Chemistry and Society Laboratory
CHEM 1150 sections 1 and 4
The University of Toledo
Department of Chemistry and Biochemistry
Spring 2018

Name: Dipl.Chem. Edith Preciosa Kippenhan
Email: edith.kippenhan@utoledo.edu
Instructor Phone: 419-530-4072
Office Number: BO 1081
Course Website: https://blackboard.utdl.edu
Office Hours: T 1:00–3:00 pm, W 10:00 am–12:00 pm, R 10:30–11:30 am and by appointment

Lab Location: BO 1095
Lab Day/Time: W, F: 10:00 – 11:50 am

CATALOG/COURSE DESCRIPTION
1 hr - Laboratory introduction to the concepts of chemistry to accompany Chemistry 1100.
Demonstrations by laboratory experiments of lessons developed in the accompanying lecture course.

PREREQUISITES AND COREQUISITES
none

REQUIRED INSTRUCTIONAL MATERIALS (TEXTS AND ANCILLARY MATERIALS)
Text: none
Eye Protection: Approved chemical safety goggles are required at all times. Goggles may be purchased at the UT bookstore or from the UT Student ACS chapter.
Blackboard: This website is available through the University of Toledo Distance Learning program and can be accessed via the MyUT portal or via blackboard.utdl.edu. Your access code is your UTAD username and password.

STUDENT LEARNING OUTCOMES (SLOs)
Upon successful completion of this course, you should be able to:
1. recognize and properly use standard laboratory glassware and analytical equipment;
2. safely work with hazardous substances and reactive chemical systems;
3. perform common laboratory techniques involving solids and liquids;
4. understand and use the scientific method;
5. analyze data and observations to draft a scientifically valid conclusion;
6. use calculations necessary to determine percent content of an unknown;
7. identify an unknown based upon observations;
8. communicate the results of an experiment;
9. communicate ideas related to science in spoken and written word;
10. understand the influence of modern science of our global and diverse culture and society;
11. use the concepts of good scientific method to evaluate issues to be an active and informed citizen and voter.

TECHNOLOGY EXPECTATIONS
This class relies heavily on technology.

Most pre- and post-lab work is submitted online via Bb, but some work is done on paper, or with a computer, and submitted in lab. Information specific to each assignment and lab is posted in the Experiments section of our course in Blackboard (Bb). Other information pertaining to the course is posted in the Syllabus and Other Important Info section. Information presented during class via a PowerPoint presentation is posted in Bb as Student Notes.
You will need to **regularly** use Blackboard to stay on top of deadlines, look up course and assignment information, use class discussion boards to complete assignments, and e-mail your teaching assistant and/or instructor. Your teaching assistant or lab coordinator will send information to you via your Rockets email address. It is your responsibility to check both Bb and your Rockets e-mail on a regular basis.

**COURSE OVERVIEW**
Welcome to the Bowman-Oddy general chemistry laboratories. I know you are asking, “Why am I here?” Some of you are here to fulfill the graduation requirement of a science-related lab, others are here as a precursor to moving on to General Chemistry. We honor your choice and will work with you to make this experience as worthwhile as possible. We hope the variety of topics you will explore during this course will give you a better understanding of science and how it affects our everyday lives.

Lab can be a lot of fun. Once you have settled in, I hope you will find the experiments and their results interesting, and you will be able to tie this information to the material you are learning in lecture. Enjoy your time in lab, and don’t hesitate to contact me, either during office hours or by e-mail.

**LAB ATTENDANCE POLICY**
Attendance is mandatory.

You are expected to be on time and ready for lab at the *beginning* of each lab period. You will not be admitted to lab if you are substantially late or if your pre-lab is incomplete or unsatisfactory. If you miss an experiment, you may make it up only by attending another lab section during the same week that particular experiment is scheduled. It is up to you to make these arrangements *with your instructor, either in person or via e-mail.* There are no lab periods designated as make-up labs.

If you need to attend another lab section during the same week as your regularly scheduled lab section, send an e-mail to edith.kippenhan@utoledo.edu, put Chem 1150, your section number, and “**Need to attend another section**” in the subject line. If you know in advance you will be absent due to travel, job conflicts, etc., send e-mail as soon as you can to maximize your chances of getting into another section. It will not always be possible to do so.

**TEACHING STRATEGY**
Stimulate student learning through engagement and participation

A variety of learning methods will be used including group activities, in-class discussions and online projects. Come to class prepared by reading the assigned material and completing the pre-lab assignment for lab that week and submitting any work that is due from last week’s lab. Participating in class is an essential component of being successful in this course as these activities are a significant part of your grade.

**ADHERENCE TO SAFETY POLICY**
Failure to follow the safety rules and policies will directly affect your grade.

- The first instance of failure to comply with these safety rules and/or policies will result in an immediate ten-point deduction for that laboratory exercise and possible expulsion for that day.
- A second violation will result in expulsion from the laboratory and a grade of zero being given for the laboratory exercise for that day.
- If there are further violations, the instructor can assign a failing grade for the course.

**EXCUSED ABSENCE POLICY**
You **must** fill out and submit an Excused Absence Request (EAR) form for each absence within two weeks of your return to campus.
Should you miss a lab, submit an EAR form (a copy is provided via Blackboard, as well as in each course section of the lab manual) and supporting documentation to the instructor via the department secretary in BO 2022. Do NOT give it to your TA. Any papers that were due that day are to be attached to the EAR form. Your final grade for the course will be calculated based on the work you submit during the semester; your “Grade To Date” in the Blackboard grade center may be lower than your actual grade until the end of the semester.

Excused absences will be granted when school-related academic or athletic activities, medical problems, or other similar emergencies cause you to be absent. Absences due to work, schedule conflicts or family vacations will not be excused. No more than two excused absences per student per semester will be granted and no excused absences will be granted for the lab practical. **Excused absence requests that are received more than four weeks after the absence and those with no supporting documentation will not be approved.** All excused absence forms with attached supporting documentation must be submitted no later than the Friday before the lab practical.

**E-MAIL POLICY**
Most of the communication outside of the laboratory takes place via e-mail. Teaching assistants (TAs) are required to check and reply to your e-mail at least once daily Monday–Friday, between 9 am and 8 pm, weekends at a time that best fits their schedule. Part-time instructors who are TAs will let you know when they will check and reply to your e-mail. Your instructor will check her e-mail and reply frequently Tuesday–Friday between 10:30 am and 3 pm, and late Sunday evening. If you have not received a reply from your TA within 48 hrs., send the e-mail again and copy your instructor on the e-mail. Please understand that you may not get a reply from your instructor within 48 hrs. based on the day and time you send the e-mail. If you do not get a reply within a few days, check that you used the correct e-mail address and that the e-mail was actually sent by your device. Feel free to resend the e-mail or stop by her office to see whether the e-mail was actually received.

If you need help urgently, please put URGENT in the subject line of your e-mail. We will do our best to help you quickly. Issues with data entry, calculations and deadlines are not considered to be urgent situations. Plan your time so you can get help from your TA and/or instructor in plenty of time ahead of the deadline.

**LATE WORK POLICY**
All assignments are due either online at 11 pm the evening before lab or upon entry to the lab.

*Late work will not be accepted.* If necessary, you may submit papers that were due at the beginning of lab to your TA's mailbox via the department secretary in BO 2022 by no later than 5 pm of the same day for a ten-point deduction. This policy is to be used only as an exception, e.g., papers were left at home. Should this late submission become a regular occurrence, the submitted papers will be deemed late and will not be accepted for grading. In the event of an excused absence, work that was due (previous week’s lab) is to be submitted with the Excused Absence Request form. If the experiment is made up in another section that week, work that is due that day is to be submitted to the instructor in charge of the other section.

**ACADEMIC DISHONESTY**
_Academic Dishonesty_ is defined by the university's policy as specified in the university’s catalog. The rules of academic honesty will be strictly enforced. Academic dishonesty includes cheating by copying from any other student — past or present. All work submitted must be the work of the individual submitting it. Academic dishonesty will result in a score of zero for an assignment and/or lab and can further result in a failing grade in the course that cannot be deleted from the student’s transcript.

**CLASS STRUCTURE AND COURSE EXPECTATIONS**
Upon entry to the lab, you **must** be properly attired, including safety goggles.

Three things are due each week at the beginning of lab: a) purpose statement, b) handwritten procedure that summarizes the steps you will carry out in order to do the experiment, c) your lab report (datasheets, graphs, questions and post-lab assignment) from the previous week’s lab. Backpacks, coats and other bulky items go immediately into the storage cubes at either entrance to the lab. Only your lab manual,
handwritten procedure, and calculator and pen are allowed at your workspace in the hood. Once everyone has been admitted to the lab, your TA will conduct a brief presentation during which you will be informed of safety hazards, procedure and material changes, etc. PAY ATTENTION and TAKE NOTES during this presentation so you do not waste valuable time later. The remainder of the lab period is yours to complete the assigned experiment and other assignments. Data sheets are to be completed in the laboratory in blue or black indelible ink; any mistakes are to be crossed out with one line, with the correct value placed above or beside the error. Illegible work will not be graded. Any time left over may be used to start your data calculations or to ask your TA questions. You are responsible for cleaning your hood space and any assigned lab areas prior to leaving the lab. When done, present your data sheets to your TA for his/her initials. All data sheets must be initialed by the TA prior to leaving the laboratory; a data sheet with no initials will NOT be accepted and a grade of zero will be awarded for that portion of the lab. You may remove your goggles once you are OUTSIDE the lab.

**ASSIGNMENT OF COURSE GRADE**

To assist you with determining your academic standing in the course, an online grade book is available in Blackboard. Scores for each lab will be posted generally within one week of submitting the material to be graded. Midterm grades for students that are not doing well (B or lower) will be submitted during the 5-8th week of the semester. This submission includes an attendance report as is required by state and federal laws regarding financial disbursement. If you are not attending class it could significantly impact your financial aid (scholarships, grants, loans or Federal Work Study) status.

The final grade will be based on your lab reports, your work in lab and online assignments.

Each lab report is worth 60 pts. **Lab Report points** are as follows:

- Ideas/Tests 10 pts.
- Observations/Claims 10 pts.
- Evidence 10 pts.
- Reading/Discussion 10 pts.
- Reflection 15 pts.
- Assessment 5 pts.

**Course Points will be distributed in the following manner:**

<table>
<thead>
<tr>
<th>Assignment/Assessment</th>
<th>Points</th>
<th>% of Final Grade</th>
<th>SLO Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety/Syllabus Quiz</td>
<td>50 pts.</td>
<td>6%</td>
<td>1, 2</td>
</tr>
<tr>
<td>Lab report, 12 @ 60 pts. each</td>
<td>720 pts.</td>
<td>85%</td>
<td>1 – 9</td>
</tr>
<tr>
<td>Weekly Journal (5 needed)</td>
<td>50 pts.</td>
<td>6%</td>
<td>5, 8 – 11</td>
</tr>
<tr>
<td>Group Project – Nuclear Plants</td>
<td>30 pts.</td>
<td>3%</td>
<td>9 – 11</td>
</tr>
<tr>
<td>Total possible points</td>
<td>850 pts.</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

College laboratory classes often have lower grade averages and wider ranges than those in high school. While the average grade in lab is a B, it is common for some students to receive a lower grade.

You can monitor your grade throughout the semester via the online grade book in Blackboard. It is your responsibility to ensure every entry made by your TA is correct. The deadline to report any error to the instructor of the course is 5 pm of the Friday before the laboratory practical. At the end of the semester a Final Grade will appear in Blackboard. You will have two days to notify your instructor via e-mail of an error in your final grade. Once the grades are uploaded to the official UT grade system, grade changes can no longer be done quickly. **NOTE:** While we try very hard to ensure that the Grade to Date shown in Blackboard is correct, mistakes do happen. Verify your grade by dividing your Total Points to Date by the Points Possible to Date, and multiplying by 100.

Although our TAs grade according to one scale, some adjustments might be necessary at the end of the semester. This will be done on a section-by-section basis. Final grades are determined by the instructor. The
following is a general guideline:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A, A−</td>
<td>90–100%</td>
</tr>
<tr>
<td>B+, B, B−</td>
<td>80–89%</td>
</tr>
<tr>
<td>C+, C, C−</td>
<td>70–79%</td>
</tr>
<tr>
<td>D+, D, D−</td>
<td>60–69%</td>
</tr>
<tr>
<td>F</td>
<td>&lt;60%</td>
</tr>
</tbody>
</table>

If you decide you are not going to attend this class (or any other class you have registered for), you must formally withdraw (drop) from the course. You can do this by logging onto the myUT portal, clicking on the “Student” tab, and then under My Toolkit clicking on Register/Drop/Withdraw. For more information about add/drop dates please visit the Registrar's Office online at:

http://www.utoledo.edu/offices/registrar/registration_dates.html

Course drop and withdrawal procedures have been set by the University of Toledo. The Experiment Schedule that will be handed out during the first day of lab and is posted on Blackboard lists the drop and withdrawal deadlines for the course. You can also find these deadlines on the UT website, under the Academic Calendar. There are no office hours during the last week of the semester due to the Chem 1280 and 1290 lab practicals. Please schedule an appointment if you need to see me during that week.

ACADEMIC POLICIES
As a student at The University of Toledo you should be familiar with the policies that govern the institution’s academic processes, for example, Academic Dishonesty, Enrollment Status, and Grades and Grading. Please read Undergraduate Academic Policies.

Students are expected to attend every class meeting of courses in which they are registered. Please read the Missed Class Policy.

UNIVERSITY POLICIES
The University is an equal opportunity educational institution. Please read The University’s Policy Statement on Nondiscrimination on the Basis of Disability Americans with Disability Act Compliance.

ACADEMIC ACCOMMODATIONS
The University of Toledo is committed to providing equal access to education for all students. If you have a documented disability or you believe you have a disability and would like information regarding academic accommodations/adjustments in this course please contact the Student Disability Services Office.

GENERAL ASSISTANCE
The General Chemistry Secretary, Ms. Pam Samples, in BO 2022, tel: 419-530-2109, can assist you if you have further questions or if you need assistance. If you have special needs, please contact me as soon as possible so we can work together on matching lab to your needs. I will gladly work with you and the Office of Student Disability Services to accommodate your needs.

Success Coach
As of Fall 2013, all new students were assigned a Success Coach to help students navigate their college experience by serving as a single point of contact. Your Success Coach can help you build and develop skills, refer you to support services, and aid in your overall success at The University so be sure to stay connected to him/her throughout your academic journey! If you need assistance connecting with your Success Coach send an email to successcoach@utoledo.edu.

ACADEMIC SUPPORT SERVICES
The University of Toledo offers a wide range of academic and student support services to help you succeed:

Chemistry Help Center
The Chemistry Help Center in BO2043 offers free help from chemistry graduate students and teaching assistants. It is staffed Monday through Thursday from 9 am until 8 pm and on Friday from 9 am until 4 pm.
Each teaching assistant, with the exception of part-time instructors who generally teach in the evening, is required to schedule at least two hours of time, designated as office hours, which are held in the Help Center. Your instructor also provides help during her office hours (see top of syllabus) as well as by e-mail.

**Discussion Boards and E-mail within Blackboard**
Discussion boards and e-mail within Blackboard allow you to communicate 24/7 with your classmates and teaching assistant so you can get quick answers to your questions before and after lab.

**University Libraries**
University Libraries are your gateway to information at The University of Toledo connecting you with the resources you need for education, research, and patient care.

**Tutoring Services**
Free tutoring support for all UT students is available through the Learning Enhancement Center located in the Carlson Library. Tutoring Services are offered in an array of subjects, including Writing, Math (Calculus, Statistics, Accounting) Biology, Chemistry, and Anatomy and Physiology. Further information and schedules will be posted in Blackboard as they become available.

**The Writing Center**
The Writing Center provides free, face-to-face and online tutoring for writers in all disciplines. The staff there can assist you with a variety of writing assignments.

**The Counseling Center**
Transitioning to college and/or maintaining a healthy well being while attending college can be difficult, if you or a friend ever feel overwhelmed adjusting to college or in need of crisis intervention or mental health services please contact the Counseling Center.

**SAFETY AND HEALTH SERVICES FOR UT STUDENTS**
A number of different health and safety services are available to UT students. For a complete list, go to [http://www.utoledo.edu/offices/provost/utc/docs/CampusHealthSafetyContacts.pdf](http://www.utoledo.edu/offices/provost/utc/docs/CampusHealthSafetyContacts.pdf). Other information that is presented to you in class will also be available to you in Blackboard.

**COURSE SCHEDULE** – check the schedules that follow for the one that is the day of your lab
Chem 1150 Spring 2018

Wednesday Classes - Experiment Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Experiment No., Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/17</td>
<td>Introduction, Safety Video, <strong>Check-in</strong></td>
</tr>
<tr>
<td>1/24</td>
<td><strong>Syllabus and Safety Quiz due Tue, Jan. 23, in Bb</strong></td>
</tr>
<tr>
<td></td>
<td>The Scientific Method meets Slime</td>
</tr>
<tr>
<td></td>
<td><strong>Jan. 30: Last Day to Drop</strong></td>
</tr>
<tr>
<td>1/31</td>
<td>Reactions: the Periodic Table and Solubility Rules</td>
</tr>
<tr>
<td>2/7</td>
<td>Greenhouse Gases and Acid Rain</td>
</tr>
<tr>
<td>2/14</td>
<td>Combustion of Snacks</td>
</tr>
<tr>
<td>2/21</td>
<td>What is SPF?</td>
</tr>
<tr>
<td>2/28</td>
<td>Biofuels</td>
</tr>
<tr>
<td>3/7</td>
<td><strong>UT Spring Break – no classes</strong></td>
</tr>
<tr>
<td>3/14</td>
<td>Build a Battery</td>
</tr>
<tr>
<td>3/21</td>
<td>Is It Safe to Drink?</td>
</tr>
<tr>
<td>3/28</td>
<td>Monomer or Polymer?</td>
</tr>
<tr>
<td></td>
<td><strong>Mar. 30: Last Day to Withdraw</strong></td>
</tr>
<tr>
<td>4/4</td>
<td>Kitchen Chemistry</td>
</tr>
<tr>
<td>4/11</td>
<td>Which Antacid is Better?</td>
</tr>
<tr>
<td>4/18</td>
<td>Fabric Dyes</td>
</tr>
<tr>
<td>4/25</td>
<td>What is It? Who Done It?</td>
</tr>
<tr>
<td></td>
<td><strong>Check-out</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NO EXCUSED ABSENCES THIS WEEK!</strong></td>
</tr>
<tr>
<td>Date</td>
<td>Experiment Title</td>
</tr>
<tr>
<td>------</td>
<td>------------------</td>
</tr>
<tr>
<td>1/19</td>
<td>Introduction, Safety Video, <strong>Check-in</strong></td>
</tr>
</tbody>
</table>
| 1/26 | **Syllabus and Safety Quiz due Thu, Jan. 25, in Bb**  
     | The Scientific Method meets Slime  
     | **Jan. 30: Last Day to Drop** |
| 2/2  | Reactions: the Periodic Table and Solubility Rules |
| 2/9  | Greenhouse Gases and Acid Rain |
| 2/16 | Combustion of Snacks |
| 2/23 | What is SPF? |
| 3/2  | Biofuels |
| 3/9  | **UT Spring Break – no classes** |
| 3/16 | Build a Battery |
| 3/23 | Is It Safe to Drink? |
| 3/30 | Monomer or Polymer?  
     | **Mar. 30: Last Day to Withdraw** |
| 4/6  | Kitchen Chemistry |
| 4/13 | Which Antacid is Better? |
| 4/20 | Fabric Dyes |
| 4/27 | What is It? Who Done It?  
     | **Check-out**  
     | **NO EXCUSED ABSENCES THIS WEEK!** |