

Biology Department's Revised Curriculum Map 2012

Program Goal #1	Students will effectively identify and explain fundamental principles of life processes at different levels of structural organization.
Outcome	Students will score competitively on a national comprehensive standardized exam in Biology.
Where Learning Outcome is met: I Introduced D Developed M Mastered	I: <i>BIO-005</i> and <i>BIO-006</i> D: <i>BIO-114</i> , <i>BIO-102</i> , <i>BIO-104</i> , <i>BIO-108</i> , <i>BIO-110</i> , <i>BIO-113</i> , <i>BIO-125</i> M: <i>BIO-195</i> (required in two of the four tracks in the major), <i>BIO-128</i> , <i>BIO-130</i> , <i>BIO-132</i>
Assessment Tool	Major Field Test in Biology (Educational Testing Service) administered to graduating seniors.
Benchmark	Mean score on the Major Field Test should be in the top third of individual student scores, nationwide.
Link to the Institutional Learning Standards	Active Societal and Intellectual Engagement, Critical-Interdisciplinary Thinking, Research and Technology

Program Goal #2	Students carry out scientific investigation in the lab and/or in the field with competence and confidence.
Outcomes	1.) Students have an appropriate understanding of the experimental question and of the previous research published on the topic. 2.) Students will apply appropriate principles of experimental design and data interpretation in their research projects.
Where Learning Outcome is met: I Introduced D Developed M Mastered	I: <i>BIO-005</i> D: <i>BIO-114</i>, BIO-104, BIO-110, BIO-113, BIO-125, BIO-130, BIO-132 M: BIO-198 and BIO-199 as well as summer research
Assessment Tools	1.) Research student surveys 2.) Evaluation of research posters
Benchmark	For 1.) mean score of 4 or above in each category of survey For 2.) 90% of students demonstrating competency in each category on rubric
Link to the Institutional Learning Standards	Active Societal and Intellectual Engagement, Critical-Interdisciplinary Thinking, Research and Technology, and Written and Oral Communication

Program Goal #3	Students will be able to present the findings and implications of scientific research through written research reports, oral presentation, and scientific posters.
Outcome	Students use appropriate style and format (as instructed) for writing research papers, creating research posters, and giving oral presentations.
Where Learning Outcome is met: I Introduced D Developed M Mastered	I: <i>BIO-005, BIO-006</i> D: <i>BIO-114, BIO-104, , BIO-113, BIO-125, BIO-128</i> M: <i>BIO-110, BIO-130, BIO-132, BIO-195, BIO-197, BIO-199</i>
Assessment Tool	Departmental review of senior writing samples from upper-division courses
Benchmark	Mean student score of 4 on each criteria of writing rubric.
Link to the Institutional Learning Standards	Critical-Interdisciplinary Thinking, Written and Oral Communication, Research and Technology

Program Goal #4	Students will be able identify and describe a wide range of controversies, positions, and approaches to the inter-disciplinary and theological implications of biological theory.
Outcomes	1. All students will be able to identify and assess a range of historic and contemporary approaches to relating science and religion. 2. Students will be familiar with a variety of historical and contemporary interdisciplinary implications of biological theory, including evolutionary theory, and be able to describe controversies that attend them. 3. Students will demonstrate understanding of, and ability to assess, arguments in at least one substantial ethical controversy related to contemporary biology. 4. In their engagement of controversial issues, students will recognize ambiguity, respect the views of others, and critically assess their own positions.
Where Learning Outcome is met: I Introduced D Developed M Mastered	I: <i>BIO-005, BIO-006</i> D: <i>BIO-114, BIO-104, BIO-108, BIO-113, BIO-125, BIO-130</i> M: <i>BIO-124, BIO-196 and BIO-197 (all majors take one of these courses)</i>
Assessment Tool	1.) Performance on examinations; 2.) Pre- and post-instruction surveys, 3.) student course evaluations
Benchmark	Yet to be determined.
Link to the Institutional Learning Standards	Christian Orientation, Critical-Interdisciplinary Thinking, and Active Societal and Intellectual Engagement