CHEM 1151L – Survey of Chemistry I Laboratory
Course Syllabus – Spring 2015

Individuals with disabilities who need to request accommodations should contact the Disability Services Coordinator, Student Center 255, (678) 466-5445, disabilityservices@mail.clayton.edu.

Course Description:
Number and Title:
Chemistry 1151L (CRN 20334), Survey of Chemistry I Laboratory
Credit Hours:
1.0 semester credit hour
Catalog Description:
Laboratory accompanying CHEM 1151.

Instructor Information:
Instructor:
Dr. Aubrey Dyer
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internet: http://faculty.clayton.edu/adyer3

Office:
Natural and Behavioral Sciences Building (NBS), Room 165

Office hours:
Wednesday 9:00am – 12:00pm
Thursday 10:00am – 12:00pm
Friday 9:00am – 10:00am

Other times by appointment
Class Meetings:

<table>
<thead>
<tr>
<th>CRN</th>
<th>Section</th>
<th>Days</th>
<th>Time</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>20334</td>
<td>05</td>
<td>Tues</td>
<td>11:50am – 1:40pm</td>
<td>NBS 178</td>
</tr>
</tbody>
</table>

Required Materials:

Text:
CHEM 1151L Lab Manual (available on the Chemistry website, found at: http://www.clayton.edu/science/Chemistry/CHEM-1151L)

Lab Supplies:
- Safety Goggles
- Scientific Calculator
- Laptop Computer
- Chemistry Laboratory Safety Instructions (found at: http://www.clayton.edu/science/Lab-Safety)

You are required to supply your own safety glasses for the laboratory. These are available in the campus book store but may be purchased elsewhere. Safety glasses **MUST** be worn in the laboratory at all times. You will not be allowed to complete the lab without safety glasses. **The instructor will deduct points from lab reports for not bringing safety glasses to lab, or not wearing them while in the laboratory.**

Program Learning Outcomes:

General education outcomes:
The following link provides the Clayton State University Core Curriculum outcomes (see Area D):
http://www.clayton.edu/Portals/5/core_curriculum_outcomes_clayton.pdf

Course Learning Outcomes:
After completing the course, the successful student will:
- Execute the procedure of a textbook laboratory experiment with attention to accuracy, proper procedure and health and safety.
- Be able to collect relevant data and make careful, appropriate observations during the execution of the experiment.
- Be able to interpret the data for the purpose of completing calculations and answering questions on the laboratory report sheet.
Computer Requirement:
Each CSU student is required to have ready access throughout the semester to a notebook computer that meets faculty-approved hardware and software requirements for the student's academic program. Students will sign a statement attesting to such access.

For further information on CSU's Official Notebook Computer Policy, please go to http://www.clayton.edu/hub/itpchoice/notebookcomputerpolicy.

This course has a web page which can be accessed at http://www.clayton.edu/science/Chemistry/CHEM-1151L. Once you have accessed the course web page, you may wish to bookmark this site as you will refer to it often during the semester. The course web page offers you access the digital on-line forms for the laboratory experiments. It is your responsibility to become familiar with these materials.

Computer Skill Prerequisites:
- Able to use the computer's operating system (Windows™)
- Able to access and send E-mail (Outlook™ or Outlook Express™)
- Able to attach and retrieve attached files in e-mail
- Able to use a Web browser and Search Engine (Internet Explorer™)
- Able to download files from a website to your computer
- Able to use a word processor system (Word™)
- Able to use a spreadsheet system (Excel™) including graphing

Your instructor may have access to more font sets than your computer currently holds. Therefore, there may be some differences in the appearance of symbols when viewing laboratory data and report sheets. If this is a problem, consult the instructor.

In-class Use of Student Notebook Computers:
Student notebook computers will be used in the lab room twice in the semester in this course. Two laboratory sessions will be held to offer instruction/review of Word™ and Excel™. Participation in these sessions will not be required if the student feels comfortable with these programs, but topics specific to use in a chemistry class will be covered. A homework assignment is given for each session and all students are responsible for the assignments and they must be submitted on time. Computers will also be used to access course materials and to communicate with your instructor.
Evaluation:

Your evaluation in CHEM 1151L will be based upon the following components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab experiments and reports (10 @ 10 points each)</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Grading:

The grade you receive in Chemistry 1151L will be based upon the following distribution:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage Range</th>
<th>Point Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90% or greater</td>
<td>90 – 100</td>
</tr>
<tr>
<td>B</td>
<td>80% – 89%</td>
<td>80 – 89</td>
</tr>
<tr>
<td>C</td>
<td>70% – 79%</td>
<td>70 – 79</td>
</tr>
<tr>
<td>D</td>
<td>60% – 69%</td>
<td>60 – 69</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 60%</td>
<td>&lt; 60</td>
</tr>
</tbody>
</table>

Mid-term Progress Report:

Due to the relatively small number of laboratory reports that will have been returned by mid-term, mid-term grades may not be reported for this course. Students making unsatisfactory progress will be contacted individually by the instructor before mid-term. If the instructor feels that enough lab reports have been completed by the deadline for mid-term grades, they may issue a mid-term grade report. If issued, the mid-term grade in this course will be issued on or about March 2, reflects only a portion of the entire course grade. Based on this grade, students may choose to withdraw from the course and receive a grade of "W". Students pursuing this option must fill out an official withdrawal form, available in the Office of the Registrar, by mid-term, which occurs on March 6. The last day to withdraw without academic accountability is Friday, March 6, 2015.

Assessments:

You must complete the laboratory data sheet and report sheet for each experiment by accessing these forms from the course web page. You may complete the forms directly on the web and print them, or you may download them to your computer and complete them using a word processing program (Word™) and print them to be submitted to the instructor. These forms are not to be handwritten nor emailed. Completed data sheets and report sheets are due at the beginning of the next laboratory class. Points may be deducted for late laboratory reports at the rate of 10% per working day.
Course Schedule:

The preparation and set-up of the chemistry laboratories is not an easy chore. There are multitudes of sections and courses that use the same laboratory. It is critical that you attend the laboratory during your scheduled time period and that you show up on time. We cannot guarantee a make-up.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/13</td>
<td>Introduction, Safety Rules, Waiver, and Computer Lab</td>
</tr>
<tr>
<td></td>
<td><em>Bring your computer to the lab</em></td>
</tr>
<tr>
<td>1/20</td>
<td>No labs this week due to Martin Luther King Day</td>
</tr>
<tr>
<td>1/27</td>
<td>Computer Lab — Excel. <em>Bring your computer to the lab</em></td>
</tr>
<tr>
<td>2/3</td>
<td>Measurement</td>
</tr>
<tr>
<td>2/10</td>
<td>Empirical Formula of Zinc Chloride</td>
</tr>
<tr>
<td>2/17</td>
<td>Flame Tests</td>
</tr>
<tr>
<td>2/24</td>
<td>Spectrophotometric Determination of Chromium I</td>
</tr>
<tr>
<td>3/3</td>
<td>Spectrophotometric Determination of Chromium II</td>
</tr>
<tr>
<td>3/6</td>
<td>Mid-Term: Last day to withdraw without academic accountability</td>
</tr>
<tr>
<td>3/10</td>
<td>Due to the Spring Break, labs will not meet on campus this week. Your assignment is the Home Experiment.</td>
</tr>
<tr>
<td>3/17</td>
<td>Reactions of Copper I</td>
</tr>
<tr>
<td>3/24</td>
<td>Reactions of Copper II</td>
</tr>
<tr>
<td>3/31</td>
<td>Atmospheric Pressure</td>
</tr>
<tr>
<td>4/7</td>
<td>Antacids</td>
</tr>
<tr>
<td>4/14</td>
<td>All reports are due – Lab clean up day</td>
</tr>
<tr>
<td>5/4</td>
<td>Last day of classes – No reports accepted after today. Late reports = 10% per day late penalty</td>
</tr>
</tbody>
</table>

Note: The instructor reserves the right to alter the laboratory schedule as seen fit. Students must participate in the laboratory in order to successfully complete the course.
Course Policies:

General Policy
Students must abide by policies in the Clayton State University Student Resource Handbook, and the Basic Undergraduate Student Responsibilities.

University Attendance Policy
Students are expected to attend and participate in every class meeting. Instructors establish specific policies relating to absences in their courses and communicate these policies to the students through the course syllabi. Individual instructors, based upon the nature of the course, determine what effect excused and unexcused absences have in determining grades and upon students’ ability to remain enrolled in their courses. The university reserves the right to determine that excessive absences, whether justified or not, are sufficient cause for institutional withdrawals or failing grades.

Course Attendance Policy
Class roll will be taken and attendance is required. You are also responsible for all attendance requirements for external programs (i.e. financial aid). It is your responsibility to sign the roll sheet at every class meeting you attend. This roll sheet is the instructor's official record. You must complete all laboratory exercises or make specific alternate arrangements with the instructor. Students should be in the laboratory at the start of the laboratory class period. Information, techniques and changes to the experiment are often discussed at the start of the period and should not be missed. If a student is tardy to lab, the instructor may deduct points from that lab report or may refuse to allow the student to complete the laboratory experiment.

Make-ups / Late Work
All of the laboratory exercises must be completed or arrangements made with the instructor or the student may fail the course, even if they have a passing average. The lab meets in Natural and Behavioral Sciences Building Room 178 at the time designated above. You are to complete the assigned lab exercise during this time period. The instructor cannot guarantee the possibility of a make-up lab. Lab reports will be due at the beginning of the next laboratory period, unless announced differently by the instructor in the lab. Reports are considered late if not handed in at the beginning of the next laboratory period. Printer problems are not an excuse for a late laboratory report. Plan ahead to avoid such problems. No reports will be accepted after the last day of classes as printed in the College schedule. Points will be lost for late work received at the rate of 10% per working day.

**Each student must physically complete the laboratory experiment for credit. You may not simply obtain the data from another student. Anyone doing this will receive a zero on the laboratory exercise and forfeit any chance to make-up the missed lab.**

Experiments include pre-lab reading and preparation, performing the experiment, collection and proper recording of data and observations, conclusions, and answers to all questions, as well as the experiment write-up. The report should include the data sheet and the laboratory report sheet with all questions answered. These sheets are supplied as digital forms accessible from the course web page. The forms should be
typed and printed and submitted on time. The forms will not be accepted by e-mail. The student is expected to spend time outside of the laboratory working on the report sheet. Proper writing skills are expected. Points will be lost for poor grammar, spelling, writing, etc, and/or the instructor may request that the report be redone.

Risk
Participation in laboratory activities involves an inherent risk of injury. In the event of injury, the student should immediately inform the instructor who will contact the Campus Public Safety Officer. The officer will file an accident report and administer first aid or contact appropriate medical help.

Calculators
Electronic calculators are permitted and most likely needed for completion of the laboratory exercise. Calculators limited to addition, subtraction, multiplication and division are sufficient. The battery and working of your calculator will be your responsibility. You will find it useful to have your calculator while in the laboratory.

Communication
You should develop the habit of checking your e-mail daily. The instructor may send e-mail messages with information vital to your success in the course. Check your e-mail often, at least once a day. Because of the number of students we typically have, there may be some delay in the instructor’s response to an e-mail. Do not send time-sensitive information via e-mail—use the old system of the telephone. A delivered e-mail message does not relieve you of the responsibility of informing the instructor about some concern.

No grades of any kind will be given out over the telephone or email due to federal privacy laws.

Laboratory Policies
1. Arrive to lab on time and stay until the exercise is complete.
2. No children or visitors are allowed in the Laboratory
3. Turn off cell phones, pagers, music players, and other personal electronic devices. Failure to do so will result in the student:
   a. having points deducted from his/her grade
   b. being asked to leave the room and being reported for disruptive behavior.
4. No eating, smoking or drinking in the laboratory. No food is allowed in the laboratory.
5. Be aware of all laboratory policies and procedures and abide by the safety rules. Failure to do so may result in your removal from the laboratory.
6. Wear your safety glasses at all times in the laboratory. The instructor may deduct points from lab reports for failure to wear safety glasses.
7. Keep a clean and tidy work area. Report any chemical spills to the instructor.
Group Work
We will normally work in small groups in the laboratory. It is each individual's responsibility to insure that everyone in the group participates in all aspects of the experiment. You are responsible for cleaning all equipment used and keeping the lab neat and clean. Points may be deducted for failure to wear safety glasses while physically in the laboratory, for messy labs, late reports, horseplay in lab, etc., at the discretion of the instructor.

Academic Dishonesty
Any type of activity that is considered dishonest by reasonable standards may constitute academic misconduct. The most common forms of academic misconduct are cheating and plagiarism, which includes copying of laboratory reports. Even though we may perform the experiment in groups, and even though we encourage an exchange of ideas for comprehension of the laboratory exercise, all reports must be of an individual nature. Written work must be original and must be the individual's expression of the results and understanding of the laboratory concepts. Work that has been copied from another individual will result in the lowering of both scores. Consequences may include a zero grade on the assessment instrument, or possible action by the College Judicial Board of Review. All instances of academic dishonesty will be reported to the Office of Community Standards. Judicial procedures are described in the Student Resource Handbook (Procedures for Adjudicating Alleged Academic Conduct Infractions beginning on page 16).

Disruption of the Learning Environment
Behavior which disrupts the teaching–learning process during class activities will not be tolerated. While a variety of behaviors can be disruptive in a classroom setting, more serious examples include belligerent, abusive, profane, and/or threatening behavior. A student who fails to respond to reasonable faculty direction regarding classroom behavior and/or behavior while participating in classroom activities may be dismissed from class. A student who is dismissed is entitled to due process and will be afforded such rights as soon as possible following dismissal. If found in violation, a student may be administratively withdrawn and may receive a grade of WF.

A more detailed description of examples of disruptive behavior and appeal procedures is provided at: http://www.clayton.edu/Portals/5/DisruptiveClassroomBehavior.pdf

Student Survey Requirement
Students have the responsibility to complete the Student Survey and Course/Instructor Evaluation for each course and each instructor every semester. If this in not done during the allotted time period, the student will be restricted from seeing their final course grade for a period of approximately one week after final exams have ended. Instructors are not allowed to give course grades to those who did not complete these evaluations.

Last update: January 8, 2015