

## Harry S Truman College

*One of the City Colleges of Chicago*

Our Mission dedicates us to deliver high-quality, innovative, affordable, and accessible educational opportunities and services that prepare students for a rapidly changing and diverse global economy.

### CHEMISTRY 121 BC, Basic Chemistry I - Fall 2012

#### Welcome!

**Instructor:** Dr. Zoran Miodragovic

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**Office:** 3624

**Phone:** 773-907-4694

**Office hours:** Mon / Wed 12:30 pm-1:15 pm Rm 3624

**Class hours:** Mon / Wed 9:30 am – 12:20 am Rm 3974

**Length of the Course:** 16 weeks

**Credit hours:** 4                      **Contact hours:** 6 (2 lecture hours, 4 lab hours)

**Website:** [Blackboard \(http://ccc.blackboard.com\)](http://ccc.blackboard.com)

**PLEASE CHECK THE BLACKBOARD REGULARLY FOR IMPORTANT NEW INFORMATIONS, CHANGES IN THE SCHEDULE (TENTATIVE COURSE OUTLINE), ETC!**

#### Course Catalog Description

**Chemistry 121** - Principles of general inorganic chemistry, including properties of matter, dimensional analysis, fundamentals of stoichiometry, interpretation of the periodic table, nomenclature, and introduction to solution chemistry and commonly used concentration units. Writing assignments, as appropriate to the discipline, are part of the course.

**Prerequisite:** Eligibility for Math 118 or higher.

#### Required materials:

- **Recommended Textbook:** *Introductory Chemistry*, 4<sup>th</sup> Edition, by N.J. Tro, Prentice Hall, 2011, combined with Mastering Chemistry access - homework assignments will be given through the Mastering Chemistry online homework system (course ID: MCMIODRAGOVIC56563).
- **Labs:** *Catalyst Chem 121 Lab Manual Truman College, The Pearson Custom Library for Chemistry*
- **Laboratory Notebook:** You must have a notebook with bound pages (spiral notebooks may not be used) in order to write results and observations during the experiments, and to prepare lab reports.
- **Calculator:** A scientific calculator with exponential notation and logarithms is required for exams, quizzes, lab reports, and homework. Using a cell phone instead of an appropriate scientific calculator is not allowed.

**FERPA (Family Educational Rights and Privacy Act) is a federal law that protects the privacy of student educational records:**  
<http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html>. Faculty cannot reveal information about students, or discuss student records over the phone or unsecure e-mail. CCC student e-mail meets FERPA requirements.

### **Student Services**

The [Student Services Department](#) provides a broad range of services to assist students in achieving their academic and life goals.

- **Students with Disabilities.** The [Truman College Disability Access Center \(DAC\)](#) verifies needs pursuant to the American Disabilities Act (ADA), determines student academic accommodations, and issues accommodation letters. The center is located in room 162 Larry McKeon Administrative Building (773) 907-4725. Linda Ford is the director.
- **Tutoring Center.** The [Tutoring Center](#) is located in room 167 Larry McKeon Administrative Building (773) 907-4785
- **TRIO Student Support Services.** [TRIO](#) is for low-income students, first generation college students, or students with disabilities who need academic support. It is located in room 162 Larry McKeon Administrative Building (773) 907-4797. Registration is required at the start of each semester.
- **Wellness Center.** The [Wellness Center](#) provides a variety of services at no cost for students including counseling, crisis intervention, support groups and more. (773) 907-4045, room 177, Larry McKeon Administrative Building.
- **Ray Cosgrove Library:** Room L865, basement, main building, (773) 907-4865

### **Students the Course is Expected to Serve**

Chemistry 121 is designed mainly for students who have not had high school chemistry and whose mathematics background precludes their taking of Chemistry 201/203. Students contemplating applying for the Associate Degree Nursing Program and students who wish to improve their science background compose the majority of students in this course. It can also be used as a substitute for physical science in the general education core.

### **Student Learning Outcomes for Chemistry 121:**

At the completion of this course, the successful student will be able to:

- Compare and contrast the chemical behavior and physical properties of common substances.
- Predict and explain the electronic and molecular structures of common substances using models.

- Determine the qualitative and quantitative relationships between matter and energy involved in chemical or physical processes.
- Classify matter by its state and bonding behavior using the Periodic Table as a reference.
- Solve quantitative problems (stoichiometric) involving chemical formulas and equations.
- Formulate and test hypotheses.
- Perform laboratory experiments demonstrating safe and proper use of standard chemistry glassware and equipment.
- Record, graph, chart and interpret data obtained from experimentation.

### **Course Objectives for Chemistry 121:**

Each course objective is cross referenced to a specific General Education Goal (GEG)

At the completion of this course, the successful student will be able to:

- Describe processes and procedures used in the scientific method; GEG3-5
- Differentiate terms such as observation, hypothesis, data, conclusion, theory; GEG3-5
- Explain how the use of the scientific method furthers scientific knowledge; GEG3-5
- Convert numbers in decimal notation to scientific notation and vice versa; GEG 2-5
- Convert temperature data to values in three scales: Celsius, Fahrenheit and Kelvin; GEG 2-5
- Explain why the Kelvin scale does not use negative numbers; GEG 3,4
- Convert quantities using common metric units: liters/milliliters, kilograms/grams/milligrams and meters/centimeters/millimeters; GEG3-5
- Demonstrate the use of significant figures in basic calculations: addition/subtraction, multiplication/division; GEG2-5
- Differentiate between precision and accuracy; GEG3-5
- Calculate one of the three quantities: mass, volume, density given the values for the other two; GEG4,5
- Determine mass by difference; GEG5
- Determine volume by difference; GEG5
- Measure the density of a sample of a solid or a liquid using available laboratory equipment; GEG2,4,5
- List the names and chemical symbols of at least 44 elements including Uranium (92) from the inner transition elements; GEG3,4
- List the names and formulas of common polyatomic ions; GEG3,4
- Given a positive and a negative ion - construct the formula of the ionic compound formed; GEG3,4
- Compare and contrast the difference between covalent and ionic compounds; GEG3,4
- Classify bonds in common compounds along the continuum of purely covalent to purely ionic; GEG3,4
- Differentiate between pure substances (elements and compounds) and mixtures (homogeneous and heterogeneous); GEG3,4
- Define colloid and give examples of colloids: foams, gels, smoke; GEG4
- Classify common elements as metals, non-metals and semi-metals and describe the properties of each class; GEG3,4
- Explain how the arrangement of electrons in an atom affects its bonding and chemical properties; GEG3,4

- Explain how the periodic table is arranged and what is indicated by rows, columns and various sections of the table; GEG3,4
- List electronic configurations for the first thirty-six elements; GEG3,4
- List the number of valence electrons for the first thirty-six elements (main group elements only); GEG4
- Construct simple Lewis Dot structures: water, methane, ammonia, boron trichloride, carbon dioxide, the diatomic molecules; GEG4
- Identify the alkali metals, alkaline earth metals, transition elements, halogens and noble gases on the periodic table; GEG3,4
- Convert between mass and moles; GEG3,4
- Convert between number of moles and number of formula units, molecules or atoms; GEG3,4
- Solve empirical formula problems; GEG4
- Classify chemical reactions into types: combination (synthesis), decomposition, single displacement (replacement) and double displacement (replacement) and combustion; GEG4
- Determine if a metal/metal ion in a reaction is being oxidized or reduced; GEG4
- Balance simple chemical reactions; GEG4
- Paraphrase the chemical properties of common ionic compounds and common covalent molecules; GEG3,4
- Recognize the formation of a precipitate or the evolution of a gas or heat during a chemical reaction performed in the laboratory; GEG5
- Construct chemical formulas for common compounds given the compound's name; GEG3
- Identify the name of compounds from its formula; GEG3
- Perform basic stoichiometric calculations to determine the quantity of products given various quantities of reactants; GEG4
- Solve limiting reactant problems; GEG4
- Solve percent yield problems; GEG4
- Compare and contrast the properties of the three basic states of matter: gas, liquid and solid; GEG3,4
- Explain the Kinetic Molecular Theory of Gases and list the assumptions of this theory; GEG3,4
- Calculate volume, temperature or pressure of a gas sample that undergoes changes in its initial conditions using the combined gas law; GEG4,5
- Apply the ideal gas law in solving chemical problems; GEG4
- Compare the solubility of various common compounds; GEG3,4
- Define the terms: solution, solute, solvent and solubility; GEG3
- Calculate the molarity of solutions; GEG4
- Identify and classify strong acids, hydroxide bases and neutral salts given the formula e.g. HCl is an acid, KOH is a base, NaCl is a neutral salt; GEG4,5
- Perform laboratory experiments that illustrate basic chemical principles; GEG1,2,4,5
- Demonstrate the careful recording of observations and data in the laboratory; GEG1-5
- Demonstrate a knowledge of laboratory safety; GEG1,2
- Demonstrate effective laboratory procedures such as transfer of solids, weighing of solids, pouring of liquids, measurement of liquid volume; GEG1,2
- Collect, organize and graph experimental data; GEG2-5
- Interpret experimental data and draw inferences from the data; GEG4,5
- Summarize the results of experimental observations and data; GEG4,5

- Give the names of common laboratory glassware: beakers, erlenmeyer flasks, graduated cylinders, test tubes. GEG3

## Teaching and Learning Goals Established by Truman College

Taking a course in Chemistry helps a student achieve all of the following general education goals. How this occurs is explained below.

- Communicate effectively in both written and oral forms  
Students will keep a laboratory notebook and learn to record careful observations, draw appropriate conclusions and reflect on what they have learned.
- Gather, interpret and analyze data  
Students will learn to collect data in the laboratory, create graphs, compare quantitative data and draw conclusions about the data obtained.
- Demonstrate the ability to think critically, abstractly and logically  
The Scientific Method is predicated upon deductive and inductive logical reasoning. Students will study applications of the scientific method to information gathered by the scientific community. Students will read articles about chemical discoveries. Abstract thinking is developed in many ways in chemistry from the use of symbols and models to the use of mathematics to solve a variety of problems.
- Work with a variety of technologies  
Students use computers, data acquisition equipment, microscopes, digital imaging devices, media, the Internet, podcasts, digital balances, all in the pursuit of scientific knowledge.
- Exhibit social and ethical responsibility  
This very serious goal is addressed on many levels in the chemistry course, from the discussion of the importance of careful and precise measurements that could affect the life of a patient to the discussion of what happened when the space ship Challenger exploded or a grain elevator explodes - we examine the role of responsible use of chemical knowledge.
- Perform productively in the workforce  
Because Chemistry education is comprehensive in utilizing the body (kinesiology), the mind (both spatial and analytical reasoning) and the heart (looking at the connection of chemistry to the world) it is an excellent course to prepare individuals for the workforce.
- Demonstrate the ability to learn independently  
Students are given independent projects to complete in the course. They are also given questions to research independently. Reporting these results to the class develops their ability to speak confidently to their peers.
- Gain awareness of their role in the global community  
By discussing the way that chemistry is connected to other occupations and careers we develop student awareness about their career choice and its dependencies on a basic understanding of chemistry.

### **General Education Goals Established by Truman College**

- **GEG1:** The student exhibits social and ethical responsibility and is aware of her or his place in the global community.
- **GEG2:** The student performs effectively in the workplace and has the ability to work and make effective use of a wide variety of current technologies.
- **GEG3:** The student communicates effectively in both written and oral formats.
- **GEG4:** The student demonstrates the ability to think critically, abstractly, and logically.
- **GEG5:** The student gathers, interprets and analyzes data.

### **Physical Science and Engineering Departmental Learning Outcomes**

Upon graduation with an Associate degree from Truman College a student should be able to:

- Organize, analyze and interpret information and use the scientific method to make inferences.
- Exhibit knowledge of scientific concepts through written and oral communication.
- Demonstrate excellent laboratory skills and techniques including the proper use of relevant instruments and related technologies.
- Use the lexicon of science to explain abstract scientific concepts.
- Relate concepts learned in Physical Science and Engineering Department classes to real world situations.

### **Method of Instruction:**

Lectures, Discussions, and Notes: Selected chapter outlines, highlights, and notes will be available on Blackboard

Laboratory Activities: Pre-laboratory materials, procedures, and other instructions can be found in the lab manual textbook (*Catalyst Chem 121 Lab Manual Truman College*). Students are expected to have reviewed these before coming to class. Some of these may be guided inquiry laboratory activities. In case of some alteration of the original laboratory procedures and instructions, the appropriate handouts will be timely provided in the form of hard copies or online on Blackboard.

Group Exercises/Chem Activities: Some chapter exercises and most laboratory experiments will be done as group work.

Video clips: Certain reactions and processes may be shown through short video clips.

Class Demonstrations: Live demonstrations of reactions and other processes may be done during both the lectures and laboratory work.

Online Activities: Homework assignments will be posted exclusively through the MasteringChemistry on line system.

## Topical outline and tentative schedule

This schedule may be subject to change

Date	Topic	Related chapter in the textbook
M, 08/20	<b>LECTURE:</b> Course orientation. Introduction to chemistry. Scientific method. Prior to this class it is highly recommended to review basic math.	1
W, 08/22	Lab Check-In, Lab Safety <b>LECTURE:</b> Measurement and problem solving	2
M, 08/27	<i>Quiz 1: Syllabus and Lab Safety</i> <b>LECTURE:</b> Measurement and problem solving (continuation) <b>LECTURE:</b> Matter and energy	2 3
W, 08/29	<i>Quiz 2: Chapters 1 &amp; 2</i> <b>LECTURE:</b> Matter and energy (continuation) <b>LAB 1:</b> Separation of table salt and sand /laboratory assignment/procedure is to be downloaded from the blackboard/	3
M, 09/03	<b>LABOR DAY</b>	
W, 09/05	<b>LECTURE:</b> Atoms and elements	4
M, 09/10	<i>Quiz 3: Chapter 3 &amp; 4</i> <b>LECTURE:</b> Molecules and compounds	5
W, 09/12	<b>LECTURE:</b> Molecules and compounds (continuation)	5
M, 09/17	<i>Quiz 4: Chapters 5</i> Review for the Exam 1	
W, 09/19	<b>Exam 1: Chapters 1-5</b> <b>LECTURE:</b> Chemical composition	6
M, 09/24	<b>LECTURE:</b> Chemical composition (continuation) <b>LAB 2:</b> Analysis of alum /#4 in Catalyst/	6
W, 09/26	<b>LECTURE:</b> Chemical composition (continuation) <b>LAB 3:</b> Empirical formulas of compounds /#5 in Catalyst/	6
M, 10/01	<i>Quiz 5: Chapter 6</i> <b>LECTURE:</b> Chemical reactions	7
W, 10/03	<b>LECTURE:</b> Chemical reactions (continuation) <b>LAB 4:</b> Ionic reactions – precipitation /#6 in Catalyst/ <b>Lab reports 1 - 3 are due</b>	7
M, 10/08	<i>Quiz 6: Chapter 7</i> <b>LECTURE:</b> Quantities in chemical reactions	8
W, 10/10	<b>LECTURE:</b> Quantities in chemical reactions (continuation) <b>LAB 5:</b> Energy and specific heat /#2 in Catalyst/	8
M, 10/15	<i>Quiz 7: Chapter 8</i> <b>LECTURE:</b> Electrons in atoms and periodic table	9
W, 10/17	<b>LECTURE:</b> Electrons in atoms and periodic table (continuation) <b>Lab reports 4 &amp; 5 are due</b>	9
M, 10/22	<i>Quiz 8: Chapter 9</i> Review for the Exam 2	
W, 10/24	<b>Exam 2: Chapters 6-9</b> <b>LECTURE:</b> Chemical Bonding	10

M, 10/29	<b>LECTURE:</b> Chemical Bonding (continuation)	10
W 10/31	<b>LECTURE:</b> Chemical Bonding (continuation) <b>LECTURE:</b> Liquids, solids, and intermolecular forces	10 12
M, 11/05	<i>Quiz 9: Chapter 10</i> <b>LECTURE:</b> Liquids, solids, and intermolecular forces (continuation) <b>LAB 6:</b> Freezing points and melting points /#3 in Catalyst/	12
W, 11/07	<b>LECTURE:</b> Solutions	13
M, 11/12	<b>LECTURE:</b> Solutions (continuation) <b>LECTURE:</b> Acids and Bases	13 14
W, 11/14	<i>Quiz 10: Chapter 12 &amp; 13</i> <b>LAB 7:</b> Identifying anions in solution /# 8 in Catalyst/	
M, 11/19	<b>LECTURE:</b> Gases	11
W, 11/21	<b>LAB 8:</b> Gas laws – Charles' /# 9 in Catalyst/ Review for the exam 3	
M, 11/26	<i>Quiz 11: Chapter 14 &amp; 11</i> Review <b>Lab reports 6-8 are due</b>	
W, 11/28	<b>Exam 3: Chapters 10-14</b>	
M, 12/03	<b>COMPREHENSIVE FINAL EXAM</b>	
W, 12/05	<b>Departmental Exit Exam</b>	

### Methods of Assessment:

Exams/Quizzes: There are three partial examinations, a comprehensive final examination, and departmental exit exam. Short quizzes will be given roughly according to the tentative schedule. Quizzes and exams will be based on previously discussed material, laboratory activities, homework assignments, and material presented in the textbook. There will be **no make up** for any of neither quizzes nor exams. One lowest scored partial exam and two lowest scored quizzes will be dropped instead.

Up to one missed exam or one missed quiz may be made up if the absence was previously excused. There will be **no make up** for any additionally missed exam or quiz. Two lowest scored quizzes and one lowest scored partial exam will be dropped instead.

A **Comprehensive Final Exam** and a **Departmental Exit Exam** will be given at the end of the semester and **are absolutely mandatory. Students who do not attend both of these exams will receive a grade of F for the course. If such a student has a College recognized excuse, she or he will be given a grade of I (incomplete), which will be changed to a passing or failing grade depending on whether the final exam is completed in accordance with the deadline set by the College.**

Laboratory: The evaluation of lab work will be based on:

- Preparedness prior the lab session. Pre-lab questions must be answered before coming to the lab session. Unannounced short lab quizzes may be given before or after the experiment.

- Performance during the lab session – (which also includes safety rules observance, general appearance/neatness of the lab desk during and after the experiment, reagent bottles and equipment handling, time management – completion the experiment on time /the time for each experiment will be limited and points will be diminished proportionally to the part of experiment that is not done/, reasonability of the results, etc.); lab desk must be checked by the instructor before you leave for the day.
- Original data collected during the lab period and shown to the instructor at the end of the period, additional data that are result of your observation during the experiment, and answers to post lab questions if applicable (answers to post lab questions are to be answered in accordance to due dates indicated in the tentative class schedule). **Observations and data collected during the experiment must be written directly in the lab notebook in ink or pen, not in pencil!**
- Lab reports must be written neatly (please handprint) in ink or pen, in the appropriately signed lab notebook. All lab reports must begin with general data: title, name of student, names of lab partners, date of performance, and date of submission. **Lab reports that are illegible or written in pencil will be graded with 0 points!** Lab reports may alternatively be typed in word format, printed, and submitted as stapled hard copies.
- **Do not use any kind of white-out. Errors should have only one line through them** and should remain ~~impossible~~ possible to read (just in case these entries need to be reconsidered).
- Lab reports may be submitted up to one week after the deadline; however, in that case the maximal number of points will be up to 1 (instead of 2).
- **If a student presents fabricated data or “experimental” data copied from another student, both of the students will receive 0 points for this particular lab report.**
- A missed lab will be graded with 0 points and cannot be dropped except if the absence is previously properly excused.
- There will be **no make up for any missed lab or lab quiz**. One lowest graded lab will be dropped instead.

Homework: Homework assignments will be posted on line through MasteringChemistry website. They must be submitted on time. Any late homework will not be accepted.

Active class participation – Students are expected to actively participate in class discussions, regularly do all assignments and take exams and quizzes, help classmates in gaining new knowledge and/or ask classmates and the instructor for help when needed.

## Method of evaluation of student performance - GRADING:

Final course grades will be based on the following:

- Laboratory work		$7 \cdot 3 = 21 \%$
	best 7 out of 8 (lowest 1 is dropped)	
- In class activities		8 %
- Active class participation	1 + 1 extra point =	2 %
- Homework		$13 \cdot 0.7 = 9.1 \%$
- Quizzes		$9 \cdot 2 = 18 \%$
	best 9 out of 11 (the lowest 2 are dropped)	
- Partial examinations		$2 \cdot 9 = 18 \%$
	best 2 out of 3 (the lowest scored exam is dropped)	
- Comprehensive final exam		10 %
- Departmental exit test		15 %
	(in order to get letter grade C or better min. 17/30)	
<b>Total</b>		<b>101 %</b>

### Grading scale:

A  $\geq 90 \%$

80  $\leq$  B  $< 90$

65  $\leq$  C  $< 80$

50  $\leq$  D  $< 65$

F  $< 50$

I incomplete

**ADW** will be given at the midterm to a student who (by the midterm date) would not fulfill the minimum requirements of active class participation.

It is important to understand that **A is earned for superior performance, B for very well, C for adequate, D for minimal, and F for insufficient.**

Exams/Quizzes: The partial exam with the lowest score and the two quizzes with the lowest scores will be dropped before calculating the final grade.

**The Final Exam and Exit Test are comprehensive and mandatory to attend.**

The Departmental **Exit Exam** is a cumulative exam consisting of 30 multiple choice questions. Beside a passing score according to all other criteria **in order to receive a passing grade (C or better) for the course a student must pass the Exit Exam.** **The passing score for the Exit Exam is 17 (out of 30) points. If a student fails the Exit Exam** scoring less than 15 points on it, he or she **will receive a final grade of F for the course even if the total score for the course would otherwise be a passing one.** A student who fails the Exit Exam scoring 16 or 15 points and has a passing score according to all other graded criteria qualifies for the Appeal Exam.

**Additional Instructions for the Laboratory**

1. No eating, drinking, chewing gum, or smoking in the room.
2. Study the experiment carefully before coming to class so that you don't waste time going through the procedure during the lab. **NO MAKE UP LABS.**
3. You must do your own work unless you are told to work in pairs for an experiment. If you need guidance, let the instructor know.
4. **RECORD ALL DATA IN INK IN YOUR LAB DATA SHEET WHILE YOU WORK.** Do not write data, even temporarily, on scraps or other pieces of paper. **Do not forget your name or the unknown number**, if applicable. Pay attention to significant figures and units. If you make a mistake, delete entries by crossing them out neatly with a single line. Do not erase or "white out" mistakes. **BEFORE LEAVING THE LABORATORY, HAVE THE LABORATORY INSTRUCTOR SIGN YOUR REPORT SHEET.**
5. Children are not allowed in the lab.
6. **ALWAYS WEAR YOUR SAFETY GLASSES.** Failure to wear your safety glasses will lead to dismissal from lab and a lowered grade for that experiment.
7. **WEAR SENSIBLE CLOTHING** as discussed during the safety lecture. If you wear shorts, sandals, or other clothing that is not consistent with safety, you will not be admitted to the laboratory. Wearing a lab apron or a lab coat is recommended.
8. Do not take reagent bottles to your bench. Use test tubes, beakers, or weighing boats to obtain chemicals from the dispensing area. Take small quantities of reagents. You can always get more if you run short.
9. Check carefully the label on each reagent bottle to be sure you have the correct reagent. The names or chemical formulas of many substances appear similar at first glance.
10. To avoid possible contamination, never return unused chemicals to the reagent bottles.

11. Do not insert your medicine droppers into reagent bottles. Instead pour a little of the liquid into a small beaker or small test tube.
12. Be neat in your work; if you spill something, clean it up immediately.
13. Wash your hands anytime you get chemicals on them and at the end of the laboratory period.
14. After completing the experiment, clean and put away your glassware and equipment. Clean your work area and make sure the gas and water are turned off. A clean lab is a safe lab.
15. Dispose solid waste such as filter paper and litmus paper in the wastebasket, not in the sink. Dispose broken glass in the broken glass waste boxes. Dispose all other solid chemicals as directed by your instructor. Pour all the toxic liquids into the waste bottles provided or as directed by instructor.
16. Keep the mass balances and the area around them clean. Follow the directions given by the instructor on the proper weighing technique to use. Do not place chemicals directly on the balance pans; place a piece of weighing paper or a small container on the pan first, and then weigh your material. Never weigh an object while it is hot.
17. Do not heat graduate cylinders, burettes, pipets, or bottles with a burner flame.
18. Do not look down into the open end of a test tube in which the contents are being heated or in which a reaction is being conducted.
19. Do not perform unauthorized experiments.

**Course Policy:**

Correspondence with Instructor: FERPA (Family Educational Rights and Privacy Act) is a federal law that protects the privacy of student educational records. See the following webpage: [www.ed.gov/policy/gen/guid/fpco/ferpa/index.html](http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html). Faculty cannot reveal information about students, or discuss student records over the phone or unsecured e-mail. CCC student e-mail meets FERPA requirements and must be used when communicating with the instructor after hours.

Active Pursuit and Withdrawal: In order for you to remain enrolled in the course, you must actively pursue the completion of its objectives. You will be withdrawn from the course (i.e., given a grade of ADW) at midterm if up to that point at least two of the following apply:

1. Less than 70% of the homework have been completed
2. Less than 70% of the labs and reports have been done and submitted
3. Less than 70% of the quizzes have been attempted
4. Less than 70% of the class sessions have been attended

The last day for student initiated withdrawal is on November 12<sup>th</sup>. Merely stopping from attending class beyond midterm does not constitute an official withdrawal. If your name appears in the final grade roster at the end of the semester and you have stopped attending long before then, you will receive a grade of 'F' for the course.

Student Conduct: Each student is responsible for adhering to the Standards of Conduct according to the Student Policy Manual (p. 41, <http://www.ccc.edu/Files/studentpolicymanual.pdf>). **All pagers and cellular phones must be turned off or put on the silent mode and put away during lecture and laboratory sessions.** No CD/MP3/tape/music/iPod/iPhone are allowed to be operated while class is in session.

Academic Integrity: Academic dishonesty is a serious offense, which includes but is not limited to the following: cheating, complicity, fabrication and falsification, forgery, and plagiarism. Cheating involves copying another student's paper, exam, quiz or use of technology devices to exchange information during class time and/or testing. It also involves the unauthorized use of notes, calculators, and other devices or study aids. In addition, it also includes the unauthorized collaboration on academic work of any sort. Complicity, on the other hand, involves the attempt to assist another student to commit an act of academic dishonesty. Fabrication and falsification, respectively, involve the invention or alteration of any information (data, results, sources, identity, and so forth) in academic work. Another example of academic dishonesty is forgery, which involves the duplication of a signature in order to represent it as authentic. Lastly, plagiarism involves the failure to acknowledge sources (of ideas, facts, charges, illustrations and so forth) properly in academic work, thus falsely representing another's ideas as one's own.

"The City Colleges of Chicago is committed to the ideals of truth and honesty. In view of this, students are expected to adhere to high standards of honesty in their academic endeavor. Plagiarism and cheating of any kind are serious violations of these standards and will result, minimally, in the grade of "F" by the instructor." – p. 40 of the [Student Policy Manual](http://www.ccc.edu/Files/studentpolicymanual.pdf) (<http://www.ccc.edu/Files/studentpolicymanual.pdf>)

Useful websites for learning and practicing:

Nomenclature of inorganic compounds:

[http://justonly.com/chemistry/pdfs/ion\\_chart.pdf](http://justonly.com/chemistry/pdfs/ion_chart.pdf)

Basic chemistry review:

[http://justonly.com/chemistry/chem201/pdfs/basic\\_chem\\_review.pdf](http://justonly.com/chemistry/chem201/pdfs/basic_chem_review.pdf)

Basic chemistry review answers:

[http://justonly.com/chemistry/chem201/pdfs/basic\\_chem\\_review\\_answers.pdf](http://justonly.com/chemistry/chem201/pdfs/basic_chem_review_answers.pdf)

Some additional useful resources for all chemical students

Lab safety contract: [http://justonly.com/chemistry/pdfs/safety\\_contract.pdf](http://justonly.com/chemistry/pdfs/safety_contract.pdf)

Beck's bookstore <http://www.becksbooks.com/textbook/truman-college-home>