

**Chemistry 100**

Section 10962

**Introduction to Chemistry**

1:30-4:40 pm MW (Lec/Lab)

**Fall 2013**

Building 2700 Room 2715

**Instructor:** Dr. Alto D. BenedictoOffice: Rm 2779    Office Phone: (760) 355-5751    email: [alto.benedicto@imperial.edu](mailto:alto.benedicto@imperial.edu)

Office Hours: MW 5 – 6 pm (at Room 2715)

MTWTh 9:40 – 10:10 pm (at Room 2715)

or special appointment

**Description:** Elementary principles of general chemistry and inorganic chemistry with an introduction to organic and biochemistry. Previous science background is recommended, but not required. This course is designed for non-science majors and students who need only a one-semester general chemistry course, and also for students entering a paramedical and allied health fields, and industrial applications such as power plants. **4 units:** UC:CSU transferable **UC credit limited:** see a counselor **Grading:** Letter Grade **Prerequisite:** Math 091 or Math 090 with grade of C or better

**Required Materials:**

1. *Introductory Chemistry*, by Nivaldo J. Tro (4th ed. Prentice-Hall Publishing, 2011, ISBN13: 978-0321687937)
2. Chemistry 100 Laboratory Manual, by J. Fisher, available at **Blackboard (you must log into Blackboard to print out a copy)**
3. Scantron Sheets Form No. 889-E (for use in exams) and pencil
4. safety goggles, scientific calculator, closed toe shoes, red ink pen

**Grading:**

Points Distribution	points	Grading Scale	
lecture exams (50 pts each)	300	85.00 -100	A
lecture final exam	150	75.00-84.99	B
homework/quiz (15 pts per HW x 15 HW)	225	60.00-74.99	C
lab experiments (15 pts per lab report x 12 reports)	180	50.00-59.99	D
<b>TOTAL</b>	<b>855</b>		

**Grading Notes:**

1. Students who finish the class with a cumulative score of less than 60% on the lecture exams (6 exams + lecture final) or the lab portion of the course cannot earn a grade higher than D for Chem 100.
2. Final Exam covers all materials. There are no make-up exams; therefore, missed exams equal ZERO points. Grades are not curved. See separate sheet for exact date of the Exams. Unlike exams, the dates of the quizzes may be moved.

3. Read the lab manual before the start of every experiment, and answer any pre-lab. Data should be recorded directly into the lab manual using ink pen. Incorrect answers should be crossed out using a single line. The completed Lab Report (postlab, etc.) are all due a week after the lab is conducted (at the start of class).
4. Attendance is mandatory (especially the lab). Students with more than 3 absences may (but not always) be dropped by the instructor from the class. Last day to drop this course is on **Nov 9, 2013** (Sat). It is the student's responsibility to drop himself/herself.
5. Students may be called to the board to demonstrate the solution to the assigned HW exercises.
6. Clean-ups are done 15 minute before the end of lab. A wet towel should be used to wipe the lab bench. During locker check-outs, all glasswares must be clean and dry.

### Student Learning Outcomes (SLO's):

SLO: Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. calculate English and metric unit conversions and measurements using dimensional analysis. (ISLO4)
2. write symbols for elements and know common ionic charges. (ISLO2)
3. derive and write formulas and names for chemical compounds. (ISLO2)
4. write and balance common chemical equations and identify reaction types. (ISLO4)

### *Homework Assignment*

*Introductory Chemistry*, by Nivaldo J. Tro (4th ed. Pearson Publishing, 2011).

Chap	Page	Problem Number
1	8	5, 7, 11
2	44 - 53	32, 33, 37, 41, 42, 43, 49, 54, 57, 59, 61, 67, 68, 77, 78, 87, 95, 96, 105
3	84 - 90	Exam 1: 31, 32, 33, 35, 37, 39, 41, 42, 47, 63, 64, 73, 74, 111, 112, 113 Exam 4: 75, 77, 81, 83, 85, 87
4	117 - 124	27, 29, 31, 33, 40, 50, 69, 70, 72, 74, 76, 83, 84, 97, 98, 107, 108, 115
5		Nomenclature Handout
6	195 - 202	44, 51, 53, 54, 59, 61, 65, 67, 68, 71, 72, 73, 83, 84, 87, 89, 90, 93, 94, 98, 99, 105, 106, 117, 119, 120
7	238 - 246	25, 28, 49, 50, 61, 63, 71, 72, 93, 94, 99, 101, 103, 105, 106, 107, 109
8	272 - 281	19, 21, 25, 33, 37, 41, 43, 49, 55, 59, 63, 66, 69, 70, 81, 82, 90, 91
9	316 - 321	25, 37, 39, 41, 43, 52, 53, 59, 63, 67, 73, 78, 79, 82, 83, 85, 88, 89, 93, 97, 101

Other problems from the rest of the chapters will be given on another sheet.