

GBC Class/Course Assessment Report

Course Prefix, Number, and Title: BIOL100 (General Biology for Non-Majors) – all online course
 Department: Science
 Section Number(s): 1002
 Instructor: Daniel Bergey

Academic Year: 2020-2021
 Semester: SPR2021
 Is this a GenEd class? Yes X No

- Complete and submit your assessment report electronically to the Dean of Arts & Sciences by May 31st. As needed, please attach supporting documents and/or a narrative description of the assessment activities. You may use as many or as few outcomes as necessary.

Class/Course Outcomes	Assessment Measures	Assessment Results	Any Changes Made as a Result of Assessment
In the boxes below, summarize the outcomes assessed in your class or course during the last year. If this is a GenEd class, include the appropriate GenEd objectives.	In the boxes below, summarize the methods used to assess course outcomes during the last year. Include the criterion you'll use to judge whether or not students have achieved the expected outcome.	In the boxes below, summarize the results of your assessment activities during the last year. Include your judgment as to whether or not the criterion for student achievement has been met.	In the boxes below, summarize how you plan to use the results to improve student learning.
Outcome #1: <ul style="list-style-type: none"> Be familiar with the basic concepts of the scientific process and the nature of biology while gaining an appreciation for how science is conducted. Be able to critique and analyze claims in a scientific context. 	Assessment Measure: <ul style="list-style-type: none"> Weekly quizzes Periodic Exams Homework Criterion for achievement: <ul style="list-style-type: none"> Passing quizzes, exams, and homework with 70% minimum score 	Results: <ul style="list-style-type: none"> 15/16 students Criterion Met: Yes/No <ul style="list-style-type: none"> Yes 	Action Plan: <ul style="list-style-type: none"> Make practice problem sets focused on this topic area Include an additional graded homework assignment.
Outcome #2: <ul style="list-style-type: none"> Understand the basic structure of atoms and molecules, the properties of water, and the major macromolecules necessary in living systems. 	Assessment Measure: <ul style="list-style-type: none"> Weekly quizzes Exams Homework Criterion for achievement: <ul style="list-style-type: none"> Passing quizzes with 70% minimum score 	Results: <ul style="list-style-type: none"> 14/16 students Criterion Met: Yes/No <ul style="list-style-type: none"> Yes 	Action Plan: <ul style="list-style-type: none"> No adjustments anticipated Practice topic tests

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<p>Outcome #3:</p> <ul style="list-style-type: none"> Understand the basic structure and function of cells and important differences between animal and plant cells. Describe the nature of metabolism including photosynthesis and cellular respiration and its importance to living organisms. 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> Weekly quizzes Exams Homework <p>Criterion for achievement:</p> <ul style="list-style-type: none"> Passing quizzes with 70% minimum score 	<p>Results:</p> <ul style="list-style-type: none"> 13/16 students <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> Yes 	<p>Action Plan:</p> <ul style="list-style-type: none"> Use of additional in-class worked examples Include one additional graded homework assignments. Include another short written topic report/review.
<p>Outcome #4:</p> <ul style="list-style-type: none"> Describe the physical structures of the body and describe their functions. Understand the processes of inheritance, reproduction, and development and how organ systems maintain homeostasis. 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> Weekly quizzes Exams Homework <p>Criterion for achievement:</p> <ul style="list-style-type: none"> Passing quizzes, exams, and homework with 70% minimum score 	<p>Results:</p> <p>13/16 students</p> <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> Yes 	<p>Action Plan:</p> <ul style="list-style-type: none"> No adjustments anticipated
<p>Outcome #5:</p> <ul style="list-style-type: none"> Understand the nature of the evolutionary theory and explain the basic concepts of natural selection. 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> Weekly quizzes Exams Homework <p>Criterion for achievement:</p> <p>Passing quizzes, exams, and homework with 70% minimum score</p>	<p>Results:</p> <ul style="list-style-type: none"> 14/16 students <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> Yes 	<p>Action Plan:</p> <ul style="list-style-type: none"> Include an additional brief graded report.
<p>Outcome #6:</p> <ul style="list-style-type: none"> Understand and discuss the relationships between organisms and their environment including ecosystems, biomes, and their sustainability. 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> Weekly quizzes Exams Homework <p>Criterion for achievement:</p> <p>Passing quizzes, exams, and homework with 70% minimum score</p>	<p>Results:</p> <ul style="list-style-type: none"> 14/16 students <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> Yes 	<p>Action Plan:</p> <ul style="list-style-type: none"> No adjustments anticipated

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<p>Outcome #7 (GenEd):</p> <ul style="list-style-type: none"> • Communication Skills 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> • Weekly quizzes • Exams • Homework; problem sets <p>Criterion for achievement:</p> <ul style="list-style-type: none"> • Passing quizzes, exams, and homework with 70% minimum score 	<p>Results:</p> <ul style="list-style-type: none"> • 14/16 students <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> • Yes 	<p>Action Plan:</p> <ul style="list-style-type: none"> • Add Written Report • Class Discussions • Online Homework
<p>Outcome #8 (GenEd):</p> <ul style="list-style-type: none"> • Critical Thinking (quantitative) 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> • Weekly quizzes • Exams • Homework; problem sets <p>Criterion for achievement:</p> <ul style="list-style-type: none"> • Passing quizzes, exams, and homework with 70% minimum score 	<p>Results:</p> <ul style="list-style-type: none"> • 15/16 students <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> • Yes 	<p>Action Plan:</p> <ul style="list-style-type: none"> • Online Homework • Class discussion
<p>Outcome #9 (GenEd):</p> <ul style="list-style-type: none"> • Critical Thinking (scientific understanding) 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> • Weekly quizzes • Exams • Homework; problem sets <p>Criterion for achievement:</p> <ul style="list-style-type: none"> • Passing quizzes and exams with 70% minimum score 	<p>Results:</p> <ul style="list-style-type: none"> • 13/16 sstudents <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> • Yes 	<p>Action Plan:</p> <ul style="list-style-type: none"> • Online Homework • Class Discussions
<p>Outcome #10 (GenEd):</p> <ul style="list-style-type: none"> • Personal and Cultural Awareness (sense of the past) 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> • Weekly quizzes • Exams • Homework; problem sets <p>Criterion for achievement:</p> <ul style="list-style-type: none"> • Passing quizzes, exams, and homework with 70% minimum score 	<p>Results:</p> <ul style="list-style-type: none"> • 14/16 students <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> • Yes 	<p>Action Plan:</p> <ul style="list-style-type: none"> • No adjustments

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Outcome #11 (GenEd): <ul style="list-style-type: none">• Technological Understanding	Assessment Measure: <ul style="list-style-type: none">• Weekly quizzes• Exams• Homework; problem sets Criterion for achievement: <ul style="list-style-type: none">• Passing quizzes, exams, and homework with 70% minimum score	Results: <ul style="list-style-type: none">• 14/16 students Criterion Met: Yes/No <ul style="list-style-type: none">• Yes	Action Plan: <ul style="list-style-type: none">• Quizzes• Lecture Exams
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Notes:

(1) This GenEd course (BIOL100) is a survey of general biology for non-science majors. This course is relevant and important because it presents an opportunity to introduce non-science majors to significant and relevant biological processes that affect each of us every day of our lives in diverse ways. In addition, this course provides a vehicle for helping students develop important critical thinking skills to help them recognize and filter out some of mis- and dis-information we are all subjected to every day in this era of mass information overload. An emphasis on critical thinking and objective assessment of information is a key component of every course I teach, both majors, and non-majors, courses. I expect enrollment in BIOL100 to increase in future semesters due to the recent switch from BIOL190 to BIOL100 as the primary biology pre-req course for health science majors.

(2) COVID compliance constraints had little, if any, effect on the course since it is an “all on-line” course. I posted updates and reminders frequently on the course website, and students contacted me regularly throughout the semester. General feedback from students during the course was cordial and overwhelmingly positive. Students were especially grateful for the lecture videos I recorded and posted using the webcampus “conferences” program, and the “practice tests” I would post, typically a week before the graded tests. Practice tests included sample questions that were covered some of the key concepts and topics to be covered on the graded exams. Some questions were similar, but not identical, to questions that may be on the graded exams. I found the practice tests seemed to alleviate a lot of potential student anxiety and stress before major exams, and provided another helpful study aid for student preparation. Because of the positive student response and feedback, I will be making and posting lecture recordings as a course enhancement for all of my future BIOL100 courses.

(3) I had one student that finished the entire course, turned in all assignments and took all tests, but still earn an “F” final grade. Unfortunately, this student consistently earned no higher than 50% on all tests and assignments. This is the first student I’ve had in any BIOL100 course, or any GBC course, that finished the entire course, yet still failed. I simply could not justify passing this student with a 50% final course percentage. I had 2 students finish the course with “D” grades, however, in both cases, these students put little effort into the course all semester, missing several quizzes and assignments, with very infrequent access of the course website (a “class participation” component). I had one student end up with a 98% final overall course point percentage. Typically, the overall average class point percentage is around 76%. However, this semester’s BIOL100 course ended up with a lower-than-typical overall class average of 72% due to the 4 “F” grades noted above. Without considering these 4 “F” grades, the class average is close to 78%.

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I have reviewed this report:

Department Chair

Date _____

Dean

Date _____

Vice President of Academic Affairs and Student Services

Date _____