CHM 2046L: General Chemistry Laboratory II  
Spring 2015

Instructor:  Dr. Sherrisse Bryant  
Office: NM 257  
Email: Bryant.Sherrisse@spcollege.edu (or through MyCourses)  
Office Hours: By appointment only. Please schedule appointments via MyCourses or email.

Department: Natural Sciences  
Dr. Jill Harper-Judd, Academic Chair  
Dr. John Chapin, Dean

Course Information:  
Course Description: This course is a continuation of General Chemistry Laboratory I. It includes some Qualitative Analysis.

Pre or Corequisite: CHM 2046 (Withdrawing from lecture requires that you also withdraw from lab). If you are not currently enrolled in CHM 2046 on the Clearwater Campus of SPC, you will need to provide proof of enrollment elsewhere.

Required Textbook and Resources to be Furnished by the Student: 
Prior to the first lab experiment, each student must obtain and bring to the lab the items listed below.

2. Notebook. 8 x 8 composition book is fine.
3. Lab coat. Available at the campus bookstore or a uniform supply company.
4. Safety goggles (not glasses), approved for use in chemical laboratories, according to American National Standards Institute (ANSI) Z-87.1-1989 (available at the campus bookstore and some home improvement stores).
5. TI-30Xa, TI-30XIIs or similar calculator. No engineering or graphing calculators are permitted. Calculators that have functions, such as numerator/denominator display, answers that are put into correct number of significant figures, etc., are not permitted. Other brands are fine also, but make sure that they meet the guidelines.
   - Cellular telephones, tablets or other web enabled devices are not allowed in the lab. These items must be stored while in the laboratory with ringers off. Students who have or take a cell phone out during a quiz will be given a zero for that quiz.

Meeting Information:  
Course Location: CL-NM254  
Meeting Days and Times: W 2:00 pm – 4:40 pm  
Learning Modality: Face to Face

Important Dates:  
Course Dates: 8/17/15 – 12/10/15  
Drop/Add: 8/21/15  
Withdrawal Date: 10/22/15
Safety and Conduct in the Lab:

- **Safety:** This is the number one priority in the lab. It is your responsibility to know and follow the rules and procedures at all times. Prior to signing the Safety Rules Form, be sure that you have read through the document thoroughly.

- **General Laboratory Safety Rules:**
  - Appropriate dress must be worn to lab or you will not be allowed to stay for the lab work and you will receive an unexcused absence.
  - Clothing must completely cover you from neck to knees. Clothing should not have loose sleeves.
  - Shoes must cover your feet; no sandals, flip-flops, etc.
  - All books, purses and other personal items must be stored out of the way so that they do not interfere with the safe conductance of the lab
  - Handle all chemicals, glassware, burners, and other lab equipment appropriately and carefully.
  - Food and drink may not be brought into or consumed in the lab.
  - Read all chemical labels on containers THREE times: before you pick it up, while you have it in hand (as you are dispensing) and when you put it back down. Many mishaps can be avoided this way. Many chemical names are formulas sound and look alike. Never assume anything!
  - Each student is responsible for cleaning up any spills or broken items.
  - Each student is responsible for cleaning all used items and returning them to their appropriate place.
  - All chemical waste must be disposed of in an appropriate manner as per instructor or lab instructions
  - Each student is responsible for replacing all caps and making sure that chemicals do not become contaminated or spill.
  - Each student is responsible for making sure that the sinks are free of debris and that the work area is clean before leaving.

Class Attendance and Participation:

- **100% attendance is expected.** You will be automatically withdrawn from lab class if you miss more than one lab period prior to the withdrawal date for this semester – October 22, 2015.
- No makeup quizzes will be given so please do not miss one.
- Tardiness to lab is not acceptable. You must be in your seat prior to the beginning of lab. If you are late for a quiz, you may not have time to complete it. If you miss the discussion at the beginning of lab, you will miss important explanations.
- You may leave the lab upon completion of the work.
- Immediately following the 60% point of the term, the instructor will verify which students are actively participating in class.
- Active participation includes lab attendance, homework, and quizzes. A student who misses two or more consecutive labs, without communicating with the instructor, will be considered to be not actively participating in class. **Students classified as not meeting the criteria for active class participation will be administratively withdrawn with a “WF” grade, which is calculated as an “F” for GPA purposes.**
- The college-wide attendance policy is included in the “Addendum to the Syllabus”, which should be read at the following web address: [http://www.spcollege.edu/addendum/](http://www.spcollege.edu/addendum/).
Note: Students will be able to withdraw themselves at any time during the term. However, requests submitted after the 60% deadline (October 22nd) will result in a “WF”.

Required Assignments:

- **Read** the material pertaining to each experiment prior to the scheduled lab. It is very important that before beginning each experiment you have a very clear idea of the purpose, procedure, materials used, and safety concerns for that experiment. If you find an experiment that contains material you have not yet covered in the lecture, you should look up the information in your lecture text.

- In your own words, write a detailed procedure for the lab in your **lab notebook** (before coming to lab). You will need to follow the procedure in your **lab notebook** (not in your lab manual) each day in lab, so write your procedure carefully! Leave room to record data, perform calculations, etc. Laboratory notebooks will be checked during each lab period and at the end of the semester. Missing or incomplete notebooks will negatively impact the subjective grade each week.

- As you go through the procedure in lab, **take detailed notes in your notebook**. Record masses/volumes used, colors/odors detected, reactions performed, etc. **Your notebook is your only source for completing the lab successfully, and can also be used during the quizzes as a resource.**

- Each laboratory exercise will be evaluated by a **prelab assignment (Advance Study)** due at the beginning of lab and a **lab report due on the week following the completion of the exercise**. It is the responsibility of the student to remember to turn in the lab report when it is due. **Points will be deducted from late lab reports!** Laboratory experiments are prepared on the scheduled class day and cannot be made up. Students who miss a lab will receive a grade of zero for the corresponding lab report. The lowest lab report score will be dropped. This means that you can miss one lab day during the semester without having a zero averaged into your grade. If you miss more than one lab day during the semester then the second missed lab will be averaged into your grade.

- **Quizzes:** There will be several **unannounced quizzes** during the semester, focusing on the work done for the previous lab. Students who miss a quiz will receive a zero for that quiz.

- **Final Quiz:** There will be a final lab quiz given. This quiz will be open notebook, so if you keep a good notebook throughout the semester you will be well prepared for this quiz.

Testing and Grading Policy:
Criteria for grading in-class and experimental procedures are as follows:

- Ability to follow directions, both written and oral.
- Ability to follow correct experimental procedures.
- Ability to follow safety rules and lab course policies.
- Dexterity in handling laboratory equipment properly and safely.
- Accuracy in calculations, experimental outcomes, and use of critical thinking skills as documented in your lab reports, quizzes, and exams.
- Preparedness to perform the experiment.
The following weights will be given to lab reports, quizzes and the subjective/safety component:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
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<tbody>
<tr>
<td>Lab Reports</td>
<td>60 %</td>
</tr>
<tr>
<td>Lab Quizzes</td>
<td>30 %</td>
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<tr>
<td>Subjective/Safety</td>
<td>10 %</td>
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</tbody>
</table>

**Final grades will be assigned as follows:**

- 90-100% = A
- 80-89.9% = B
- 70-79.9% = C
- 60-69.9% = D
- <60% = F

**Classroom Behavior:**
The following behavior may warrant dismissal from class. Regular use of profanity in lab, talking or texting on your cell phone during lab, leaving lab repeatedly to talk or text on your cell phone, arriving to lab more than 10 minutes late, drinking or eating in lab, wearing shoes that do not cover your entire foot (including your heels), and/or not following safety rules (such as wearing your goggles). Please be safe and respectful at all times while in the lab room.

**Resources:**
I will be available to answer any questions you have during scheduled office appointments. Also, there is FREE tutoring available in LA 100 which can help you at times when I may not be available. Please refer to the Learning Support Commons website (www.spcollege.edu/tutoring/) for more information about tutorial services.

**Academic Honesty:**
If you are caught cheating on a quiz or exam, it will be an automatic zero for your quiz/exam grade. There is no tolerance for academic dishonesty which includes cheating, plagiarism, bribery, misrepresentation, conspiracy, and fabrication. Please refer to http://www.spcollege.edu/academichonesty/ for definitions and Academic Honesty Guidelines.

**Student Survey of Instruction:**
The Student Survey of Instruction is administered in courses each semester. It is designed to improve the quality of instruction at St. Petersburg College. All student responses are confidential and anonymous.

**Special Accommodations:**
If you have a documented disability or think that you may have learning or other disability and would like to request accommodations, please make an appointment with the Disability Resources Specialist on campus by calling at 727-791-2628 or 727-791-2710. If you will need assistance during an emergency classroom evacuation, please contact the campus Disability Resources Specialist immediately about arrangements for your safety. For more information about Disability Resources, please visit www.spcollege.edu/dr.

**Campus Safety and Security:**
For information on campus safety and security policies please contact 727-791-2560. If there are questions or concerns regarding personal safety, please contact the Provost, Associate Provost, Campus Security Officer, or Site Administrator on campus. Visit www.spcollege.edu/CampusSafety/ for more information.
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Experiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8/19</td>
<td>Check-In/Introduction/Safety</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>8/26</td>
<td>Rates of Chemical Reactions, I: The Iodination of Acetone (Part I)</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>9/2</td>
<td>Rates of Chemical Reactions, I: The Iodination of Acetone (Part II)</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>9/9</td>
<td>Properties of Systems in Equilibrium - Le Chatelier's Principle</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>9/16</td>
<td>Determination of the Equilibrium Constant for a Chemical Reaction</td>
<td>4</td>
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<tr>
<td>6</td>
<td>9/23</td>
<td>Determination of the Hardness of Water</td>
<td>5</td>
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<tr>
<td>7</td>
<td>9/30</td>
<td>pH Measurements: Buffers and Their Properties</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>10/7</td>
<td>pH Measurements: Buffers and Their Properties</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>10/14</td>
<td>Qualitative Analysis of Group I Cations</td>
<td>7</td>
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<tr>
<td>10</td>
<td>10/21</td>
<td>Qualitative Analysis of Group III Cations</td>
<td>9</td>
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<tr>
<td>11</td>
<td>10/28</td>
<td>The Ten Test Tube Mystery</td>
<td>10</td>
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<tr>
<td>12</td>
<td>11/4</td>
<td>Determination of Iron by Reaction with Permanganate – A Redox Titration</td>
<td>11</td>
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<tr>
<td>13</td>
<td>11/11</td>
<td>Determination of Equivalent Mass by Electrolysis</td>
<td>12</td>
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<tr>
<td>14</td>
<td>11/18</td>
<td>TBA, Open/Optional</td>
<td>N/A</td>
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<tr>
<td>15</td>
<td>11/25</td>
<td>Thanksgiving Break – College Closed</td>
<td>N/A</td>
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<tr>
<td>16</td>
<td>12/2</td>
<td>Final Quiz/Lab Check-Out</td>
<td>N/A</td>
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*This schedule is both approximate and tentative; it may be changed as needed during the semester. The instructor reserves the right to make adjustments as needed to this syllabus at any time during the semester.*
Print your name and student number. Sign, date, and return to your instructor prior to beginning the first lab.

I, _________________________________________ _______________________________ have received a copy of the course policy for CHM 2046L, General Chemistry Laboratory II. I understand and agree to abide by the policies of this course.

_________________________________________________________   ______________
Signature in ink                                                  Date