

GBC Class/Course Assessment Report

Course Prefix, Number, and Title: *BIOL190 (Cell & Molecular Biology)*
 Section Number(s): *1005, 1007, 1009, 1011*
 Department: *Science*
 Instructor: *Daniel Bergey*

Academic Year: *2019-2020*
 Semester: *SPR2020*
 Is this a GenEd class? Yes___ No X

- 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	Outcome Results Analysis
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"> Define life scientifically, and explain the scientific process. 	Assessment Measure: <ul style="list-style-type: none"> Weekly quizzes Written reports Exams Criterion for achievement: <ul style="list-style-type: none"> Passing lab and lecture quizzes with 70% minimum score. 	Results: <ul style="list-style-type: none"> 27 of 30 students Criterion Met: Yes/No <ul style="list-style-type: none"> Yes 	Action Plan: <ul style="list-style-type: none"> Continue with same overall emphasis & instructional strategy, but include more examples of current research and applications. More emphasis on relevant context during lab sessions.
Outcome #2: <ul style="list-style-type: none"> Describe the chemistry of living things, and define the roles of each type of organic molecule. 	Assessment Measure: <ul style="list-style-type: none"> Weekly quizzes Exams Written reports Criterion for achievement: <ul style="list-style-type: none"> Passing lab and lecture quizzes with 70% minimum score 	Results: <ul style="list-style-type: none"> 28/30 students Criterion Met: Yes/No <ul style="list-style-type: none"> Yes 	Action Plan: <ul style="list-style-type: none"> More emphasis real-world applications chemistry and biochemistry in medicine, nutrition, health and disease.

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<p>Outcome #3:</p> <ul style="list-style-type: none"> Explain the major sources of energy used by living systems, and describe the chemistry of energy metabolism. 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> Weekly quizzes Exams Written reports <p>Criterion for achievement:</p> <ul style="list-style-type: none"> Passing lab and lecture quizzes with 70% minimum score 	<p>Results:</p> <ul style="list-style-type: none"> 27/30 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 examples of applications for health, nutrition, medicine, diagnostics, and treatments..
<p>Outcome #4:</p> <ul style="list-style-type: none"> Compare and contrast the process of mitosis and meiosis. 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> Weekly quizzes Exams Written reports Brief student presentations to class <p>Criterion for achievement:</p> <ul style="list-style-type: none"> Passing lab and lecture quizzes with 70% minimum score 	<p>Results:</p> <ul style="list-style-type: none"> 28/30 students <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> Yes 	<p>Action Plan:</p> <ul style="list-style-type: none"> Worksheets to be completed during lab sessions as group activity, with additional practical applications. Short video summary both before and after topic section.
<p>Outcome #5:</p> <ul style="list-style-type: none"> Diagram a typical prokaryotic and eukaryotic cell; identify and discuss key functions for eukaryotic organelles. 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> Weekly quizzes Exams Written reports <p>Criterion for achievement:</p> <ul style="list-style-type: none"> Passing lab and lecture quizzes with 70% minimum score 	<p>Results:</p> <ul style="list-style-type: none"> 27/30 students <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> Yes 	<p>Action Plan:</p> <ul style="list-style-type: none"> Continue with same instructional strategy.
<p>Outcome #6:</p> <ul style="list-style-type: none"> Outline the flow of biological information, including DNA replication, transcription, and translation (protein synthesis). 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> Weekly quizzes Exams Written reports <p>Criterion for achievement:</p> <ul style="list-style-type: none"> Passing lab and lecture quizzes with 70% minimum score 	<p>Results:</p> <ul style="list-style-type: none"> 28/30 students <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> Yes 	<p>Action Plan:</p> <ul style="list-style-type: none"> Additional worksheet(s) to be completed in class as a group, with additional relevant, practical examples/applications. Short video summary both before and after topic section.

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<p>Outcome #7:</p> <ul style="list-style-type: none"> • <i>Explain the theory of evolution and relate the significance of this theory in biology.</i> 	<p>Assessment Measure:</p> <ul style="list-style-type: none"> • <i>Weekly quizzes</i> • <i>Exams</i> • <i>Written reports</i> <p>Criterion for achievement:</p> <ul style="list-style-type: none"> • <i>Passing lab and lecture quizzes with 70% minimum score</i> 	<p>Results:</p> <ul style="list-style-type: none"> • <i>26/30 students</i> <p>Criterion Met: Yes/No</p> <ul style="list-style-type: none"> • <i>Yes</i> 	<p>Action Plan:</p> <ul style="list-style-type: none"> • <i>Satisfied overall with student understanding and grasp of key concepts.</i> • <i>Include assigned written report & analysis of video presentation comparing Evolution vs. Intelligent Design. Assign on-line student-instructor discussion after reviewing videos.</i>
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NOTES:

(1) BIOL190 is always a challenging course to teach, especially when combining a live class with several remote sites via IAV. This semester, the sudden transition to an all on-line format due to the Covid-19 pandemic was an unexpected challenge, but students and instructors seemed to adapt well overall. This transition also forced me, and other instructors, to find novel ways to present course and lab content using a strictly on-line format. Overall however, the course finished fairly smoothly, and the necessary transition had the silver lining of prompting me to become proficient in Webcampus instruction tools (e.g., conference/lecture recording) that I had not known about previously. I will be incorporating some of these tools (e.g., lecture recording, Respondus monitor) into my future classes, whether live, on-line, or IAV.

(2) Three students who started the class, stopped taking Exams and assignments part way through the course, and therefore were not counted in the total number of students being assessed in this report.

(3) Overall, I am happy with the level of interest, participation, and effort from the vast majority of students, and feel my teaching effectiveness continues to improve.

(4) We (Science department) will be switching to a different textbook for Fall 2020, but this will make little if any difference in the sequence of topic content covered, or the general emphasis and structure of the lecture or lab components.

I have reviewed this report:

Department Chair

Date _____

Dean

Date _____

Vice President of Academic Affairs and Student Services

Date _____