

**Chemistry 108**  
Fundamentals of Chemistry  
Spring 2008

**Course Instructor:** Professor Stephen Dunham  
Office: 214 Collier Hall of Science, 610-861-7103  
Email: [stephendunham@moravian.edu](mailto:stephendunham@moravian.edu)

**Lecture:** M,W, F 10:20-11:10, 204 Collier  
**Problem:** R 10:20-11:10, 204 Collier  
**Session**

**Office Hrs:** Posted each week on **blackboard**, or by appointment

- You are encouraged to try stop-in-visits anytime. If I am not available, I will tell you and we can schedule another time to meet.

**Lab Instructor:** Professor Carol Libby  
Office: 213 Collier Hall of Science, 610-861-1629  
Email: [cplibby@cs.moravian.edu](mailto:cplibby@cs.moravian.edu)

**Labs:** M or T 12:45-3:45, 211 Collier  
T 8:00-11:00, 211 Collier

**Required Materials:**

**Text:** General, Organic, and Biochemistry, 2<sup>nd</sup> Edition by Kenneth W. Raymond (2007), John Wiley & Sons.

**Scientific Calculator:** Must be able to calculate logs | no cell phones!

**Black Board Web Site:** <http://blackboard.moravian.edu/>

**You must enroll in our Chemistry 108 blackboard site.**

- Throughout the semester, all handouts will be posted to the course blackboard page. Please access this early and often!

**Lab Goggles:** Safety glasses will be provided in the laboratory. They must be worn at all times in the laboratory!

**Course Goals:**

- Use real-life examples, particularly those that are health related, to illustrate the relationship between chemical principles and living organisms.
- Relate the properties of atoms and molecules with the organization of elements in the periodic table.
- Recognize relationships between physical properties of atoms, compounds, and molecules; and the physical states of matter, solubility, reactivity, molecular shape, and biochemical function.
- Apply qualitative and quantitative aspects of chemistry to problem solving.
- Use the scientific method to actively seek knowledge through the study of chemical processes in a controlled environment.

**Attendance:** Obviously, it will be very difficult for you to learn chemistry concepts and follow them over the semester if you miss course meetings (class, problem sessions, and laboratories). As a reminder, the college policy on attendance can be found at <http://www.moravian.edu/studentLife/handbook/academic.htm> . If you anticipate an unavoidable absence, please notify me ASAP before you are absent. Makeup quizzes, exams, and labs are given at the discretion of the instructor.

**Academic Honesty:** Please be familiar with the college policy on academic honesty (<http://www.moravian.edu/studentLife/handbook/academic2.htm>). Because this course involves small group learning activities, each student may exchange experimental details and data with her/his lab partner and classmates. However, any work submitted in your name is to be your work alone. You are encouraged to discuss work with others on assignments and labs, but merely copying answers is not acceptable.

**Learning Differences:** Students should contact the Office of Learning Services for disclosure of a learning difference and to request appropriate amendments to this course.

**Grading:** You are not in competition with anyone else in this class. Your grade will be determined only by the percentage of the total points you achieve. In the event that the class average on any exam, quiz, or lab falls below 75%, that score will be curved so that the class average is 75%.

**Percentage Based Grading Scale**

97-100	A !	73-76	C
93-96	A	70-72	C-
90-92	A-	67-69	D+
87-89	B+	63-66	D
83-86	B	60-62	D-
80-82	B-	< 60	F
77-79	C+		

There are a total of 1000 pts that will be factored into your final grade in this course. A point on an exam, quiz, or laboratory counts the same amount.

Exams	600 pts
Quizzes	150 pts
Labs	250 pts
Total	1000 pts

**Exams:** Three in-class exams (150 pts each) and one final (150 pts).

While the material you will be responsible for on each exam could vary, (dependent upon the pace of the course) the following dates will be used for examinations:

Exam 1	Friday, February 8
Exam 2	Friday, March 14
Exam 3	Friday, April 11
Final	TBA

**Quizzes:** During the first lecture of each week, a quiz (15 pts each, 12 quizzes per semester) will be given on previous weeks lecture material. Your lowest two quiz scores will be dropped at the end of the term.

**Labs:** Twelve laboratory experiences (25 pts total for each lab) consisting of:

- A group write up that is handed in before leaving lab 18pts
- Group participation, being on time, and working safely 3pts
- Blackboard review questions about the laboratory 4pts

Your two lowest lab scores will be dropped at the end of the term.

**Makeup Quizzes, Labs, and Exams:** Missed quizzes and labs will be counted as one of the “dropped” scores (see grading section above). You are responsible for understanding the content of the material covered during a missed quiz or lab. Makeup exams will be given at the discretion of the instructor for absences that have been documented by the Dean of Students Office and/or a health professional.

**Assignments and Problem sets:** Assignments and/or problems will be given for each chapter. These will not be graded, and are intended to provide you with the “minimum” review of the important concepts covered in that chapter. Along with quizzes, these problems provide the majority of the content for exam questions. Answers can be found in the back of the book, or will be posted on the **Blackboard** web site.

If you don't understand a problem:

- Review the example problems in the chapter
- Attempt to work similar problems at the end of the chapter
- Send me a message and/or schedule an appointment

**Class Participation:** When you have a question during class, it is likely that your neighbor does as well. Please stop me and ask. Nearly all concepts in this course will build upon each other, and this requires you to understand the material in previous lectures to build a bridge to the new material we will be learning.

If you have questions that are not answered in class, you can start a forum on the discussion board at the **Blackboard** web site, come to my office hours, email, or schedule an appointment.

**Class Etiquette:**

- Turn off or silence cell phones! NO-text messaging during class
- Sit in the front five rows of the classroom to facilitate discussion
- Do not record or take pictures of classmates or instructors without their permission

**Email Etiquette:**

Although email may seem like an instantaneous form of communication, it is not. Just because you sent me an email, does not mean that I have

1) read it, 2) understood it, and/or 3) approved it.

- I will reply individually, or as a class response to all email received.
- Assume that email sent between the hours of 10 PM and 9AM has NOT been read

### Tips for Success:

1. Read the chapter before coming to class. Don't worry if you don't understand everything from the reading.
2. After lecture reread the chapter and work through the sample problems in the text.
3. Recopy your notes from lecture. Be certain they make sense to you and agree with concepts in the textbook.
4. After studying in a group, be certain that you can "go it alone". Spend some time alone answering the same problems, or attempting related problems in the text.

**Pace of the Course:** The schedule below is a guideline for the course coverage this semester. Check the Blackboard web site for an updated reading list for each week.

<b>Week</b>	<b>Beginning</b>	<b>Anticipated Text Coverage</b>	
Jan	14	Ch # 1,2	Science and Measurements   Atoms and Elements
Jan	21	Ch # 2,3	Compounds
Jan	28	Ch # 3,4	An Intro to Organic Compounds
Feb	4	Ch # 4	Organic Compounds, <b><u>Exam #1 CH 1-4</u></b>
Feb	11	Ch # 5, 6	Gases, Liquids, and Solids   Reactions
Feb	18	Ch # 6, 7	Solutions, Colloids, and Suspensions
Feb	25	Ch # 7, 8	Lipids and Membranes
Mar	3	<b>SPRING BREAK</b>	
Mar	10	Ch # 8, 9	Acids, Bases, and Equilibrium <b><u>Exam #2, CH 4-8</u></b>
Mar	17	Ch # 10	Carboxylic acids, Phenols, and Amines
Mar	24	Ch # 11	Alcohols, Ethers, Aldehydes, and Ketones
Mar	31	Ch # 12	Carbohydrates
April	7	Ch # 13	Peptides, Proteins, & Enzymes <b><u>Exam #3, CH 9-12</u></b>
April	14	Ch # 14	Nucleic Acids
April	21	Ch # 15	Metabolism
April	28	<b><u>Final Exam, CH 13-15, and Cumulative CH 1-12</u></b>	