CHEMISTRY 1415
Course Syllabus
Summer 2013

Allison Fleshman afleshman@ou.edu Sec 345 MTWRF 9:00-11:10 am
Office Hours: by appointment

Prerequisite: Grade of C in Chemistry 1315 or satisfactory score on the chemistry placement examination. This class is a continuation of Chemistry 1315

Primary Web Site - learn.ou.edu
Homework Assignments and On-Line Quizzes for each Unit
-- Sapling Online Learning (discussed first day of class)
H-ITT Model TX-3200 RF Multi-Digit, Alpha/Numeric Response Pad (Clicker)

Homework & Exam Schedule

NOTE: The readings identified below are keyed to the learning objectives for the course. Also keyed to the learning objectives will be problem sets assigned to each unit of study via Sapling, a computer based problem-solving program. These problems are minimum assignments and are representative of the question types you will be expected to be able to answer on examinations and quizzes. It is suggested that you also attempt appropriate additional problems as part of your preparation.

Learning Objectives, Reading Assignments, & Assigned Problems

1. Unit 1 - Kinetics - Chapter 14
1.1. Reaction Rates [Reading: 14.1]
1.2. Dependence of Reaction Rate on Reactant Concentration [Reading 14.2]
1.3. Dependence of Reactant Concentration on Time. [Reading 14.3]
1.4. Dependence of Reaction Rate on Temperature [Reading 14.4]
1.5. Reaction Mechanisms [Reading 14.5]
1.6. Catalysis [Reading 14.6]
REVIEW

2. Unit 2 - Equilibrium - Chapter 15
2.1. The Concept of Equilibrium. [Reading 15.1]
2.2. The Equilibrium Constant [Reading 15.2]
2.3. Equilibrium Expressions [Reading 15.3]
2.4. Using Equilibrium [Readings 15.4]
2.5. Factors that Affect Chemical Equilibrium. [Readings 15.5]
REVIEW

EXAM 1 (covers Units 1 & 2) – Monday July 15 7:00-9:00 PM

3. Unit 3 - Acid/Base - Chapter 16
3.1. Bronsted Acids and Bases [Reading 16.1]
3.2. The Acid-Base Properties of water [16.2]
3.3. The pH scale [16.3]
3.4. Strong Acids and Bases [16.4]
3.5. Weak Acids and Acid Ionization Constants [16.5]
3.6. Weak Bases and Base Ionizations [16.6]
3.7 Conjugate Acid-Base Pairs [16.7]
3.8 Diprotic and Polyprotic Acids [16.8]
3.9. Molecular Structure and Acid Strength [16.9]
3.10. Acid-Base Properties of Salt Solutions [16.10]
3.11. Acid-Base Properties of Oxides and Hydroxides [16.11]
3.12. Lewis Acids and Bases [16.12]
REVIEW

1415 Syllabus page 1
Examinations & Grading

The course content in CHEM 1415 is divided into six units. Final grades will be assessed based on exam scores, laboratory report grades, recitation, and online quiz grades. Laboratory grades will be based on laboratory reports. See the attached calendar (last page of syllabus) for a schedule of laboratory activities. Online quizzes for each of the six units covered will be available on the Sapling website for the course. These quizzes cover the content of the course learning objectives and are designed to help prepare students for the examinations. Each online quiz may be repeated up to 5 times while it is available on Sapling, although the entire quiz must be submitted as a whole for each attempt to simulate the exam setting. Homework (see below) and online quiz scores will not count unless submitted by the deadlines indicated. Since your computer and/or the net are not guaranteed to work at the last minute, we STRONGLY recommend that you not wait until the last minute to complete Homework and online Quizzes.

In addition to the points assigned above the course will also have extra credit points for ONLY (1) in-class lecture clicker activities and (2) the Sapling Homework problems. Details about the extra credit will be explained by your lecture instructor.

Each unit on an examination will consist of ten multiple-choice questions, with each question worth 5 points. The chapters of the test covered on each exam are indicated in the diagram on the following page. One or more questions per examination may cover laboratory concepts, and one or more questions may be taken from the assigned problems. You will be given an opportunity to retake each Unit exam. This allows students who are dissatisfied with their performance or who have missed an exam a chance to improve their scores. At the Makeup exam you may answer the questions for any unit you desire. You do not have to take all the units offered. (You should be aware that it is very unlikely that there is enough time to take more than 2 unit exams, at the most.) Your final grade for examinations will be calculated by adding the highest scores you received during the exams on each of the six individual units.
**Makeups:** There are no Lab Make-ups for the summer courses. There are no "makeups" for on-line quizzes. However, you can repeat each up to 5 times while it is available. There are no "makeups" for In-Class (Clickers) Exercises. There are no makeups for Homework, although you are allowed 5 chances at each answer. You may make-up exams during the scheduled "makeups." However, you should note that it will be very difficult to complete three exams in the 120 min allotted. Realistically, you may be able to complete two of the retake exams in a single retake period.

Students who must miss both the regularly scheduled exam and the alternate exam because of travel to a University sanctioned event must obtain a written excuse from the event sponsor in advance, and arrange to take the exam at an approved test site.

**Important exam information:**
Scantrons will be provided for all exams.

You must bring your I.D. or some other form of photo identification to all exams.

Electronic communication devices such as cellular phones, pagers, FM receivers, headphones, music devices of any sort, etc. are banned from examination rooms. Individuals for whom circumstances make the possession of such devices necessary must inform their laboratory instructor prior to an examination to make arrangements.

Students found with an unauthorized communication device at an examination will be charged with academic misconduct, whether or not the device was in use at the time it was discovered.

Calculators with programmable functions and/or alphanumeric storage/recall capability are not allowed for quizzes and examinations. Only two calculators are approved for use in the class: (1) TI-30Xa and (2) TI-36X solar, both made by Texas Instruments. You must use only an approved calculator on all quizzes and examinations. Students using calculators that have not been approved may be charged with academic misconduct.

You may not bring your own scratch paper to the test.

Please make sure you know where your assigned testing site is before the exam. Students who arrive more than ten minutes late, or arrive after another student has left, will not be allowed to take the examination.

**Grading:** Save all graded lab reports and any other documents returned to you for comparison with our records. Your grades may be viewed on the content containing web site for the course (learn.ou.edu). Homework and online quiz scores will appear on Sapling immediately following quiz/answer submission; however, this and information concerning exams, laboratory reports, and extra credit for clickers will not appear immediately and will be intermittently updated during the term. Discrepancies in lab reports should be reconciled with your laboratory instructor. It is suggested that you keep a personal record of your grades using the following diagram.

<table>
<thead>
<tr>
<th>Unit</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapters</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td># of Questions</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<td>10</td>
</tr>
<tr>
<td>Maximum pts</td>
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<td>50</td>
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<tr>
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<td>Exam</td>
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**Laboratory Grades**

<table>
<thead>
<tr>
<th>Lab</th>
<th>K-3</th>
<th>I-5</th>
<th>G-1</th>
<th>I-3</th>
<th>G-2</th>
<th>Comp.</th>
<th>D-2</th>
<th>D-S</th>
<th>J-1</th>
<th>J-2</th>
<th>Comp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score (Max. 15 ea)</td>
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<td>Score (Max. 15 ea)</td>
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**Recitation Quiz Grades**

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<thead>
<tr>
<th>Quiz No. (Unit No.)</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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</thead>
<tbody>
<tr>
<td>Score (Max. 10 ea) (8 Best)</td>
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<td>( )</td>
<td>( )</td>
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**On-Line Quiz Grades**

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<thead>
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<th>Quiz No. (Unit No.)</th>
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<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score (Max. 5 ea)</td>
<td>( )</td>
<td>( )</td>
<td>( )</td>
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</table>
In-Class Clicker Grades (BONUS)

<table>
<thead>
<tr>
<th>Grade Period</th>
<th>Extra Credit</th>
<th>Score (Max. 2.5 each unit/15 points total)</th>
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<tbody>
<tr>
<td>midterm</td>
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<tr>
<td>final</td>
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On-Line Homework Grades (BONUS)

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<thead>
<tr>
<th>Unit No.</th>
<th>Extra Credit</th>
<th>Score (Max. 3 ea)</th>
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<tbody>
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Final Grade Cut-Offs:

<table>
<thead>
<tr>
<th></th>
<th>Maximum Pts Available</th>
<th>Final Letter Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examinations</td>
<td>300</td>
<td>90% = A = 517</td>
</tr>
<tr>
<td>Recitation Quizzes</td>
<td>80</td>
<td>80% = B = 460</td>
</tr>
<tr>
<td>Laboratory</td>
<td>165</td>
<td>65% = C = 373</td>
</tr>
<tr>
<td>On-Line Quizzes</td>
<td>30</td>
<td>50% = D = 287</td>
</tr>
<tr>
<td>In-Class Clickers (15)</td>
<td></td>
<td>&lt;50% = F = &lt;287</td>
</tr>
<tr>
<td>Homework (18)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>575</td>
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</tr>
</tbody>
</table>

Do Not expect a curve given the extra credit potential.

Policies & Notes

The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the professor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405/325-3852 or TDD only 405/325-4173.

Each student should acquaint her or his self with the University's codes, policies, and procedures involving academic misconduct, grievances, sexual and ethnic harassment, and discrimination based on physical handicap.

The instructor reserves the right to change any items contained in this syllabus. This includes, but is not limited to: course content, scheduled dates, and fraction(s) of final grade assigned to individual components of the course.

In order to aid communication, the University has established email as an acceptable means of official communication. All University students are assigned an official University email account. Your instructor will be communicating with you through this account. You are expected to read email sent to this account in a timely fashion. For convenience, you can arrange to have your email forwarded to another email account (go to https://vvebapps.ou.edu/pass/); however, the University warns that you do so at your own risk. Failure to receive or read, in a timely manner, the communications sent to you via your official email account does not absolve you from knowing the information being sent to you.

Students engaging in academic misconduct (including cheating, plagiarism, and any other action that may improperly affect evaluation) will be subject to sanctions in accordance with the Norman Campus Academic Misconduct Code. You should understand that your instructor takes these matters seriously. Students who engage in academic misconduct should expect severe penalties. I will recommend an "F" in the course and expulsion from the University for all incidents (large and small) of academic misconduct.

Students are expected to be attentive during course and lab lectures and to remain seated until the end of the period. Disruptive behavior in lecture or laboratory will not be tolerated.

Laboratory will begin the first day of class. You should bring paper, pencil, and a calculator to lecture as well as your laboratory manual to laboratory. Students who do not check into laboratory during the first scheduled laboratory class may lose their space and be dropped from lab. All students enrolled in the lecture portion of the course must also be enrolled in a Chem 1415 laboratory/discussion section. Appropriate attire is required in the
laboratory at all times (safety goggles, appropriate clothing and shoes, etc.), and will be explained by your lab instructor. This is the second semester of a two-semester sequence; therefore, it is assumed that you are familiar with all the material presented in Chem 1315. If you did not receive a grade of “C” or better in Chem 1315, or did not pass the Chem 1315 placement exam, you should repeat Chem 1315 before attempting Chem 1415. The final day to withdraw from the course is Thursday, July 25. Students who stop attending but who do not officially withdraw from the course will be assigned a final course grade.

Students who are repeating the course may be eligible to be excused from laboratory. Students must register to be excused from the laboratory during the first day of class. See your course instructor for qualifications and procedures.

Need Additional Help?

Besides normal class attendance in the lecture and laboratory, students have several opportunities available to enhance their level of learning in the course. Some of these items are suggested below.

Self-organized and independent meetings of small groups of students on a regular basis (weekly or semi-weekly, for example) to discuss homework and previous exam problems serves as an exceptional help to many students. Such groups help to discover misunderstandings and improve performance on examinations. Such independent study groups are, thus, also encouraged.

A course web site is available for CHEM 1415 at learn.ou.edu. Students may find links to additional websites useful. The CHEM 1415 instructors may make lecture notes available on the course web site (download and print with Adobe® Reader). If you are printing out the lecture notes at a computer lab, please be certain to print to the correct printer. In the past, course notes have ended up being printed out all over campus.

Laboratory and lecture instructors have office hours to help students. Students may either attend office hours or make an appointment to see an instructor at other times.

The secretary in the Department of Chemistry office (SLSRC 1000) maintains a list of tutors for hire who may be interested in tutoring individual students or groups of students in chemistry courses. Recommendations regarding the relative merits of those listed are not available from the department. Instead, the student is encouraged to consult with previous students for references.

Copies of recent exams are available on-line at the course website at learn.ou.edu. Students should initially try to answer the questions on past examinations under testing conditions – i.e., without access to any book, notes, another student, or instructor. Students should be aware that past exams were not necessarily written by the current instructors and may be based on a different textbook from the one being used this semester. However, for the most part the topics will be comparable to the current syllabus. Please note that old exams are posted without corrections.

Homework problem sets and Online Quizzes are available through Sapling. However, additional practice problems can also be found at the end of the chapters in your textbook. The answers to many of these problems in the text are in the back of the textbook. Worked out answers for these problems are available in the solutions manual on reserve in the Main Library. Ask for the general chemistry Solution Manual. These solutions should only be examined after working/attempting the problem.

The publisher of your textbook maintains a useful website with many resources. Access to this website is available through our web site at learn.ou.edu.

The University has computer laboratories at six locations: 232 PHSC, Dale Hall Tower, Walker Tower, Couch Tower, Bizzell Memorial Library, and the Oklahoma Memorial Union. These facilities are open for student use seven days a week at hours posted in each lab. Both IBM and Macintosh computers are available.
The following outline is a guideline for all sections of Chemistry 1415. Each teaching assistant may have some more specific instructions and requirements in certain areas. Please fill in the blanks that follow in order for you to have the correct information about your laboratory section. A directory of teaching assistants and other personnel will be posted outside of CHBA 116 and at enroll.ou.edu

Laboratory Instructor
Lab/Office Room #

TA Code  Section #  Office Hours  Office Phone

Materials to be purchased for laboratory:
(2) During class inventions and computer lab activities Vol 1. 3rd edition, by Abraham, Gelder & Greenbowe, Hayden-McNeil, 2009
(3) Model kit: Foundation Set for General and Organic Chemistry (in 1415 course package)
(4) Approved safety goggles

<table>
<thead>
<tr>
<th>Summer 2013</th>
<th>Laboratory Experiments – CHEM 1415 (Section 346&amp;347)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>July 9</td>
</tr>
<tr>
<td></td>
<td>Check-in – no experiment</td>
</tr>
<tr>
<td>Wednesday</td>
<td>July 10</td>
</tr>
<tr>
<td></td>
<td>K-3 Bromination of Acetone</td>
</tr>
<tr>
<td>Thursday</td>
<td>July 11</td>
</tr>
<tr>
<td></td>
<td>I-5 Iron(III) Nitrate &amp; Potassium Thiocyanate</td>
</tr>
<tr>
<td>Monday</td>
<td>July 15</td>
</tr>
<tr>
<td></td>
<td>No Lab (Review for Exam)</td>
</tr>
<tr>
<td>Tuesday</td>
<td>July 16</td>
</tr>
<tr>
<td></td>
<td>G-1 Acid &amp; Base Classifications</td>
</tr>
<tr>
<td>Wednesday</td>
<td>July 17</td>
</tr>
<tr>
<td></td>
<td>I-3 Acetic Acid</td>
</tr>
<tr>
<td>Thursday</td>
<td>July 18</td>
</tr>
<tr>
<td></td>
<td>G-2 Acid &amp; Base Interactions</td>
</tr>
<tr>
<td>Monday</td>
<td>July 22</td>
</tr>
<tr>
<td></td>
<td>Computer Lab -- Acid/Base Classification</td>
</tr>
<tr>
<td>Tuesday</td>
<td>July 23</td>
</tr>
<tr>
<td></td>
<td>No Lab (Review for Exam)</td>
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<tr>
<td>Wednesday</td>
<td>July 24</td>
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<tr>
<td></td>
<td>D-2 Potassium Hydroxide &amp; Hydrochloric Acid</td>
</tr>
<tr>
<td>Thursday</td>
<td>July 25</td>
</tr>
<tr>
<td></td>
<td>D-S Heat Laws Systems</td>
</tr>
<tr>
<td>Monday</td>
<td>July 29</td>
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<tr>
<td></td>
<td>J-1 Oxidation-Reduction Reactions/Voltaic Cells</td>
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<tr>
<td>Tuesday</td>
<td>July 30</td>
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<tr>
<td></td>
<td>J-2 Electrolysis Reactions</td>
</tr>
<tr>
<td>Wednesday</td>
<td>July 31</td>
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<tr>
<td></td>
<td>Computer Lab – Electrochemistry/Concentration of Cells</td>
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<tr>
<td>Thursday</td>
<td>August 1</td>
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<tr>
<td></td>
<td>Check-out ($75 penalty if missed!) (Review for Exam)</td>
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</tbody>
</table>
Check-in and Breakage Policy

The first laboratory period is designated as check-in. At this time you will be issued a stocked equipment drawer. Check all the equipment in your drawer with the list provided by your TA. All missing, broken, or damaged items should be replaced by the stockroom at this time. When you visit the stockroom please take the time to make a list of needed items to avoid numerous trips. Any equipment that cannot be replaced will be listed as a "check-in shortage" on your record card. During the semester, any equipment that you break or damage will be recorded on the record card. You will be held financially responsible for all equipment issued to you. If this equipment is lost or damaged, the cost of replacement or repair will be billed to you through the Bursar’s office as a "breakage fee." Please note that this "breakage fee" is not the same as the "service charge" paid with other registration fees. The "service charge" is intended to partially cover the cost of chemicals and other expendable items used in the laboratory.

Keep your equipment drawer locked. You will ultimately be responsible for equipment if it is stolen from you.

Check-out of lab should occur when you withdraw from the course or during the final laboratory period. Failure to check-out will result in a penalty fee of $75.00 for cleaning and inspecting your equipment. This fee will be billed to you through the Bursar’s office.

Attendance, Late Labs, Makeups

Lab periods are three hours long. Please utilize this time wisely: planning your experiments, collecting data, writing reports. If you elect to leave lab early, your lab report will be due at that time. Otherwise, all lab reports will be due at the end of the scheduled laboratory period, unless your laboratory instructor indicates another due date for some unusual or mitigating circumstance.

Unless prior arrangements have been made with your TA, or unless a documented health or personal emergency occurs, lab reports not turned in at the designated time will be penalized points up to a 2 lab meetings late. Reports more than 2 lab meetings late will not be accepted.

Please be prepared to provide documentation for missing a laboratory period. You will only be able to make up one lab for a legitimate reason. The make-up lab date is a computer activity. If you miss a lab period for a legitimate reason, contact your TA as soon as possible.

Codes and Policies

Each student should acquaint her or his self with the University’s codes, policies and procedures involving academic misconduct, grievances, sexual and ethnic harassment, and discrimination based on physical handicap.

Cheating in any form will NOT be tolerated. This includes copying old lab reports, copying other students' lab reports, and falsifying data. You and your partner are encouraged to discuss your answers and calculations with other students in the lab, or with your lab instructor. However, the report should be written in your own words and based on your own work. You are responsible for all portions of the report written/done by your lab partner(s). If they plagiarize and/or cheat, you are as guilty as they are.

If you are caught cheating, the least that will happen to you is that your grade in laboratory will be lowered. You may also be failed in the course and suspended or expelled from the University. The small gains you might acquire by cheating are not worth the penalties if you are caught.

Laboratory Grades

Your laboratory grade will depend on the laboratory reports that you and your partner submit. Your laboratory
instructor will grade these reports using specific criteria including:

1. Was the report submitted on time?
2. Did both students fully attend the laboratory session?
3. Does the work presented reflect the allotted time?
4. Is all the work of the lab exercise attempted?
5. Does the data reasonably reflect good laboratory technique?
6. Do the explanations and conclusions represent a good quantitative understanding of the laboratory exercise?
7. Are the conclusions logically related to the data collected by the students?
8. Was there visible contribution by both students in both collection and interpretation?

These criteria will be applied to the laboratory report as a whole rather than to individual sections of the report. With a few exceptions, laboratory reports are assigned between 0 and 15 points.

**Laboratory Reports**

In the laboratory you will work in pairs, except on certain exercises. The partnership is expected to complete and turn in one laboratory report for which the partners will receive the same grade. Both partners are expected to contribute to the report. The following regulations will apply to this policy.

1. If one partner is absent or late, the laboratory instructor will assign the attending student to another partner or require the student to work alone. The laboratory instructor will reassign partnerships at his/her discretion or at a student request. Students are free to work alone if they so desire.
2. Both partners must be present for the whole period to be eligible to receive credit for a laboratory report.
   The partner who misses a laboratory is solely responsible for making up the period and will not be allowed to use his/her partner's data.
3. No more than two students may constitute a partnership except by permission of the instructor.
4. Students are required to finish and submit laboratory reports during the period of the laboratory activity.
5. Students who are unable to submit laboratory reports at the end of the laboratory period should be prepared to submit a copy of their collected data to the instructor in charge before leaving. Unless otherwise indicated, reports are due at the end of the laboratory.
6. Partners should submit reports and make conclusions based on their data collected by them, arrived at independently of other groups, and stated in their own words. Any evidence of falsifying data, or copying conclusions from other students (present or past) will be used in academic dishonesty proceedings against the students involved.
7. Both partners are expected to contribute to the collection and interpretation of data and to the construction of the laboratory report. Students who do not do their part may be assigned a new partner or be asked to do their laboratory work independently.

**Reasonable Accommodation Policy**

Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact their lab instructor personally as soon as possible so they can discuss accommodations necessary to ensure full participation and facilitate their educational opportunities.

**Safety**

Your lab instructor will point out all the safety features of your lab during check-in. These include exits, fire extinguishers, safety showers, and eye washes. Other safety rules will be explained at that time.

The State of Oklahoma requires you to wear safety goggles in the laboratory at all times. Suitable goggles will be sold during the first week of school in your lab. (Other outlets also sell goggles. Make sure they meet state safety standards for laboratory use before purchase.) Your TA will expect you to wear your goggles OVER YOUR EYES at all times. Repeated disregard to this safety rule is grounds for your dismissal from lab.

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From a University Telephone dial:

- Ambulance 911
- Campus Police (Emergency Calls) 911
- Fire Department 8-321-3131

Poison Control Center (OKC, 8-271-5454)
Norman Regional Hospital 8-321-1700
The following outline is a guideline for all sections of Chemistry 1415. Each teaching assistant may have some more specific instructions and requirements in certain areas. Please fill in the blanks that follow in order for you to have the correct information about your laboratory section. A directory of teaching assistants and other personnel will be posted outside of CHBA 116 and at enroll.ou.edu

Laboratory Instructor_____________________________Lab/Office Room #___________
TA Code__________ Section #__________ Office Hours ________________Office Phone ___________

Materials to be purchased for laboratory:
(2) During class inventions and computer lab activities Vol 1. 3rd edition, by Abraham, Gelder & Greenbowe, Hayden-McNeil, 2009
(3) Model kit: Foundation Set for General and Organic Chemistry (in 1415 course package)
(4) Approved safety goggles

<table>
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<tr>
<th>Summer 2013</th>
<th>Laboratory Experiments – CHEM 1415 (Section 346&amp;347)</th>
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Check-in and Breakage Policy

The first laboratory period is designated as check-in. At this time you will be issued a stocked equipment drawer. Check all the equipment in your drawer with the list provided by your TA. All missing, broken, or damaged items should be replaced by the stockroom at this time. When you visit the stockroom please take the time to make a list of needed items to avoid numerous trips. Any equipment that cannot be replaced will be listed as a "check-in shortage" on your record card. During the semester, any equipment that you break or damage will be recorded on the record card. You will be held financially responsible for all equipment issued to you. If this equipment is lost or damaged, the cost of replacement or repair will be billed to you through the Bursar’s office as a "breakage fee." Please note that this "breakage fee" is not the same as the "service charge" paid with other registration fees. The "service charge" is intended to partially cover the cost of chemicals and other expendable items used in the laboratory.

Keep your equipment drawer locked. You will ultimately be responsible for equipment if it is stolen from you.

Check-out of lab should occur when you withdraw from the course or during the final laboratory period. Failure to check-out will result in a penalty fee of $75.00 for cleaning and inspecting your equipment. This fee will be billed to you through the Bursar’s office.

Attendance, Late Labs, Makeups

Lab periods are three hours long. Please utilize this time wisely: planning your experiments, collecting data, writing reports. If you elect to leave lab early, your lab report will be due at that time. Otherwise, all lab reports will be due at the end of the scheduled laboratory period, unless your laboratory instructor indicates another due date for some unusual or mitigating circumstance.

Unless prior arrangements have been made with your TA, or unless a documented health or personal emergency occurs, lab reports not turned in at the designated time will be penalized points up to 2 lab meetings late. Reports more than 2 lab meetings late will not be accepted.

Please be prepared to provide documentation for missing a laboratory period. You will only be able to make up one lab for a legitimate reason. The make-up lab date is a computer activity. If you miss a lab period for a legitimate reason, contact your TA as soon as possible.

Codes and Policies

Each student should acquaint her or his self with the University’s codes, policies and procedures involving academic misconduct, grievances, sexual and ethnic harassment, and discrimination based on physical handicap.

Cheating in any form will NOT be tolerated. This includes copying old lab reports, copying other students’ lab reports, and falsifying data. You and your partner are encouraged to discuss your answers and calculations with other students in the lab, or with your lab instructor. However, the report should be written in your own words and based on your own work. You are responsible for all portions of the report written/done by your lab partner(s). If they plagiarize and/or cheat, you are as guilty as they are.

If you are caught cheating, the least that will happen to you is that your grade in laboratory will be lowered. You may also be failed in the course and suspended or expelled from the University. The small gains you might acquire by cheating are not worth the penalties if you are caught.

Laboratory Grades

Your laboratory grade will depend on the laboratory reports that you and your partner submit. Your laboratory
instructor will grade these reports using specific criteria including:

(1) Was the report submitted on time?
(2) Did both students fully attend the laboratory session?
(3) Does the work presented reflect the allotted time?
(4) Is all the work of the lab exercise attempted?
(5) Does the data reasonably reflect good laboratory technique?
(6) Do the explanations and conclusions represent a good quantitative understanding of the laboratory exercise?
(7) Are the conclusions logically related to the data collected by the students?
(8) Was there visible contribution by both students in both collection and interpretation?

These criteria will be applied to the laboratory report as a whole rather than to individual sections of the report. With a few exceptions, laboratory reports are assigned between 0 and 15 points.

Laboratory Reports

In the laboratory you will work in pairs, except on certain exercises. The partnership is expected to complete and turn in one laboratory report for which the partners will receive the same grade. Both partners are expected to contribute to the report. The following regulations will apply to this policy.

1. If one partner is absent or late, the laboratory instructor will assign the attending student to another partner or require the student to work alone. The laboratory instructor will reassign partnerships at his/her discretion or at a student request. Students are free to work alone if they so desire.

2. Both partners must be present for the whole period to be eligible to receive credit for a laboratory report. The partner who misses a laboratory is solely responsible for making up the period and will not be allowed to use his/her partner's data.

3. No more than two students may constitute a partnership except by permission of the instructor.

4. Students are required to finish and submit laboratory reports during the period of the laboratory activity.

5. Students who are unable to submit laboratory reports at the end of the laboratory period should be prepared to submit a copy of their collected data to the instructor in charge before leaving. Unless otherwise indicated, reports are due at the end of the laboratory.

6. Partners should submit reports and make conclusions based on their data collected by them, arrived at independently of other groups, and stated in their own words. Any evidence of falsifying data, or copying conclusions from other students (present or past) will be used in academic dishonesty proceedings against the students involved.

7. Both partners are expected to contribute to the collection and interpretation of data and to the construction of the laboratory report. Students who do not do their part may be assigned a new partner or be asked to do their laboratory work independently.

Reasonable Accommodation Policy

Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact their lab instructor personally as soon as possible so they can discuss accommodations necessary to ensure full participation and facilitate their educational opportunities.

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