General Education Outcomes in CHM 1033
Chemistry for Health Sciences

**Purpose:** Through the academic disciplines and co-curricular activities, General Education provides multiple, varied, and intentional learning experiences to facilitate the acquisition of fundamental knowledge and skills and the development of attitudes that foster effective citizenship and life-long learning. As graduates of Miami Dade College, students will be able to:

1. **Communicate effectively using listening, speaking, reading, and writing skills.**
   *In this course, the communication outcome will be reinforced by at least one essay assignment related to a current topic article. In addition to content, essays will also be graded for correct use of grammar and spelling.*

2. **Use quantitative analytical skills to evaluate and process numerical data.**
   *Numbers are the language of chemistry. In this class, you will have to be able to read and identify pertinent numerical data in word problems. You will be required to manipulate the data using equations and dimensional analysis. Quantitative analysis is heavily reinforced in this course.*

3. **Solve problems using critical and creative thinking and scientific reasoning.**
   *In the allied health field, critical thinking is an essential skill. Solving numerical problems is not enough. You must be able to critically look at the problem and determine whether or not the answer makes sense. You must be able to determine a logical sequence of steps to solve problems, both qualitative and numerical. Critical thinking and scientific reasoning are heavily reinforced in this course.*

4. **Formulate strategies to locate, evaluate, and apply information.**
   *At least one essay assignment related to a current topic article will be completed during the semester. In reviewing the article, you will need to find and reference supplementary information to support your viewpoint.*

5. **Demonstrate knowledge of diverse cultures, including global and historical perspectives.**
   *This outcome is lightly touched upon in this course, in relation primarily to historical landmarks in chemistry.*
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6. Create strategies that can be used to fulfill personal, civic, and social responsibilities.
   This outcome is lightly reinforced in this course through your first homework assignment which requires you to develop a time management strategy in order to schedule adequate study time for your courses.

7. Demonstrate knowledge of ethical thinking and its application to issues in society.
   The current topic assignment will be related to a recent event in which the ethical values of a medical institution were called into question. Students will be required to discuss the actions that led to this ethical dilemma, and the resulting consequences. Students will be asked to describe how they would have acted in a similar situation.

8. Use computer and emerging technologies effectively.
   The majority of all homework assignments will be completed using CourseCompass, an online course tool. In addition, important course information will be posted on my website. All course progress reports will be sent to you via email. Students must therefore be able to use a personal computer, navigate the internet, and retrieve email. In addition, any essay assignments must be completed using a word processing program.

9. Demonstrate an appreciation for aesthetics and creative activities.
   This outcome is not reinforced in this course.

10. Describe how natural systems function and recognize the impact of humans on the environment.
    The chemical nature of biological molecules and their role in biological systems will be a major topic in this course. Students will be able to name, identify, and list chemical and physical properties of inorganic and organic compounds, as well as biological macromolecules. Students will also be able to identify the role of biological molecules in living systems. The environmental and health impact of certain types of organic molecules will be discussed.