

Dr. Stacey-Ann Benjamin

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Office Hours: M, R at 11:00 am – 12:15 pm via Zoom link:

<https://ufl.zoom.us/my/ufgenchemdrb?pwd=RGxWdmZXaVVyMnVlc1N4TmxhU2h5QT09>

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Course Description: CHM 2045 constitutes part of the first semester of the two term sequence of General Chemistry, CHM 2095/2095L - 2096/2096L. Topics in CHM 2095 include stoichiometry, energy and thermodynamics, atomic and molecular structure, the states of matter, reaction rates and introduces chemical equilibria.

Prerequisite information and credit suitability can be found in the Undergraduate Catalog. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Course Objectives: As both a general education requirement and major's course, CHM2045 serves to teach: the scientific method, skills for problem solving, general chemistry knowledge, and a connection to the principles that govern the natural world.

Required Course Material: ALEKS Prep Access and Top Hat Subscription (details below)

Course Textbook: *Chemistry, The Molecular Nature of Matter and Change*; Silberberg and Amateis; 8th Edition; McGraw Hill; ISBN 9781259631757.

- There is an option to opt-in to the eText for a discounted price via UF All Access. The content of this course will come from the text. It is the student's responsibility to be prepared for all class sessions. One way to demonstrate preparedness and engagement in your own learning is to read your textbook outside of class.

Optional: eBook of Student Solutions Manual made specifically for this course. Title: GENERAL CHEMISTRY - CHM 2045, ISBN: 9781307629521 and can be purchased here: <https://create.mheducation.com/shop/> through McGraw Hill or through UF Bookstore.

Calculators: A nonprogrammable, scientific calculator is required for this course. Calculators are allowed during exams but may NOT be shared. Graphing and programmable calculators are NOT permitted during exams. Cell phones and other electronic devices may NOT be used for calculations.

Technology Requirement: To ensure the most effective learning environment, it is important that you are equipped with the following:

- A reliable internet connection
- Regular access to a laptop or desktop computer with an operating system and web browser (specifically Google Chrome for taking proctored exams using HonorLock)
- A webcam, microphone, and speakers for virtual class sessions and proctored exams

The University of Florida provides various software licenses to students free of charge or at discounted rates. Please visit <https://software.ufl.edu/software-listings/> to access products that may interest you, for example Microsoft Office 365 ProPlus.

Canvas: Here you will find your syllabus, lecture recordings, online homework problems, worksheets, gradebook, course announcements, and important date reminders. Canvas may be accessed using the following website : <http://elearning.ufl.edu/>. It is your responsibility to check Canvas often to make sure that you do not miss important announcements and to ensure that your gradebook is accurate. For computer assistance, visit <http://helpdesk.ufl.edu/>.

Class Format: We will have face-to-face instructional sessions to accomplish the student learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
 - This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
 - Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
 - Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
 - If you are experiencing COVID-19 symptoms ([Click here for guidance from the CDC on symptoms of coronavirus](#)), please use the UF Health screening system and follow the instructions on whether you are able to attend class. [Click here for UF Health guidance on what to do if you have been exposed to or are experiencing Covid-19 symptoms](#).
 - Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. [Find more information in the university attendance policies](#).
- **Discussion Sessions & Worksheets** Discussion classes meet on Tuesdays, Period 6, via zoom conference and your attendance is expected (attendance will be checked by your TA). During your discussion session you will complete weekly worksheets that will count toward your overall grade (4%). Worksheets are designed to help students evaluate your understanding of core principles, be aware of what you know and what you need to work on before moving on to the next chapter.
- Worksheets will be posted to Canvas and you will download the document. You may start working on it before your discussion class, but you must log in to your zoom session to receive credit for the worksheet. Your TA will place you in breakout rooms where you may work on problems together in smaller groups. You will complete each worksheet, showing all your work and calculations, then upload your completed document to canvas for grading before the due date. If you miss a submission deadline but turn in your completed work before the following week, you will receive half credit. Any worksheet that is uploaded later than one week past the due date is worth no points. The first discussion classes meet the week of January 19th.
- Participation in discussion depends heavily on student engagement and interaction. Thus, students are required to have their cameras on from start to finish during our classes on Zoom. A default setting for our sessions in Zoom is that participants will be muted when they enter, so you will unmute yourself when you comment orally during our whole-group conversations and when you are in small groups. Your instructor/TA may also ask students to reply in the chat box for specific activities. Oral comments on camera and written comments in the chat box are

considered activities for participation. If you have technical issues, please immediately consult UF IT Help to resolve them and then contact your instructor/TA. Zoom sessions will not be recorded by the instructor/TA and may not be recorded by students. As in all courses, unauthorized recording and unauthorized sharing of recorded material is prohibited.

- **Top Hat (In-Class Participation)** Top hat subscription for in class clicker questions. After the Drop/Add period ends, lecture participation will be facilitated via the Top Hat student response system (www.tophat.com). You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or other applicable web-enhanced device – no clickers required. Five percent (5%) of the course grade will be based on performance on in-class Top Hat questions. You can earn points in class by correctly answering Top Hat questions (half the score for a correct answer + half the score for participation). The lowest five scores will be dropped at the end of the semester. Requirements for class attendance are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.
Absence from class, for whatever reason, will result in forfeiture of that day's participation score – no exceptions. However, missing one or two will not severely affect your overall score. You can visit the Top Hat Overview (<https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide>) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as providing a brief overview to get you up and running on the system.
- An email invitation will be sent to you by email, but if don't receive this email, you can register by simply visiting our course website: <https://app.tophat.com/e/943057>

Note: our Course Join Code is **943057**

Top Hat may require a paid subscription, at the University of Florida a one semester access is \$27.75.

Should you require assistance with Top Hat at any time, due to the fact that they require specific user information to troubleshoot these issues, please contact their Support Team directly by way of email (support@tophat.com), the in app support button, or by calling 1-888-663-5491.

Contacting the Instructor: Email is for administrative purposes only, and not for remote instruction. Course administrative queries only can be emailed to me from your official UF email account: student@ufl.edu only - students must use your official @ufl.edu email or have your @ufl.edu emails automatically forwarded to your preferred email address. You may also email me in Canvas if you wish.

Office Hours: All academic inquiries must be made during office hours. Please be prepared before coming to office hours, bring specific questions and your previous work. Questions about grades will not be discussed during office hours due to privacy regulations.

TA Office Hours and Chemistry Assistance: Your discussion TA will have office hours on Zoom. Links to all TA office hours will be posted in Canvas so students may attend any TA's office hours via Zoom. The [Broward Teaching Center](#) also offers free virtual tutoring assistance. See their website for details.

ALEKS Prep: Two percent of the course grade will be based on completion of the Aleks prep course. Every student taking CHM2045 must complete the ALEKS prep for the current semester regardless of prior classes, training, or previous ALEKS completion. The deadline for completion of the Aleks prep course is **Friday, January 29th**. The following shows the points you can earn based on completion:

% ALEKS Completion	0 – 69%	70 – 79%	80 – 89%	90 – 98%	99 - 100%
% of grade earned	0%	0.5%	1.0%	1.5%	2.0%

For more info and how to register please see <https://www.chem.ufl.edu/undergraduate/aleks/>

Online Assignments: Online homework will be assigned in Canvas. Online assignments are intended to help students keep up with the course content. Each assignment has a displayed deadline for earning full credit; you can earn up to 3% toward your grade by completing these assignments. You will have multiple attempts to answer the homework assignments. Failure to at least access a homework assignment before its due date will result in the loss of ability to access that homework for the remainder of the semester. Students that miss a homework deadline due to an excused absence can request an extension by contacting the instructor.

Additional practice problems: Chemistry is a course best mastered through **constant practice**. Additional practice questions are located at the end of each chapter in your text. It is highly suggested that students practice these problems. Feel free to contact your instructor during office hours to work on questions you may need help with.

Concept Checks: During the week of an exam, you will be given a concept check quiz. The concept check is intended to help you evaluate your understanding of core principles, be aware of what you know and what you need to work on before taking your exam. Each quiz will last the entire period, and the worked solutions will be posted on Canvas within 24 hours. You cannot make up a quiz so attendance and promptness to discussion is necessary.

Exams: Exams will be made available from 6:00 pm to 10:30 pm EST. Your final exam will take place from 3:00 pm – 5:00 pm on 4/24. You will be given 120 minutes to answer up to thirty (30) questions. Exam questions will consist of a number of question types including numeric entry, multiple dropdowns, multiple answer, true/false, multiple choice, matching, and multiple fill in the blanks. You must use a non-graphing non-programmable scientific calculator on exams (with log, ln, root, and exponent (scientific notation) functions). Be sure to also have pencils, blank sheets of scratch paper, and your UFID card. No notes, cell phones or other electronic devices can be in view during exams. Due to the nature of this course's content, the topics tested on each progressive exam are cumulative so questions may include previously covered concepts which the student is expected to have already mastered.

If you suspect an error in the grading of an exam, it is your responsibility to notify the lecturer in via email within one week of the grade being posted on Canvas for consideration. No grade change considerations or changes will be made after this one week period.

To alleviate the stress of exams, we have incorporated an “average/replace” policy (the lowest of the three progress exams will be replaced by the average of the three progress exams). This “average/replace” policy will help to minimize the impact of a single poor performance but it will not completely disappear. For example, if a student has: Exam 1 score of 190/200, Exam 2 score of 150/200 and Exam 3 score of 180/200, then their average/replace score will be 173/200 and it will replace the original Exam 2 score.

Honorlock for Proctored Exams: Your exams will be proctored by Honorlock, an online proctoring service that allows you to take your exam from the comfort of your home. You do not need to create an account, download software or schedule an appointment in advance. However, you will need a computer, a stable internet connection, a working webcam, Google Chrome web browser, and to download the Honorlock Chrome Extension. You can download the extension at www.honorlock.com/extension/install

To help you prepare for an exam proctored by Honorlock, please read <https://dce.ufl.edu/media/dceufledu/pdfs/Honorlock-Student-Exam-Preparation-Information.pdf>

When you are ready to test, log into Canvas, go to your course, and click on your exam. Clicking "Launch Proctoring" will begin the Honorlock authentication process, where you will take a picture of yourself, show your ID, and complete a scan of your room. You will need a small handheld mirror so you can show your computer screen to the camera and also show underneath your table or desk. Honorlock will be recording your exam session by webcam as well as recording your screen. Honorlock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device.

Honorlock support is available 24/7/365. If you encounter any issues, you may contact them by live chat, phone (855-828-4004), and/or email (support@honorlock.com).

Exam Absences: Absences will be handled in accordance with official UF academic regulations. For more information, see <https://catalog.ufl.edu/UGRD/academic-regulations/> . See below for further clarification for two different types of situations.

- 1) Conflicts with other events: Acceptable reasons to miss a scheduled exam include conflicting evening exams in courses with higher course numbers, religious holidays, military obligations, special curricular requirements (e.g., attending professional conferences), or participation in official UF-sanctioned activities such as athletic competitions, etc. For more information on such absences see the official UF Policy at <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/#absencestext>). If you must be absent for an exam due to a documented and approved conflict known in advance, you must e-mail your instructor the documentation at least one week prior to the scheduled exam and an early conflict exam will be scheduled for you.
- 2) Missing an exam due to an emergency or sudden illness: If you are absent for an exam due to an unpredicted documented medical reason or family emergency, you must contact the instructor as soon as possible, and you may be asked to have your excuse verified by the Dean of Students Office (DSO). Your instructor will follow UF academic regulations in evaluating the notification and/or documentation received by you or by the DSO on your behalf. Once your instructor is satisfied with the validity of your exam absence a make-up exam will be scheduled after a reasonable amount of time, i.e., before the end of the semester. If your documentation is deemed insufficient to excuse your absence you will receive a zero on the missed exam.

Tentative Course Schedule

Week	Topic/Chapter	Special Dates/Notes
1/11 – 1/15	Course Introduction CH 1, 2 Review CH 3: The Mole, Chemical Equations, Reaction Stoichiometry	
1/18 – 1/22	CH 4: Aqueous Chemical Reactions, Redox Reactions	No Class 1/18 – Martin Luther King Jr. Day
1/25 – 1/29	CH 4: Aqueous Chemical Reactions, Redox Reactions	Exam 1, F, 1/29 @ 8:20 – 10:20 pm CH 1, 2, 3, 4 F, 1/29 – ALEKS Prep course due by midnight
2/1 – 2/5	CH 5: Gases & the Kinetic-Molecular theory	
2/8 – 2/12	CH 6: Thermochemistry	
2/15 – 2/19	CH 16: Kinetics	
2/22 – 2/26	CH 7: The Nature of Light & Quantum Mechanical Model	
3/1 – 3/5	CH 8: Electron Configurations, Periodic Properties of the Elements	
3/8 – 3/12	CH 9: Chemical Bonding	Exam 2, W, 3/10 @ 8:20 – 10:20 pm up to CH 5, 6, 16, 7
3/15 – 3/19	CH 10: Lewis Structures and Shapes of Molecules	
3/22 – 3/26	CH 11: Theories of Covalent Bonding	No Class 3/24 – Recharge Day
3/29 – 4/2	CH 12: IMFs, Liquids, Solids	
4/5 – 4/9	CH 12: IMFs, Liquids, Solids	Exam 3, W, 4/7 @ 8:20 – 10:02 pm up to CH 8, 9, 10, 11
4/12 – 4/16	CH 13: Solutions & Colligative Properties	
4/19 – 4/23	Catch up on Lecture/Exam Review	Classes end 4/21
4/24		Cumulative Final Exam, S, 4/24 @ 3:00 pm – 5:00 pm

***** The last day to withdraw from a course with a “W” is April 9th.** If a student desires to withdraw from this course, it is his/her responsibility to complete the proper process. If a student stops attending class without withdrawing correctly, a grade of E will be assigned.

Course percentage breakdown	
3 during-the-semester Progress exams (20% each)	60%
Cumulative Final Exam	23%
In-class Participation (Top Hat)	5%
Worksheets	4%
3 Concept Check Quizzes	3%
Online Homework	3%
Aleks Prep	2%
Total	100%

Grading values: Your final letter grade in this course will be based on the following non-negotiable grade cut-offs:

90-100% = A	86-89.9% = A-	83-85.9% = B+	80-82.9% = B	77-79.9% = B-
73-76.9% = C+	69-72.9% = C	66-68.9% = D+	63-65.9% = D	60-62.9% = D-
< 60.0% = E				

Information on current UF grading policies for assigning grade points can be found at:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Academic Honesty and the Honor Code: Students are expected to exercise honesty and integrity at all times. Any incidents of cheating, plagiarizing/copying, submitting another person's work as your own, having unauthorized possession of exams, and/or facilitating other students' acts of academic dishonesty plagiarism, will be taken seriously and will be dealt with in the strictest manner.

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Disabilities: Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting disability.ufl.edu/students/get-started. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

The student is responsible for scheduling the exam dates with the DRC. Students with disabilities should follow this procedure as early as possible. The DRC has 4 business day policy to submit Accommodated Testing Requests (ATRs). You must submit this documentation prior to submitting assignments or taking quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

Inclusive Learning Environment: We embrace the University of Florida's Non-Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and

expression, marital status, national origin, political opinion or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." We are committed to fostering an open and inclusive classroom and laboratory environment in our College, where every student, guest instructor and contributor feels valued. Multicultural and Diversity Affairs (MCDA) is a department within the Division of Student Affairs that celebrates and empowers diverse communities and advocates for an inclusive campus for all students across identities. If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office on Multicultural & Diversity Affairs Website:

<https://multicultural.ufl.edu/>

U Matter, We Care: Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: Visit <https://counseling.ufl.edu/> or call 352-392-1575 for information on crisis services as well as non-crisis services.

Feedback: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Courtesies: Be reminded that this is a college-level course and students are expected to act accordingly. To have an optimal learning environment, the virtual classroom needs to be free of disruptions. Please refrain from speaking out of turn and mute your microphone in the live session. You may use the raise hand tool and wait to be acknowledged before asking a question or making a statement. Please be respectful to your lecturer and I will be respectful to you. The instructor reserves the right and obligation to ask any student whose behavior is deemed inappropriate or disruptive to leave the classroom.

Netiquette: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats. <http://biostat.ufl.edu/resources/e-learning-resources/e-learning-basics/etiquette-online/>

General Education: This course satisfies the General Education requirement in the Physical Sciences. A minimum grade of C is required for general education credit.

This course satisfies the general education program requirements for the physical sciences at the University of Florida. Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the

study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments. These objectives will be accomplished through participation in the course lectures and discussion sections, and individual work done on homework assignments and assessments.

General Education Student Learning Outcomes: The following learning outcomes will be assessed through online assessments and examinations.

Area	Institutional Definition	Institutional SLO
CONTENT	Content is knowledge of the concepts, principles, terminology and methodologies used within the discipline.	Students demonstrate competence in the terminology, concepts, methodologies and theories used within the discipline.
COMMUNICATION	Communication is the development and expression of ideas in written and oral forms.	Students communicate knowledge, ideas, and reasoning clearly and effectively in written or oral forms appropriate to the discipline.
CRITICAL THINKING	Critical thinking is characterized by the comprehensive analysis of issues, ideas, and evidence before accepting or formulating an opinion or conclusion.	Students analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems.

Specific Goals of CHM 2045: You will be required to analyze scientific concepts and think critically. This means being able to answer both quantitative (mathematical) and conceptual (qualitative) multiple choice problems in a limited period of time. Additionally, you will have to write or orally communicate during your discussion periods. We will also demonstrate how these topics can be applied to the scientific method and how observation and experimentation leads us to the development of scientific theories. To achieve this, students will be introduced to the following concepts from the textbook. You will review the importance of chemistry in our everyday lives. You will be required to utilize the methods of science as a logical means of problem solving through critical thinking. This means you must analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems. To ensure your competency in these concepts you will be required to complete online homework assignments and take quizzes and exams that require critical thinking, analysis of problems and drawing conclusions.

Critical Thinking: Critical thinking skills are essential in the general chemistry course. There are six criteria by which we promote critical thinking: 1. Information acquisition: Identifying and differentiating questions, problems and arguments. 2. Application: Assessing the suitability of various methods of reasoning and confirmation when approaching a problem. Students are taught to develop hypotheses and to find support and limitations associated with their hypotheses. 3. Analysis: Identifying and analyzing stated and unstated assumption and using logical reasoning to evaluate different viewpoints. 4. Synthesis: Students are encouraged to formulate questions and problems, construct arguments to address such questions and be able to effectively communicate conclusions. 5. Communication: In discussion of alternative points of view, students will be encouraged to criticize or defend their arguments with the use of logical reasoning and evidence. 6. Evaluation: Assessing the quality of evidence and reasoning to draw reasonable conclusions.

Mathematics: It is crucial in the general chemistry course to be competent in mathematics. Listed are the criteria by which we promote understanding and application of math: 1. Information acquisition: Students learn to select data that is pertinent to solving a problem. 2. Application: Use of algebraic, geometric and statistical reasoning to solve problems. 3. Analysis: Interpret and draw conclusions from formulas, graphs and tables. 4. Synthesis: To associate patterns and observations to more abstract principles and to consider specific applications of such principles. 5. Communication: Communicating information symbolically, graphically, numerically and verbally. 6. Evaluation: Estimate and verify solutions to mathematical problems to determine reasonableness, compare alternatives and select optimal results and understand the limitations of mathematical and statistical methods.

College Chemistry Study Tips: Success in college-level chemistry primarily requires two things: A strong conceptual understanding of the material, and a competent mastery of quantitative problem-solving strategies that are required to successfully answer word problems that are typical on exams. This means that you must read your textbook and PowerPoint slides and understand them. Then you **MUST PRACTICE** problems in your textbook and on Canvas so that you can diagnose your own strengths and weaknesses with the material. The more practice with problems that you do, the more likely you will recognize and know how to approach different kinds of problems, even if you've never seen identical questions before. Use the following suggestions as a guide:

1. Attempt each of the end-of-chapter problems one at a time, then check their solutions.
2. If you succeeded in getting the correct answer the first time without looking at the solution, check off that problem in the book, and if you did not succeed in getting the correct answer the first time without looking at the solution, circle the problem number.
3. Re- attempt the circled problems the next day or a few days later to see if you get the correct answer without looking at the solution.
4. Repeat steps 2 and 3 if necessary. Never assume that you have understood or succeeded at a problem until you have obtained the CORRECT answer all on your own and **NEVER** merely look at the solutions and say "oh yeah, I see what I did wrong", and move on.

Merely "doing all the problems at the end of the chapters" does not equal "doing all the problems at the end of the chapters correctly". The aim is not only to work hard, but to also work productively.

Giving yourself a "grade" after each session will keep you mentally on track regarding how you are performing at that time.

Additional Study Habits: Any Chemistry course demands a regular sustained effort throughout the semester. This course requires on average 6 – 8 hours per week of work outside of lecture. You are expected to read the appropriate pages from the textbook (or similar chapters in other textbooks) prior to coming to class. The instructor will build on this material and you are expected to be able to follow in-class discussion. Mastering this course is primarily **your** responsibility and I am here to help you at all times in your endeavor to be successful. One of the most important things that you should learn while in college is that you must learn to identify your own weaknesses and strengths with the material in your courses and work on those weaknesses by displaying a sense of responsibility for your own learning.

Most importantly, do not allow yourself to fall behind because the material builds up. If you find that you are not grasping essential material by reading the textbook and following in-class discussion, **seek help early!** Visit your instructor's office hours, talk to other students in your class, compare notes, form a study group, practice as many problems as you can, consult other textbooks, go to the LRC, *etc.*

Cramming overnight will not guarantee a favorable result.

***** Disclaimer:** This syllabus represents current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. The instructor reserves the right to make correction, additions and/or deletions to the syllabus as the above information may be subject to change. Such changes, communicated clearly, are not unusual and should be expected.