

Course Syllabus

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MARIAN UNIVERSITY

Indianapolis

Students are responsible for reading and understanding the contents of this syllabus before the first day of class.

CHE 100 Elements of General and Biological Chemistry 4 Credits

Semester and Year:

Online Instructor:

Email: Contact via Canvas email

Required Textbook(s):

Chemistry: An Introduction to General, Organic, and Biological Chemistry, 13th edition; Karen Timberlake, Pearson Education, Inc. 2017

ISBN: 9780134421353

Students are required to purchase the items listed above prior to the start of the course. Look into all of your options - new, used, rental, or e-books. If you choose a rental option, be sure to understand the policies and the due dates for the returns. While you have the option to

obtain your course materials from any source, ordering from the MU Book Store can be a convenient option. Please note that you can also charge bookstore purchases to your student account or use your MU financial aid if applicable.

Visit www.bkstr.com/marianustore/home [_\(http://www.bkstr.com/marianustore/home\)](http://www.bkstr.com/marianustore/home).

Additional Resources:

The Mother Teresa Hacklemeier Memorial Library at Marian University provides various databases

<http://www.marian.edu/library/Pages/default.aspx> [_\(http://www.marian.edu/library/Pages/default.aspx\)](http://www.marian.edu/library/Pages/default.aspx)

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.

This course will explore general chemistry, organic, and biochemistry. We cover 17 chapters. Therefore, we will be covering 2 to 3 chapters a week. Homework assignments and discussions will be given. Plan to spend a minimum of ten to twenty hours a week working on class material. You are encouraged to interact with your instructor with questions or other content issues as is needed.

Upon successful completion of this course, students will be able to:

- Perform basic calculations in chemistry using stoichiometric
- Understand the basic properties of matter and energy
- Understand the structure of atoms and their organization in the periodic table
- Understand the principles of chemical bonding
- 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 chemical reactions including organic and biochemical
- Understand the composition, structure, and function of carbohydrates
- Understand the composition, structure, and function of lipids
- Understand the composition, structure, and function of proteins
- Understand the composition, structure, and function of nucleic acids

Teaching Strategies

Add a narrative of the teaching strategies you will use in the classroom.

Assignments & Assessment Methods:

Methods of Evaluation

There are 4 Exams, exams are worth 72% of your total grade. Homework assignments are 7% of your total grade, discussions are 7% of your total grade, and quizzes are 14% of your total grade.

Exam 1 Modules 1 & 2 Chapters 2-4, 6

Exam 2 Modules 3 & 4 Chapters 7-10

Exam 3 Modules 5 & 6 Chapters 5, 11-12, 14

Exam 4 Modules 7 & 8 Chapters 13, 15-17

Grading Scale

The grading scale for this course is (this is course dependent and must be individualized)

Letter Grade	Percentage
A	92%
A-	88%

B+	84%
B	80%
B-	77%
C+	74%
C	70%
C-	67%
D+	64%
D	60%
F	<59%

Course Policies:

Late Policy & Due Date Extensions: Acceptance of work submitted past the due date or requests of due date extensions may be considered in the event of unforeseen, documentable events. Examples of such events include medical emergencies, documentable technical issues, death of a loved one, etc. However, simply forgetting, time zone differences, going on vacation, or not performing a well as intended are not acceptable excuses.

Student Handbook

Please refer to the MAP [Student Resources](#) and [Student Support Resources](#) modules for information regarding academics and school of policies including [Services for Students with Disabilities \(http://marian.edu/campus-life/academic-support-services/services-for-students-with-disabilities\)](http://marian.edu/campus-life/academic-support-services/services-for-students-with-disabilities)

****Any changes to this syllabi will be communicated to the student.**

Course Outline

Module 1: Chemistry and Matter

Module 2: Elements, Compounds, and Their Bonds

Module 3: Chemical Reactions and Gases

Module 4: Solutions, Acids, and Bases






Module 5: Radioactivity and Hydrocarbons

Module 6: Organic Functional Groups

Module 7: Carbohydrates and Lipids


Module 8: Proteins and Nucleic Acids


Course Summary:

Date	Details
	 Discuss: Homework Problems: Carbohydrates and Lipids (https://marian.instructure.com/courses/2619329/assignments/25688497)
	 Discuss: Homework Problems: Chemical Reactions and Gases (https://marian.instructure.com/courses/2619329/assignments/25688514)
	 Discuss: Homework Problems: Chemistry and Matter (https://marian.instructure.com/courses/2619329/assignments/25688291)
	 Discuss: Homework Problems: Elements, Compounds, and their Bonds (https://marian.instructure.com/courses/2619329/assignments/25688515)
	 Discuss: Homework Problems: Organic Functional Groups (https://marian.instructure.com/courses/2619329/assignments/25688506)

Date

Details

 [Discuss: Homework Problems: Proteins and Nucleic Acids](https://marian.instructure.com/courses/2619329/assignments/25688504)
(<https://marian.instructure.com/courses/2619329/assignments/25688504>)

 [Discuss: Homework Problems: Radioactivity and Hydrocarbons](https://marian.instructure.com/courses/2619329/assignments/25688508)
(<https://marian.instructure.com/courses/2619329/assignments/25688508>)

 [Discuss: Homework Problems: Solutions and Acids and Bases](https://marian.instructure.com/courses/2619329/assignments/25688512)
(<https://marian.instructure.com/courses/2619329/assignments/25688512>)

 [Exam 1A](https://marian.instructure.com/courses/2619329/assignments/27080759)
(<https://marian.instructure.com/courses/2619329/assignments/27080759>)

 [Exam 1B](https://marian.instructure.com/courses/2619329/assignments/27080755)
(<https://marian.instructure.com/courses/2619329/assignments/27080755>)

 [Exam 1C](https://marian.instructure.com/courses/2619329/assignments/27080756)
(<https://marian.instructure.com/courses/2619329/assignments/27080756>)

 [Exam 2A](https://marian.instructure.com/courses/2619329/assignments/27080750)
(<https://marian.instructure.com/courses/2619329/assignments/27080750>)

 [Exam 2B](https://marian.instructure.com/courses/2619329/assignments/27080758)
(<https://marian.instructure.com/courses/2619329/assignments/27080758>)

 [Exam 2C](https://marian.instructure.com/courses/2619329/assignments/27080748)
(<https://marian.instructure.com/courses/2619329/assignments/27080748>)

Date

Details

 [Exam 3A](#)
(<https://marian.instructure.com/courses/2619329/assignments/27080747>)

 [Exam 3B](#)
(<https://marian.instructure.com/courses/2619329/assignments/27080745>)

 [Exam 3C](#)
(<https://marian.instructure.com/courses/2619329/assignments/27080749>)

 [Exam 4A](#)
(<https://marian.instructure.com/courses/2619329/assignments/27080753>)

 [Exam 4B](#)
(<https://marian.instructure.com/courses/2619329/assignments/27080751>)

 [Exam 4C](#)
(<https://marian.instructure.com/courses/2619329/assignments/27080754>)

 [Forming an Atom with M&M's - Optional](#)
(<https://marian.instructure.com/courses/2619329/assignments/27274763>)

 [Quiz 1](#)
(<https://marian.instructure.com/courses/2619329/assignments/23086171>)

 [Quiz 2](#)
(<https://marian.instructure.com/courses/2619329/assignments/23086168>)

 [Quiz 3](#)
(<https://marian.instructure.com/courses/2619329/assignments/23086170>)

Date

Details

 [Quiz 4](https://marian.instructure.com/courses/2619329/assignments/23086169)
(<https://marian.instructure.com/courses/2619329/assignments/23086169>)

 [Quiz 5](https://marian.instructure.com/courses/2619329/assignments/23086175)
(<https://marian.instructure.com/courses/2619329/assignments/23086175>)

 [Quiz 6](https://marian.instructure.com/courses/2619329/assignments/23086167)
(<https://marian.instructure.com/courses/2619329/assignments/23086167>)

 [Quiz 7](https://marian.instructure.com/courses/2619329/assignments/23086173)
(<https://marian.instructure.com/courses/2619329/assignments/23086173>)

 [Quiz 8](https://marian.instructure.com/courses/2619329/assignments/23086174)
(<https://marian.instructure.com/courses/2619329/assignments/23086174>)

 [Submit: Carbohydrates and Lipids](https://marian.instructure.com/courses/2619329/assignments/25599226)
(<https://marian.instructure.com/courses/2619329/assignments/25599226>)

 [Submit: Chemical Reactions and Gases](https://marian.instructure.com/courses/2619329/assignments/25599117)
(<https://marian.instructure.com/courses/2619329/assignments/25599117>)

 [Submit: Chemistry and Matter](https://marian.instructure.com/courses/2619329/assignments/23086176)
(<https://marian.instructure.com/courses/2619329/assignments/23086176>)


 [Submit: Elements, Compounds, and their Bonds](https://marian.instructure.com/courses/2619329/assignments/25599094)
(<https://marian.instructure.com/courses/2619329/assignments/25599094>)

 [Submit: Organic Functional Groups](https://marian.instructure.com/courses/2619329/assignments/25599199)
(<https://marian.instructure.com/courses/2619329/assignments/25599199>)

Date

Details

 [Submit: Proteins and Nucleic Acids](https://marian.instructure.com/courses/2619329/assignments/25599227)
(<https://marian.instructure.com/courses/2619329/assignments/25599227>)

 [Submit: Radioactivity and Hydrocarbons](https://marian.instructure.com/courses/2619329/assignments/25599201)
(<https://marian.instructure.com/courses/2619329/assignments/25599201>)

 [Submit: Solutions, Acids and Bases](https://marian.instructure.com/courses/2619329/assignments/25599198)
(<https://marian.instructure.com/courses/2619329/assignments/25599198>)
