## Chemistry 1711 / 1811

# **Syllabus**

## Fall 2011

#### **Instructors:**

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# Texts and Materials:

General Chemistry, Ebbing and Gammon, 9<sup>th</sup> ed., Houghton-Mifflin (2009)

Introductory Chemistry Laboratory Manual 2011-12, ONU (2011)

Darling model kit, grid-lined lab notebook, and non-programmable so

Darling model kit, grid-lined lab notebook, and non-programmable scientific calculator some individual instructors may also require an audience response device ("clicker")

### Course Plan:

Chapter	Homework Problems
1. Chemistry and Measurement	37-53 (odd), 61, 65, 67, 81-85 (odd), 91, 99, 101, 111, 113, 133
2. Atoms, Molecules, and Ions	21, 37-53 (odd), 57-69 (odd), 75-101 (odd), 107-111 (odd), 119-125 (odd)
3. Calculations with Chemical	27-83 (odd), 91, 95, 97, 103, 107, 117, 119
Formulas and Equations	
4. Chemical Reactions	29-41 (odd), 42, 43-73 (odd), 78, 80, 84, 100, 108, 110, 112, 118, 124, 140, 146
5. The Gaseous State	37, 39, 45, 48, 51, 55, 57, 60, 62, 67, 73, 76, 77, 80, 81, 84, 86, 87, 89, 92, 96, 98, 101, 107, 112, 114, 115, 119, 126, 129, 145
6. Thermochemistry	51-85 (odd), 88, 94, 96, 98, 100, 102, 110, 112, 114, 116, 118, 140
7. Quantum Theory of the Atom	35, 37, 43-59 (odd), 63, 67, 68, 70, 72, 74, 81, 82, 87, 88, 89, 107
8. Electron Configurations and	41, 43, 47-55 (odd), 61-71 (odd), 75, 81, 83
Periodicity	
9. Ionic and Covalent Bonding	29, 31, 35-109 (odd)
10. Molecular Geometry and	33-63 (odd), 77, 79, 81
Chemical Bonding Theory	
23. and 24. (selected topics)	TBA

## **Assignments:**

Prepare for each class and lab by reading ahead. Prepare for quizzes and exams by completing all assigned homework problems; these will not be collected, but you are expected to seek help from your instructor when you have difficulty. Plan to read and do chemistry homework daily. Expect to learn and apply concepts rather than simply memorizing.

### **Testing:**

Each instructor will designate one meeting period a week for review and quizzes. Quizzes will have a 30-minute time limit. Hour exams will be administered on Thursday evenings at 7 PM (see dates below). A student may be excused from a scheduled exam time due to serious illness, emergency, or conflict with an authorized ONU function *if the instructor is notified in advance*; exams must then be completed within the next three days. Per departmental policy, exams will never be administered early. Exam room assignments will be announced in class. All exams are cumulative. Unless otherwise noted by your instructor, your class will not meet on the remaining Thursday evening periods.

## Grading:

Activity	% of Total	<u>Letter</u>	% Range
7 of 9 Quizzes	20 %	A	89 - 100 %
Exam 1 (9/22/11)	15 %	В	79 - 88 %
Exam 2 (10/27/11)	15 %	C	65 - 78 %
Exam 3 (12/1/11)	15 %	D	50 - 64 %
Laboratory	10 %	F	< 50 %
Class Participation	5 %		
Final Exam (TBA)	<u>20 %</u>		
Total	100%		

#### Attendance:

Attend lectures and labs regularly and be on time; frequent absences will bring down a borderline performance. *No make-up quizzes will be administered for any reason,* so a missed quiz will be one of those dropped. However, if a student misses two or more regular quizzes, (s)he may earn replacement credit for one quiz score by completing a common, comprehensive replacement test during the last week of classes.

A lab may only be made up during the same week; you must arrange this with another lab instructor. A missed lab will earn a score of 0, and more than three unexcused absences from the lab will result in a failing grade for the course. In case of serious illness, emergency, or conflict with an *authorized University function*, please contact your instructor as soon as the conflict is known.

#### **Integrity:**

Students in this course are expected to adhere strictly to the ONU Student Code of Academic Conduct (see ONU Student Handbook).

# General Education Information:

This course has been tagged to fulfill the general education requirement for scientific literacy. See the Chem 1711 Laboratory Syllabus for details on artifact generation and collection.