CHM 111 CHEMISTRY PRINCIPLES I LABORATORY SPRING 2015 (1 CREDIT)

Laboratory instructor: Dr. Abdelahad Khajo
Laboratory hours: Monday, 8:20-10:00 PM
Laboratory room: 6S-247
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Course description: Experiments illustrate crucial chemical concepts discussed in lectures and highlight current interpretations of experimental data, based on modern lab techniques.

Learning objectives: (1) The student will learn how to work safely in a chemical laboratory; (2) The student will demonstrate knowledge of the use of chemical experimental setups; (3) The student will be able to collect and analyze data. (4) The student will communicate his or her findings by writing concise reports.

Textbook: College of Staten Island Laboratory Manual for CHM 111

Grading:
65% Lab reports (10% pre-lab, 55% post-lab)
10% Quizzes
20% Departmental final
5% Safety, techniques, and attitude

Your final grade depends on your overall performance, NOT only on your reports or tests. The grading above is subject to change.

Letter grades (approximate):

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<th>Grade</th>
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<tr>
<td>&gt;93</td>
<td>A</td>
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<td>90-93</td>
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<td>70-76</td>
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<td>60-69</td>
<td>D</td>
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<td>&lt;60</td>
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Lab report format: Your lab report is due at the time you enter the lab in the following week. Any late report, without legitimate reason, will NOT be graded. Grading is based on 100-point scale. Reports must include:

1. **Cover sheet or title page (Typed):** Your name, your locker number, title of experiment, date of experiment, and your partner’s name.

2. **Introduction (Typed):** Purpose of the experiment, the background information, the chemical and mathematical equations, and the chemicals used.

3. **Procedure (Typed):** A brief summary of the procedure (do not copy the manual word by word).

4. **Data sheet (Hand-written in ink):** Result directly on the data sheet on the day of experiment initialized by your instructor before leaving the lab.

5. **Calculations (Hand-written):** Formulas, calculations and units neatly laid out in a separate sheet.

6. **Post lab questions (Typed except for calculations/equations):** Questions from each lab experiment in the manual.

7. **Discussion (Typed):** A one-page summary of the experiment in the following order: (a) the purpose of the lab; (b) the fundamental principle or theory behind the experiment; (c) the brief procedure(s) or methods to reach the goal of the experiment; (d) discussion about the possible experimental error(s). Do not give detailed procedures and detailed results in discussion.
Notes:

1. If you are absent then you do not submit the lab report for that experiment (*your grade will be zero*). *No make-up labs, quizzes and exams will be arranged.* You are responsible for the material when you are absent. It is recommended that you obtain data from a classmate and perform the calculation and answer questions as preparation for quizzes and the final exam.

2. If the lab report is submitted without the calculations (show clearly on a separate page), then it will automatically receive a grade of F. *Lab reports will be submitted once only – there are no regrades.*

3. Lab reports are to be done *individually.* The only thing you and your partner should have in common is the data. Calculations, pre-labs, and questions which are worked with other person shall be graded F. *Any forms of cheating (such as copying or plagiarism) in report writing or tests will result in a zero point for your assignment. Also, any academic dishonesty will be reported to the college authority.*

**Pre-lab:** The pre lab assignment is due at the beginning of the class (*on the day you perform the experiment*). *No late pre-labs will be accepted.* Give a *one-page TYPED* outline of the experiment, including:

   - (1) Purpose of the experiment.
   - (2) Main chemical equations and/or mathematical formulas.
   - (3) Experiment procedure summarized in your own words.
   - (4) Pre-lab questions (if any).

**Quizzes and final exam:**
Some questions will be taken directly out of the pre- or post-lab questions and data sheets. Some will be slight variations. Good, complete lab reports should insure an effortless and easy to do final exam.

**Attendance:**
You are expected to attend all laboratory sessions. The laboratory will start promptly. Anyone who misses the introductory lecture at the start of the laboratory will not be permitted to attend that session. *Missing two or more labs (for any reasons) will automatically result in “F” for this course.*

**Performance in lab:**
- Are you prepared for the lab?  
- Have you pre-read the experiment and thought about it?  
- Do you understand what is going on?  
- Are you organized?  
- How do you work?  
- How do you handle instruments, chemical reagents and hazardous waste?

**Clean-up procedure:**
After clearing up your work area (wash down table, clean sink, returned borrowed material or equipment – cool and clean), you may leave the lab after notifying the instructor to check your work area. Make sure to return the community equipment to the community locker.

**Academic integrity:**
Integrity is fundamental to the academic enterprise. It is violated by such acts as borrowing or purchasing term papers, essays, reports, and other written assignments; using work of others and submitting as one’s own; and misappropriating the knowledge of others. The source from which one derives one’s ideas, statements, terms, and data must be fully and specifically acknowledged in the appropriate form; failure to do so, intentionally or unintentionally, constitutes plagiarism. Violations of academic integrity may result in failure in a course and in disciplinary actions with penalties such as suspension or dismissal from the college (Taken from CSI undergraduate Catalogue, page 45).

**SAFETY GOGGLES MUST BE WORN AT ALL TIMES WHILE IN THE LAB. THIS RULE MUST BE FOLLOWED WHETHER YOU ARE ACTUALLY WORKING ON AN EXPERIMENT OR SIMPLY TAKING NOTES. STUDENTS WHO FAIL TO FOLLOW THIS RULE WILL BE ASKED TO LEAVE THE LAB AND WILL SUFFER GRADING PENALTIES.**