

CHM2046L GEN CHEM II LAB

FALL 2018

INSTRUCTOR INFORMATION

| Instructor | Email | Office Location & Hours |
|------------|-----------------------------|-------------------------|
| Mrs. Veige | Email in Canvas <u>only</u> | M 4, W 3-4; JHH 103 |

| Lab Managers | Contact | Office Location |
|-------------------------------------|----------------|-----------------|
| Donna Turner Candace Biggerstaff | In lab JHH 110 | Lab stockroom |

TEACHING ASSISTANT

To be assigned during first laboratory meeting; a full list of sections and corresponding TAs will be posted on the Syllabus page in Canvas when available. TAs hold weekly office hours in JHH 105. Office hours are posted on the Syllabus page in Canvas when available.

GENERAL INFORMATION

COREQUISITES

CHM2046L is to be taken with CHM2046 or CHM2051 (Honors). Detailed prerequisite information and credit suitability can be found in the Undergraduate Catalog.

MEETING TIMES

CHM2046L meets once per week in JHH 110.

DESCRIPTION/GOALS

As both a general education requirement and major's course, CHM2046L is designed to introduce you to common laboratory techniques and equipment used in the general chemistry laboratory, to help you gain understanding and proficiency in their use, and help you explore the process of doing experimental chemistry, and to illustrate representative examples of the useful and important concepts you are learning in the CHM2046 lecture. The course serves to teach the scientific method, skills for problem solving, general chemistry knowledge, and a connection to the principles that govern the natural world.

FIRST DAY OF LAB

Lab will commence Sept. 4th, 2018. You have assignments due before this - check Canvas for details. On the first day of lab, you will meet your TA and be assigned to your laboratory workstation. You will undergo safety training/orientation during the first lab period and complete a short lab activity. Prior to attending each lab period, you must familiarize yourself with the lab background and procedure and complete the

Pre-Lab quiz. You should also make relevant data tables in your lab notebook and print a copy of the procedure if desired - paper/print copies of the manual are not provided. Each workstation in the lab is equipped with a monitor that allows access to eLearning to view the lab documentation, and to the UF Apps (this includes Excel).

COURSE MATERIALS AND SAFETY

REQUIRED MATERIALS

- Approved safety glasses/goggles and proper attire. You will be asked to leave the lab if not properly attired. There are no make ups for attire issues.
- You will require a suitable laboratory notebook. Our recommendation is a standard composition notebook.

GOGGLES AND ATTIRE

You must be wearing department approved safety glasses or goggles and be properly attired to be admitted to the laboratory at all times, including on the first day of lab. Check the Canvas course pages for information on attire and the types of eye protection approved for use in this lab. Anyone without the necessary safety glasses, or who is inappropriately attired, will not be allowed into the lab. If you are asked to leave the lab due to improper attire, you will not be permitted a makeup. You can, however, leave and return during the lab period with required attire and complete as much of the lab as possible within the allotted time. There will be a grade penalty if a significant portion of the lab period is missed.

SAFETY

You are responsible for reviewing the safety information provided in Canvas. All of the activities worth credit for the course will be locked in Canvas until you satisfactorily complete the Safety Contract.

LOGISTICS/CLEANLINESS

You will work in pairs to complete the laboratory activities. You should check your group's glassware for cleanliness before beginning the lab. Your group must wash the glassware/equipment and your workstation before leaving. You may not sign the attendance sheet until your TA has checked your station. If any glassware is broken during the lab session, communicate this immediately to your TA so it can be replaced/cleaned up.

LAB SCHEDULE (SUBJECT TO CHANGE)

| DATES | MONDAY | TUESDAY | WEDNESDAY | THURSDAY |
|----------------|----------------------------|--|-----------|----------|
| Aug. 22-24 | NO LABS | | | |
| Aug. 27-31 | NO LABS | | | |
| Sept. 3-7 | HOLIDAY | Orientation; Safety; Dilution & Beer's Law | | |
| Sept. 10-14 | Kinetics | | | |
| Sept. 17-21 | Equilibrium | | | |
| Sept. 24-28 | Le Chatelier | | | |
| Oct. 1-5 | Acids & Bases | | | |
| Oct. 8-12 | Polyprotic Acids & Buffers | | | |
| Oct. 15-19 | Thermodynamics | | | |
| Oct. 22-26 | Galvanic Cells | | | |
| Oct. 29-Nov. 2 | Dilution & Beer's Law | NO LABS | | |
| Nov. 5-9 | Electrochemistry | | | |
| Nov. 12-16 | HOLIDAY | Transition Metals | | |
| Nov. 19-23 | Transition Metals | NO LABS – Thanksgiving Break | | |
| Nov. 26-30 | MAKE UP WEEK | | | |
| Dec. 3-7 | NO LABS | | | |

*Assignments are due in Canvas before labs commence – check Canvas for details.

ATTENDANCE INFORMATION

LAB PERIOD

You are expected to attend lab during your scheduled lab period, and to leave the laboratory when the lab period ends. Everyone is given the same amount of time to complete the experiments. If you are well-prepared, you should not experience difficulties completing the experiments within the allotted timeframe. You may not arrive early, stay late, or attend during a different lab period to complete your laboratory activities.

LAB ATTENDANCE

Attendance in the General Chemistry lab is critical for this course. Each laboratory period, you will learn techniques and concepts that will continue to be important throughout the semester and in your future lab career. It is essential that you be present and prepared for lab each time that it convenes.

Your TA will take careful attendance each lab period while circulating during the lab period and grading notebooks. You must sign your name on the attendance sheet during each lab period – *this is your responsibility*, not the TA's. If you aren't sure whether or not you've signed the attendance sheet, check with your TA and do so before leaving.

If you are not in attendance you will receive a score of 0 for your Lab Notebook and on other lab related assignments for that period. *The signed attendance sheet is the official attendance record - make sure you sign each lab period!*

ABSENCE

Students who must miss lab due to extreme circumstances beyond their control may submit a request for make-up within 7 days (this means if you miss a Tuesday lab, you must submit your request by 11:59 pm the following Monday through Canvas, as directed) of the missed lab period. Make ups for absences for the last scheduled lab must be requested prior to make up week to ensure scheduling.

Please understand that personal issues with scheduling conflicts, such as volunteering, work, non-emergency dentist or doctor appointments, extracurricular activities, or travel, do not justify an excused absence. To have a request considered for approval, you must (1) provide a completed request form, available in the Canvas site - email the form to your coordinator (Mrs. Veige) through Canvas; and (2) request an excuse note from the Dean of Students Office if missing lab due to illness or emergency. After one week, the absence will be considered unexcused and you will receive a score of 0 and not be permitted a make up.

Emailed requests to "preview" excused absences will be ignored; it should be very clear what constitutes an excused absence. If you know in advance that you will need to miss a lab session, please submit your request as early as you can, even in advance. Requirements for class attendance and make-ups in this course are consistent with university policies that can be found in the [Undergraduate Catalog](#).

Any student who missed more than three lab sessions (excluding religious observances), whether excused or unexcused, will receive a grade of E in the course.

The first excused absence for a student will be rescheduled during make-up week at the end of term during your regular lab period. Subsequent requests will also be scheduled during make-up week. It is your responsibility to make time to make room in your schedule for make up labs, during regular CHM2046L lab sessions.

GRADING

ASSIGNMENTS AND LATE POLICY

You will have a partner for lab, but all assignments are submitted and graded individually. Each student must submit each required assignment to receive a grade.

Pre-lab quizzes are due at 8 am the day of a student's scheduled lab period. The post-lab quiz is due at 8 am the following week on a student's regular lab day. Quizzes cannot be completed late for any credit. For best performance, use only Firefox or Chrome for quizzes. Make sure you start well in advance of the due date/time, in case your computer's clock differs from official Canvas time. There are no extensions due to travel or computer issues. There are computers available on campus for student use if needed; start well in advance.

All other lab-related assignments are also due by 8 am the following week on the student's regular lab day and, when possible, can be considered for 50% credit if submitted late but prior to 11:59 pm that day. The penalty is applied even if the submission is received by Canvas one second past the 8 am deadline, so be mindful of time. Emailed assignments are not considered for grading. We highly recommend you submit assignments early and verify they've been submitted through Canvas. If you have personal computer issues there are computers on campus available for student use. All due dates/times are in EST.

Should a student's next regular lab day be a university holiday, all post lab assignments will be due at 8 am the following weekday classes are in session. For example, students performing labs on W/R the week prior

to Thanksgiving break should expect to turn in post lab assignments by 8 am 11/26, the next weekday school is in session.

GRADE BREAKDOWN

Each laboratory exercise is comprised of a Pre-Lab quiz, a notebook grade, a Post-Lab exercise, and various other assignments specific to that lab. Each lab exercise as a whole is weighted equally to your final grade. Within each lab exercise, assignments are weighted according to the published point value. If there is any confusion about this, please see me. Detailed information regarding each of these grading items is provided in Canvas.

Assignment weights are as follows:

| Assignment Group | Weight % |
|------------------------------|----------|
| Safety/Surveys/Syllabus Quiz | 3% |
| 10 Labs @ 9.7% each | 97% |

Grade scale (note: there is no rounding to your score in Canvas):

| Letter | A | A- | B+ | B | B- | C+ | C | D+ | D | D- | E |
|--------|------|------|------|------|------|------|------|------|------|------|--------|
| Cutoff | 90.0 | 86.0 | 83.0 | 80.0 | 77.0 | 73.0 | 69.0 | 66.0 | 63.0 | 60.0 | < 60.0 |

RE-GRADES

The lab notebook is graded during lab period. Communicate any lab notebook grade disputes to your TA during the lab period and your TA will address your concerns at that time and make any necessary corrections during the lab period. If your TA finds it necessary to re-grade your lab notebook, he/she will correct the grade on your notebook and on his/her grade sheet immediately. The notebook must be scanned/photographed and submitted to Canvas to the relevant assignment in order for points to be considered toward your course grade.

Regrades of assignments submitted through Canvas, typically via file upload, must be requested within 5 days of a grade being assigned, and should be directed to the grader (typically, your TA). This is not to invite resubmissions - once a due date has expired, the submitted assignment is considered final and will be assigned a grade. This is for grade disputes only. If you neglect to include part of an assignment submission or submit an incorrect or incomplete assignment, you will suffer a grade penalty as described in the grading rubric for that assignment and will not be permitted the opportunity to resubmit.

UNIVERSITY POLICIES

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES

Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking quizzes or exams. Accommodations are

not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

UNIVERSITY POLICY ON ACADEMIC MISCONDUCT

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida. The following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php>."

U MATTER, WE CARE

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing Staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

EVALUATIONS

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

CONFLICTS

If you experience issues with CHM2046L that you cannot resolve with your TA, please see Mrs. Veige in person. Don't wait until the end of term to resolve an ongoing issue.

GENERAL EDUCATION

This course satisfies the General Education requirement in the Physical Sciences.

PHYSICAL SCIENCE GENERAL EDUCATION PROGRAM OBJECTIVES

Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.

These objectives are accomplished through participation in the lab sections, and individual work done on homework assignments and assessments.

GENERAL EDUCATION STUDENT LEARNING OUTCOMES

| Area | Institutional Definition | Institutional SLO |
|--------------------------|---|---|
| CONTENT | Content is knowledge of the concepts, principles, terminology and methodologies used within the discipline. | Students demonstrate competence in the terminology, concepts, methodologies and theories used within the discipline. |
| COMMUNICATION | Communication is the development and expression of ideas in written and oral forms. | Students communicate knowledge, ideas, and reasoning clearly and effectively in written or oral forms appropriate to the discipline. |
| CRITICAL THINKING | Critical thinking is characterized by the comprehensive analysis of issues, ideas, and evidence before accepting or formulating an opinion or conclusion. | Students analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems. |

Naturally, all three areas of learning outcomes will be assessed in all categories of graded assignment administered in CHM2046L.

SPECIFIC GOALS OF CHM2046L

You will be required to analyze scientific concepts and think critically. This means being able to answer both quantitative (mathematical) and conceptual (qualitative) problems in a limited period of time. Additionally, you will have to write and/or orally communicate during your scheduled lab periods. You will be required to utilize the methods of science as a logical means of problem solving through critical thinking. This means you must analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems. To ensure your competency in these concepts you will be required to complete quizzes and assignments that require critical thinking, analysis of problems, and drawing conclusions. Of particular importance in the lab course will be your ability to collect data, organize the data logically, generate a meaningful graphical representation of the collected data, and draw conclusions from the total exercise.

DISCLAIMER

This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.