

Course Outcomes Guide (COG)

Course Title: Bio113 Fa14

Date: 5/11/14

Course Team: Nickerson

Expected Learning Outcomes

- Students will access, process, analyze and synthesize scientific information.
- Students will apply knowledge of specific course content to enhance understanding of personal and societal scientific issues.
- Students will be able to understand and apply the scientific method and use critical thinking skills in order to generate, graph, analyze and interpret scientific data and reports.
- Students will use verbal and writing skills to clearly communicate biological concepts in a comprehensive scientific report.
- Students will apply computer and information literacy skills in the preparation of a scientific report.

Assessment

- 3 multiple choice / short answer exams (100 pts each)
- 1 cumulative final exam (100 pts)
- 15 lecture homework assignments (P/F, 10 pts each)
- 10 online lecture quizzes (high ten, worth 10 points each)
- 6 lab quizzes/assignments (20 pts each)
- 2 independent online learning (50 pts each)
- 1 scientific research paper: Ecology of a Freshwater Stream (250 pts)

Validation

Homework assignments and quizzes are assessed automatically by online educational programs designed by the publishers of the course textbook. Each assessment item is linked to a specific learning objective and ranked by difficulty level 1-5.

All assignments that are not automatically graded are assessed for correct information using a common rubric.

The Common Final Exam has been developed in house by the instructor. The scores on the Common Final exam correlates with course grades.

Results

FA14 Bio113-01 Nickerson						
Number of students in section	15					
Number of students completing Common Final Exam (graded scantrons)	14					
% Withdrawn	0					
% Walk-away F	1					
% Student success	87					
Average % score Common Final Exam	84					
Average % score Critical Thinking / Gen. Ed. Skills	79					
Average Course Grade	81					
Course Grade Distribution (%)	A	B	C	D	F	W
	40	27	20	7	7	0

Follow-up

Following a state wide meeting of biology instructors and program directors it was determined that this course curriculum is in general alignment with all other MD community colleges in both scope and difficulty for a majors level introductory (100 level) biology course. The exception seems to be that we are the only college who includes advanced topics in cell communication, and techniques in molecular biology. Genetics and photosynthesis were dropped from the Bio101 curriculum in Fall 2013. The course no longer delivers content in genetics and photosynthesis which are necessary for students advancing into BTC201 or Bio201. Realignment and modification of the Bio Program curriculum will follow.

Budget Justification

Students will rely heavily on SLC services for:

- access to course materials, physical and online
- printing of course handouts and notes
- private tutoring
- group study

