

Course Outcomes Guide (COG)

Course Title: Bio114 SP16

Date: 6/3/16

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 apply the scientific method and use critical thinking skills in order to generate, graph, analyze and interpret scientific data and reports.
- Students will communicate biological concepts verbally and in writing and/or presentations.
- Students will apply computer and information literacy skills in the preparation of lab reports and written assignments.

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)
- 10 lab quizzes/assignments (20 pts. each)
- 2 independent online learning assignments (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 are highly correlated with course grades.

Results

Bio114-01SP16 Nickerson		
Number of students in section	18	
Number of students completing Common Final Exam (graded scantrons)	17	
% Withdrawn	0	
% Walk-away F	1	
% Student success	78	
Average % score Common Final Exam	84.2	
Average % score Critical Thinking / Gen. Ed. Skills	95	
Average Course Grade	74.6	
Course Grade Distribution (%)	17	A
	33	B
	28	C
	11	D
	6	F
	0	W

Follow-up

The average grade in this class is high because all students enrolled passed the pre-requisite course of Bio113 or Bio101 with a B or better, making this a highly selected and competitive group which included highly motivated STEM Middle College biology majors.

Students taking this course as a pre-requisite for entrance into professional and graduate school understand the necessity of earning an A. These students are highly motivated and spend a lot of time engaging course material and studying to achieve this goal. Course content has been developed to be rigorous and provide a strong background in the biological sciences.

In the SP17 semester this course will be merged with Bio102 which has been eliminated. This change will necessitate a different emphasis on course content. Instructional methods will shift to actively engage students in their learning process. Several 'flipped classroom' methods will be practiced.

Budget Justification

Students rely heavily on Student Learning Center and Testing Center services for:

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