Syllabus

Chem. 8 ***General Chemistry I***

Instructor **Michelle Shulman BROH 308 631-8220 mshulman@stmarys-ca.edu**

Office Hours M, T: 1-2 and W, F: 10-11 *(and also by appointment)*.
Communication by email is preferred.

Text Chemistry, 10th Edition, Raymond Chang, McGraw-Hill, San Francisco (2010).
Students are also encouraged to purchase the Student Solutions Manual.

Course Description

A development of the fundamental principles of chemistry and their applications. Chemical nomenclature, stoichiometry, atomic structure, bonding theories, thermochemistry, periodic properties, solution calculations, gas laws and the properties of solids and liquids are among the topics discussed.

The Course Learning Objectives

1. Build an understanding of fundamental principles of chemistry and their applications that form the basis of student learning in General Chemistry.
2. Develop general approaches to problem-solving incorporating unit conversion and unknown variables, which can be applied to a broad spectrum of questions and problems.
3. Develop the student's critical thinking skills enabling them to solve chemistry problems that incorporate their cumulative knowledge of the course.
4. Develop an understanding of the significance in numerical values (magnitude, significant figures, and units)
5. Develop the student's mastery of the material, which means to apply what they've learned to situations and problems that they've not seen before. Mastery also means being able to communicate the material correctly and effectively.
6. Develop a student's study skills for the physical sciences

Accommodations for Students with Disabilities

Student Disability Services extends reasonable and appropriate accommodations that take into account the context of the course and its essential elements for individuals with qualifying disabilities. Students with disabilities are encouraged to contact the Student Disability Services Office at (925) 631-4358 to set up a confidential appointment to discuss accommodation, policies, guidelines and available services. Additional information regarding the services available may be found at the following address on the Saint Mary's website: http://www.stmarys-ca.edu/academics/academic-advising-and-achievement/student-disability-services.html

Homework Reading assignments will be given on a regular basis. Problems from the text and other sources will be assigned on a regular basis, some of which may be collected and/or graded. Anyone needing help with homework assignments should consult with their instructor during office hours or schedule a one-on-one appointment. Other resources, such as small group tutorial sessions, will also be available to help students strengthen their problem-

solving skills. (See: ChemSMC below).

Homework assignments have been designed to guide you in your study of the material and should be considered the *minimum* set of problems to do. It is up to you to work as many problems as necessary to clarify your understanding of any particular topic. ***The importance of working homework problems cannot be over emphasized !***

Quizzes Pop quizzes will be given regularly in class. ***Homework and quizzes together will constitute approximately 14 % of the overall grade.***

Chem SMC The new Chemistry Skills Mastery Center is located in the lounge on the second floor of BROH and/or BROH 114. Students will meet Sunday through Thursday from 6-8 pm. Usually, it will be staffed by two people, either 2 student tutors or a faculty member and a tutor. This center is not another lecture section but a place to learn study habits and skills. The goal of the center is to provide a place for students to improve the skills needed to be successful in chemistry and other science courses. Students can attend the center as often as they wish. 1 point is awarded for each day the student attends up to a maximum of 4 points per week with a maximum of 30 bonus points for the entire semester. The student must remain at the Chem Skills Mastery Center for at least one hour on any given day to be awarded the their points. **During the first week of class there will be a short introductory workshop in the Chemistry Skills Mastery Center. Your instructor will provide a sign-up sheet giving the available times for this initial meeting.**

Testing You will not excel by simply repeating facts or memorizing solutions to familiar problems. In fact, there will be some questions on every exam that are a bit different than the ones you encounter in class and in the text. We attempt to test, and thereby encourage, your ability to *adapt* and *apply* your understanding and problem-solving skills to new and somewhat unfamiliar situations, rather than ones exactly like those you have seen before.

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Students will take ***five*** one-hour exams (@100 points each (57% of overall grade) during the course of the semester plus a comprehensive final exam (200 points, 29 % of overall grade).

Exam Dates *

Exam #1	(Chapter 1, Chapter 2, Chapter.3)	Sept. 16 (Friday)
Exam #2	(Chapter 4, Chapter 5)	Oct. 4 (Tuesday)
Exam #3	(Chapter 6, Chapter 7)	Oct. 31 (Monday)
Exam #4	(Chapter 8, Chapter 9, Chapter 10)	Nov. 21 (Monday)
Exam #5	(Chapter 11, Chapter 12)	Dec. 9 (Friday)
Final Exam	Chapters 1 - 12 comprehensive	Dec. 14 (Wednesday): **6 – 9 p.m**. *Location: TBA*

Alternate exam arrangements will be considered only for excused absences with PRIOR notification.

* Dates and topics for each exam will be confirmed during class.

Grading Final letter grades will be assigned according to the percentage of points that you accumulate on the exams and other graded materials. The approximate ranges for letter grades will be:

A = 100-80% B = 80-65% C = 65-50% D = 50-35%

Academic Honesty Students are expected to do their own work on the five midterm exams and final exam. Cases of cheating will be prosecuted with extreme vigor according to the dictates of the official SMC Academic Honor Code.

Classroom Expectations Students are expected to come to class prepared to work. Since we will be doing many problems in class, please bring your calculator to every class. Activities such as talking, texting and other cell phone activities are not permitted. The use of any electronic device during class with the exception of your calculator is strictly prohibited. Students who persist in any of the above or participate in disruptive behavior will be asked to leave the classroom.