

**Chemistry 114**  
General Chemistry  
Spring 2014

**Course Instructor:** Professor Stephen Dunham  
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**Class Meetings:** M,W, F 7:50-8:40, 204 Collier  
R 7:50-8:40 (PA) or 8:55-9:45 (PB), 204 Collier

**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 phone apps! You must have your own for quizzes and 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, 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, assignments, 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 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 who wish to request accommodations in this class for a disability should contact Ms. Elaine Mara, Assistant Director of Learning Services for Academic and Disability Support at 1307 Main Street (610-861-1510). Accommodations cannot be provided until authorization is received from the Academic Support Center.

**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 point on an exam, homework, or laboratory counts the same amount.

Exams (4@100pts each)	400pts
Final Exam	150pts
Optional Quizzes (10@ 10pts each)	* pts
Online Homework (10@15pts each)	150pts
Learning Activities (10@10pts each)	100pts
Laboratory (10@ 20pts each)	200pts
Total	1000pts

**Exams:** Four 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 5
Exam 2	Wednesday, February 26
Exam 3	Wednesday, March 26
Exam 4	Wednesday, April 16
Final	Thursday, May 1, 1:30PM

**Quizzes\*:** Weekly quizzes are typically given at the end of class on Fridays. These will provide examples of questions and format that will appear on exams, and help you to keep up with weekly assignments. Quizzes can only impact your grade positively or not at all. At the end of the semester, if your top 10 quiz scores are higher than your lowest exam score, they will replace that in class exam.

**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 at the beginning of class on Friday the week after they are assigned. Your top 10 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:** Missed quizzes and labs will *typically* be counted as one of the scores “dropped” from your highest 10 scores for the semester. 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. This course 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!*

2. After class, read 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.

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 your instructors office hours with questions
- Attend a chemistry peer help session (W,R 7PM-9PM CHS 207)
- Request a peer tutor from Learning Services (610-861-1520, 1307 Main St)

### **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 course coverage this semester.

<b>Week</b>	<b>Beginning</b>		<b>Anticipated Text Coverage</b>	
Jan	13	Ch # 10-11	Gasses and Intermolecular forces	
Jan	20	Ch # 11	Intermolecular forces	
Jan	27	Ch # 13	Solutions	
Feb	3	Ch # 14	Chemical Kinetics	<b><u>Exam #1 Feb 5, CH 10, 11, 13</u></b>
Feb	10	Ch # 14-15	Kinetics, Equilibrium	
Feb	17	Ch # 15-16	Equilibrium, Acid-Base	
Feb	24	Ch # 16	Acid-Base	<b><u>Exam #2 Feb 26, CH 14-15</u></b>
Mar	3	<b><i>SPRING BREAK</i></b>		
Mar	10	Ch # 16-17	Aqueous Equilibria	
Mar	17	Ch # 17	Buffers, Solubility	
Mar	24	Ch # 19	Thermo, Entropy	<b><u>Exam #3 March 26, CH 16-17</u></b>
Mar	31	Ch # 19	Thermo, Free Energy	
April	7	Ch # 20	Electrochemistry	
April	14	Ch # 23	Transition Metals	<b><u>Exam #4 April 16, CH 19, 20</u></b>
April	21	Ch # 23	Transition Metals	
April	28	<b>Final Exam</b>	<b>May 1, 1:30pm</b>	<b><u>CH 23, and Cumulative CH 10-20</u></b>

### **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](mailto:support@saplinglearning.com) explaining the issue. The Sapling Learning support team is almost always faster and better able to resolve issues than your instructor.