
SYLLABUS FOR CHEM 10: ELEMENTARY CHEMISTRY

Reedley College

Section 56491

Fall 2012

Instructor: Mrs. Jodi Kawagoe email: jodi.kawagoe@reedleycollege.edu phone: 393-1654 (text only)

Class times: Lecture: MWF 10:00–10:50 am in PHY 82
Lab: F 11:00–1:50 pm in PHY 82

Texts: Zumdahl and DeCoste, *Basic Chemistry*, 7th edition (ISBN 9780538736374)

Materials: Safety goggles & scientific calculator (with exponential notation and logarithms)

Holidays: Monday, September 3; Monday, November 12; Friday, November 23

COURSE DESCRIPTION

This is a one-semester elementary class for students who have never taken high school chemistry. The course will give students a basic background in matter, energy, chemical reactions, measurements, formula writing, nomenclature, chemical calculations, gas laws, bonding, solutions, net ionic equations, acid-base theory, pH, oxidation-reduction reactions and equilibrium. Recommended for applied science and non-science majors or for student preparing to take Chemistry 1A.

COURSE ADVISORIES

English 1A and Mathematics 103

DROP DATE

The drop date is Friday, October 12, 2012. After that date the instructor is required to assign a letter grade that will appear on your transcript. If you plan to drop the class, you should do so yourself. Do not depend on the instructor to drop you because of nonattendance. Students with an F average or a poor attendance record at the drop date should discuss their status with the instructor; the instructor may drop such students.

SUCCESS IN CHEMISTRY

To succeed in this class you do not have to be a genius but you will need to work hard. You will need to study at least 6 hours each week outside of the classroom. This time will include reading, studying, and doing homework assignments. Preparing labs will require additional time. It is essential that you listen effectively and that you take good lecture notes in class. **Read the assigned material before coming to class** and be prepared to ask questions during the lecture. Chemistry is a cumulative subject; later topics require a good understanding of the earlier material. **It is essential that you not fall behind in your work.**

ATTENDANCE

Attendance in lecture and lab is expected. You will be dropped from the class if you are absent for 2 weeks without contacting me. If you do miss a lecture, go to Blackboard to view the slides that we covered that day and be sure to read text book.

HOMEWORK

Homework will be assigned at each lecture. You should do the homework as soon as possible and come to the next lecture prepared to ask questions. It is almost impossible to learn chemistry without doing homework. Homework will be collected at

each exam; do NOT wait until the night before the exam to do all the homework. Homework will not be graded but will be checked for completeness. Extra credit of 2% on the overall course grade will be given if 80% of the homework assignments are completed and turned in. **No late homework will be accepted.** Each assignment is given a number; **you must write the assignment number on your paper to receive credit.**

MEMORIZATION QUIZ

During the second week of the semester I will give you a quiz which requires that the following information be memorized. It will be worth 100 points (equivalent to one lab) in the lab grade. You will have three chances to pass with 80% or better, otherwise, you will get a zero for that assignment. If you get 80% or better, you get all 100 points. The quiz will be given at the beginning of class so if you are late you will have less time or may miss the quiz entirely.

Memorize the following (for a detailed list, see Blackboard):

- The names, symbols and spelling of the elements in Table 4.3
- The names, abbreviations and values of the metric prefixes kilo, centi, milli, and micro (see Table 2.2)
- The names, abbreviations and quantities measured by the metric units gram, meter, and liter
- The names, formulas and charges for the polyatomic ions: sulfate, phosphate, chlorate, nitrate, hydroxide.

The material on the quiz will be random but will only contain the material listed above. You will have 5 minutes to complete the quiz. Expect 10-20 multiple choice questions of the following type:

What is the name of the element with the symbol F?

- Flourine
- Phosphorus
- Fluorine
- Iron
- None of the above

What is the formula of the nitrate ion?

- NO_3
- NO_3^-
- NO_2^-
- NO_3^{2-}
- None of the above

STUDY GUIDES

Study guides will be assigned for many of the chapters covered in this course. These will be posted on Blackboard and the due dates will be announced. **Late study guides will not be accepted.** Study guides will typically contain 10 multiple choice questions that are similar to those on the exams. The lowest 2 scores for the semester will be dropped.

EXAMS

There are four scheduled exams and a cumulative final exam in this class. **There are NO MAKEUPS for missed exams. NO EXCEPTIONS!** If you absolutely must be absent on the day an exam is scheduled, you may discuss with me the possibility of taking the exam **early**. The two-hour final exam will cover new material and cumulative material. Your score on the cumulative portion of the final exam can be used to replace a low score on a previous exam.

LABS

Lab work will follow as closely as possible the material discussed in the lectures. There is no published lab manual for this course. All the lab assignments and experiments are available on Blackboard. It is your responsibility to print the assigned experiment and bring it with you to class. Prelaboratory assignments are due at the beginning of the lab period. Lab reports are due on the following Monday. You may not leave lab early unless you have completed and turned in the lab assignment. Late labs will be penalized 25%. No labs will be accepted after I have graded that lab. The lowest lab score of the semester will be dropped. Any missed labs will receive a grade of zero. **It is not possible to make up missed labs.**

ELECTRONIC DEVICES

Technology is wonderful in its place. Please silence your cell phone during class and refrain from texting or surfing the internet. If your cell phone rings during an exam you will lose 5% on the exam grade; if you are caught using your phone during an exam you will receive a zero for that exam. **You may NOT use the calculator on your cell phone during an exam.**

GRADING

The grading scale will be based on a straight percentage:

A = 100% - 90%
B = 89% - 80%
C = 79% - 70%
D = 69% - 60%
F = 59% - 0%

The final grade will be calculated as follows:

Average of exams	45%
Final exam	20%
Average of study guides	10%
Lab grade	25%

CANCELLED CLASSES

If I have to cancel a class there will be a notice on the door and on Blackboard stating that the class is cancelled.

BLACKBOARD

You are strongly encouraged to make use of Blackboard. It is like a virtual blackboard on the internet where I can post announcements. You can find the course syllabus, lecture and lab schedules, fill-in-the-blank lecture notes, homework assignments, and worksheets. Slides will be posted in a full-size, color version and as a black & white, 6 slides/page handout version. Some students may find it helpful to print the handout version to bring to class. It is recommended that you print the fill-in-the-blank lecture notes and bring them to class. Please see me if you need help with Blackboard.

ACADEMIC DISHONESTY

Cheating is one of the worst things you can do in college. **The penalty for cheating is a zero for both the originator and the copier for that assignment or exam.** Anyone caught cheating will have to meet with the instructor to discuss continued enrollment in the class. I encourage you to work with each other on homework. However, working together is not the same as copying someone's work. You don't learn anything by copying work. Allowing someone to copy your work is also cheating.

ACCOMMODATIONS

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible. Please let me know if you have any unusual circumstances in your personal life that may affect your performance or attendance in class.

CHEM 10 Lecture Schedule

Fall 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12-Aug Week 1	13-Aug Ch 1	14-Aug	15-Aug 2.1-2.4	16-Aug	17-Aug 2.5	18-Aug
19-Aug Week 2	20-Aug 2.6	21-Aug	22-Aug 2.7-2.8	23-Aug	24-Aug Ch 3	25-Aug
26-Aug Week 3	27-Aug 4.1-4.7	28-Aug	29-Aug 4.9-4.11	30-Aug	31-Aug 5.1-5.4	1-Sep
2-Sep Week 4	3-Sep No Class Labor Day	4-Sep	5-Sep 5.5-5.7	6-Sep	7-Sep 6.1-6.2	8-Sep
9-Sep Week 5	10-Sep Exam 1 (1-5)	11-Sep	12-Sep 6.3	13-Sep	14-Sep 7.1-7.2	15-Sep
16-Sep Week 6	17-Sep 7.3-7.4	18-Sep	19-Sep 7.5-7.7	20-Sep	21-Sep 8.1-8.3	22-Sep
23-Sep Week 7	24-Sep 8.4-8.5	25-Sep	26-Sep 8.6-8.7	27-Sep	28-Sep 8.8-8.9	29-Sep
30-Sep Week 8	1-Oct 9.1-9.2	2-Oct	3-Oct Exam 2 (6-8)	4-Oct	5-Oct 9.3	6-Oct
7-Oct Week 9	8-Oct 9.4-9.5	9-Oct	10-Oct 9.6	11-Oct	12-Oct 10.1-10.4 Last Day to Drop	13-Oct
14-Oct Week 10	15-Oct 10.5	16-Oct	17-Oct 10.6-10.10	18-Oct	19-Oct 11.1-11.6	20-Oct
21-Oct Week 11	22-Oct 11.7-11.9	23-Oct	24-Oct 11.10-11.11	25-Oct	26-Oct 12.1-12.5	27-Oct
28-Oct Week 12	29-Oct 12.6-12.7	30-Oct	31-Oct 12.8-12.10	1-Nov	2-Nov 13.1-13.2	3-Nov
4-Nov Week 14	5-Nov 13.3-13.4	6-Nov	7-Nov Exam 3 (9-12)	8-Nov	9-Nov 13.5-13.7	10-Nov
11-Nov	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov

	No Class Veterans' Day		13.8-13.9		13.10	
18-Nov Week 15	19-Nov 14.1-14.3	20-Nov	21-Nov 14.4-14.6	22-Nov	23-Nov No Class Thanksgiving Holiday	24-Nov
25-Nov Week 16	26-Nov 15.1-15.3	27-Nov	28-Nov 15.4-15.5	29-Nov	30-Nov 15.6-15.8	1-Dec
2-Dec Week 17	3-Dec 16.1-16.3	4-Dec	5-Dec Exam 4 (13-15)	6-Dec	7-Dec 16.4-16.6	8-Dec
9-Dec Week 18	10-Dec Final exam 10:00 – 11:50 am	11-Dec	12-Dec No class	13-Dec	14-Dec No class Semester Ends	15-Dec

Date	Friday Lab
Aug 17	Safety, Lab 1: Introduction to Chemistry
Aug 24	Lab 2: Instrumental Measurements (ch. 2)
Aug 31	Lab 3: Density of Liquids and Solids (ch. 2)
Sept 7	Nomenclature Worksheet (ch. 5)
Sept 14	Lab 4: Physical Properties (ch. 3)
Sept 21	Lab 5: Analysis of a Penny (ch. 6, 7)
Sept 28	Lab 6: Analysis of Alum (ch. 8)
Oct 5	Lab 7: Empirical Formulas of Compounds (ch. 8)
Oct 12	Lab 8: Precipitating Calcium Phosphate (ch. 9)
Oct 19	Lab 9: Colligative Properties (making ice cream)
Oct 28	Lab 10: Families of Elements (ch. 4, 11)
Nov 2	Lab 11: Molecular Models (ch. 12)
Nov 9	Lab 12: Generating Hydrogen Gas (ch. 13)
Nov 16	Lab 13: Analysis of Saltwater (ch. 14)
Nov 23	No Class
Nov 30	Lab 14: Analysis of Vinegar (ch. 15, 16)
Dec 7	Checkout, Review for final exam
Dec 14	No Class