

Chemistry 114
General Chemistry
Spring 2015

Course Instructor: Professor Stephen Dunham
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Class Meetings: M,W, F 7:50-8:40, Collier 204
R 7:50 (PA), 8:55 (PB), or 10:20 (PC), Memorial 202

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

Lab: T or R 12:45-3:45, 211 Collier
W or F 1:15-4:15, 211 Collier

Required Materials:

Text: “Chemistry: The Central Science, 12 Edition”, by Brown/LeMay/Bursten/Murphy/Woodward R.

- *Study Guide and Solutions Manual are on Reserve at the Library.*

Sapling account: You are required to register with Sapling Online Learning System and complete online homework assignments throughout the semester. Instructions for student access to Sapling are printed on the last page of this syllabus and posted on the course Blackboard site

Scientific Calculator: Must be able to calculate logs, exponents, sci. notation
No smart phones or apps can be used on quizzes or exams!

Black Board Web Site: <http://blackboard.moravian.edu/>
Throughout the semester, all handouts and announcements will be posted to the course blackboard page.

Course Goals:

- Recognize relationships between physical properties of matter and their physical state, molecular structure, solubility, rate of reaction, acid-base reactivity, and oxidation-reduction reactivity.
- Apply qualitative and quantitative aspects of chemistry to determine the rates of chemical reactions, and the concentrations of compounds and molecules during these reactions and at equilibrium at various pHs.
- Use the scientific method to actively seek knowledge through the study of chemical processes in a laboratory environment.

Attendance: It will be *very difficult* for you to learn chemistry concepts and follow them over the semester if you are not engaged in this course (activities, homework, and labs). As a reminder, the college policy on attendance can be found at <http://www.moravian.edu/studentLife/handbook/academic/academic.html> If you anticipate an unavoidable absence, please *notify your instructor 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/academic/academic2.html> Because this course involves small group learning activities, each student may exchange experimental details and data with her/his group. However, any work submitted in your name is to be your work alone. You are encouraged to discuss work with others on homework, but merely copying answers is not acceptable.

Learning Differences: Students who wish to request accommodations in this class for a disability should contact Ms. Elaine Mara, Assistant Director of Academic & Disability Support, located on the first floor of Monocacy Hall (610-861-1401). Accommodations cannot be provided until authorization is received from the Academic & Disability Support office.

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

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

Exams (3@ 100pts each)	300pts
Final Exam	150pts
Quizzes (10@ 10pts each)	100pts
Online Homework (10@15pts each)	150pts
Learning Activities (10@10pts each)	100pts
Laboratory (10@ 20pts each)	200pts
Total	1000pts

Exams: Three in-class exams (100pts each) and one final (150pts).

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	Wednesday, February 11
Exam 2	Wednesday, March 4
Exam 3	Wednesday, April 8
Final	Thursday, May 7, 1:30PM

Quizzes: After completing a section of the text and a related homework assignment, a quiz will be given that will provide examples of questions and format that will appear on the exam. Quizzes will have two parts. You will first take the quiz as an individual and submit your answers. You will then take the quiz in a small group of 3-4 students submitting one set of answers as a group. Your quiz score will be 50% individual score and 50% group score.

Ten quiz scores will be combined for your semester quiz grade.

Homework: Online homework will be assigned and scored through the Sapling Online Learning System (see Sapling Access instructions at the end of this document). Assignments will typically be due one week after they are assigned. Ten homework scores will be combined for your semester homework grade.

Labs: Details will be provided in a separate laboratory syllabus. Grading will in general be 20pts per week with the top 10 labs counted as your lab score for the semester.

Makeup Quizzes, Labs, and Exams: You are responsible for understanding the content of the material covered during a missed quiz or lab. Makeup exams, labs, or quizzes 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.

Tips for Success:

1. After class, reread the textbook pages that go with the class discussion or activity, and begin working example problems in your text with the “answer covered”. Next, move on to the problems in your Sapling assignment. **If it takes you multiple attempts to correctly answer a Sapling problem, you need MORE practice** with that type of problem, and you must attempt similar problems at the end of the chapter. See your instructor for help on these problems, and check answers to these problems in the *Study Guide and Solutions Manual* on Reserve in the Library.

2. This course often uses a group-learning format that depends upon your **active** contribution. **You will often be asked to explore data and make predictions BEFORE any class discussion has taken place.** This process is unconventional for many science courses, and it may be uncomfortable at first because you will need to rely on logic and applying your growing chemistry knowledge, and **NOT** upon “finding the answer” by searching your textbook, lecture notes, or *Googling!*

3. If you are studying in a group, be certain that you can **“go it alone”**. Spend some time alone answering the same problems done in your group, and then attempt similar problems **on your own** from the text.

4. If you are having difficulties, **don’t wait to get help!** You can...

- Stop by my office with questions
- Attend a chemistry peer help session (TBA: Superlab Commons)
- Request a peer tutor from Learning Services (610-861-1520, Monocacy Hall)

Class Etiquette:

- Turn off or silence cell phones! NO-text messaging during class
- 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 any requests you made in it.

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

Pace of the Course: The schedule below should be used as a guide for anticipated course coverage this semester.

Week	Beginning		Anticipated Text Coverage	
Jan	19	Ch # 10-11	Gasses and Intermolecular forces	
Jan	26	Ch # 11, 13	IMF and Solutions	
Feb	2	Ch # 13-14	Solutions, Kinetics	
Feb	9	Ch # 14	Kinetics	<u>Exam #1 on 2/11, CH 10,11,13</u>
Feb	16	Ch # 15	Equilibrium	
Feb	23	Ch # 16	Acid-Base	
Mar	2	Ch # 16	Acid-Base	<u>Exam #2 on 3/4, CH 14-15</u>
Mar	9	<i>SPRING BREAK</i>		
Mar	16	Ch # 17	Buffers/Titrations	
Mar	23	Ch # 17	Solubility	
Mar	30	Ch # 19	Thermo, Free Energy	
April	6	Ch # 17	Electrochemistry	<u>Exam #3 on 4/8, CH 16, 17</u>
April	13	Ch # 20	Electrochemistry	
April	20	Ch # 23	Transition Metals	
April	27	Ch # 23	Transition Metals	
May	4	Final Exam	May 7, 1:30pm	<u>CH 19, 20, 23, and Cumulative</u>

Accessing the Sapling Learning System:

1. Go to <http://saplinglearning.com> and click on "US Higher Ed" at the top right.
- 2a. **If you already have a Sapling Learning account**, log in and skip to step 3.
2b. If you have a Facebook account, you can use it to quickly create a Sapling Learning account. Click "Create an Account", then "Create my account through Facebook". You will be prompted to log into Facebook if you aren't already. Choose a username and password, then click "Link Account". You can then skip to step 3.
2c. Otherwise, click "Create an Account". Supply the requested information and click "Create My Account". Check your email (and spam filter) for a message from Sapling Learning and click on the link provided in that email.
3. Find your course in the list (you may need to expand the subject and term categories) and click the link.
4. Select a **payment option** and following the remaining instructions.
Once you have registered and enrolled, you can log in at any time to complete or review your homework assignments. During sign up or throughout the term, if you have any technical problems or grading issues, send an email to support@saplinglearning.com explaining the issue. The Sapling Learning support team is almost always faster and better able to resolve issues than your instructor.