Chemistry 211

**Fall 2015**

**Text**: *Principles of General Chemistry*, 3rd Edition by Silberberg and a subscription to ALEKS online homework

**Personal Response Device**: Turning Technologies Response Card RF (or Smart Phone application)

**Handouts**: **All available on-line** @ <http://science.marshall.edu/castella/C211.html>

Lecture notes for all chapters This syllabus and learning objectives

Homework assignments A set of old tests & answer keys

Study suggestions An old final exam

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**Office hours**: Monday, Wednesday, Friday: 10:00 to 11:00 a.m.

During office hours I may be in either my office or laboratory. Please check both places for me.

If you cannot come by during scheduled office hours or if you have questions at other times, please feel free to drop by my office. My schedule is fluid and so scheduling a time is frequently the easiest way to see me. To do this, just see me right before or after class or drop me an email. ***Many students believe that they bother instructors when they ask questions, but helping you learn is the reason why we are here*. *If you have questions, please ask them****.*

If you have questions that you believe can be answered by email and would like to use that method, please feel free to send them to me. I check my email regularly during the day.

**Week** **Chapter** **Week** **Chapter**

Aug. 24 – 28 1 – 2 12 – 16 7 – 8 (Test 3)

31 – Sept. 4 2 – 3 19 – 23 8

Sept. 9 – 11 3 (Test 1) 26 – 30 8 – 9

14 – 18 4 Nov. 2 – 6 9 (Test 4)

21 – 25 5 (Test 2) 11 – 13 10

27 – Oct. 2 6 16 – 20 10 – 11

Oct. 5 – 9 7 30 – Dec. 4 11 (Test 5)

Dec 5 (Saturday) 10:00 a.m. Final Exam

**Course Description**: A study of the properties of materials and their interactions with each other. Development of theories and applications of the principles of energetics, dynamics and structure. Intended primarily for science majors and pre-professional students. 3 lec. (CR: CHM 217; PR: ‘MTH ACT of 23 or better’ or ‘C or better in CHM 111’ or passing placement exam)

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| **Learning objectives** | **Objective will be taught through…** | **Objective will be assessed by…** |
| Become familiar with the atomic structure of matter. | -Lecture  -Online assignments  -Classroom response questions  -In-class example problems | -Exams/quizes  -Online assignments  -Clicker questions |
| Develop analytical skills to solve problems presented in a chemical context. | -Lecture  -Online assignments  -Classroom response questions  -In-class example problems | -Exams  -Online assignments  -Clicker questions |
| Understand how energy is utilized in natural systems. | -Lecture  -Online assignments  -Classroom response questions  -In-class example problems | -Exams  -Online assignments  -Clicker questions |
| Describe and predict the basic chemical bonding patterns that explain the physical and chemical properties of matter. | -Lecture  -Online assignments  -Classroom response questions  -In-class example problems | -Exams  -Online assignments  -Clicker questions |

**Attendance**

Attendance for this course is optional, but strongly encouraged. With nearly all the material for this course available on the internet, there will be a temptation to miss class more often then if you needed to come to obtain the lecture notes, homework assignments, and other materials. There is a strong correlation between attendance and success in chemistry courses. While good study habits are the most important determiner of success, students who regularly attend class are more likely to keep up with assignments than those who miss frequently.

**Grading**

Tests will be given on Chapters 1 - 3, 4 & 5, 6 & 7, 8 & 9, and 10 & 11 regardless of the dates listed above. The dates provided on the first page are only approximate. Beginning with the second test, up to 20% of the points may review previous material in this course.

“Clicker” questions 50 points

LA section Quizzes 50 points

Online homework 100 points

Tests (5 x 100 points) 500 points

Final Exam 200 points

900 points

The scale for test one is A = 80-100, B = 65 – 79.9, C = 50 – 64.9, D = 40 – 49.9. For the 4 remaining tests the scale is A = 70-100, B = 55 – 69.9, C = 40 – 54.9, D = 30 – 39.9.

The “A” line will be determined by adding together the 5 minimum “A” scores on all of the tests and assignments. The “B,” “C,” and “D” lines will be calculated similarly. The total number of points you score during the semester will be compared with these values.

There are no dropped tests and no make-up tests will be given. Likewise, there are no make-ups for missed clicker or quiz questions.

During tests talking to each other and sharing of calculators are forbidden.

Calculators with alphanumeric and/or graphing capabilities are not permitted for tests or the final exam. If you have questions regarding your calculator, I will be glad to look at it. Make sure you do this before the day of a test. Also, you may not use your cell phone as a calculator.

During tests you may not use your own paper or other materials except your pen/pencil and calculator.

Online homework questions. There are two parts to this grade. On 50 points, all topics will count equally. The percentage that you answer correctly over the course of the semester will be multiplied by 50 pts to determine the number of points you receive. The remaining points will equal the average percentage correct you make for the 11 chapters multiplied by 50 points. There are no drops. Grading scale: A = 90-100, B = 80-89.99, C = 70-79.99, and D = 60-69.99.

Clicker questions. Each clicker question will be counted equally. The percentage that you answer correctly over the course of the semester will be multiplied by 50 pts to determine the number of points you receive. (i.e. if you get 90% of the questions correct, you’ll receive 45 of the 50 points.) Questions will be presented twice: once for you to work as an individual, then again in a group. Both attempts count equally.

LA section quizzes. Each week there will be a required LA section. You may not switch sections without prior approval by me. In all of those sections, there will be short quiz sometime during the period to be determined by the learning assistants. The rest of the class period will be devoted to helping you solve problems or clarify concepts with which you are having difficulty.

Grading on the clicker questions and LA quizes will be done the same way. There will be a curve and we will discuss how it is constructed in class.

**Miscellaneous Topics**

Marshall University’s polices regarding academic honesty, excused absences, and disabled students may be found at <http://www.marshall.edu/wpmu/academic-affairs/?page_id=802>.

If a test falls on a day that is cancelled by the university (e.g. a snow day), the test will occur on the next period the class meets.

Please turn off cell phone ringers before class. Failure to do so may result in you being removed from the room, even during a test.

You may not record my lectures without my permission and under no circumstances may they be posted, transferred, or reproduced to any form of media (Internet, print, television, and the like) without my permission.