SPRING

CHEMISTRY 101

SECTIONS 501-510

Tuesdays & Thursdays 9:35-10:50am

Dr. Wendy L. Keeney-Kennicutt

with

Prashant Reddy, Supplemental Instruction leader

Welcome to CHEM 101! As the science that describes matter, chemistry is vital to our understanding of many fields from biology to the environment to materials science. Rapid new developments in all of these areas virtually guarantee that chemistry will become even more important in the years to come. A knowledge of chemistry is thus an important ingredient in a liberal arts education, and an essential foundation for a technical education.

Chemistry 101 and 102 are the first-year chemistry sequence in the core curriculum. Because chemistry is so important to many fields, this is a very large course here at Texas A&M. Although this large enrollment does place certain limitations on us, we in the First Year Chemistry Program are committed to providing you an interesting and stimulating course. To this end, the lecture and laboratory are together in one 4-hour course.

I will be primarily assessing your chemistry capabilities in three ways (The LAW):

- (1) Learning facts, scientific concepts/principles, and problem solving, as tested on exams,
- (2) Application of chemistry, as tested in the laboratory and on lab quizzes,
- (3) Writing and critiquing your peer's writing on science and chemistry, as tested with Calibrated Peer Review (CPR).

This handout outlines my policies for my sections of lecture and the laboratory/recitation. Please read this material carefully to familiarize yourself with the various rules and procedures. At the end, you will find two calendars which contain (1) exam dates and reading assignments for lecture and (2) the laboratory/recitation section. We have carefully chosen a textbook for its clarity, examples, and problems. In order to get the most out of lectures in this course, it is beneficial that you read the assigned material before it is discussed in class. In order to get the most out of laboratory/recitation, come to each lab prepared for the scheduled activities. There will be teaching assistants available most hours of the day in Room 116 Held to answer both lab and lecture questions. I will strive to make this course a meaningful and enjoyable experience for you. Please feel free to call upon me whenever I can be of help. I am giving weekly review sessions and I will be available in Room 116 HELD during office hours to answer both laboratory and lecture questions.

In addition, the First Year Chemistry Program is on the World Wide Web. It can be accessed through http://www.chem.tamu.edu/class/fyp/ (more in Section XIV). My notes and other information can be found here. Please do not hesitate to let me know when you need help. I do wish to work with you in order for you to have a stimulating and productive course.

Finally, it is important to check your NEO account regularly. I will be sending messages to you. At this time, professor messages are NOT being forwarded to your other e-mail accounts, so please physically check the NEO account.

Sincerely,

POLICIES

- I. Required Materials:
 - (1) "General Chemistry", by Whitten, Davis, Peck & Stanley, 7th Edition, 2004.
 - (2) "Experiences in Chemistry I," M.L. Peck and V. Williamson, 2001
 - (3) "ChemSkill Builder LAN or 2000 (Version 6.x) James D. Spain and Harold J. Peters, Electronic Homework Systems, Inc., 1999.
 - (4) The lab notebook (8 1/2" x 11", perforated alternating white and yellow pages).
 - (5) Calculator suitable to use on lecture exams. It MUST NOT have extensive memory. (See later discussion.)
 - (6) Approved eye protection. University and Departmental Regulations require that splash-proof, chemical goggles be worn by everyone present any time any experimentation is being conducted or any time chemicals or equipment are being moved by anyone in the laboratory. (The Graduate Chemistry Fraternity will be at the labs the first week of lab to sell suitable goggles at \$5 using cash or checks). Failure to wear goggles will result in expulsion from the laboratory for the experiment involved. If you forget, you will be able to rent them at the Stockroom window for \$4 with AggieBucks or for \$10 thru SIMS so don't forget them! It would be a costly mistake!

II. Optional Materials:

- (1) "Student Solutions Manual, General Chemistry," 7th Edition, W. Keeney-Kennicutt and Y.-N. Tang, 2000 (strongly recommended) it is also on reserve at the library.
- (2) See link to our textbook from our webpage good student resources.
- (3) Laboratory apron, or a nonflammable lab coat. An apron or lab coat will be required in laboratory if your shorts or skirt do not cover your knees.

III. Lecture Reading Assignments:

Lectures are designed to help you in developing an understanding of the material being emphasized. To get the most out of lecture, one should always read the appropriate sections before they are discussed in class. The reading assignments are shown in the calendar.

IV. Lecture Bonus Opportunity Problems (BOPs): A total of about 100 problems from the textbook are assigned to be handed in. They will be divided into 4 sets as we cover the material in class. The first three sets will be due on the Thursday following each exam; the last set will be due on the last day of class. You must turn in the original problems, but you should keep a copy for your own use. You will be able to pick up your homework at a later date. Bonus points will be awarded and added to the "course average" according to the percentage of completed problems as shown below.

| Percentage of problems completed correctly and turned in on time | <70% | 70-89% | ≥90% |
|--|------|--------|------|
| Number of bonus points to be added to your course average | 0 | 1 | 2 |

V. ChemSkill Builder (CSB): This is a system of computer-based lessons designed to be used as electronic homework. Minimum system requirements for LAN: Windows 98 to XP; 16 MB RAM minimum, 256 color VGA monitor, 800 x 600 resolutions is recommended. If you have any problems, please contact me. Back up regularly. No matter what system you are using your work is due by Friday at midnight as per class schedule. Email the .dat file to my NEO account:

k-keeney@neol.tamu.edu.

If you have the LAN version, the .dat file has the same name as your password and you'll find it in the CSB-temp file on your C drive. If you have the 2000 version, you'll find the studat24.dat file on your floppy disk. There are a total of 13 chapters due periodically. You will get 3 pts per chapter if the **average** of its sections is \geq 90%, 2 pts if \geq 70%, 1 pt if \geq 50% for a total of 39 points. You will also get 1 more point **per chapter** if you upload your data by midnight on Friday as per the calendar. You will get the point even if the work isn't complete. For sure, all chapters are due to be uploaded on Friday, 4/30, for a total of 52 points - half an exam grade. This constitutes 9% of your course grade.

- VI. Lecture Attendance: I will not be taking attendance as such throughout the semester. However, to encourage you to attend class, there will be occasional in-class problems that will account for 5% of your course grade. See Section VII.
- VII. In-Class Team Problems: During the semester, I will give 13 unannounced quizzes to be done in class by self-appointed teams, consisting of ~3-6 of your fellow students, sitting around you. Each quiz is worth 3 points, and only your best 10 quizzes will count. Each team will work together to solve the problem. Each student in the team will write down the complete solution on their own paper, then one team member will bring their team members papers to the front and staple them together. I will be grading them leniently; it will be fairly easy to get 1.5 out of 3 points. The purpose of the exercise is to encourage you to (1) come to class and (2) think about the subject matter as we go through the course. Quiz 1 is the results (4 letters) of the web personality quiz found at the bottom of our web page more on the webpage. Quiz 2 is the Information Card with a picture of you.
- **VII.** Lecture Exams: There will be 3 exams (Exams 1, 2, and 3) given on the days indicated on the Calendar. Additionally, there will be a Final Exam and make-up exams. These exams will be a combination of multiple choice questions that will be machine graded and non-multiple choice questions that will be hand graded. Lab quizzes are described later.

(A) <u>Lecture Exams</u>: These are 70 minute exams given during the regular lecture times. Each carries a value of 100 points. Exam 1 will cover material into Chapter 3 of the textbook. Exams 2 and 3 will concentrate on the block of material covered after the previous exam. One or more review questions will also be included.

(B) <u>Final Lecture Exam</u>: The Final Exam will be a 2 hour, 170 point, multiple-choice question exam covering all the chapters taught during the semester. The schedules time for the Final Exam is Friday, May 7, from 12:30 to 2:30 p.m. **You must bring your student I.D. to the Final Exam.**

(C) <u>Make-up Lecture Exams</u>: There will be a make-up for each of the exams given during the semester if you miss any of them. The makeup exam is scheduled 10 days after each exam at 4:00 pm on Friday (see syllabus for room). I require a written

statement about the excuse for the absence - it can be e-mailed to me or given to me during class time. If the exam time conflicts with your other classes, please contact me immediately. The make-up exams will be at least as difficult as the regular exams and all free response - no multiple choice.

VIII. **Grade Calculations:** In calculating the lecture grades, each of the three exams counts as 100 points for a total of 300 points, the CSB points are 52 points, the in-class work counts for a total of 30 points, while the Final Exam counts as 170 points. All scores used for grade calculations are carried to 3 decimal places, but posted as rounded integers.

| Lastura Avanaga - | Total of 3 Exams - | Exam | |
|-----------------------|--------------------|---|------------------------------------|
| Lecture Average = | | 5.52 | + BOPS |
| Laboratory/Recitation | ion Average = | [(Sum of all reports, all Pre-L + (Sum of all Lab/Recitation Q + Sum of CPR points) + (Lab/Recitation finals)] | abs and all Post-Labs) Juizzes) |

divided by a factor that will result in your section's Lab/Recitation Average being between 80 and 86. For more information, see the end of this handout.

 $Course Average = \frac{(3 \times Lecture Average) + (Laboratory/Recitation Average)}{4}$

The ranges of the letter grade will be determined at the end of the semester. In the past for a typical semester, the Chem 101 grades were determined using: A, \geq 87; B, 75-86; C, 62-74; D, 48-61. This semester's ranges could be different.

Students missing a small portion of the course, but having at least a 50 average, will receive a grade of "I" (Incomplete) if they request this grade and meet the University criteria for this temporary grade.

VIII. Lecture Exam Administration:

(A) Check the exam seating assignment on the bulletin board outside Room 100 Held one day in advance. Each exam has a different seating assignment.

(B) Prior to the First Exam, purchase **FOUR** standard (8 1/2" x 11") gray scanning sheets (Form No.0-101607-TAMU) from the bookstore and turn them in **unmarked** to Room 116 Heldenfels during the Information Desk hours: 9:30 - 11:30 am and 1:30 - 3:30 pm Monday through Friday. Samples of the scanning sheet will be displayed on the official Chemistry bulletin boards in Heldenfels. Also if you are left-handed and want to be assigned a left-handed seat, please do so in Room 116 Heldenfels during the above scheduled hours prior to the first exam.

(C) Arrive at the exam on time and wait outside until invited in. Cheating or bringing in material with intent to cheat will result in a zero for the exam or a more severe penalty.

(D) Bring to the exam at least two sharpened #2 pencils, an eraser, and your TAMU I.D. card. Pencil sharpeners and calculators (with certain restrictions) may also be brought. There must be **NO** "sharing" of calculators during an exam. Any other items

must be "enclosed" out of sight in a briefcase, pack, purse, or sack, **and** either stored under your desk or placed against the wall before taking the assigned seat.

(E) Students can not use calculators that are programmable or have alphanumeric capabilities for the exams. Some of the acceptable and unacceptable calculators are listed on the bulletin board outside Room 100 Heldenfels. Any student attempting to use an unacceptable calculator will receive a zero for the exam plus other penalties.

(F) Follow the directions on the large envelope given to you in the exam room. **Do not** write on the envelope or on the back of the scanner sheet. Failure to follow these directions may result in a withheld or zero grade. In addition, note that the answers have to be recorded on the standard gray scanning sheet to be graded.

(G) During the exam, keep all work covered as much as possible. Talking or looking around the room will result in a withheld grade for the exam.

(H) Work carefully, but you must finish in the allotted time; exams handed in late will not be graded. Please remain seated quietly until asked to leave.

You will be able to see your grades on the World Wide Web. More details in Section XIV. If your score is different from what you believe it should be, or if your score is not posted, please see me.

Special announcements and schedule changes will be announced at the beginning of the lectures.

- X. Dishonesty: Students are expected to be the sole source for any work submitted in their name. The utilization or submission of work of others is a violation of Texas A&M University scholastic dishonesty policies and disciplinary steps will be taken. Only authorized electronic or printed materials or equipment may be used in or near the classroom. As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research and knowledge cannot be safely communicated. If you have questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section "Scholastic Dishonesty."
- XI. Copyright: The handouts used in this course are copyrighted. By "handouts," I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems or study sheets, in-class materials, review sheets, and additional problem sets, notes, etc. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.
- **XII. Review Schedule:** I am giving weekly review sessions on most Sunday afternoons at 2 pm in Room 100 HELD, covering both lecture and lab material. Check the calendar.

XIII. Texas A&M Support Services for Students with Disabilities (845-1637):

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, either temporary (e.g. broken arm) or permanent (including a learning disability), please contact the Department of Student Life, Services for Students with Disabilities in Rm 126 of the Koldus Bldg (Hours: 8am to 5:30 pm). If you have any questions, see me.

XIV. World Wide Web (http://www.chem.tamu.edu/class/fyp/)

Included are (1) details on individual lecture and lab sections, and (2) a test-bank of selected multiple choice questions for each chapter, and (3) a math review. One special service is the ability to check your grades confidentially on the web using WebCT VISTA (different from WebCT). Click on the link under Grade Check on our website.

XV. Important Dates:

| January 19: | Martin Luther King, Jr. Day |
|--------------|---|
| January 23: | Last day to drop a course with no record. |
| January 26: | Beginning of Q drop. Last day to add a class or change sections. |
| March 5: | Midsemester Grades Due in Chemistry Department. |
| March 15-19: | Spring Break |
| April 5: | Last day to Q-drop or to officially withdraw from the University. |
| | Last day to change Kinesiology 199 to S/U grade. |
| April 9: | Reading Day. No classes. |
| May 4: | Tuesday. Last day of Spring classes. Redefined day. |
| | Students attend Friday classes. Dead day |
| May 5-6: | Reading days. No classes or examinations. |
| May 7: | CHEM 101, Sections 501-510 Final Lecture Exam: |
| | 12:30 a.m 2:30 p.m., Rm 100 Held |

XIV. Miscellaneous Notes

- 1. There will be TAs available in Room 116 HELD during the day (roughly 8:30-12:30 pm and 1:30-4:30 pm). See sign on door for hours. They will help with both lab and lecture questions.
- 2. The First Year Chemistry Program has a help desk in Room 116 HELD which will be open daily 9:30 11:30 am and 1:30 3:30 pm. This is where you will hand in your unmarked scantrons, fill out a form to have your scantrons regraded, and check your grades.
- 3. Check your NEO account regularly for any messages from professors. Our e-mails are ONLY being forwarded to tamu e-mail account.

Tentative Calendar

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday |
|--|--|--|-----------|---|---|---|--------|---|-----------|--|--|
| 1/18 | 1/19 | 1/20 | 1/21 | 1/22 | 1/23 | 2/15 | 2/16 | 2/17 | 2/18 | 2/19 | 2/20 |
| | HOLIDAY Martin Luther King, Jr. Day | Introduction CHAPTER 1 The Foundations of Chemistry Rd: pp. 1-45 | | CHAPTER 2 Chemical Formulas & Composition Stoichiometry Rd: pp. 46-87 *Last day to drop courses with no | *Last day to add new courses *Beginning of Q Drop | Weekly Review Session Rm 100 Held 2pm | | CHAPTER 4 Some Types of Chemical Reactions | | CHAPTER 5 Atomic Structure Rd: pp. 175-229 | Last Day for BOPs Set I (10% penalty) ********** MAKE-UP EXAM 1 4 pm Rm 100 Held |
| | | | | recora | | 2/22 | 2/23 | 2/24 | 2/25 | 2/26 | 2/27 |
| 1/25 | 1/26 | 1/27 | 1/28 | 1/29 | 1/30 | Weekly | | CHAPTER 5 | | CHAPTER 6 | |
| Weekly | HOLIDAY | CHAPTER 2 | | CHAPTER 3 | | Review Session | | Atomic Structure | | Chemical | |
| Review Session Rm 100 Held | Martin Luther King, Jr. Day | Chemical Formulas & Composition Stoichiometry | | Chemical Equations & Reaction Stoichiometry | | Rm 100 Held 2pm | | | | Periodicity Rd: pp. 230-264 | |
| 2pm | | | | Rd: pp. 88-120 | | 2/29 | 3/1 | 3/2 | 3/3 | 3/4 | 3/5 |
| 2/1 | 2/2 | 2/3 | 2/4 | 2/5 | 2/6 | Weekly | | CHAPTER 7 | | CHAPTER 7 | *Midterm |
| Weekly | | CHAPTER 3 | | CHAPTER 3 | | Review Session | | Chemical Bonding | | Chemical Bonding | Grades due to the |
| Review Session Rm 100 Held 2pm | | Chemical Equations & Reaction Stoichiometry | | Chemical Equations & Reaction Stoichiometry | | Rm 100 Held 2pm | | Rd: pp. 27651- 300 | | | Chemistry Department |
| | | | | | | 3/7 | 3/8 | 3/9 | 3/10 | 3/11 | 3/12 |
| 2/8 Exam Review Session Rm 100 Held 2pm | 2/9 | 2/10 ************************************ | 2/11 | 2/12 CHAPTER 4 Some Types of Chemical Reactions Rd: pp. 121-172 ** BOPs DUE ** | 2/13 CSB Due by midnight Chapters: 1, 2, 3, 4, 6 | Exam Review Session Rm 100 Held 2pm | | ************ EXAM 2 ***** | | CHAPTER 8 Molecular Structure & Covalent Bonding Theories Rd: pp. 301-347 ** BOPs DUE ** (Set II) | CSB Due: 5, 9, 11 No Review Session on Sunday, 3/9 NO CLASS NEXT WEEK |
| | | | | (Set I) | | | | | | | SPRING BREAK! |

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | 5 | Sund | ay | Monday | Т | uesday | Wedn | nesday | Thu | rsday | Friday |
|-----------------------------------|--------|---|-----------|---|---|-----|---|-----------------------------|----------|-----------------------------|--|-----------------------|----------------------|-------------------------------------|--|--|
| 3/21 | 3/22 | 3/23 | 3/24 | 3/25 | 3/26 | 4/ | 18 | - | 4/19 | 4/20 | | 4/21 | | 4/22 | | 4/23 |
| NO Weekly Review Session | | CHAPTER 8 Molecular Structure & Covalent Bonding Theories Last Day for BOPs Set II | | CHAPTER 8 Molecular Structure & Covalent Bonding Theories CHAPTER 9 Molecular Orbitals (Introduction only) | Last Day for BOPs Set II ********** MAKE-UP EXAM 2 4 pm Rm 200 Held | Rn | Week Revie Sessio n 100 2pm | ly ew on Held 1 | | СН | APTER 12 Gases | | | CHAP Liquids a Rd: pp. | TER 13 und Solids 477-532 | Last Day for BOPs Set III ********* * MAKE-UP EXAM 3 4 pm Rm 100 Held |
| 3/28 | 3/29 | 3/30 | 3/31 | 4/1 | 4/2 | 4/2 | 25 | | 4/26 | 4/27 | | 4/28 | | 4/29 | | 4/30 |
| Weekly Review Session | | CHAPTER 10 Reactions in Aqueous Solutions | | CHAPTER 11 Reactions in Aqueous Solutions | | I | Lab Fi Revie Sessio n 100 | nal w on Held | | CH Liquio | APTER 13 Is and Solids | | | CHAP Solu Rd: pp. | TER 14 Itions | LAST DAY FOR CSB (incl Ch. 14) |
| Rm 100 Held 2pm | | I: Acids, Bases, and Salts Rd: pp. 367-394 | | II: Calculations Rd: pp. 395-424 | | | 6pm | 1 | | | | | | ** BOPs (Set | s DUE ** t IV) | |
| 4/4 | 4/5 | 4/6 | 4/7 | 4/8 | 4/9 | | | | | | | | | EVALII | * ATIONS | |
| Weekly Review | | CHAPTER 11 | | CHAPTER 12 | *Reading Day | 5/ | 12. | | 5/3 | 5/4 | | 5/5 | | 5/6 | | 5/7 |
| Session Rm 100 Held 2pm | | Reactions in Aqueous Solutions II: Calculations *Last day to Q- drop *Last day to officially withdraw | | Gases Rd: pp. 425-476 | *NO CLASSES | Rn | Week Revie Session 100 2pm | ly ew on Held 1 | Dead Day | *Rea *Stua Fria *L | efined Day ents Attend ay Classes ead Day | REAL DA No C | DING AY Hasses | REA. D. No C |] DING AY Masses | FINAL EXAM Sections 501-510 12:30 pm |
| 4/11 Exam Review | 4/12 | 4/13 ************************************ | 4/14 | 4/15 CHAPTER 12 | 4/16 CSB Due: 12, 13, 10, 7 | | | | | Offi 2p | c e Hours: m - 5pm | REV. 1 pm 100 1 | IEW: 1 Rm Held | Office 2pm | Hours: - 5pm | - 2:20 pm Rm 100 Held Last Day for BOPs Set IV |
| Rm 100 Held 7pm | | LAAN 3 | | ** BOPs DUE ** (Set III) | | | | | | | | | | | | |

CHEMISTRY 101 Lab/Recitation for SECTIONS 501 - 510

Dr. Wendy L. Keeney-Kennicutt

Policy on Safety and Breakage

Before working in this laboratory/recitation portion of the course, every student must read the "Laboratory Safety" rules in the laboratory manual plus any Departmental Rules and agree in writing to abide by these rules. It is imperative for your safety that you and everyone around you strictly adhere to the Safety Rules.

Failure to comply with the safety regulations (*e.g.*, by not wearing eye protection at all times; by wearing open-toed shoes, short skirts or shorts without also wearing a labcoat or apron; by running an unauthorized experiment; or by removing chemicals or equipment from the lab) may result in dismissal from this portion of the course or deduction of points on your reports.

You will be utilizing equipment furnished by the Chemistry Department. It is your responsibility to properly maintain the equipment while it is in your care. If equipment that has been entrusted to you is not returned in satisfactory condition, you will be held responsible for it.

Lab/Recitation Grading and Absence Policy

Absences: The following schedule gives the date that each experiment, quiz, recitation activity, etc., is to be completed. Excused absences must be reported to your instructor in a timely manner. Only the instructor can arrange make-up sessions for students who missed due to a university approved reason.

Data Sheets: A data sheet must be submitted at the end of the lab period to receive a grade for that day's experiment. The data sheet may not be graded in some sections; however, the Report Form for the corresponding experiment will not be graded if the data sheet is not submitted the day the experiment is conducted.

PreLabs, Reports, and PostLabs: For each experiment you will receive a total score between 20 and 0. Prelabs (including summary) are worth 5 points, lab reports are worth 10 points, and the post-labs are worth 5 points (unless stated otherwise). The Report Form **must reflect information obtained by you** while in the laboratory and recorded on your data sheets. The Prelab Exercises associated with each experiment are due before you start the experiment. Report Forms and PostLabs are usually due the week after the experiment was run. Neatness, grammar, spelling and completeness of your data sheets, prelabs, reports, and postlabs will be considered when points are assigned (10% of the points). **You must write in complete sentences.** Points will be deducted for reports not submitted on the date due. Late Policy will be determined by your TA.

Calibrated Peer Review (CPR): Calibrated Peer Review (CPR°) is web-based software designed to promote writing in our classroom on topics important to Chemistry. There will be 2 assignments and one replacement assignment. It is critical that they be done within the time frame allotted, because there is no way to handle late work. See CPR Handout for more information. Each assignment will be worth 20 points - same as a lab. All times are Central Time because the server is at TAMU.

Assignment 1: Plagiarism in TAMU Laboratories

Part A (Write): Mon. 2/2 6am --Thurs. 2/12 midnight Part B (Calibrate & Critique): Thurs. 2/12 midnight - Thurs. 2/19 midnight

Assignment 2: Measurement & Significant Figures

Part A (Write): Mon. 2/23 6am - Thurs. 3/4 midnight

Part B (Calibrate & Critique): Thurs. 3/4 midnight - Thurs. 3/11 midnight

Assignment 3: Designing the Atomic Structure of Copper

Part A (Write): Mon. 3/29 6am - Thurs. 4/8 midnight Part B (Calibrate & Critique): Thurs. 4/8 midnight - Thurs. 4/15 midnight

Lab/Recitation Quizzes: Quizzes (20 points each, usually 2 or 3 points per question) are scheduled at various times during the semester. The quizzes will reflect what you should have gained from previous weeks' experiments, what you should master before beginning the current week's experiment, your ability to utilize techniques and concepts, and your understanding of the recitation topics discussed in lab.

Grades: At the end of the semester the scores on all quizzes, prelabs, reports, postlabs, CPR scores, practical final (10 pts) and written final (40 pts) will be totaled for each student and multiplied by a factor so that the class average will be between 80 and 86. Adjusted averages of greater than 100% will be treated as if they are exactly 100%.

Schedule: The schedule is as follows on the next page. There may be differences between this one and others. THIS ONE IS THE CORRECT ONE FOR THIS CLASS AND THE ONE FOR WHICH YOU ARE RESPONSIBLE!

CHEMISTRY 101 Laboratory Schedule

Spring 2004

Sections 501-510

Dr. Wendy Keeney-Kennicutt

| Week of | Investigation | Report and Postlab Due | Tentative Recitation Topic | Calibrated Peer Review (CPR) | CSB | Lecture Exam |
|---------|--|---------------------------|---|--|--|-----------------|
| 1/19 | No Lab/Recitation Meeting this week. | - | - | All deadline times are Thursday night at midnight Central Time | - | - |
| 1/26 | Introduction Lab Check-in & Lab Lecture on Safety Read the safety rules and agree in | - | Math Review & Significant Figures (handouts) Math Quiz | - | - | - |
| | cannot do experiments. | | Discussion on Guided Inquiry | | | |
| 2/2 | Exp. #2 - Cost of a Chemical Product. (An Guided Inquiry Experiment) Epsom salt is furnished | - | Review: Guided Inquiry, Particle View, Hydrated Salts, Equations & Reaction Stoichiometry (Ch 3) | CPR Assignment 1A : Plagiarism in TAMU Labs | - | - |
| 2/9 | Exp. #4 - Soap Making. (A Skill Building Experiment) | #2 | (Mon 2/2 - Thurs) Review: Organic formulas, Bunsen Burner Operation, Vacuum Filtration CPR Assignmen Write Assignmen (Mon 2/2 - Thurs) | | 1, 2, 3, 4, 6 due by midnight | Exam 1 |
| 2/16 | | | | | on Friday | |
| 2/16 | Quiz 1 | #4 | | CPR Assignment 1B : Calibrate & Critique (Thurs 2/12 - Thurs 2/10) | | |
| 2/23 | Exp. #5 - Reactions of Calcium (A Guided Experiment) | - | Review: Graphing, Identifying gases, Use of Indicators, Purpose of the Experiment | CPR Assignment 2A: Measurement & Sig.Figs. Write Assignment (Mon 2/23-Thurs 3/4) | _ | - |
| 3/1 | Exp. #6 - Recycling Aluminum Cans - (A Skill-Building Experiment) | #5 | Review: Stoichiometry and Percent Yield, Hydrated Salts, Amphoterism, Use of a Bunsen Burner, Vacuum Filtration | CPR Assignment 2A: Measurement & Sig.Figs. Write Assignment (Mon 2/23-Thurs 3/4) | - | - |
| 3/8 | (day off due to CPR) | - | | CPR Assignment 2B: Calibrate & Critique (Thurs 3/4-Thurs 3/11) | 5, 9, 11 due by midnight on Fri. | Exam 2 |
| 3/15 | SPRING BREAK | - | - | | | |
| 3/22 | QUIZ 2 | #6 | | - | - | - |
| 3/29 | Exp. #10 - Shapes of Molecules and Ions (A Guided Experiment) | #10 | Review: Lewis Dot Structures, Molecular Structure and Covalent Bonding | CPR Replacement 3A: Designing the Atomic Structure of Cu Write Assignment | - | - |
| | | | (Chapters 7&8, p.188 in labbook) | (Mon 3/29-Thurs 4/8) | | |
| 4/5 | Exp. #8 - Analysis of a Carbonated Beverage (A Guided Experiment) | - | Review: Solution St oichiometry Acid-Base Titrations, Burets, Citric Acid | CPR Replacement 3A: Designing the Atomic Structure of Cu | - | - |
| | | | Primary Std/Standardization using KHP | Write Assignment | | |
| | | | (Chapter 11) | (Mon 3/29-Thurs 4/8) | | |
| 4/12 | Exp. #12 - Alka Seltzer®. An Application of Gas Laws. (A Guided Experiment) | #8 | Review: Gas Laws, Stoichiometry with Gases, Collecting Gas Over Water | CPR Replacement 3B: Calibrate & Critique (Thurs. 4/8-Thurs 4/15) | 12, 13, 10, 7 due by midnight | Exam 3 |
| 4/19 | 01117.3 | #12 | | _ | on Fri. | |
| 4/26 | Practical Final (10pts) & Written Final (40 points). Evaluations. All missing work, make-up finals, requests for the grade of "incomplete," etc., must be completed and all forms submitted | π12 | - | - | 14 and all of CSB due by 5pm on Fri. | - |

| before 5 pm 4/29 if they are to be in this semester's records. | | | | |
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