CHEM 23/25: OUTLINE OF GENERAL CHEMISTRY

Spring 2012

LECTURE : CHEM 23 (10125) & CHEM 25 (10126), T,Th 8:30AM-9:45AM, Angell B-112

GENERAL INFORMATION:

Instructor: David Pratt **Email**: dpratt1@uvm.edu

Office: A-109 Cook **Office Hours**: M W F 9:30 AM - 10:30 AM
T Th 10:00 AM – 11:00 AM

Class Website: https://Bb.uvm.edu

Lab Videos: http://www.uvm.edu/~chem/?Page=23Videos.html

Lecture: The lecture will provide an overview of all material to be discussed in this course. Key topics include the chemical world, measurement and problem solving, matter and energy, the chemistry of the elements and their compounds, and the concepts of chemical bonding, chemical kinetics, and chemical equilibrium. Brief introductions to the topics of organic chemistry, biochemistry, and nuclear chemistry will be included.

Exams: Hour exams will be given during regular class meetings, according to the schedule:

Exam Number	Date	Chapters
Exam 1	February 16	Tro, Chapters 1-6
Exam 2	March 27	Tro, Chapters 7-10
Exam 3 (if necessary)		
Final Exam		

Absences from exams: Students with legitimate excuses (ie: a UVM-related conflict) will be permitted to take an exam sometime during the day that it is given to the rest of the class. This must be cleared with the instructor first, however. **Makeup exams will not be administered after the scheduled exam time**.

Review Sessions: I will normally have an Exam Review Session on the lecture day immediately preceding an impending exam. Weekly SI sessions will also be starting shortly after the beginning of classes.

Problems: Weekly problem sets will be assigned and graded. Solutions to the assigned problems will be posted on Blackboard on the day following the day they are due.

REQUIRED TEXTBOOKS:

Text: "Introductory Chemistry", 4th edition, by Nivaldo J. Tro sold at the UVM bookstore.

Lab Manuals: "Chemistry 23, Experiments " is sold at the first floor stockroom, A-143 Cook, for $10.00. **(Not required for CHEM 25 students)**.

"Working Safely With Chemicals" 2nd ed edited by Gorman is available at the UVM bookstore **(Not required for CHEM 25 students)**.

Scientific Calculator: A standard scientific calculator is a requirement for the exams. **Note: Graphing calculators are not allowed.**

LABORATORY:

Time and Room: See your class course schedule regarding your assignments.

Attendance: Students must attend the lab section to which they are assigned. Official documentation of sickness or family crisis is required if a lab is missed. **If more than 2 labs are missed, this results in a failure for the course.** In order to take a lab at a time other than your assigned time one must obtain the permission of the TA and instructor.

Breakage Card: A breakage card ($40.00) must be purchased from the first floor stockroom, A-143 Cook, prior to your first lab. The $40.00 is refundable, and if you are careful you should get most of it back. Remember, you must have it with you to be admitted into lab.

Safety Eyewear: OSHA approved safety glasses or goggles must be worn by everyone once any experimentation has started in any area of a lab room. Safety eyewear can be purchased at the UVM bookstore.

Foot Wear: Only shoes that cover the toes are permitted in the lab. Sandals and open-toed shoes are not permitted.

Lab Notebook: A bound notebook is required for recording lab data.

ACADEMIC INTEGRITY:

Offenses against the Code of Academic Integrity (*e.g.;* cheating) are deemed serious and insult the integrity of the entire academic community. Any suspected violations of the code are taken very seriously and will be forwarded to the Center for Student Ethics & Standards for further investigation.

LAB SCHEDULE

CHEMISTRY 23

Spring 2012

DATE	EXP #	Exp Title	PAGE
30 JAN - 2 FEB	1a & b	Metric System Density Working Safely with Chemicals (Chap: 1-5)	12 13
6 - 9 FEB	2	Qualitative Anal WSC (Chap :6-10)	16
13 - 16 FEB		Finish Qual	
20 - 23 FEB	2	**OFF – PRESIDENT'S DAY**	
27 FEB - 1 MAR	3	Nitrites in Meat	22
5 - 8 MAR		**OFF - SPRING RECESS**	
12 - 15 MAR	4	Energy of a Chemical Reaction	26
19 - 22 MAR	5	Alum from Aluminum in a Can	31
26 - 29 MAR	6	Acid Content in a Food Product	34
2 - 5 APR	7	Acid Neut Potential of an Antacids	38
9 - 12 APR	8	MW from Freezing Pt Dep	41
16 - 19 APR	9	Limestone in Soil	46
23 - 26 APR	10	Equilibria & Buffers **CHECKOUT**	51