molecular Biology and Microbiology**  
 Example of Linkage between Expanded Statement Of Institutional Purpose,  
 Departmental/Program Intended Outcomes/Objectives, Assessment Criteria and Procedures,  
 Results, and Use of Results at our University

Expanded Statement of Institutional Purpose	Departmental/Program Intended Outcomes/objectives	Assessment Criteria & Procedures	Assessment Results	Use of Results
<p>Provide a quality graduate education in Molecular Biology and Microbiology. Graduates of the MS program in Molecular Biology and Microbiology will develop sufficient in depth knowledge to conduct research.</p>	<p>1. Graduates will demonstrate their ability conduct independent research.</p>	<p>1a. Ninety percent of graduate thesis will be based on independent research as judged by a faculty committee of the sub discipline using the following criteria:</p> <ul style="list-style-type: none"> <li>• Original work</li> <li>• Clear and Complete Literature review</li> <li>• In depth methods to allow reproducibility</li> <li>• Logical interpretation of data and discussion of data.</li> </ul> <p>1b. Fifty percent of the graduates will publish a peer-reviewed paper based on their thesis research within three years of graduation.</p> <p>2a. Ninety percent of a sample of research/term papers will meet the communication standards of the discipline as judged by a faculty committee using the following criteria:</p> <ul style="list-style-type: none"> <li>• Grammar</li> <li>• Use of scientific/technical writing</li> <li>• Proper use of scientific terminology</li> <li>• Presentation of data in a scientific format.</li> <li>• Citation in format of the sub discipline.</li> </ul> <p>2b. Ninety percent of the thesis will meet the communication standards of the discipline as judged by a faculty committee using the criteria cited in 2a.</p> <p>3a. Ninety percent of graduates will receive no less than 2.5 on a 5-pt scale in each of the knowledge areas as judged by the graduate Thesis Committee during the comprehensive oral exam.</p>	<p>1a. All five MS thesis were judged to meet all criteria.</p> <p>1b. Seven out of 14 students for the years 1997, 1998, &amp; 1999 have published.</p> <p>2a. Eighty percent of the sample of research papers met the communication standards as stated</p>	<p>1a. Faculty will continue to monitor all aspect of this measure and work with new faculty to insure that standards are met.</p> <p>1b. Department will develop incentives to encourage students to publish the results of their thesis research in a timely manor</p> <p>2a. The students that did not meet or are marginal with respect to the grammar criteria will be directly referred to the Graduate Writing Lab for assistance.</p> <p>2b. The major problem with the preliminary drafts is in the are of grammar and these students will be directly referred to the Graduate Writing Lab of assistance.</p> <p>3a. The lowest scores were in the area of Medical Microbiology. Students will be encouraged to take specific courses and/or given specific reading assignments in the medical area.</p>

		<p>3b. Ninety percent of a sample of research papers will demonstrate that students have at least an adequate knowledge of the subject topic as judged by the Departmental graduate Committee using the following criteria.</p> <ul style="list-style-type: none"> <li>• Ability to develop a specific scientific subject to include key concepts, discoveries, current state of the art and predict future developments.</li> </ul>	<p>3b. Ninety percent of the sample research papers were judged to meet the standards of this measure.</p>	<p>3b. Individual faculty will work with those students that are having problems or who are marginal in this area.</p>
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