

MARIAN UNIVERSITY

Indianapolis®

Marian's Adult Programs

CHE 100

Elements of General and Biological Chemistry

Course Description

This course is an introduction to the principles of general chemistry, organic chemistry, and biochemistry, and is designed for students in the health science areas.

Semester and Credit Hours

Credit Hours: 4

Required Textbook(s) and Additional Resources

Refer to the MAP website (www.marian.edu/MAP) for specific textbook requirements.

Course Objectives

Upon completion of the course, the student should be able to:

- Understand and utilize the basic concepts of measurement
- Perform basic calculations in chemistry using common mathematical techniques
- Understand the basic properties of matter and energy
- Understand the structure of atoms and their organization in the periodic table
- Understand compounds and the principles of chemical bonding
- Recognize and understand basic chemical reactions
- Balance and utilize chemical equations
- Understand the basic properties of gases
- Understand the basic properties of water and solutions
- Understand acids, bases, pH, and buffers
- Understand the general principles of radioactivity

- Name, draw, and recognize 'simple' organic molecules
- Recognize and name common organic functional groups
- Recognize and understand common organic and biochemical reactions

- Understand the composition, structure, and function of carbohydrates
- Understand the composition, structure, and function of lipids
- Understand the structure and function of proteins and enzymes
- Understand the composition, structure, and function of nucleic acids
- Understand the flow of genetic information in a cell
- Understand the major pathways of metabolism and energy production

Course Overview

This course will explore general chemistry, organic, and biochemistry. We cover the entire text (18 chapters). Therefore we will be covering at least 2 chapters a week. Suggested homework assignments will be given. Plan to spend a minimum of ten hours a week working on class material. You are encouraged to interact with your instructor with question or other content issues as is needed.

Tutors

Tutors are available through the "Learning and Counseling Center" (317-955-6150). In the event you're having a problem with this course, please don't ignore it, because the course material typically does not get easier as we go along. It is up to you to contact the center to request a tutor. The tutors are competent and have a good background in the course material.

Policy Statements

Attendance: Students are not graded for attendance. However, it is expected that students will work on course modules at least four times per week. You will need to spend at least 10 hours per week working on the homework problems and studying the chapter material.

Academic Integrity: The University's guidelines for penalties and procedures will be strictly adhered to. If you are not familiar with the guidelines, please refer to the University's Code of Students Rights and Responsibilities.

Franciscan Values:

1. Dignity of the Individual
 2. Peace and Justice
 3. Reconciliation
 4. Responsible Stewardship
- All these are grounded in prayer

Students with disabilities who have proper documentation must contact the Director of Academic Support Services in the Counseling and Consultation Services office to set up a documentation review. If after the review, accommodations are deemed appropriate, an accommodation plan will be developed. As per the ADA (Americans with Disabilities Act) no accommodations can be provided until this process is complete. Contact Marj Batic, Director of Academic Support Services (mbatic@marian.edu ; 317.955.6150; or stop by the office in Clare Hall). Note: Students who may require assistance in emergency evacuations should consult with the instructor as to the most appropriate procedure to follow. If there are questions regarding such a procedure, contact Ruth Rodgers, Vice President, Student Success and Engagement/Dean of Students [@rrodders@marian.edu](mailto:rrodders@marian.edu) or the Director of Academic Support Services for additional information.

The tests are taken on line from your own computer. Exams are usually open for a 48 hour time period and you take the exam during that period. The exams are timed; therefore once you start the exam you will have the time allotted to complete the exam. Once the exams are graded, you will be able to review your graded exam. This usually occurs 3 days after the exam period closes.

Grading Scale

GRADE	PERCENTAGE
A	92%
A-	88%
B+	84%
B	80%
B-	77%
*C+	74%
C	70%
C-	67%
D+	64%
D	60%
F	<59%

There are 4 Exams and a Final Exam creating a total of 5 Graded Assessments. Each Exam is worth 20% of your total grade.

Please be advised that all dates and times in Canvas are Eastern Time (ET) by default. Unless you as the student have changed your personal settings due dates and times will appear as ET. Please plan accordingly.

Exam 1	Modules 1-4	Chapters 2-4, 6
Exam 2	Modules 5-8	Chapters 7-10
Exam 3	Modules 9-11	Chapters 5, 11-12, 14
Exam 4	Modules 12-14	Chapters 13, 15-16
Final	Modules 15-16	Chapters 1-18