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1) INTRODUCTION

Chemistry 42 is a 4-unit course designed as a basic introduction to the principles of General Chemistry and/or to prepare students for either Chem 1A/B (General Chemistry) or Chem 4A/B (General Chemistry with Quantitative Analysis). If you have not taken High School chemistry, Chem 42 satisfies the chemistry prerequisite for Chem 1A or Chem 4A. If you have already completed High School chemistry but feel inadequately prepared, the satisfactory completion of Chem 42 will elevate your background knowledge and math skills to the point that you will be able to experience success in either of the General Chemistry sequences.

2) REQUIRED MATERIALS

- Introductory Chemistry, Russo & Silver, 5th Edition, Pearson Publishing, 2015
- Laboratory Manual – Chemistry 42, Santa Rosa Junior College, 2018
- Scientific calculator
- Lab notebook with carbon pages

3) COURSE PREREQUISITES

- Required:** Math 155 ("Intermediate Algebra") or two years of High School algebra or equivalent
- Recommended:** Eligibility for, or completion of, English 1A or its equivalent

4) GRADES

The grading system will be explained by your instructor during the first meeting of the semester. The weighting factors for the various types of assignments and the percentage cut-offs are listed below. Realize that both objective factors (such as exam scores and homework scores to which numerical values can be assigned) and subjective factors (such as effort, improvement, initiative, honesty, participation, academic growth, etc., which cannot be easily tagged with a number) will be taken into account at the end of the semester when letter grade assignments are made. It should be remembered that the cut-off points given here serve only as guidelines. Borderline cases will be decided after taking into consideration such factors as: *academic growth, initiative, attendance, punctuality, attitude, and individual motivation*. A passing grade in the laboratory component is required to pass the course.

WEIGHTING FACTORS

Attendance	5%
Homework	10%
Lab Reports	15%
Quizzes	5%
Midterm Exams	45%
Final Exam	20%

TENTATIVE LETTER GRADE RANGES

"A"	90 - 100%
"B"	79 - 89%
"C"	69 - 78%
"D"	59 - 68%
"F"	Below 59%

5) EXAMINATIONS

There will be **NO** make-up examinations given. If any examination is missed for ANY reason, a score of zero will be recorded. Confirmed illness will be evaluated on an individual basis as it relates to absence on the day of a midterm examination. On each examination, you are responsible for all textbook and lab assignments to date.

Quizzes will be given in lecture periodically, with or without advanced notice.

6) STANDARDS OF CONDUCT

All students are expected to complete the exams, homework, and laboratory assignments for this course with total honesty. Assignments must represent your individual effort. This responsibility rests primarily with each individual and their conscience, but to maintain high morale and a healthy learning environment, action may be taken, including a corresponding grade of "F" on the assignment in question. During examination periods, there will be no inter-student communication. If any questions or problems arise, direct them to your instructor. Cell phone use during lecture is inappropriate and not permitted. Please silence your phone prior to the start of lecture.

7) ASSIGNMENTS

Homework will be assigned to assist in your comprehension of lecture material. Assignments will be collected one week after initial posting. Homework is due at the start of lecture. No late assignments will be accepted.

Assigned lab reports and homework must represent your own individual effort. Neatness, organization, completeness and accuracy of submitted work are grading factors. Any work that is sloppy, poorly organized, incomplete or inaccurately done will be severely graded.

Lab reports will be accepted at the start of the following lecture period for a penalty. Unless authorized in advance by your instructor, missed reports constitute grounds for lowering the "apparent" earned letter grade. **Any student with 3 or more unexcused missing laboratory reports will likely earn an "F" grade in the course.**

If you need help, seek it directly from your instructor well in advance of the due date for a particular assignment. **Questions on the day that an assignment is due are not appropriate.**

8) ATTENDANCE

Your regular attendance in lecture and laboratory is mandatory. Excessive absences may result in an individual being dropped from the course, or in a significant reduction of that student's course grade. Students are expected to notify the instructor of any anticipated absences or late/missed assignments prior to the due dates by email. If you arrive late, please enter quietly through the rear door of the classroom. **Missing more than two lab meetings will result in an 'F' for the entire course.**

9) EMERGENCY EVACUATION PLAN

In the event of an emergency during class that requires evacuation of the building, please leave the class immediately, but calmly. Our class will meet in the Bech Parking Lot to make sure everyone exited the building safely and to receive further instructions. If you are a student with a disability who may need assistance in an evacuation, please attend office hours as soon as possible so an evacuation plan can be discussed.

10) ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

If you need disability related accommodations for this class, such as a note taker, test taking services, special furniture, use of service animal, etc., please provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to your instructor as soon as possible. You may also speak privately during office hours about your accommodations. If you have not received authorization from DRD, it is recommended that you contact them directly. DRD is located in the Bertolini Student Center on the Santa Rosa campus, and Petaluma Village on the Petaluma Campus.

11) STUDENT LEARNING OUTCOMES

Upon completion of this course, a student will be able to:

1. Analyze basic quantitative problems in chemistry, and apply them to real life situations.
2. Correlate macroscopic properties of matter with its structure and behavior at the atomic level.
3. Communicate effectively using common chemical conventions and notation.
4. Evaluate available information to plan, perform and interpret basic laboratory experiments.

12) RECOMMENDED TEXTBOOK STUDY PROCEDURES

- a) Check the Lecture Schedule and course website frequently.
- b) When readings in a new chapter are assigned, begin by skimming the entire chapter once and read the Summary and Key Terms list. Then go back and carefully study the pages of assigned reading.
- c) Look up the meanings of new terms in the Glossary and jot down questions to ask your instructor. Complete the homework assignment(s) and work as many in-chapter exercises and end-of-chapter problems as possible before coming to the lecture on that material. These attempted and corrected solutions should be organized in a notebook for easy reference prior to examinations.

- d) After the lecture, ask questions from your list that remains unanswered. Take advantage of your instructor's scheduled office hours or make an appointment.
- e) Re-copy or refine your notes, re-read the textbook and work additional end-of-chapter problems while the lecture is still fresh in your mind.
- f) Before examinations, study the text and review your notes and solutions once again.
- g) After the examination, study those areas you were weakest in. Re-work the examination problems until you obtain the correct answers. Use the posted exam key if necessary. Always study the posted key even if you earned a respectable score.
- h) If you start falling behind in the class, seek help from your instructor before it is too late.

13) IMPORTANT DATES

- Sept 9 Last day to add with an add code; last day to drop without 'W'
- Nov 18 Last day to drop with 'W'

13) TENTATIVE SCHEDULE

Week	Topic	Chapter	Lab
Aug 21, 23	Introduction to Chemistry	1	No Lab
Aug 28, 30	Numbers & Atomic Theory	2, 3	Check-in/ Dimensional Analysis
Sept 4	No Class		No Lab
Sept 6	Atomic Theory	3	
Sept 11, 13	Modern Atomic Model	4	Density
Sept 18, 20	Bonding & Nomenclature	5	Separation of a Ternary Mixture
Sept 25	Bonding & IM Forces	5, 6	Electromagnetic Spectrum
Sept 27	Exam I		
Oct 2, 4	IM Forces & Geometry	6, 7, 8	Ionic & Molecular Compounds
Oct 9, 11	Reactions, Kinetics	8, 13	Lewis Structures
Oct 16, 18	Kinetics	13	Chemical Reactions
Oct 23, 25	Redox	10	Electrochemistry
Oct 30	Exam II		Synthesis of Indigo
Nov 1	Ideal Gas Law	11	
Nov 6, 8	Stoichiometry	9	Gas Law
Nov 13, 15	Solutions	12	Prep/Concentration of a Solution
Nov 20	Exam III		No Lab
Nov 22	No Class - Thanksgiving		
Nov 27, 29	Equilibrium	14, 15	Prep/Concentration of a Solution
Dec 4, 6	Acids & Bases	15	Acetic Acid Titration/ Check-out
Dec 11, 13	Nuclear, Review	16	No Lab
Dec 18	Final Exam		