
# CHM 092.10 • Satterfield

**MAYLAND COMMUNITY COLLEGE**
**Welcomes You To:**

**CHM 092 – Fall 2007**
**Fundamentals of Chemistry**
**4 credit hours, 5 contact hours**

**Prerequisites:** MAT 070
**Corequisites:** None

## Mission

**Mayland Community College's General Education core courses will provide the essential body of knowledge and skills that enable all degree-level students to perform competently as employees and as contributing members of society.**

**Graduates of all degree programs at Mayland Community College will have completed the general education core. That core encompasses the essential knowledge and skills that enable all degree-level students to perform competently as employees and as contributing members of society. Upon completion of the general education core, students will be able to demonstrate the following:**

1. Effective communication in speaking and listening situations needed for college, personal, and work successes
2. Effective communication in writing and reading situations needed for college, personal, and work successes
3. Logical, critical, and creative thinking to evaluate evidence and reach a conclusion
4. Application of basic computer use skills
5. Application of fundamental math skills
6. Basic awareness of the diversity of various world groups from both historical and contemporary contexts

## Course Description

This course covers fundamentals of chemistry with laboratory applications. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts and demonstrate basic laboratory skills necessary for success in college-level science courses. This is not a transfer course.

## Instructor Information


**Instructor:** Derick Satterfield
**Office Location:** Chem. Lab
**Telephone Number:** 828-765-7758
**E-mail Address**: dsatterfield@mayland.edu


**Office Hours:** T, Th: 10:30 – 11:30, please call for other times!

## Course Information

CHM 092 meets in room 265 for lecture and lab.
Section 10: T Th 8:00 – 10:20

**Required Text:** Karen C. Timberlake, William Timberlake (2007). *Basic* Chemistry *2nd Edition*, Prentice Hall.

## Course Objectives/Competencies:

Upon completion of this course, the student will demonstrate basic knowledge in the following:

1. Fundamental concepts in inorganic chemistry.
2. Fundamental concepts in laboratory procedure.

## Outline of Instruction:

1. What is chemistry? Why study chemistry?
2. Review of math
3. The Metric System
4. Matter and Energy
5. Periodic Table of Elements
6. Atomic Theory, Bonding, and Molecular Structure
7. Nomenclature
8. Balancing Equations
9. Acids and Bases
10. Gases
11. Organic Chemistry
12. Biochemistry

## Attendance Policy/Tardiness/Make-Up Work:

You are expected to attend every scheduled lecture and lab. If you miss more than 15% of scheduled lecture times (7 classes), your lecture grade will be lowered one letter grade. The set-up of the laboratory portion of this course is such that it *will not be possible* to make up most labs. A tardy is recorded if you are late for class or if you leave before class is dismissed. Three tardys will equal one absence.

No makeup tests will be given. If a test is missed, the final exam grade will take the place of the missing test grade. The lowest test grade will not be dropped. If you earn it you keep it. However, in the event that a student achieves near perfect attendance for the semester, their lowest quiz grade will be dropped and their exam grade will replace the lowest test grade.

A lab notebook will be kept for all labs in this course. The lab notebook should contain a complete write-up for each lab. The lab notebooks will be graded on overall neatness, thoroughness and the completion of all conclusion questions? This will be the easiest 15% you have ever earned, however it is easy to get behind. All lab write-ups should be completed that night, in order to stay on track. The lab notebooks will be evaluated during each test.

## Inclement Weather Procedures:

Refer to the Student Handbook for a complete description of the inclement weather policy. Mayland will operate on a delay whenever it is deemed necessary due to the weather. Keep abreast of local radio or the MCC website for all inclement weather information. Use your own judgment about traveling in inclement weather.

## Administrative Withdrawal

If a student has not been in contact with the instructor and has not attended class for a consecutive two-week period, the instructor will submit an administrative withdrawal.

## Special Accommodations:

Any student requesting special accommodations for this course due to a disability should apply for services through the SOAR Office or the Counseling Center, which will document the disability. A counselor will then help determine which accommodations, if any, the student needs for success in this course.

## Grading Criteria/Tests/Projects:

Progress will be measured by comparing scores on in-class assignments, homework problems, quizzes, and exams.

| | | | |
|---|---|---|---|
| Hour exams | 45 % | **Grading Scale:** | **A** = 93 -100 |
| | | | **B** = 85 - 92 |
| Quizzes | 20 % | | **C** =77 - 84 |
| | | | **D** =70 -76 |
| Attendance | 5 % | | **F** = 69 and below |
| Lab Notebook | 10 % | **Withdrawal dates:** | |
| Experimental Online Labs | 5 % | October 9 | End of unconditional |
| | | November 1 | End of conditional |
| Final | 15 % | | |

## Academic Standards/Student Expectations/Ethics:

1. You should be present at all class meetings. See attendance policy.
2. Read all assignments before the class where they will be discussed. Participate actively in class, group, and lab activities.
3. Demonstrate college-level effort and behavior. The instructor has the option to withdraw any student who causes disruption of class.
4. Officially withdraw from the class if it is necessary to drop.
5. Notify the instructor and registrar if you desire an audit during registration (1st 5 days of the semester).
6. Help your classmates in the learning process. Collaborative learning is often more effective, and definitely more fun, than learning in solitude.

*Anyone caught cheating in this course will be withdrawn and assigned an "F."*
*Any of the following actions are considered cheating:*
*-copying answers from another student's test, exam or lab worksheet*
*-providing answers for another student to copy*
*-the use of unapproved crib notes or cheat sheets during a test*

## Course Outline/Weekly Topics*

| ***Week*** | ***Chapter*** | ***Tests/Quizzes*** *Thursdays* |
|---|---|---|
| 1 | 1,2 | |
| 2 | 3 | Quiz 1, August 30 |
| 3 | 4 | Quiz 2, September 6 |
| 4 | | Test 1, September 13 |
| 5 | 5 | Quiz 3, September 20 |
| 6 | 6,7 | Quiz 4, September 27 |
| 7 | | Test 2, October 4 |
| 8 | | Element Projects, Oct. 9 |
| 9 | 8,9 | Quiz 5, October 18 |
| 10 | 10 | Quiz 6, October 25 |
| 11 | | Test 3, November 1 |
| 12 | 11,12 | Quiz 7, November 8 |
| 13 | 13 | Quiz 8, November 15 |
| 14 | | Test 4, November 20** |
| 15 | 14, 15 | Quiz 9, November 29 |
| 16 | 17 | Quiz 10, December 6 |
| 17 | Review | Final, December 13 |

* ***All schedules are tentative and may change as conditions warrant.***