PimaCommunityCollege
West Campus

CHM 080 Preparation for General Chemistry
Syllabus for Spring 2011

Course Information:

Course Prefix/Number: **CHM 080**

Course Title: **Preparation for General Chemistry**

Semester: **Spring 2010**

CRN (Section Code): _____

Class Days/Times: _____

Site/Room: _____

Credit Hours: **3.0**

Teaching Format: **Lecture**

Instructor Information:

Name: _____

Office: _____

US Mail: **Pima Community College**
2202 W. Anklam Rd.
Tucson, AZ 85709-0270

Phone/Voice Mail: _____

E-mail: _____
Web site reference: **http://www.chymist.com**

Availability: **Office hours**: _____

Instructional Materials:

Required Text: Bauer, Richard C., James P. Birk, and Pamela S. Marks, **A Conceptual Introduction to Chemistry, 2nd Edition,** McGraw Hill, 2010

Important: You should have access to a computer with Internet connections. Important materials for both reading and problem assignments for class are available at www.chymist.com under the submenu "General Chemistry Survival Manual". This syllabus is also available under the submenus "Pima Chem Courses" and "Chem 080".

Required: A **scientific calculator** (graphing function not required).
Cell phones and PDA's are not permitted in place of calculators in class.

Optional: Bauer, Richard C., James P. Birk, and Pamela S. Marks, **Student Solutions Manual to Accompany A Conceptual Introduction to Chemistry,** McGraw Hill, 2010

Note: Textbooks are available at the West Campus bookstore and other academic bookstores in town. The PCC Bookstore can be accessed and books ordered via the Internet at www.Pima.bkstr.com.

Course Description:

Prerequisite: MAT 092, Elementary Algebra

CHM 080 is a survey of the fundamental laws and theories of chemistry. It is an introductory course in college level chemistry to prepare students for CHM 151Fundamentals of chemistry.

The content of this course includes both principles and problems in the areas of SI (metric) system, atomic structure, the periodic table, chemical bonding, the states of matter, dimensional analysis, chemical formula writing and nomenclature, chemical equations, moles, stoichiometry, and solutions. In addition, as time permits, selected topics will be discussed such as acids and bases, pH, electrochemistry, nuclear chemistry, and an introduction to organic chemistry. There will be an effort made to correlate much of the material to everyday life.

Since problem solving is a necessary part of the course, students should review basic mathematics and algebra with emphasis on exponents and roots, manipulations of algebraic equations, and construction of graphs and tables. The use of scientific calculators is permitted for all aspects of this course. If needed, there are tutors available in the learning laboratory who can assist you with this material or math review sessions will be scheduled by arrangement with the class.

Course Objectives:
Upon completion of the course, the student will be able to do the following:

1. Define chemistry and give examples of chemicals and chemical changes.
2. Identify and describe the steps of the scientific method.
3. Distinguish between mass and weight.
4. Distinguish between elements and compounds.
5. Distinguish between pure substances and mixtures.
6. Classify a specific mixture as being homogeneous or heterogeneous.
7. Distinguish between physical and chemical properties of substances.
8. Convert SI lengths, volumes and masses to other equivalent SI units.
9. Use dimensional analysis and conversion factors to set up and solve problems involving both SI and English quantities.
10. Use experimental data to discuss uncertainty in measurement.
11. Determine number of significant figures in data and calculations.
12. Write numbers in scientific notation, and use these in calculations.
13. Make conversions involving density and also temperature on the Fahrenheit, Celsius and Kelvin scale.
14. Use correct spelling for the names and symbols of common elements.
15. Give formulas of the elements that exist as diatomic molecules.
16. Use periodic table to identify metals, nonmetals, and metalloids, and list general physical properties for each category.
17. Give names, symbols, relative charges and masses for the three major subatomic particles.
18. Determine the atomic number, mass number, and number of protons, neutrons and electrons for isotopes of the elements.
19. Describe the atom in terms of a nucleus containing protons and neutrons and a highly organized arrangement of electrons outside the nucleus.
20. Describe chemical change in terms of loss or gain of specific "valence" electrons from the outer boundaries of the atom.
21. Identify all periods and groups shown on the periodic table.
22. Compare sizes of atoms within families of elements.
23. List general properties and some specific uses of common elements within each group.
24. Relate column numbers in the periodic table to the number of valence electrons available for use in chemical change.
25. Draw Lewis electron dot symbols for the main group elements based on periodic table positions.
26. Use Lewis dot structures to represent the formation of the ionic bond between main group metals and the nonmetals.
27. Use Lewis dot structures to represent the formation of the covalent bond between non-metallic elements.
28. Define ionic, polar covalent and covalent bonding, including concept of electro negativity.
29. Write formula and name for common cations and anions.
30. Write a formula for a simple acid, base or salt when the name is given.
31. Name a simple acid, base or salt when the formula is given.
32. Write formula or name binary compounds of the non-metals.
33. Describe the chemical mole and Avogadro's Number.
34. Define molar mass and determine molar mass for elements and compounds.
35. Interconvert mass, moles and number of ions or atoms in any given substance.
36. Describe how to prepare solutions with molar concentrations
37. Balance a chemical equation for which all formulas are given
38. Describe on a particle and mole level the significance of a balanced equation.
39. Use the balanced equation to calculate g and mole quantities of reactants and products.

Lecture Outline

The following outline presents topics in the order they will be discussed in class along with reading assignments and problem assignments. The course content does not necessarily follow the book in a chapter by chapter and page by page order. **Read chapters before the material is discussed in lecture.**

Problem assignments list applicable problems at the end of each chapter. Problems can be worked on in advance or after methods of problem solving are demonstrated and explained in class. Answers to odd number problems are located in the back of the textbook.

Lecture Topics	Reading Assignment	Problem Assignment
1. Introduction, Matter, and Elements a) Chemistry and its branches b) Matter: classification and properties c) Representations of matter d) States of matter e) Chemical and physical properties and changes f) Density g) Elements, compounds and mixtures h) Element symbols i) Energy j) Scientific method k) Metric system and measurement l) Dimensional Analysis m) Significant figures n) Scientific notation	Chapter 1 Pages 2-45 Element Symbols (on web site) Metric system (on web site) Temperature (on web site) Significant Figures (on web site) Problem Solving by Dimensional Analysis (on web site)	Chapter 1 Pages 45-51 Problems: 1.3-1.97 (odd nos.) Temperature All problems Significant Figures All problems Problem Solving by Dimensional Analysis All problems
2. Atoms, Molecules and Intro to Nuclear Chemistry a) Development of the Atomic Theory b) Understanding compounds: Laws of definite composition and multiple proportions c) Pieces of atoms: Subatomic particles d) Piecing it together: The nuclear atom e) Isotopes and atomic masses f) X-rays and radioactivity g) Nuclear decay h) Stability of nuclei i) Half-life j) Radiation and human health k) Applications of radioactive isotopes l) The periodic table m) Ions and ionic compounds n) Molecular compounds o) Formulas and naming of compounds p) Acids and bases q) Predicting properties r) Organic compounds s) Hydrocarbons t) Functional group compounds	Chapter 2 Pages 52-76 Chapter 3 Pages 84-113 Chapter 15 Pages 584- 615 Chapter 16 Pages 620-655 Web Elements Periodic Table http://www.webelements.com Formula writing and Nomenclature (on web site) Nomenclature of Organic Compounds (on web site)	Chapter 2 Pages 77-83 Problems: 2.3-2.107 (odd nos.) Chapter 3 Pages 113-119 Problems: 3.3-3.89 (odd nos.) Chapter 15 Pages 615-619 Problems: 15.3-15.61 (odd nos.) Chapter 16 Pages 656-661 Problems: 16.3-16.21 (odd nos.), 16.27-16.35 (odd nos.), 16.41, 16.43, 16.57, 16.79, 16.80 Formula writing and Nomenclature All problems (Answers on web site)

Lecture Topics	Reading Assignment	Problem Assignment
3. Composition of Compounds and Solutions a) The meaning of a chemical formula b) Formula mass/molecular weight c) The Mole d) Avogadro's number e) Mole-mass conversions f) Percent composition g) Empirical formulas h) Molecular formulas i) Solutions j) Percent k) Molarity l) Dilution	Chapter 4 Pages 120-152 Chemical Formulas and Formula weight Calculations (on web site)	Chapter 4 Pages 152-157 Problems: 4.3-4.111 (odd nos.)
4. Chemical Reactions and Stoichiometry a) Meaning of a chemical equation b) Balancing equations c) Types of chemical reactions d) Predicting chemical reactions e) The activity series f) Net ionic equations g) Quantitative relationships h) Mole relationships g) Mass relationships h) Yield (theoretical, actual & percent) i) Limiting reagent j) Energy changes in chemical reactions k) Calorimetry	Chapter 5 Pages 158-190 Chapter 6 Pages 200-234 Writing Chemical Equations (on web site)	Chapter 5 Pages 190-199 Problems: 5.3-5.111 (odd nos.) Chapter 6 Pages 234-243 Problems: 6.3-6.105 (odd nos.) Writing Chemical Equations All problems (Answers on web site)
5. The Electronic Structure of the Atoms a) Electromagnetic radiation b) Into the light: Atomic spectra c) A new look at light: The quantum theory d) The atom takes shape: The Bohr model e) Electron waves f) The uncertainty principle: Does God play dice...? g) The quantum mechanical atom h) Energy levels, and orbitals i) Electron distributions j) The periodicity of electron configurations k) Some periodic properties of elements l) Ionization energy m) Atomic and ionic size n) Discussion: Extending the periodic table	Chapter 7 Pages 244-281	Chapter 7 Pages 281-285 Problems: 7.3-7.13, 7.23-7.107 (odd nos.)
6. Chemical Bonding and Molecular Geometry, a) Trading electrons: The ionic bond b) Sharing electrons: The covalent bond c) Electronegativity and percent ionic character d) Extra hold: Multiple bonds e) Arranging atoms: Lewis structures f) Resonance g) Tug-of-war: Bond polarity and electronegativity h) Spreading out: VSEPR Theory i) Polarity of molecules j) Metallic bonding	Chapter 8 Pages 286-319	Chapter 8 Pages 320-325 Problems: 8.5-8.119 (odd nos.)

Lecture Topics	Reading Assignment	Problem Assignment

7. Gases, Liquids and Solids
   a) Pressure
   b) Pressure-volume relationships: Boyle's Law
   c) Temperature-volume relationships: Charles' Law
   d) The Ideal Gas Law: P-T-V relationships
   e) Avogadro's law
   f) Stoichiometry in gas reactions
   g) Mixtures of gases: Dalton's Law
   h) Moving gases: Graham's Law
   i) Stoichiometry involving gases
   j) Intermolecular forces
   k) Molecules in motion: The Kinetic Molecular theory
   l) General properties of gases
   m) Pressure
   n) Properties of liquids
   o) Viscosity
   p) Surface tension
   q) Vapor pressure and boiling
   r) The solid state
   s) Types of crystalline solids
   t) Energy and change of state
   u) Specific heat
	Chapter 9
	Pages 326-361
	
	Chapter 10
	Pages 372-409
		Chapter 9
		Pages 361-371
		Problems: 9.3-9.119 (odd nos.)
		
		Chapter 10
		Pages 410-405
		Problems: 10.3-10.117 (odd nos.)

8. Solutions
   a) Properties of water
   a) Hydrates
   b) The solution process
   c) Solubility and temperature
   d) Percent
   e) ppm and ppb
   f) Molarity
   g) molality
   h) dilution
   i) Titration
   j) Solubility of gases
   k) Vapor pressure of solutions
   l) Colligative properties
   m) Colloids
	Chapter 11
	Pages 416-451
		Chapter 11
		Pages451-457
		Problems: 11.3-11.99 (odd nos.)

(As Time permits)
9. Kinetics and Equilibrium
   a) Reaction rates
   b) Collision theory
   c) Factors affecting rate
   d) Equilibrium
   e) K_c
   f) The reaction quotient and direction of reaction
   g) Heterogeneous equilibria
   h) Le Châtelier's principle
	Chapter12
	Pages 458-492
		Chapter 12
		Pages 492-499
		Problems: 12.3-12.109 (odd nos.)

(As Time permits)
10. Acids and Bases
   a) Properties of acids and bases
   b) The Arrhenius theory
   c) The Brønsted theory
   d) Strong and weak acids and bases
   e) Polyprotic acids
   f) pH and pOH
   g) indicators
   h) Buffers
	Chapter 13
	Pages 500-534
		Chapter 13
		Pages 534-539
		Problems: 13.3-13.113 (odd nos.)

Course Requirements:

The final course grade will be based on quizzes, hour exams, and a final exam. The approximate percent weight of each is given below:

Quizzes... 25%

Exams ……………………………………………………… 50%

Final Exam ………………………….………………….... 25%

Chem 080 Course Policies and Information

Problem Assignments
Each type of problem or calculation is explained in class. Problem assignments, as listed in the lecture outline, are your responsibility to work out and review. Specific problems may be specified or deleted by your instructor. Since student solution manuals are available, problem assignments are not collected or graded. After a particular type of problem is reviewed in class, your instructor will schedule a quiz on that type of problem.

Proper problem solving means that each problem requires a clear and organized set-up. If the problem involves a formula, you must show the formula, substitution of fixed values and variables, and the proper units. Problems that do not utilize a formula must be clearly set up with all the proper units. Final answers should be underlined or circled and must include the proper units. Whether or not it is stated on exams or quizzes, you cannot get full credit for a problem without an organized set-up. The final numerical answer to any problem is worth one point.

Calculators
You are required to have a scientific calculator (graphing functions not required) for quizzes and exams. You may not use the calculator function on your cell phone or on a Palm Pilot or equivalent PDA. (An inexpensive calculator with scientific functions can be found at stores such as Office Max, Target, Wal-Mart, etc.) The calculator should be able to calculate scientific notation, powers, and roots.

Computer
This course is taught as a web-enhanced course. You must have access to a computer. This syllabus, along with reading material and problem sets are available on the web site http://www.chymist.com. The syllabus and some additional readings are located on the *Pima Chem Courses* link under Chem 080 with additional readings and information under Chem 151. Additional reading material and problem sets are located under the heading of **General Chemistry Survival Manual**.

You may need to access additional information for this course on the Internet.

Quizzes
Your instructor will give a quiz in almost every class during the semester. Each quiz will cover a specific topic or assignment. All quizzes have the same weight, even if the point count on particular quizzes differs. All quizzes are announced in class. Every effort is made to grade and return quizzes by the next class. Grades on quizzes are calculated as percentages.

At the conclusion of each quiz, the quiz is reviewed and an answer key may be distributed to the class. Once the quiz is reviewed, the quiz is considered to be over and anyone arriving late will be considered to have missed that quiz.

There is no curve applied to any quiz.

If you have taken all the quizzes during the semester, your lowest quiz grade will be dropped when calculating your final quiz average.

If you miss more than 30% of the quizzes during the semester, then the weight of your quiz average, in calculating your final class average will be discounted by 50%. If you miss more than 50% of the quizzes, then none of your quizzes will be counted in your final class average.

Exams
There will be three exams during the semesters. The exams cover information in the assigned reading, information discussed in class, classroom demonstrations, and any supplementary readings or related material assigned. Problems will require proper set-ups and calculations. Some questions will be in multiple choice format and some questions may require written answers or short discussions (short essay type questions). Every effort is made to grade and return exams in about one week

to ten days (no more than two class periods). Grades on exams may be calculated as percentages based on total possible point scores.

Exams are given during normal class time. You are expected to complete the exam within that time period. If this class meets once a week, part of the class time will be used to cover new material, leaving a minimum of 90 minutes to complete an exam.

There is no curve applied to any exam.

Since information that appears on quizzes also appears on exams, if you have completed all the exams during the semester and your exam average is higher than your quiz average, then your quiz average will be dropped from your final grade calculation.

Final Exam
There will be a final exam at the end of the semester. The final exam is cumulative, and will include topics and calculations from the entire semester. If your final exam grade is significantly higher than your exam and quiz average during the semester, extra weight will be given to the final exam. The final exam is required for completion of this course.

Failure to take the final exam will result in a grade of zero.

If you miss the final exam for some valid reason, you must contact your instructor within 24 hours after the exam or the assigned grade of zero will not be removed. Your instructor will require documentation of your excuse.

Make-up Policy
THERE ARE NO MAKE-UP EXAMS OR QUIZZES no matter how valid your excuse may be. All exams and quizzes are scheduled with advance notice and they are given once only. THIS INCLUDES PARTS OF AN EXAM OR A QUIZ MISSED AS A RESULT OF LATENESS TO CLASS. If you miss a quiz or exam, it does not count against you (i.e., you will not get a grade of "zero"), but your grade will be calculated differently from the percent weights stated in the course requirements.

If you miss more than 50% of the quizzes during the semester, then your grade will be based on exams and the final exam only.

MISSING THE FINAL EXAM WILL RESULT IN A GRADE OF "ZERO" AND CAN RESULT IN YOUR FAILING THE COURSE.

If you have a previous scheduled appointment or event or know in advance that you will be late or not be present for a quiz or an exam, arrangements can be made for you to take that quiz or exam under special conditions, such as taking the exam one day earlier than the class. Such requests must be made at least three days before the scheduled test day. If you have a conflict with the final exam, it must be resolved by the last day of class during the semester. Failure to resolve a conflict will not excuse you from the final exam.

If you desire more time to complete an exam or quiz or just want to take that test in a different-than-the-class environment, you may request to take the test in the Testing and Assessment Center in the C Building. Please make that request at least one class before the scheduled test. You may have up to an additional 30 minutes to complete an exam given in the testing center.

If you have a conflict with the final exam, it must be resolved by the last day of class during the semester. Failure to resolve a conflict will not excuse you from the final exam.

Submitting Work and/or Contacting Your Instructor
Any take-home quizzes, exams, or projects should be submitted in writing no later than the dates specified. Depending on the type of assignment, late papers may not be accepted. For any assignment that has a flexible deadline, late papers will be downgraded by 10 points in the first 24 hours and an additional 10 points until the next class period. After that, a grade of zero will be recorded for that assignment.

You may submit your assignment via the Internet if you cannot be in class on the day it is due. The time stamp on the message, when it is received, will determine the date. **You should receive a reply confirming that your emailed assignment was received within 48 hours of submitting it.**

If you contact your instructor by email, please be advised that email occasionally gets misdirected, can end up being blocked by a spam filter, or lost in cyberspace. (Blank subject lines or subjects such as "Hello" may go directly into a trash file.) **You should receive a reply confirming that your emailed message was received within 48 hours of submitting it.** It is your responsibility to make sure that the message was received.

Academic Integrity
Cheating on exams or quizzes will result in a grade of "zero" for that exam or quiz, and, at the instructor's discretion, possibly an F for the course. The zero will be calculated into your final grade point average for this course. Any zero grade assigned for cheating will remain as part of your average and will not be dropped.

Duplicate answers to questions or problems on quizzes and/or exams from individuals sitting next to one another can be considered as circumstantial evidence of cheating.

Occasionally, you may receive a take-home worksheet, quiz or exam. Such assignments can be completed by conferring with other students, researching information in textbooks or reference books, or on the Internet. It is expected that the final work turned in will be essentially you own, but it may be similar to that of other students you may have worked with. A large number of identical papers in the class will invalidate that assignment.

Any cheating will be calculated into your final grade. Students who have received zeros for cheating will not be given W grades if they have not withdrawn from the course by the official withdrawal date.

Cheating may be reported to the Academic Dean, even if the student(s) involved have withdrawn from the course.

Students may consult the PCC Student Handbook sections on student code of conduct, on scholastic ethics and on the grade appeal procedure. Copies are available at PCC campus libraries and at http://www.pima.edu/~coadmissions/studresp.htm.

Attendance
Attending class is a major responsibility you have in this course. We continually move through material at a regular pace and may cover up to one chapter, or more, in a class meeting. In addition, material not in the textbook may be discussed. Since this class meets once each week, missing one class will involve a significant amount of course material along with relevant explanations and examples.

Most of the important material that will be on the exams and quizzes is discussed in class. Relevant information and applications of course material, as well as demonstrations, are also presented in class, that material is not in the textbook. You cannot pass the exams by reading the textbook and supplementary materials only. If you miss a class, your instructor can tell you what material was covered and summarize any discussions that took place, however, instructors do not have a set of formal lecture notes you can copy. It is your responsibility to get detailed notes from one (or preferably two) classmate(s).

If you are absent from class for an extended period due to illness, an accident, or another valid reason, please have someone contact your instructor.

Lateness
Lateness to class is disruptive to the other students. Please make every effort to get to class on time. If you do arrive late for a class, please come into the room quietly, find a seat, and get organized for class. Please avoid walking across the front of the classroom, disrupting the lecture or discussion. Try to walk around the back of the room.

If work or other circumstances will prevent you from getting to class on time, please see your instructor as soon as possible to discuss the problem.

Storms/Traffic Problems
In the event of a severe storm, other major weather problem, or a severe traffic problem, the area may experience transportation disruptions and traffic delays. If an exam is scheduled or a major assignment is due on a day when there is a severe weather (this excludes normal rainfalls) or traffic problem, the exam or assignment deadline will be postponed until the next class.

Extra Credit
THERE IS NO EXTRA CREDIT.

You must demonstrate that you have mastered a substantial amount of the course material to obtain a passing grade.

Classroom Behavior:
Because of insurance limitations, non-registered visitors are not allowed at class sessions or on field trips.

Possession of drugs, alcohol or firearms on college property is illegal.

Eating, drinking, smoking and soliciting are not allowed in classrooms.

Pets (service animals excepted), telephones, pagers and other electronic devices that distract students are not permitted in classrooms. Please turn off these devices during classes.

Students are expected to exhibit courteous and respectful behavior in class. You are here for the purpose of furthering your education. Students who are disrespectful of others or who are creating disturbances that interfere with the conduct of the class or the learning of others will be asked to leave.

Withdrawals
Students may withdraw from class at any time during the first 2/3 of the semester without instructor permission and without incurring any grade penalty. Please be kind enough to inform your instructor if you withdraw.

Students who are not regularly attending class and who have not submitted any assignments nor taken any quizzes or exams by the 45th day census date are assumed NOT to be participating in the class may be withdrawn by the instructor.

Please be sure to withdraw yourself before the end of the course if you do not expect to complete the class; otherwise you may receive a grade of "F" for the course and may affect your academic standing at the college.

Incomplete grades are only given when a significant amount of class has been missed for medical or other legitimate reasons. (See information which follows)

ADA Compliance
Pima County Community College District strives to comply with the provisions of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. Students with disabilities requiring special accommodations must notify the instructor of this need or directly contact the Disabled Student Resources Office on your campus at the beginning of the semester.

Workload
 Students are expected to spend the normal amount of time required for a college course attending class sessions, doing assignments and research, reading and preparing for exams. The standard Carnegie Unit of college credit assigns 1 credit hour for each 15 hours of class time and assumes that students spend two hours working outside the classroom for each hour of classroom instruction. For a three-credit course, this translates to 135 hours per semester or an average of nine hours per week for a 15/16-week semester.

Chem 080 Grading System/Policies

Your final grade will be a weighted average of your work during the semester and is calculated as follows:

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

The actual percentage may vary based on a final class distribution, but will not be higher than these percentages. At most, the above stated percentages may vary by up to 5 points. I do not grade on a curve.

When calculating final grade averages, your lowest quiz grade, assuming you have taken all the quizzes, will be dropped.

Since material that appears in quizzes also appears on exams, if your semester average for your exams is higher than your semester average for all the quizzes, then all your quizzes will be dropped.

If you have missed a significant number of quizzes, then your grade will be calculated on the basis of exams and the final exam only.

If you have taken all the quizzes and exams, your lowest exam score will be discounted by 50% so it will have a minimum effect on your grade average.

Any grades of "zero" assigned for cheating or plagiarism will not be dropped or discounted and will be calculated into your final average. If the ethics violation is considered severe, the "zero" can override all other grades in this course.

A grade of 70 or better on the final exam will guarantee that you will receive a grade no lower than a "C" in this course, provided you have completed all course requirements. Please note that the final exam is cumulative and obtaining a grade of 70 means that you need to understand the material from the entire semester's work.

If you miss the final exam, you will be assigned a grade of zero for the final exam.

Although quizzes generally help your grade point average, the exams and final exam carry a significant amount of weight toward your final average. **You must have a passing average for exams and the final exam to pass the course.**

An average less than 60 is a failing grade.

My policy is that no one will miss a grade by one point. If your actual average falls at 89, and 90 is an "A", then your grade will be rounded up to a 90. An 88.9 will be a "B". The same applies to the other grade ranges.

Incomplete (I) grade:

"I" grades must be requested in writing by the student. Final decisions regarding an incomplete grade are made by the instructor and are subject to review by the Department Chair and the Division Dean. Generally, the student must have successfully completed at least 2/3 of the course material to receive an "I" grade.

Incomplete grades are generally reserved for medical and family emergencies that are of significant duration or occur at a critical time during the semester, they are not a way to withdraw if you are failing the course. Please contact your instructor before the last week of class to be sure that there is sufficient time to consider your request.

An incomplete grade generally implies that a student has completed a substantial portion of the course and has shown sufficient initiative to complete the course on his or her own. The student will receive a copy of the standard "I" form filed with the grade. This form will detail specifically what must be done to complete the course. A student has one year to complete the required work, otherwise the grade automatically reverts to an "F."

Late Withdrawal grade:

Your instructor has the ability to enter a late withdrawal grade (W) at the end of the semester as a final grade for the course if you request it, in writing, by the last day of classes (not final exam week) and have not withdrawn by the normal two-thirds mark of the semester. Once final grades have been entered, you cannot retroactively request a D or F to be changed to a W.

If you have not attended class, and have not withdrawn by the 2/3 semester date, your instructor will not honor a late withdrawal request.

Please be aware that a W may affect your financial aid or other funding. You are advised to check with the funding organization to make sure there are no adverse effects to a W grade.

Final Grades:

Students no longer receive a grade transcript from the college mailed to their home address at the end of the semester. Students must log on to Banner Online Services to retrieve their grade information or may check grades by calling MAX 2000 at 206-4880. For privacy and security reasons, instructors may not post grades and may **NOT** give grades over the telephone.

Spring 2011 Calendar of Important Dates

Jan. 19	Spring classes begin
Feb 1	Last day to withdraw with a refund
Feb. 24-25	Rodeo Days – no classes
Mar. 14-20	Spring Break – no classes
Apr. 7	Withdrawal deadline
May 10	Last day of regular classes. **Last date to request a W grade in writing**
May 11-16	Final exam week

SOME SUGGESTIONS FOR SUCCEEDING IN CHEMISTRY

Chemistry is a complex subject. It includes a great number of abstract concepts along with mathematical manipulations of equations and data. As you progress through the course, new material presented builds on earlier material previously covered. There is also a large vocabulary of technical terms.

As a college level course, the class moves through topics at a rapid pace with the expectation that students will read and review information in their textbooks and will consult additional sources (books, articles, and the Internet) to aid in learning and understanding course information. Because concepts and problem solving can be varied in many ways and be applied to different types of compounds and situations, it is important that you actually work out problems and calculation on a regular basis throughout the semester.

Succeeding in chemistry requires **constant study and review** of class material since many concepts build upon previous material. **This is not a course where you can memorize course material and solutions to specific problems** or just read over or cram information before a quiz or exam.

The following suggestions will be helpful in helping you to succeed in this course:

1. **Always read the chapter in the textbook before it is covered in class.**
   Before a thorough reading, **scan the chapter**(s) to find out the kind of material covered. Look at any learning objectives or chapter outlines, the section headings, illustrations and tables, margin notes, and boxes containing relevant information and applications. Also look at the chapter summary and types of questions asked at the end of the chapter.

   Read the chapter. You probably will not understand all the material after the first reading, it may take several readings. *Make notations of anything you do not understand* in the textbook or on a separate sheet of paper - you will **not** remember them unless you write them down. It is in the lecture portion of the course where this material will be explained.

   When necessary, go back to previous chapters and review pertinent information that forms the foundation of the current material.

2. **Attend the lectures.**
   Each topic and chapter will be explained in lecture along with illustrations, relevant applications, supplementary material, and demonstrations. Important concepts will be stressed. Often, concepts will be explained in a different way from your textbook and they may be illustrated by demonstrations. Keep your notes from your chapter reading handy during the lecture to check that all your questions or uncertainties are addressed.

3. **Ask questions.**
   The only *stupid questions* are those that are **not** asked. If you do not understand something, chances are that there are others with the same question - **ASK IT**, no one else will.

   If you are really self-conscious about asking questions in class, then ask your instructor before or after class. Also, stop in your instructor's office during his/her office hours or make an appointment to meet with your instructor.

4. **Keep your work organized.**
   Well organized material is easier to follow and understand. Organize your notes by topic and sub-topic or rewrite them in outline form. Make notations in your notes of things you do *not* understand. This organization is helpful when reviewing for quizzes and exams.

   Good organization is essential with problem solving. For each problem, you should show the formula used or a concept map of the solution, identify what is being asked, and list the given data and additional factors or information needed. Substitute the proper terms into the formula and be sure to include the proper physical units. Make sure that the units are the same throughout the problem, occasionally you need to convert units to obtain the correct solution to the problem. Unneeded units should cancel leaving you with the correct units for the answer. Do the arithmetic last. Use of the physical units in a problem provide a quick means for checking your results.

   It is essential that clear organized set-ups be used in all quizzes, worksheets, and exams. You will not get full credit for any calculation without a set-up. The final numerical answer to any problem is worth one point of the total problem points.

5. **Try all the homework questions and problems.**
   You must read and answer assigned questions. It is also essential that you physically work out assigned problems and calculations.

   If you get stuck on a problem, no matter how little or how much you have done of it, *do not spend more than 10 minutes* with it, try another problem. Try the problem again, from scratch, the following morning or evening. If you are still stuck, then write

a notation on your paper stating what your difficulty is (e.g. "what do I do next?"; "how do I use this item of data?", etc...). At the earliest possible opportunity, ASK your instructor or a tutor for help. **SAVE YOUR WORK** (including your rough notes) - it will give your instructor a starting point for an explanation and help you to see your error or difficulty.

6. **Study and review the course material on a regular basis.**
   Try to study in short sessions. You will retain more information from several 10 or 15 minute study sessions than you will from one long session. Make up some cards listing items that you have difficulty remembering, carry them with you, and review them when you find yourself unoccupied (such as waiting for someone, standing in a line, etc...). It is also helpful to make up mnemonics for lists of items or terms, or for concepts.

7. **Get the addresses and telephone numbers of TWO classmates.**
   If you miss a class, you can get the notes from one or both classmates. Study together, you will be surprised at how much you learn from each other.

One of the best ways to get help in the course is to talk to your instructor. Make an appointment with him/her and **keep it**.

Caveats:

> **Your instructor will make every attempt to follow the above procedures and schedules, but they may be changed in the event of extenuating circumstances**.

> **Students submitting assignments are advised to make copies for their own protection.**

> **If you move during the semester, please file a change of address form at any PCC campus registration office.**