

GBC Class/Course Assessment Report

Course Prefix, Number, and Title: CHEM100 (Molecules & Life in Modern World) - all online course

Section Number(s): 1002

Department: Science

Instructor: Daniel Bergey

Academic Year: 2020-2022

Semester: SPR2022

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 judgement as to whether or not the criterion for student achievement has been met.	In the boxes below, please reflect on this outcome's results, and summarize how you plan to use the results to improve student learning.
Outcome #1: <ul style="list-style-type: none"> Discuss the states and properties of matter 	Assessment Measure: <ul style="list-style-type: none"> Quizzes, Exams, Homework Criterion for achievement: <ul style="list-style-type: none"> 70% of class with 70% or higher 	Results: <ul style="list-style-type: none"> 9/11 Criterion Met: <ul style="list-style-type: none"> YES 	1. Results Analysis: <ul style="list-style-type: none"> Most students had little problem grasping this essential content 2. Action Plan: <ul style="list-style-type: none"> None required.
Outcome #2: <ul style="list-style-type: none"> Describe the basic structure of atoms and ions, and relate them to their location in the Periodic Table, their charge, and the number of fundamental particles. 	Assessment Measure: <ul style="list-style-type: none"> Quizzes, Exams, Homework Criterion for achievement: <ul style="list-style-type: none"> 70% of class with 70% or higher 	Results: <ul style="list-style-type: none"> 6/11 Criterion Met: <ul style="list-style-type: none"> NO 	1. Results Analysis: <ul style="list-style-type: none"> Students generally had a relatively difficult time mastering these fundamental skills and basic content 2. Action Plan: <ul style="list-style-type: none"> Include more worked examples

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<p>Outcome #3:</p> <ul style="list-style-type: none">Discuss the basics of chemical bonding including polarity of diatomic molecules.	<p>Assessment Measure:</p> <ul style="list-style-type: none">Quizzes, Exams, Homework <p>Criterion for achievement:</p> <ul style="list-style-type: none">70% of class with 70% or higher	<p>Results:</p> <ul style="list-style-type: none">9/11 <p>Criterion Met:</p> <ul style="list-style-type: none">YES	<p>1. Results Analysis:</p> <ul style="list-style-type: none">Some students found these concepts abstract, and hard to grasp initially <p>2. Action Plan:</p> <ul style="list-style-type: none">Include more video supplements with examples
<p>Outcome #4:</p> <ul style="list-style-type: none">Scientific ReasoningProficiency in the use of scientific terminology.Effectively interpret and apply scientific principles.Utilize the scientific method to arrive at informed conclusions.	<p>Assessment Measure:</p> <ul style="list-style-type: none">Quizzes, Exams, Practice problems <p>Criterion for achievement:</p> <ul style="list-style-type: none">70% of class with 70% or higher	<p>Results:</p> <ul style="list-style-type: none">6/11 <p>Criterion Met:</p> <ul style="list-style-type: none">NO	<p>1. Results Analysis:</p> <p>2. Action Plan:</p> <ul style="list-style-type: none">Include additional practice exams and worksheetAdd video supplement examples

Notes & Comments:

(1) Although CHEM100 is a non-majors course, it is math-intensive (basic algebra) and a significant proportion of students struggle with this aspect of the course every semester. The cause of virtually any student struggling with CHEM100 is due to poor basic math skills. Although basic algebra is a pre-req for the course, every semester there are students enrolled in the course that have clearly not acquired proficiency in basic algebra, and consequently struggle during the entire course, or end up withdrawing by the third or fourth week. There are always some “superstars” in CHEM100 as well.

(2) In attempts to decrease student anxiety in CHEM100 I am posting frequent updates and reminders in the webcampus course website, and ensuring all lecture notes, assignments, reading, etc. are posted on the course website at least a week before the relevant chapters are formally covered. Making course content available in advance of formal class coverage also provides motivated students opportunities to access information ahead of scheduled coverage. In addition, I stress the importance of reviewing and honing basic algebra skills in the syllabus, and during the first two weeks of class, with reminders throughout the semester. In addition, I provide numerous worked examples and video tutorials covering these basic math skills. Early emphasis of the importance of basic math skills usually mitigates student apprehension in the course, and although this semester seemed to be an exception, I will continue these strategies all future courses.

(2) I teach CHEM100 every semester, and consistently find that over 90% of my students are pursuing a career in a health sciences-related profession (e.g., nursing, medicine, radiology, physical therapy). Students pursuing another biological sciences-related degree often take this course as a preparatory introduction to chemical principles before going on to take the more rigorous CHEM121 (majors chemistry). This is a valuable and relevant course for our students, and I greatly enjoy teaching it.

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(3) Out of 11 CHEM100 students this semester, there were five “F” grades, two “As”, two “Bs”, and 2 “Cs”. All five of the “F” students did not take the final exam, and all missed several assignments and quizzes, and demonstrated a lack of interest in the course all semester by only accessing the course website intermittently, and not contacting me or responding to my emails. On the other hand, the remaining students were very actively engaged in the course, and accessed the course website and contacting me regularly.

Respectfully submitted 5/22 - DBergey

I have reviewed this report:

Department Chair

Date _____

Dean

Date _____

Vice President of Academic Affairs and Student Services

Date _____