

**Hagerstown Community College**  
**MASTER SYLLABUS**

**COURSE:** CHM 105-01 Introductory Organic Chemistry (4 credits)

**INSTRUCTOR:** N. Thorpe (lead faculty)

**COURSE DESCRIPTION:**

This is a single semester course of organic chemistry with laboratory for students in the allied health programs (nursing, for example). The course includes nomenclature, functional groups, stereochemistry, reaction types, and limited use of reactions mechanisms. Laboratory fee required. Prerequisite: CHM 103. Semester offered: Spring. 4 Credits.

**TEXTBOOK:**

**Text:** *Introduction to General, Organic and Biochemistry, 10<sup>th</sup> ed.*, Bettelheim, Brown, Campbell, Farrell, and Torres; Brooks/Cole, 2010/13.

**Lab Manual:** *Laboratory Experiments for General, Organic, and Biochemistry, 8<sup>th</sup> ed.*, Bettelheim and Landesberg, Brooks/Cole, 2010.

**Optional: Study Guide:** *Introduction to General, Organic, and Biochemistry, 10<sup>th</sup> ed.*, Bettelheim, Brown, Campbell, and Farrell, Brooks/Cole, 2010.

**Optional: Student Solutions Manual for Bettelheim, Brown, Campbell, and Farrell** *Introduction to General, Organic, and Biochemistry, 10<sup>th</sup> ed.*, by Erikson, Farrell, and Farrell, Brooks/Cole, 2010.

**Required: Scientific calculator** (not graphing calculator) that can perform scientific notation (exponential notation), logarithms, and simple arithmetic.

**Required: Safety goggles** (available for use in lab).

**STUDENT LEARNING OUTCOMES:**

At the completion of this course, students should be able to:

1. Solve a variety of problems posed in organic chemistry by using quantitative and qualitative reasoning skills.
2. Communicate organic chemistry concepts in writing while using appropriate technology and proper terminology.
3. Synthesize and analyze chemical compounds and use instruments to collect and evaluate empirical data to substantiate chemical concepts.
4. Relate organic chemistry to current events, professional life, and our natural world.

**TOTAL HOURS OF COURSE WORK EXPECTED:**

In order to meet the minimum requirements for a 4 credit class, the number of class/study hours expected of the student is multiplied by 3. The total work required to earn four college credits – 150 hours/semester, or 12 hours/week during a 15 week semester (includes class time plus additional homework/study time outside of class).

Please be aware that certain courses, or certain students, may require more than *minimum* hours of work per credit each week in order to be successful in that course.

Credit Hour to Clock Hour Calculation (for 4 credit course)

Direct Faculty Instruction: One hour Instruction/week/credit

$$(50 \text{ min} * 15 \text{ weeks}) \div 60 \text{ min/h} = 12.5 \text{ h/credit} * 4 \text{ credits} = 50 \text{ hours}$$

Student work out of classroom: (Two hours per credit per semester)

$$(2 * 50 \text{ min} * 15 \text{ weeks}) \div 60 \text{ min/h} = 25 \text{ h/credit} * 4 \text{ credits} = 100 \text{ hours}$$

	Direct Faculty Instruction (in-Class)	Student work outside of class
"Lecture" time	37.5 h	
3 Lecture Exams Prep time LSC/Home		6 h (taking exams) 21 h (exam prep)
5 - 10 quizzes	(included in lecture time)	9 h (quiz prep)
Comprehensive Final Exam	(Included in lecture time)	8+ h Final exam prep (review notes/group study)
Homework Assignments (online and written)		20+ h
"Lab" time	37.5 h	
Lab Preparation	0.5 h/lab*10 labs	5 h
Lab Practical Prep	3 h study time*2	6+ h
Lab Report Completion	(included in lab time)	
Total Lecture and Lab	75.0 h	75 h+
<b>TOTAL</b>	<b>150+ hours (may exceed minimum of 150 h for 4 credits)</b>	