

# COURSE SCHEDULE - CHEM 122 - SUMMER 2009

## TEXTBOOK ABBREVIATIONS

**RGM**- Reger, Goode, & Mercer, Chemistry Principles & Practice, 2nd Edition

**SSM** - Shakhshiri, Schreiner, & Meyer, Workbook for General Chemistry Audio-Tape Lessons, 2nd Edition

**DW** - Davis & Witten, Study Guide/Workbook for Chemistry Principles & Practice, 2nd Ed. (**Optional, highly recommended**)

**JD** - John DeKorte, Student Solution Manual, (**Optional, highly recommended**)

**M** - Molecular Structure Models, Type C (for Organic Chemistry), made by MARUZEN

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<b>TOPIC #</b>	<b>LECTURE and RECITATION TOPICS</b>	<b>CHAPTER HW PROBLEMS</b>	<b>AUDIO-TAPE LESSON</b>
<b>TOPIC 1</b>	RGM Chapter 10 Molecular Structure and Bonding Theories	10.26 ,10.28 ,10.36 ,10.46 , 10.60 ,10.72 ,10.82 ,10.94 , 10.100,10.108,10.114,10.124	SSM Lesson #13, Molecular Geometry
<b>TOPIC 2</b>	RGM Chapter 10 - continued		Same Lesson as Week #1; You have 2 weeks to complete SSM Lesson #13
<b>TOPIC 3</b>	RGM Chapter 11 Liquids and Solids	11.24 ,11.34 ,11.44 ,11.46 , 11.50 ,11.54 ,11.64 ,11.70 , 11.76 ,11.84 ,11.86 ,11.90	SSM Lesson #14, Valence Bond Theory and Hybridization
<b>TOPIC 4</b>	RGM Chapter 11 - continued		SSM Lesson #15, Selected Chemistry of the Halogens
<b>TOPIC 5</b>	Review material of Chapter 4; Stoichiometry II: Chemical Reactions in Solution	4.18 ,4.20 ,4.22 ,4.44 , 4.48 ,4.66 ,4.78 ,4.86 , 4.90 ,4.106,4.107,4.110	No Scheduled Assignment
<b>COMMON EXAM. #1 - COVERS: RGM Chapters 10 and 11 - Other Details Announced in Class</b>			
<b>TOPIC 6</b>	RGM Chapter 12 Solutions	12.32 ,12.42 ,12.54 ,12.60 , 12.68 ,12.70 ,12.76 ,12.84 , 12.86 ,12.94 ,12.96 ,12.98	SSM Lesson #16, Colligative Properties of Solutions
<b>TOPIC 7</b>	RGM Chapter 12 - continued		No Scheduled Assignment

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<b>TOPIC 8</b>	RGM Chapter 13 Chemical Kinetics	13.18,13.22,13.30,13.36,13.40, 13.46,13.48,13.50,13.54,13.60, 13.72,13.74,13.80,13.88	SSM Lesson #23 Chemical Kinetics
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<b>TOPIC 9</b>	RGM Chapter 13 - continued		SSM Lesson #6: Mole Fraction, Molality, and Molarity
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**COMMON EXAM. #2 - COVERS: RGM Chapter 12, 13, - Other Details Announced in Class**

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<b>TOPIC 10</b>	RGM Chapter 14 Chemical Equilibrium	14.14,14.18,14.28,14.32,14.34, 14.38,14.42,14.52,14.56,14.66, 14.68,14.72,14.80,14.90	SSM Lesson #17 Chemical Equilibrium in Gaseous Systems
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<b>TOPIC 11</b>	RGM Chapter 14 - continued		SSM Lesson #18 Acids and Bases
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<b>TOPIC 12</b>	RGM Chapter 15 Solutions of Acids and Bases	15.24,15.30,15.34,15.40,15.46, 15.52,15.60,15.62,15.68,15.70, 15.78,15.85,15.86,15.92	SSM Lesson #19 Ionization of Weak Acids and Bases
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**COMMON EXAM. #3 - COVERS: RGM Chapter 14 - Other Details Announced in Class**

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<b>TOPIC 13</b>	RGM Chapter 15 - continued		SSM Lesson #22 Solubility Equili Calculations; $K_{SP}$
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<b>TOPIC 14</b>	Review Unfinished Work "Bit's 'n Pieces"		No Scheduled Assignment
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**NOTE WELL:** No Student may be enrolled in CHEM 122 unless he or she has either received credit for or has passed CHEM 121.

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## IMPORTANT INFORMATION - PLEASE READ CAREFULLY

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You will be held accountable for both knowing the information and for following the instructions given in the following pages

**CLASS SCHEDULE** To be announced in class.

**LECTURES, RECITATION** Students are expected to read the specified textbook material **before** coming to class. See below for attendance policy. Instructors may spend more or less time on the topics listed; they may be one or two topics ahead or behind. During Week #1, your instructor will explain the structure of the course. New material is introduced and discussed in lecture. During recitation: (a) the subject matter is repeated and reinforced, (b) questions are answered, (c) homework problems are discussed and solved, (d) quizzes may be given, and (e) new material may be introduced, taught, and discussed.

**ATTENDANCE POLICY** Attendance is required at all meetings of this course. Three unexcused absences are tolerated - these include undocumented illness and absences due to personal difficulties. For an excused absence, you must submit documentation to your instructor and obtain his or her approval. Attendance is worth 70 points; 10 points are lost for each unexcused absence beyond three (*see end of next page for course grading*).

**HOMEWORK** Your recitation instructor may assign homework problems different from those listed in this course schedule. All homework assignments must be worked out and submitted according to the specific directions and requirements of your recitation instructor. Late homeworks usually receive a grade of zero. Solutions to the listed homework problems will be posted on the CHEM 122 bulletin board. Please bring to the attention of Dr. Bob Conley (Room 352T; Ext 3277) any mistakes found in these posted solutions.

**AUDIO-TAPE LESSONS** All students enrolled in CHEM 122 are required to come the CHEMISTRY LEARNING CENTER (CLC), Room 110T, and work out each scheduled audio-tape lesson during the week specified. Only half credit will be given if the scheduled lesson is completed one week late; thereafter, no credit will be given. The hours that the CLC is scheduled to be open are posted on the door. If the CLC is not open when it is supposed to be, contact either Dr. Bob Conley (352T) or the department administrative assistant (Gayle Katz) in the Chemistry Office (Room 384T). Dr. Bob or the department administrative assistant will then decide if you need more time to complete that week's lesson. The CLC monitors will examine your workbook and give any further instructions. When you are finished with the lesson, show your completed assignment in the workbook to the CLC monitor. You will then be credited for the lesson.

Your CHEM 123 instructor may substitute other activities to replace the audio-tape lessons.

**WHERE TO GO FOR HELP** Tutoring is available on both a walk-in and appointment basis at the University Learning Center located in Room 200 in Kupfrian Hall. For more information call (973) 596-2992 between 8:30 am to 7:30 pm (Mon-Thu) Fridays 8:30 to 4:00 pm. Tutoring opportunities are usually announced in the Advertisement section of the University newspaper (the VECTOR). Do not wait until it is too late to seek help. If you continue to have academic difficulty with CHEM 122, you are encouraged to make an appointment to talk with your instructor. Instructors usually announce their office hours during the first week of the semester and these office hours are also posted on their office door. Students are also reminded that the office of the Dean of Freshman Studies, 306 Campbell Hall (x2981), may be of some assistance.

**COMMON EXAMINATIONS** Three common examinations will be administered throughout the semester. No books, notes, tables, or scrap paper will be allowed. ***Calculators but not hand held computers are permitted.*** Calculators with battery operation only are permitted. Students must bring ***two #2 pencils*** to all exams, and four #2 pencils to the Final Exam. Students must know their social security numbers for every examination.

Information describing the format of the common exams will be given by your Lecture Instructor. The Final Exam will cover the entire semester's work with special emphasis on material covered after Common Exam #3. This exam will be 135 minutes long and will consist of machine graded multiple choice questions and problems only.

One ***make-up examination*** will be permitted if there is an acceptable and substantial reason, but a \$5.00 fee is required - see section on SPECIAL EXAM FEE in your catalog. A grade of zero will be given for a second missed examination independent of reason. Additional details concerning exams will be given by your Lecture Instructor.

Students are reminded that violations of the NJIT student Honor Code are serious and that the Chemistry Division will make an extraordinary effort to prevent ***CHEATING*** on all examinations and will vigorously prosecute cases of cheating, if any, in accordance with NJIT policy and procedures. Students are hereby notified that computer crosschecking and statistical analytical methods are used, in addition to the more traditional methods, to detect and deter cheating.

**COURSE GRADING** ***Common Exams #1, #2, and #3*** total 300 points maximum; ***Final Exam*** is 250 points maximum. ***Recitation*** scores (homework and quizzes) will be statistically adjusted to an average of  $85 \pm 20$  with a maximum of 125 points; ***Learning Center*** (audio-tape lessons) scores total to 80 points maximum; ***Class Attendance*** maximum is 70 points. The total maximum score is 825 points. A minimum passing score such as 488 points will be established. The Chemistry Division reserves the right to change this minimum passing score at the close of the semester. Because of the weakness in the statistical significance of just a few points out of 825, borderline cases will be considered subjectively by all faculty and staff members involved in **CHEM 122**. Please be advised that conduct, attitude, and a student's apparent effort will be among factors employed in judging borderline cases.