CHM 1033L

Chemistry for Allied Health Science Laboratory

Fall 2007-1

Syllabus and Handouts

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CHM 1033 L  
General Chemistry I Laboratory  
Fall 2007-1

Class times: Reference # 419701, Monday 7:15-9:00 PM in room 1667.  
Instructor: Dr. Alberto Velazquez  
Email: avelazq1@mdc.edu  
Office Hours: By appointment (Saturday 11:25 – 12:25 PM), at the Science Resource / Tutoring Center in room 2221.  
Mr. Serge Theodore’s phone at the Tutoring Center: 305-237-3658.

**Course Description:** CHM 1033L is a one-credit laboratory course that complements CHM 1033. This course emphasizes topics related to the allied sciences examining essential topics in general chemistry, organic chemistry, and biochemistry. Experiments expand on lecture themes and provide a “hands-on” experience on topics described in lecture.

**Co-requisites:** CHM 1033

**Required Materials:**


Safety Glasses, Lab coat or lab apron, and Calculator (Please refer to attached calculator regulations)

**Grading Policy:**

80% of your score will be based on your lab performance and related reports. The other 20% will be based on your final exam score. Assignments are due at the beginning of the lab session. Assignments and laboratory performance will be graded as follows:

**Safety Test (10 points):** During the first lab session, we will discuss important safety protocols. Before the end of the session, you will take a short safety test that will be worth 10 points. *STUDENTS WILL NOT BE ALLOWED TO*
WORK IN THE LABORATORY UNTIL THEY HAVE COMPLETED THE SAFETY TRAINING.

**Laboratory Notebook (5 points each):** Each student will be required to keep a laboratory notebook. During the first lab session, instructions on keeping a proper notebook will be given. All notebook entries must be completed in ink and contain no erasures or liquid paper. Please refer to the attached guidelines on keeping a laboratory notebook. ANY STUDENT WHO DOES NOT HAVE HIS/HER NOTEBOOK READY AT THE BEGINNING OF THE LAB SESSION WILL NOT BE ALLOWED TO WORK IN THE LAB.

**Pre-lab Assignments (10 points each):** Each laboratory module contains pre-laboratory assignments. These assignments are due at the beginning of each laboratory period. ANY STUDENT WHO HAS NOT COMPLETED HIS/HER PRE-LAB ASSIGNMENT AT THE BEGINNING OF THE LAB SESSION WILL NOT BE ALLOWED TO WORK IN THE LAB. Pre-labs must be completed in ink and contain no erasures or liquid paper.

**Lab Reports (20 points each):** Each laboratory module contains a data sheet and questions. Data sheets (including calculations) and questions are due at the beginning of the next lab session. INCOMPLETE REPORTS WILL NOT BE ACCEPTED. A 2-point deduction will be incurred for each day the assignment is turned in late. Lab reports and questions must be completed in ink and contain no erasures or liquid paper. Lab reports and post-labs will be graded based on neatness, your understanding of the theory behind the experiment, and your ability to answer questions concerning the experiment. Lab reports turned in more than one week after the due date will not be accepted.

**Instructor Evaluation (5 points each):** During each lab, you will receive up to 5 points based on your ability to follow protocols in the lab. This instructor evaluation score will be based on your safety practices during the lab; active participation in your group during the lab, punctuality, and cleanliness.
Final Exam: There will be a final, CUMULATIVE, exam at the end of the course as indicated in the schedule. Please refer to the attached review sheet for information about the final exam.

Grading Scale:

A = 90 – 100%
B = 80 – 89%
C = 70 – 79%
D = 60 – 69%
F = 0 – 59%

An “I” will be given only if the final exam is missed due to extreme circumstances.

Attendance: A lab missed due to an excused absence can be made up only during the make-up laboratory period as indicated in the schedule. Only one experiment can be made up during a semester. Note that the make-up lab will be an experiment different from those carried out during the regular course in the laboratory.

The student is responsible for any techniques or theories covered during the missed lab. Laboratories missed due to safety violations, lack of preparation, or tardiness cannot be made up. Students are expected to arrive on time. During the first 10 – 15 minutes of the lab, I will cover important safety information. Therefore, if you are more than 10 MINUTES LATE, you will not be allowed to work in the lab.

All laboratory work must be completed prior to the end of the lab session. You will not be given extra time to finish a lab. A pre-lab quiz will be given at the beginning of each lab session. There is not make-up for a quiz missed due to late arrival.

Laboratory Neatness: At the end of the lab period, the lab should be clean and tidy – lab benches should be clean and dry; all balances should be clean and turned off; there should be no litter on the floor, benches, or sinks. Each student in the lab will be penalized if the lab is left in an unacceptable condition. In addition, each group will be assigned a balance. You are responsible for the condition of your balance. Notify me if you find someone other than your lab partner utilizing your assigned balance.

Safety: There are many hazards in a chemistry lab. During the first lab session, we will go over safety rules for the laboratory and you will be sign a contract acknowledging receipt of these instructions.
Your safety and the safety of all those in the laboratory depend on each individual’s adherence to these safety rules. Therefore, I will be EXTREMELY STRICT when it comes to lab safety. Any student who violates ANY ONE of the safety rules will be given one warning. If the student commits a second violation, it will result in expulsion from the laboratory and a grade of “F” for the course.

Drop Dates: The last day to withdraw with a full refund is Wednesday, Sep. 5, 2007. The last day to withdraw with a grade of “W” is Thursday, Nov. 1, 2007. Please adhere to these deadlines. It is your responsibility to formally withdraw from the course.

Academic Dishonesty Policy: If you are suspected of cheating, plagiarism, or any other form of academic dishonesty as outlined in College Procedure 4071, you will be subject to procedural due process as outlined in College Procedure 4074.

Laboratory Schedule:

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>EXPERIMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9/3</td>
<td>Measurement and Significant Figures</td>
</tr>
<tr>
<td>2</td>
<td>9/10</td>
<td>Conversion Factors in Calculations</td>
</tr>
<tr>
<td>3</td>
<td>9/17</td>
<td>Density and Specific Gravity</td>
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<tr>
<td>4</td>
<td>9/24</td>
<td>Atomic Structure and Electron Arrangement</td>
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<tr>
<td>5</td>
<td>10/1</td>
<td>Compounds and Their Formula</td>
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<tr>
<td>6</td>
<td>10/8</td>
<td>Testing for Cations and Anions</td>
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<tr>
<td>7</td>
<td>10/15</td>
<td>Chemical Reactions and Equations</td>
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<tr>
<td>8</td>
<td>10/22</td>
<td>Solutions, Colloids, and Suspensions</td>
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<tr>
<td>9</td>
<td>10/29</td>
<td>Acids and Bases</td>
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<tr>
<td>10</td>
<td>11/5</td>
<td>Reactions of Hydrocarbons</td>
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<tr>
<td>11</td>
<td>11/12</td>
<td>Alcohols, Aldehydes and Ketones</td>
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<tr>
<td>12</td>
<td>11/19</td>
<td>Aspirin and Other Analgesics</td>
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<td>13</td>
<td>11/26</td>
<td>Types of Carbohydrates</td>
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<tr>
<td>14</td>
<td>12/3</td>
<td>Tests for Carbohydrates</td>
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<tr>
<td>15</td>
<td>12/10</td>
<td>Saponification and Soaps</td>
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<tr>
<td>16</td>
<td>12/17</td>
<td>Peptides and Proteins</td>
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