ANOKA-RAMSEY COMMUNITY COLLEGE COURSE SYLLABUS

Course:	Chemistry 1061 — Principles of Chemistry I, 4 credits, Fall 2004
Prerequisite:	MATH 0210 or equivalent required; MATH 1200 or equivalent recommended
Lecture Instructor:	Professor Andrew Aspaas, Office S202
Telephone:	763-422-3481
E-mail:	andrew.aspaas@anokaramsey.edu
Course Webpages:	http://webs.anokaramsey.edu/aspaas/1061/
	http://webs.anokaramsey.edu/chemistry/Chem1061/
Office Hours:	M 2:00-2:50 pm (Note: Office hours subject to change)
	W 11:00-11:50 am, 2:00-2:50 pm
	Th 2:00-2:50 pm, 3:00-3:50 pm
Laboratory Instructors:	Professor Andrew Aspaas, Office S202, 763-422-3481, andrew.aspaas@anokaramsey.edu
	Professor Lance Lund, Office S206, 763-422-3483, lance.lund@anokaramsey.edu
Chem Lab Manager:	Susan Ryan, Office S221, 763-422-3394, susan.ryan@anokaramsey.edu
Science Secretary:	Bonnie Witte, Office S201, 763-422-3484, bonnie.witte@anokaramsey.edu

COURSE OUTCOMES

Upon completion of the course, the student should be able to:

1. understand and explain basic principles of chemistry using chemical vocabulary.
2. name and write chemical formulas for simple compounds.
3. complete and balance chemical equations.
4. set up and solve elementary chemical problems.
5. perform basic laboratory procedures.
6. correlate lecture topics with laboratory procedures and practical applications.

MATERIALS NEEDED

Textbook: General Chemistry, 8th edition, Darrell D. Ebbing, Steven D. Gammon Lab Manual:

Lab Activities: Available at http://webs.anokaramsey.edu/chemistry/Chem1061/

Labs must be **downloaded and read *before* coming to lab** each week

ADDITIONAL RESOURCES

Study Guide and Solutions Manual

Website Links: Available at http://webs.anokaramsey.edu/chemistry and http://webs.anokaramsey.edu/aspaas/

Student Text Website: http://college.hmco.com, then select "Chemistry" (passkey required)

Online Tutoring from smartthinking.com: see Technology package for more information

On-Campus Tutoring: Schedule will be posted at http://www.anokaramsey.edu/StudentServices/cr_chemistry.cfm and at the Academic Support Center

LABORATORY

Laboratory attendance is mandatory and experiments must be performed at the assigned time. If you must be absent, including for an illness, notify the professor in advance. Make-up labs may be arranged during other scheduled lab periods, *on a space-available basis, during the same week only*, by consulting with the professor of that particular laboratory section. If you miss a lab, or are unable to make it up during one of the other lab periods, it will count as a ZERO. However, the lowest laboratory score for the semester will be dropped. Students missing three labs will have their grade reduced by one full letter grade. Students missing four labs will have their grade reduced by two full letter grades. Students missing five or more labs will fail the course. *(Note: The poster project counts as two labs, since two weeks of lab time are devoted to this activity.)*

Laboratory reports will be ordinarily be due at the end of your assigned lab period the same week the laboratory is performed, unless announced otherwise by the professor. Prelab assignments must be completed by the beginning of the laboratory period in which the experiment will be performed. They may not be turned in late. Students will either work individually or in pairs. *There will be no groups of three or more*, unless assigned by the professor. A laboratory course should involve as much "hands-on" work as possible for each student.

CONDUCT AND ATTENDANCE

In order for this class to be successful, we must all work together to make the classroom environment one that's amenable to concentration and learning. The classes will start and end promptly at the times listed, so please make sure to find your seat a few minutes early, and do not start packing up your materials before the class is finished. If you arrive late, please use the back door and find a seat near the back of the class, being as minimally disruptive as possible. While I strive to maintain a fun and relaxed classroom environment, disrespectful behavior like interrupting the professor or other students, socializing during the class period, use of cell phones or other disruptive devices, or anything else which impedes on any other student's ability to focus and learn, will not be tolerated. Please remember to turn off your cell phones before lecture starts – we can make it a habit as I need to remember to turn mine off as well!

Disruptive students may be removed from class with or without warning, and may not return until meeting with Karen Kraft, Dean of Educational Services, and meeting the guidelines set forth in the Student Code of Conduct.

While I do not take attendance, class attendance is expected by college policy. Students are responsible for all information and assignments given in class. The easiest way to fall behind and ultimately fail a class is to be absent multiple times. Material moves relatively quickly in this course, so even one absence can put you behind. Please contact the professor in advance in person or by email if you know you will be absent.

ASSIGNMENTS

Reading assignments are given later in this syllabus. You must have each of the reading assignments completed *before* the class period where that material is covered.

There will be a number of **short quizzes** in this class. Some will be closed-book quizzes administered before a lecture – these quizzes are designed to be straightforward to anybody who has completed the reading assignment. Others will be more challenging open-book open-note quizzes designed to test your problem-solving skills. Some may be group quizzes. Most quizzes will be *unannounced*. There will be *no make-ups for quizzes,* the lowest quiz score will be dropped, however.

Problem sets, worksheets, collaborative activities, and other writing assignments will also be assigned. You should plan to work on these assignments while the related topics are covered in class. *You will be expected to have all of the assigned problems for a particular chapter completed by the class session that follows the session that the chapter is completed in lecture*. In general, these assignments will not be collected. You have college-level expectations in this course, so therefore I will not "hold your hand" and collect and grade daily work each period. Students should take the initiative to keep up with their work in order to prepare themselves for quizzes and exams. The professor may elect to collect one or two homework assignments in lieu of a quiz. This will be announced ahead of time. Homework assignments collected will count as a quiz and *will not be accepted late*.

EXAMS

Only those topics covered in lecture, laboratory, in the reading assignments, or the problem assignments will appear on the exams. Exams must be taken at the scheduled time. *There will be **NO** make-ups for the one-hour exams*, as the lowest one-hour exam score will be dropped. If you are ill, have a planned vacation, get a flat tire on your way to school, or are otherwise unprepared or absent for an exam, that exam will count as a *zero* and will be the dropped exam. Please do not ask for exceptions to this policy. You should try your very best for each exam, since you never know when unplanned events may prevent you from taking a future exam. There will be four one-hour exams plus the final. Make-ups may be allowed for the final exam if the professor has been consulted in advance.

EXTRA CREDIT

There may be one or two opportunities for a small amount (10 points) of extra credit in this semester. Only those opportunities announced to the entire class will be available for extra credit, and they must be completed by the announced due dates.

STUDYING

It is very important that you *discipline* yourself to become an organized, conscientious student who studies regularly (daily). Last-minute cramming for cumulative exams usually results in poorer understanding of concepts and lower exam scores. Try to focus on underlying concepts, problem solving skills, and common themes more than simply memorizing facts. You should view difficulty as a challenge to overcome and mediocrity as *unacceptable*.

ACADEMIC DISHONESTY

Cheating or plagiarism of any kind will not be tolerated. Students will be given one warning upon the first instance of any cheating or plagiarism. Any incidents after the warning will result in the exam, quiz, or assignment in question to be given a grade of zero, which cannot be made up. Care will be taken to discuss proper formats for citing sources in written projects as needed throughout the semester. Many lab reports and group projects involve sharing of data and collaboration between several students; these instances do not constitute plagiarism as long as all contributors are listed on the assignment.

KEEPING TRACK OF YOUR PROGRESS IN THIS COURSE

You may use the table below to keep track of your scores. To determine where you stand in the course, divide the total of your points earned by the total number of points possible. Then multiply by 100. This will give you a percentage, which you can use to determine your letter grade.

Item	Points Earned	Points Possible
Lab 1		
Lab 2		
Lab 3		
Lab 4		
Lab 5		
Lab 6		
Lab 7		
Lab 8		
Lab 9		
Lab 10		
Lab 11		
Lab Ntbk/ Hskp.		
Quiz 1		
Quiz 2		
Quiz 3		
Quiz 4		
Quiz 5		
Other		
Other		
Other		
Exam 1		
Exam 2		
Exam 3		
Exam 4		
Final Exam		
Totals		

GRADES

1.	Laboratory	about 150
2.	Quizzes/Homework/Written Assignments	about 60
3.	Three highest one-hour exam scores	300
4.	Final Exam	200
	Total	about 710

The final grade will typically be based on a total point system with the following letter grades:

A 90.0 % and above

B 80.0 - 89.9 %

C 70.0 - 79.9 %

D 60.0 - 69.9 %

F below 60.0 %

CHEMISTRY 1061 ASSIGNMENTS

The problem assignments listed below should be considered the ***minimum*** number of problems that should be completed in your studies. Additional practice should make you more proficient with the course material.

Chap	Title	Reading Assignments	Study Questions (End-of-Chapter)
1	*Chemistry and Measurement*	All sections	#5, 12, 23, 27, 32, 36, 37, 46, 51, 56, 63, 70, 73, 81, 86, 92, 95, 99, 117, 120, 127, 134, 141, 144, 152
2	*Atoms, Molecules, and Ions*	All sections	#4, 5, 11, 17, 18, 25, 31, 38, 40, 43, 48, 49, 51, 60, 63, 69, 72, 73, 76, 77, 80, 83, 86, 87, 91, 96, 97, 100, 101, 116, 117, 120, 121, 126, 132, 136
3	*Calculations with Chemical Formulas and Equations*	All sections	#6, 8, 11, 12, 14, 17, 19, 24, 25, 34, 37, 42, 47, 52, 59, 66, 74, 77, 84, 87, 92, 95, 98, 101, 105, 112, 117, 121
4	*Chemical Reactions: An Introduction*	All sections	#1, 8, 13, 17, 22, 26, 27, 33, 36, 37, 46, 49, 52, 55, 64, 67, 72, 73, 78, 83, 86, 90, 93, 102, 107, 129, 136, 144, 146
5	*The Gaseous State*	All sections	#6, 10, 11, 13, 17, 27, 29, 33, 38, 39, 46, 52, 55, 60, 69, 82, 89, 96, 107, 114, 123, 126, 131, 136, 139
6	*Thermochemistry*	All sections	#7, 10, 14, 16, 21, 23, 25, 31, 36, 37, 44, 45, 48, 53, 58, 61, 68, 73, 76, 89, 97, 102, 110, 121, 125, 127, 129
7	*Quantum Theory of the Atom*	All sections	#3, 6, 10, 14, 18, 19, 25, 31, 34, 37, 46, 53, 62, 63, 66, 69, 74, 81, 87, 95, 97
8	*Electron Configurations and Periodicity*	All sections, skim over section 8.7	#4, 8, 9, 10, 13, 14, 21, 27, 35, 38, 41, 46, 49, 56, 57, 60, 67, 74, 79, 82, 85, 90, 91
9	*Ionic and Covalent Bonding*	9.1-9.10	#5, 6, 8, 14, 21, 26, 33, 44, 45, 48, 49, 52, 53, 56, 57, 60, 61, 64, 65, 68, 69, 78, 92, 107, 110, 119, 121
10	*Molecular Geometry and Chemical Bonding Theory*	10.1 - 10.4	#4, 8, 21, 24, 25, 27, 30, 33, 36, 39, 42, 47, 61, 65, 87, 89

Chemistry 1020 Tentative Lecture, Exam, and Lab Schedule

Changes and updates to this schedule will be announced in class and posted at http://webs.anokaramsey.edu/aspaas

Lab	Monday	Tuesday	Wednesday	Thursday	Friday
Lab Safety, Unknown Identification	Aug 23	24 Ch 1	25	26 Ch 1	27
Microscale Density	30	31 Ch 1	Sep 1	2 Ch 2	3
Q & A or Other*	6 No class Labor Day	7 Ch 2	8	9 Ch 2	10
Spreadsheets I	13	14 Ch 2	15	16 **Exam 1** (Ch 1-2)	17
Spreadsheets II	20	21 Ch 3	22	23 Ch 3	24
Limiting Reactant	27	28 Ch 3, 4	29	30 Ch 4	Oct 1
Reactions	4	5 Ch 4	6	7 Ch 4	8
Intro to the LabPro Interface	11	12 **Exam 2** (Ch 3-4)	13	14 Ch 5	15
Gas Laws	18	19 Ch 5	20	21 No class Education MN	22 No class Education MN
Titration	25	26 Ch 5	27	28 Ch 6	29
Thermochemistry	Nov 1	2 Ch 6	3	4 **Exam 3** (Ch 5-6)	5
Beer's Law	8	9 Ch 7	10	11 No class Veterans Day	12
Lab Project	15	16 Ch 7	17	18 Ch 8	19
Lab Project	22	*Last* 23 *Day to withdraw* Ch 9	24	25 No class Thanksgiving	26 No class Thanksgiving
Lab Project	29	30 Ch 9	Dec 1	2 **Exam 4** (Ch 7-9)	3
Lab Project Presentation	6	7 Ch 10	8	9 Ch 10	10
Finals Week	13	14 **Final Exam** **4:10-6:10 pm**	15	16	17

*Lab attendance not required this week. These are suggested activities. Students may attend lab during any or all lab sections during these weeks.

Note: In the event the professor misses a class, the entire lecture schedule may or may not be adjusted.

Name_____ Phone_____

Email Address_____
(Important information will be sent to this email address, so please make every effort to check it daily! Let me know if your email changes, as I will only reply to the address provided here to messages regarding any academically sensitive information.)

Address_____

High School Attended_____ H.S. Graduation Date_____

College Year (circle one): Freshman Sophomore Other Student I.D. Number _____

College Major (if known)_____

Law requires that grades posted online must not reference your student ID number in whole or part. Please provide a 4-8 digit number which the professor will use to identify you in online grade postings. Please do **NOT** use your ID number, birthdate, Social Security number, or any other number which can be easily traced back to you.

Unique number: _____ ☐ Do **NOT** post my grades online (check box)

Math and Science Courses Completed (College and/or High School) _____

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Are you taking this course as a prerequisite for another course? If so, which one(s)?

What do you hope to attain from this course?

Please write down any questions or concerns you have regarding this course. Also, write down any information that you think may be helpful for the professor to know about you (visual or hearing impairment, planned absence, etc.)

I have received and read the course syllabus. I have read and understood the sections on the Laboratory, Conduct and Attendance, Assignments, Exams, and Grades and understand the information in these sections. Sign below.

Signature_____ Date_____ Course_____

(The data collected on this form will be used to provide the instructor information about each individual and the class as a whole. The instructor does not require that you provide any of this information. Information collected by the instructor will remain strictly confidential.)