

SYLLABUS

Fall 2011

Chem 1411/51590

Instructor:
Dr. Jisen Wu

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Phone: (281)438- 0986

Hours:
Tues. 5:30PM - 8:30PM
Thur. 5:30PM – 8:30PM

Rooms:
LHSB 409
LHSB 416

Tutoring Hours:
Tuesday: 12:00pm – 5:00 pm

Rooms:
LHSB 313

Prerequisite:

Required Textbook: Chemistry, by Raymond Chang McGraw Hall, Tenth Edition

Laboratory Manual:
Chemistry 1411/1412 Laboratory Manual – *with Instrumental Analysis*,
Houston Community College Central Campus, 2010 Edition

Course Intent:

This course is intended for the student majoring in one of the physical sciences or who is enrolled in pre-professional plan in medicines, pharmacy, dentistry, or veterinary medicine.

Course Goals:

The goal of this course is to acquaint the students with basic concepts of general chemistry. Scientific topics include:

- 1 Physical and chemical properties of matter. Handling numbers in measurements, dimensional analysis in solving problems
- 2 Atomic Theory and structure of atom. Molecules, ions, and chemical formulas.
- 3 Atomic and molecular mass, chemical reaction and chemical equation.
- 4 General properties of aqueous solution and reactions in aqueous solutions
- 5 General properties of gases. The gas laws and the ideal gas equation.
- 6 Introduction of chemical thermodynamics, enthalpy of chemical reactions.
- 7 Quantum Theory and Electronic Structure of atoms. Periodic characteristic properties of elements.
- 8 Chemical bonding, Lewis structures, molecular geometry.
- 9 Intermolecular forces. Properties of Liquids and solids.

Grading:	Final Exam	25%
	Three exams each worth	10%
	Lab	30%
	Homework	15%
	Daily participation and Attendance	5%

