INTRODUCTORY CHEMISTRY II

CHEMISTRY 104 (# 81061) **TENTATIVE LECTURE SCHEDULE** **Spring 2002**

Week	Month	Date T	Date Th	Chapters	Subjects	Comments
1	JAN	29	31	15	Acids, Bases, Salts (Ionic Compounds) (Review 13.10, 13.11, 14.6)	**No Make-Up Quizzes or Exams are Given**
2	FEB	5	**7**	15	Neutralization Reactions and Titrations Electrolytes: Acids, Bases, Salts	**QUIZ I: Th 2/7 **Last Day to Drop F 2/8**
3	"	12	14	15, 16	Total and Net Ionic Reactions	
4	"	19	**21**	16	Equilibrium: Rates, Le Chatlier's Principle, Weak Acid Ionization, K_w, K_a, Buffers	**EXAM I: Th 2/21**
5	"	26	28	17	Oxidation-Reduction: Oxidation Numbers	
6	MAR	5	7	17	Oxidation-Reduction: Reactions and Electrolytic and Voltaic Cells	
7	"	**12**	14	18	Nuclear Chemistry; Radioactive, Half Life; Nuclear Power	**Quiz II: T 3/12**
8	"	19	21	20	Intro to Organic Chemistry; Sat'd HCs: Alkanes and Isomerism	
9	"	26	28		**SPRING BREAK - NO CLASSES**	
10	APR	**2**	4	20	Alkanes: Bonding; Reactions; Free Radical Mechanism	**EXAM II: T 4/2**
11	"	9	11	21	Unsat'd HCs: C=C and C/C Bonds; Reactions	
12	"	**16**	18	21	Unsat'd HCs: Aromatic Compounds, Bonds, Reactions, Electrophillic Substitution	**Quiz III: Th 4/16**
13	"	23	25	22-25	Selected Functional Groups and Their Interrelationships: ROH, ROR', RCO_2H, RCO_2R', RCHO, RCOR', $RCONH_2$, RCONHR'	
14	"	30	**2**	22-25	Selected Functional Groups: Naming	**EXAM III: Th 5/2**
15	MAY	7	9	22-25	Reactions that Interrelate Selected Functional Groups	
16	"	14	16	22-25	Reactions that Interrelate Selected Functional Groups	
17	"	**23**		15-25	**Final Examination: Thursday, May 23 8:00 - 10:00 am**	

INSTRUCTOR: Dr. Sandra Jewett, Professor of Chemistry

OFFICE HRS: **M 11:00 am - 12:00 pm; W,Th 2:00 - 3:00 pm; SC 3107 (677-4503) sandra.jewett@csun.edu**

REQUIRED:

Text: Hein, Best, Pattison, and Arena, *College Chemistry*, 6th Ed., 1997; Study Guide/Solutions Manual.

Lecture Notes: Jewett, ©January 2002, Lecture Notes/Worksheets for Chemistry 104.

Lab Manual: CSUN Chemistry 104 Laboratory Manual, Springl 2002, 6th Edition (only). Quad ruled notebook required. Students repeating the class are not automatically excused from lab. See instructor.

Calculator: **Nonprogrammable.** ***Do not bring programmable calculator to quizzes, exams, or lab.***

NOTES:

1. Students should make every effort to take regularly scheduled quizzes and examinations. There are no make-up quizzes or exams. Do not make doctor's appointments during lecture or lab times.
2. Students are required to pass both the lecture and the laboratory portions of the course in order to pass Chemistry 104. A failure in either portion means a failure for the entire course.

** 3. The Chemistry Department adheres to the University policy concerning withdrawal from class. Friday, February 8, 2002 is the last day to drop a class without approval. Friday, February 15, 2002 is the last day to add a class with appropriate approvals change the basis of grading.

4. Important: Academic failure does not constitute a reason for withdrawal from class or for the assignment of the grade of incomplete after February 8, 2002.
5. Students should make every attempt to arrange their work schedules in advance of the semester. Work schedules that conflict with studying may necessitate complete withdrawal from the University.

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TUTORING:

Private Individuals	See listings in Chemistry Department Office, Science 1, 3rd floor, SC 1300 (677-3381)
Chem. Tutoring Center	Science 2, 3rd floor, SC 2307; hours to be posted at beginning of semester.
LRC Tutoring Center	Student Services Building, SB 417 (677-2033; www.csun.edu/~situtor)

GENERAL EDUCATION:

This course is one of several choices for the General Education requirement in Section B: Natural Sciences.
Goals: Students should gain basic knowledge and learn key principles in the biological and physical sciences. In addition, students should recognize the unique role that experiments play in adding to scientific knowledge and should understand modern methods and tools used in scientific inquiry.

GRADES:

The final grade earned by a student will be assigned based on points earned on the following tentative basis:

Lecture	300 points	Exam I, II, III (100 points each)	88 - 100%	A
	100 points	Quizzes	77 - 87%	B
	200 points	Final Exam	64 - 75%	C
	50 points	Worksheets	50 - 63%	D
Laboratory	150 points		<50%	F
	800 points total			

The quizzes, worksheets, exams, and laboratory are the only ways a student can earn points towards the final grade. There are no other assignments.

Plus/minus (+/-) grading will be used only in cases where students are borderline.

GRADING:

Grades will be based on each student's performance on three scheduled tests, three scheduled quizzes, unannounced worksheets that will be due, the final comprehensive examination, and the laboratory. Students should make every effort to take the quizzes and tests as scheduled because ***MAKE-UP EXAMS ARE NOT GIVEN***. ***THERE ARE NO MAKE-UP LABORATORY PERIODS***. Worksheets must be turned in on the day that they are covered in class. If an error is made by the instructor in grading or if a student disputes any grading, the student can see the instructor during office hours or submit a short written statement explaining the problem to the instructor. All errors made by the instructor will be corrected.

NOTE: There is no separate laboratory grade given. Students must pass lecture and lab separately AND earn an overall passing grade in order to pass the course.

LABORATORY:

The laboratory will allow you to apply what you are learning in lecture on a practical basis. Be aware, however, that it is impossible to completely coordinate lecture and lab because to illustrate many of the theoretical ideas requires much more sophisticated equipment (and training) than we have available.

WITHDRAWAL POLICY:

The Chemistry Department adheres to the University policy concerning withdrawal from the course. A full description of this policy is published in the current Schedule of Classes as well as the University Catalog. These dates are fixed by the University for adding, withdrawing and changing basis of grading in the Tentative Lecture Schedule. Withdrawals from the University are allowed for serious and compelling medical reasons.

NOTE: academic failure does not constitute a "clear and compelling" reason for withdrawal from class (or for the assignment of the grade of incomplete) after the final date indicated.

Students should make every attempt to arrange their work schedules and family obligations in advance of the semester. The decision to drop the class because of work or family conflicts must be made by ***Friday, February 8, 2002.***

THE CSUN CATALOG DESCRIPTION OF CHEMISTRY 104, 104L STATES:

Prerequisite: Chemistry 103. A continuation of Chemistry 103. A course for non-science majors. Properties of solutions, chemical equilibrium , acids and bases. The chemistry of simple organic compounds and common elements. Three hours of lecture and three hours of laboratory (with quiz and recitation) per week. Not open to science or engineering majors. Students using this course to satisfy a General Education requirement in Natural Sciences will automatically satisfy the laboratory requirement.

Chemistry 104/104L serves as a required course for several majors, and it meets General Education Section B.1 and B.2 requirements.

LEARN TO THINK AS A SCIENTIST:

Any science, or any field of academic endeavor, requires logical reasoning and analysis of facts and problems. Your instructor will be showing you how scientists think, how they approach puzzling "facts" and how they attempt to make sense of the world around them. ***There will be vocabulary and some fundamental facts that must be memorized.*** However, it is much more fruitful when working word problems to analyze the information given rather than attempt to memorize the method for working out the problem.

PREVIOUS CHEMISTRY 103 EXPERIENCE:

Students who have waited one semester or more to take Chemistry 104 after taking Chemistry 103 are at serious risk for doing poorly in the class. These students should review Chemistry 103 material at the beginning of the course and throughout the semester. This review is essential.

All students are encouraged to review the following Chemistry 103 material:

1. Uncertainty and significant figures: adding/subtracting, multiplying/dividing, and rounding off
2. Correct units must be shown in calculations and in the final answer from a calculation.
3. Formulas and naming (correct spelling) of elements and monoatomic ions derived from them (correct ion charges).
4. Formulas and naming (correct spelling) of polyatomic ions c(orrect ion charges)..
5. Writing correct formulas for ionic compounds given names or formulas for ions.
6. Correct naming of ionic compounds given the formulas.
7. Balancing equations; predicting products for formation of ionic compounds from elements.
8. Gram-formula weights for compounds; atomic weights; elements with diatomic molecules (H_2, N_2, O_2, F_2, Cl_2, Br_2, I_2)
9. Stoichiometry: mol/g and g/mol calculations.
10. Concentration of dissolved solutes: mol/L /M; calculations L x M = mol, etc.

STUDY HABITS:

Each lecture for Chemistry 104 builds on all previous lectures, text material and homework problems. For this reason it is absolutely necessary to keep current with your study and homework problems. If at all possible, study Chemistry some each day, but never attempt to do all your week's studying at one session. Students find the small booklet published by Prentice Hall, How to Study Chemistry, has many helpful suggestions.

EXAMPLES OF STUDY HABITS

Grade	Activities	Study hours/week (1 unit = 3 hrs/wk)	Comments
A	**Memorize information Understand information and concepts Integrate concepts; generalize from specific examples Work specific examples from general rule Work many assigned problems and in study guide Pay close attention to detail including spelling, units, sig. figs**	**10-12 hours/week**	**Review continuously Review night before exam**
B	**Memorize information Understand information and concepts Integrate concepts Work most of the assigned prolems; ignore study guide Pay less attention to detail**	**5-8 hours/week**	**Review continously Cram some new material night before**
C	**Memorize most of the information Don't understand some information and don't get help Don't take time to work assigned problems or work study guide Pay poor attention to detail**	**3-5 hours week**	**Don't review regularly; Cram half of the new material night before**
D	**Memorize some of the information Don't understand information; don't get help Work few assigned problems No attention to detail**	**< 3 hrs/week**	**Don't review or seek help Try to cram half of the new material night before; study poorly**
F	**Memorize little information Don't understand information; don't get help Work few assigned problems No attention to detail**	**< 1 hr/week**	**Don't review or seek help; have lack of commitment**