

## Course Outcomes Guide (COG)

**Course Title:** Bio117-21

**Date:** 6/9/16

**Course Team:** Nickerson

### **Expected Learning Outcomes:**

- Students will access, process, analyze and synthesize scientific information.
- Students will apply knowledge of specific course content to build an understanding of environmental issues.
- Students will apply the scientific method and critical thinking skills in order to draw logical conclusions based on the analysis of scientific data.
- Students will use technology by applying computer and information literacy skills to access online learning materials and conduct online research.
- Students will use verbal and writing skills to discuss their personal ethical values, and present factual information which can be used to justify their philosophical positions on controversial environmental issues.

### **Assessment:**

- 1 midterm exam administered in HCC Testing Center.
- 1 cumulative final administered in the HCC Testing Center.
- 9 lab assignments worth 20 points each.
- 18 web-based interactive homework assignments worth 10 points each.
- 12 online quizzes worth 10 points each.
- 20 Discussion Forum posts worth up to 5 points each.

### **Validation**

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

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

The Midterm and Final Exam has been developed in house by the instructor using test items authored by the textbook publisher. The scores on the Midterm and Final exams correlate with homework, quiz, and discussion forum grades.

## Results

SP16 Nickerson	Bio117-21	
Number of students in section	19	
Number of students completing Common Final Exam (graded scantrons)	15	
% Withdrawn	0	
% Walk-away F	4	
% Student success	68	
Average % score Common Final Exam	77.9	
Average % score Critical Thinking / Gen. Ed. Skills	89	
Average Course Grade	63.4	
Course Grade Distribution (%)	32	A
	21	B
	16	C
	5	D
	26	F
	0	W

## Follow-up

Not having a good sense of how students were interacting with lab material from the first time I taught the class, I enlisted the help of a science division student worker who was enrolled in the course. Together we worked through all the labs ahead of the class, so that adjustments to clarify or add required information could be made. I tried to keep my focus on the fact that most students in this class had no prior lab experience and provided extra resources and direction as needed. In addition, even though this is considered a wholly online class, a few students attended Friday morning informal 'lab group', held on campus, to conduct and discuss lab activities. From this experience I gained a much better understanding of the student experience and the intended learning outcome for each lab assignment. I also received feedback from students in the class that lab activities were interesting, thought provoking, and enhanced their understanding of class content. This is a big step forward from my evaluation of lab activities since last year.

## Budget Justification

Students will rely heavily on LSC services for:

- access to course materials
- printing of course handouts and notes
- private tutoring

Students will use the HCC Testing Center for administration of class exams

Student work-study staff were invaluable in performing 'test runs' of all lab activities and assisting as a peer mentor in an informal lab group that met voluntarily on campus each week.