Chemistry 111L
Principles of Chemistry Laboratory
Summer 2016
TWR 8:30-11:30
SSMB 115

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Lab: SSMB 149          Or by appointment
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Office Hours:
MF 9-12
TWR 2-3

Description of Course

A laboratory course designed to introduce the student to the application of the scientific method in solving chemical problems and to acquaint him or her with specific tools and techniques used in the chemistry laboratory, while reinforcing and illustrating concepts encountered in lecture.

Co-requisites and prerequisites

Chemistry 111 is a co-requisite for Chem 111L. If you drop one of the courses, you must drop the other.

Text and supplies (required)

Chemistry 111L Principles of Chemistry Laboratory Manual
Lab coat
Goggles
Gloves

Chem 111 Lab Student Learning Outcomes

• Develop an understanding of the scientific method in a chemistry laboratory setting
• Practice mathematical manipulations using acquired data
• Interpret scientific data

General Education Student Learning Outcomes

The sequence CHEM 111/112 and associated labs satisfy the 8 hour natural science requirement of the College. This sequence enables students to:

• Develop an understanding of the impact that science has on society
• Apply physical/natural principles to analyze and solve problems

* These learning outcomes will be assessed in the second course of the year-long natural science sequence
Safety guidelines

The safety guidelines are outlined in the manual but there are several rules that will be of paramount importance:

1. No shorts
2. No sandals, flip flops, or other open-toed shoes
3. Goggles must be worn at all times when chemicals are in use
4. Laboratory coats must be worn at all times
5. Gloves must be worn when handling chemicals

Class policies

Labs are experiential learning courses that emphasize the scientific method and data interpretation and they provide training in essential technical skills for chemists and other scientists. Furthermore, the technical lab skills presented in one course are assumed to be mastered in subsequent chemistry courses. Thus, attendance in all lab periods is crucial. In all cases, if a student misses 3 lab periods without making up the lab in another section, whether these absences are excused or unexcused, that student will receive a WA for a final grade. Students should recognize that it is not always possible to make up work in another section, so students should make every effort to minimize absence from lab.

Attendance is mandatory at all laboratory periods. If you miss your laboratory period you will receive zero credit for that laboratory period.

Failure to comply with the required PPE will result in zero credit for the lab period. With the instructors permission, you may be allowed to correct any deficiencies in safety equipment and resume the lab. However, you will receive a zero for that weeks quiz.

Grading scale

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage</th>
<th>Letter Grade</th>
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<th>Letter Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93-100</td>
<td>B-</td>
<td>80-82</td>
<td>D+</td>
<td>72</td>
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<td>A-</td>
<td>90-92</td>
<td>C+</td>
<td>78-79</td>
<td>D</td>
<td>71</td>
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<tr>
<td>B+</td>
<td>87-89</td>
<td>C</td>
<td>75-77</td>
<td>D-</td>
<td>70</td>
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<tr>
<td>B</td>
<td>83-86</td>
<td>C-</td>
<td>73-74</td>
<td>F</td>
<td>&lt;70</td>
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Grading scheme

Laboratory reports 60%
Quizzes 10%
Exams 25%
Cleanup 5%
Student Evaluation

The format for lab reports, which is discussed in the laboratory manual, needs to be followed. In addition to the lab report, a typed abstract is required.

Pre-lab quizzes will be given throughout the semester. The purpose of quizzes is to encourage you to prepare for lab. Quizzes are given at the beginning of the class period. There will be no make-up or excused quizzes therefore it is your responsibility to arrive to lab on time.

Laboratory reports will be due immediately at the beginning of the following laboratory period. Any laboratory reports received after that point will be considered late and therefore receive no credit.

Failure to adhere to these or any other safety rules will result in dismissal from the laboratory with a grade of zero for that laboratory period.

Schedule of Experiments

<table>
<thead>
<tr>
<th>Tuesday</th>
<th>June 7</th>
<th>Safety Training</th>
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<tbody>
<tr>
<td>Tuesday</td>
<td>June 7</td>
<td>Experiment 1</td>
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<tr>
<td>Wednesday</td>
<td>June 8</td>
<td>Experiment 2</td>
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<td>Thursday</td>
<td>June 16</td>
<td>Midterm</td>
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<td>June 21</td>
<td>Experiment 6</td>
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<td>June 22</td>
<td>Experiment 7</td>
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<td>Thursday</td>
<td>June 23</td>
<td>Experiment 8</td>
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<tr>
<td>Tuesday</td>
<td>June 28</td>
<td>Experiment 9</td>
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<tr>
<td>Wednesday</td>
<td>June 29</td>
<td>Experiment 10</td>
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<tr>
<td>Thursday</td>
<td>June 30</td>
<td>Final</td>
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