## COURSE SCHEDULE - CHEM 121 - FALL 2008

### TEXTBOOK ABBREVIATIONS

- **DW** - Davis & Witten, *Study GuideWorkbook 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

### WEEK # | LECTURE and RECITATION TOPICS | CHAPTER HW PROBLEMS | AUDIO-TAPE LESSON
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**WEEK 1** 9/2 to 9/8 | RGM Chapter 1; and Appendices A,C; much of this will be reading material | 1.32, 1.48, 1.54, 1.64, 1.68, 1.72, 1.76, 1.86, 1.88, 1.90, 1.102, 1.104 | SSM Lesson #33, Significant Figures & Exponential Notation

**WEEK 2** 9/9 to 9/15 | RGM Chapter 2; Atoms, Molecules, and Ions | 2.22, 2.28, 2.38, 2.44, 2.48, 2.50, 2.58, 2.68, 2.74, 2.96, 2.102, 2.104 | Same Lesson as Week 1 - You have 2 weeks to complete SSM Lesson #33

**WEEK 3** 9/16 to 9/22 | RGM Chapter 3; Stoichiometry I: Equations, the Mole, and Chemical Formulas | 3.18, 3.36, 3.50, 3.58, 3.76, 3.94, 3.104, 3.112, 3.120, 3.133, 3.135, 3.140 | SSM Lesson #1, Chemical Symbols & Formulas; AW & FW calc.

**WEEK 4** 9/23 to 9/29 | RGM Chapter 3; Chapter 4; Stoichiometry I | 4.18, 4.20, 4.22, 4.44, 4.48, 4.66, 4.78, 4.86 | SSM Lesson #2, Writing & Balancing Chemical Equations

**WEEK 5** 9/30 to 10/6 | RGM Chapter 4; Stoichiometry II: Chemical Reactions in Solution | 4.18, 4.20, 4.22, 4.44, 4.90, 4.106, 4.107, 4.110 | SSM Lesson #3, Mole Concept I

### COMMON EXAM. #1 - FRIDAY, 9/26/2008 -- COVERS: RGM Chapters 1, 2, part of 3, and Appendices A,C

**WEEK 6** 10/7 to 10/13 | RGM Chapter 5; Thermochemistry | 5.32, 5.36, 5.48, 5.52, 5.56, 5.60, 5.68, 5.74, 5.80, 5.92, 5.98, 5.102 | SSM Lesson #4, Mole Concept II

**WEEK 7** 10/14 to 10/20 | RGM Chapter 6; The Gaseous State | 6.26, 6.30, 6.52, 6.56, 6.64, 6.72, 6.82, 6.92, 6.106, 6.108, 6.110, 6.116 | SSM Lesson #5, Writing Net Ionic Equations
| WEEK 9 | RGM Chapter 7 | 7.26, 7.30, 7.36, 7.38 | SSM Lesson #9 | Ideal Gas Law |
| 10/28 to | Electrons in Atoms | 7.40, 7.46, 7.54, 7.58 | | |
| 11/3 | | 7.68, 7.72, 7.94, 7.104 | | |

**WEEK 10**

| RGM Chapter 7; Chapter 8 | 8.48, 8.60, 8.68, 8.84 | SSM Lesson #10 | Periodic Properties |
| Electrons in Atoms | 8.86, 8.94, 8.98, 8.108 | | of Atoms |
| Periodic Trends of the Elements | 8.116, 8.122, 8.126, 8.128 | No | Scheduled |

**WEEK 11**

| RGM Chapter 9 | 9.32, 9.42, 9.46, 9.54 | SSM Lesson #12 | Lewis Structure and |
| Chemical Bonds | 9.60, 9.64, 9.74, 9.82 | | the Octet Rule |
| 11/24 | 9.90, 9.94, 9.98, 9.100 | | |

**WEEK 13**

| RGM Chapter 9 - continued | No | Scheduled |
| 11/25 to | | |
| 12/3 | (THANKSGIVING BREAK=11/27-11/30) | Assignment |

**WEEK 14**

| Review | No |
| "Bit's n Pieces" | Scheduled |
| Unfinished Work | Assignment |

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**September 1** (Monday) - Labor Day; No classes - Institute Closed
**September 2** (Tuesday) - First day of class
**November 3** (Monday) - Last day to withdraw from course
**November 25 & 26** (Tuesday & Wednesday) – Classes follow Thursday & Friday schedules
**November 27 & 28** (Thursday & Friday) - Thanksgiving Recess; No classes - Institute Closed
**December 10** (Wednesday) – Last day of class
**December 11** (Thursday) - Reading Day for Final Exam Preparation
**Dec. 12 to Dec. 18** (Friday to Thursday) - Final Exam Period

**Date, Time, and Location** of the Final will be announced toward the end of the semester.
IMPORTANT INFORMATION - PLEASE READ CAREFULLY

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

**CLASS SCHEDULE** Classes begin on Tuesday, September 2nd. There are no classes on Monday September 1st (Labor Day). Monday, November 3rd is the last day to drop the course with a grade of "W". Tuesday, Nov 25th and Wednesday, Nov 26th will follow a Thursday and a Friday class schedule. There are no classes on November 27th and 28th (Thanksgiving Break). The last day of classes is Wednesday, December 10th - see the end of the previous page for other information about the semester schedule.

**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 121 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 121 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 weeks 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.

**AUDIO-VISUAL PRESENTATIONS** Video-Tape presentations, sponsored by the CLC and intended to help you with topics being discussed in class, will be offered according to the schedule found on the next to the last page of this course outline. Short summary outlines are given on the last page of this course outline. Full summary outlines are given to the students who attend these video presentations. These sessions are not compulsory and will be run informally by Dr. Bob Conley. Details as to time, place, and any changes in the schedule of presentations will be posted weekly in the CLC, on the CLC bulletin board by Room 114T, and on the Chemistry 121 bulletin board used for posting homeworks and other information. The Chemistry 121 bulletin board is right next to Room 110T.
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. or 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 121, 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 Dr. Sharon Morgan in the office for first year students 212 Campbell Hall, (x2981), may be of some assistance. Finally, Chemistry 121 students have available the services of the special CHEM 121 tutor (Room 356T).

COMMON EXAMINATIONS  Three common examinations will be administrated 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.

Each common exam will usually consist of 2 parts: Part I will be machine graded multiple choice questions; Part II will consist of problems to be worked out in the exam booklet. The Final Exam will cover the entire semester’s work with special emphasis on material covered after Common Exam #3. The Final 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 ± 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 121. Please be advised that conduct, attitude, and a student's apparent effort will be among factors employed in judging borderline cases.