You are responsible for knowing and following the policies and procedures for CHM 20000 as described in this document.

Instructor: Jessica Weller  
Office: WTHR 110
Email: wellerj@purdue.edu

Office Hours: Appointment only

Course Supervisor: Jessica Weller (wellerj@purdue.edu)

Lecture: Tuesday, 9:30 AM - 10:20 AM in WTHR 104

Blackboard URL: https://mycourses.purdue.edu/

<table>
<thead>
<tr>
<th>Section</th>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>0002</td>
<td>Monday</td>
<td>7:30 – 10:20 AM</td>
<td>BRWN 2134</td>
</tr>
<tr>
<td>0003</td>
<td>Monday</td>
<td>11:30 – 2:20 PM</td>
<td>BRWN 2134</td>
</tr>
</tbody>
</table>

Course Description: This course is an integrative study of the fundamental principles and ideas of chemistry as chemists have come to understand them. The pedagogy of this course is designed to provide reflective, interactive, and hands-on inquiry learning experiences that will assist elementary education teaching majors to develop key chemistry knowledge for their own classrooms. This course is required of students in the elementary education program in the School of Education and is not available for credit towards graduation in the School of Science.

Prerequisite: MA 130 or equivalent

Required Materials

- Textbooks (Optional): This course does not require any textbook, but assigns two optional/recommended textbooks. Throughout the course, some sections of the books will be identified in each lecture and lab as supplementary readings. When readings are required, they will be posted on the Blackboard. You can access these two textbooks in the Chemistry Resource Room (WTHR 117), and the instructor’s office (WTHR 110B).

- Laboratory Manual (Required): Chemistry 20000 Laboratory Manual, Available at University Bookstore.

- Lab materials: In addition to a lab manual, a sharpie (black, permanent ink) for marking lab glassware, and approved safety goggles, available at the bookstores, outside WTHR 200 during the first two weeks of classes, or from the storeroom on the 1st or 2nd floor in BRWN, are required for lab.

- iClicker device: This course will use iClicker questions in lectures. Your response to i>clicker questions will count as a participation grade. You can purchase an iClicker at the bookstores, or outside WTHR 200 during the first two weeks of classes.

- Calculator: A simple battery operated scientific calculator may be needed for exams.
SOURCES OF HELP AND ANSWERS FOR STUDENTS IN CHM 20000

Expect to spend 4 - 6 hours per week on Chemistry outside of the normal class time. This time includes preparing for lecture, reviewing your notes after lecture, completing homework, reading, lab assignments, and preparing for quizzes. There are several free sources of help for CHM students as follows.

**Instructor:** You can set up a meeting via email (wellerj@purdue.edu). When requesting an appointment please suggest 2-3 times that will work for you and he will let you know which of those is best for her.

**BRWN 1144, The General Chemistry Office, 494-5250** The General Chemistry office handles all the administrative details associated with the course. All non-chemistry questions about the course should be directed to this office. For example, go to BRWN 1144 to get grade checks, to discuss exam conflicts, to get clarification on course policies, to resolve grade issues, and to get signatures on university forms such as add/drop forms (Form 23). The Course Coordinator, Ms. Marybeth. Miller, and assistants Marlene Miller and Melissa Roadruck are able to help you with a variety of requests so you can maximize your success in chemistry.

**Chemistry Resource Room, (located in WTHR 117)** provides a place to study and various kinds of help for all general chemistry students. You can receive free help and tutoring from the staff assigned to this area and find a variety of materials useful for studying chemistry.

**LECTURE and EXAM SCHEDULES**

Here is a tentative schedule for class topics. Changes in lecture topics and/or days may take place during the semester. Any changes, should they occur, will be announced in lectures. Attendance in lecture is required. If material is covered in lecture or announcements are made, you are responsible for that information. **You are required to read all assigned reading materials**, which will be posted in Blackboard. Homework will also be posted in Blackboard. **All homework assignments are due the midnight of the day before the lab, and you are required to submit your homework to the course Blackboard.** All homework deadlines are indicated in the table below. For further information, please see the corresponding unit folders on Blackboard.

*(Wait until you know the date of the final exam before you make travel plans that might conflict with the exam. Early exams will not be given to accommodate your travel plans.)*

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Essential Questions</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8/20</td>
<td>Nature of Chemistry</td>
<td>• What is Chemistry</td>
<td>How does a scientific theory become a scientific law? from <em>Science and Children</em></td>
</tr>
</tbody>
</table>
| 2    | 8/27 | Air 1: Air is a mixture | • How do people describe and represent matter in chemistry?  
• What are ways to categorize matter? | Chemistry is the Study of Matter from *Middle School Chemistry* |
| 3    | 9/3  | Air 2: Air pollutants | • What makes up air?  
• What are air pollutants and their impacts on environment?  
• What is climate change and how does chemistry help our understanding of climate change? | Life in a Greenhouse from *ChemMatters* |
| 4    | 9/10 | Small particles that make up matter | • What are “small particles” in chemistry?  
• How are the submicroscopic structure and organization of particles related to observable properties? | The Captivating Chemistry of Coins from *ChemMatters* |
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Questions</th>
<th>Source</th>
</tr>
</thead>
</table>
| 5     | 9/17   | Structure and organization of atoms                                  | • What does it look like inside an atom?  
• How have our understandings of atoms historically developed?  
• What does the periodic table of elements tell us about elements and their properties? | Parts of the Atom from *Middle School Chemistry* |
|       |        |                                                                      |                                                                                                              |                                                                       |
| 6     | 9/24   | Air 3: Air is a gas                                                  | • What are observable properties of gas?  
• How can chemistry explain the observable properties of gas with behavior of gas particles? | Hot Air Balloons from *ChemMatters* |
| 7     | 10/1   | Water 1: Observable properties of water                              | • What are observable properties of water?  
• How can chemistry explain properties of water? | Water of Life from *ChemMatters* |
| 8     |        | Fall Break (No Class)                                                |                                                                                                              |                                                                       |
| 9     | 10/15  | Water 2: Submicroscopic structures of water and intermolecular forces | • What are molecules and how do molecules interact with each other?  
• What are ionic bonding and observable properties of compounds made with ionic bonding? | The Great Hartford Circus Fire from *ChemMatters* |
| 10    | 10/22  | Properties of solutions                                              | • How does dissolving solute into water change properties of water? | Salting Roads from *ChemMatters* |
| 11    | 10/29  | Energy and matter                                                    | • What is energy  
• How do the ideas of energy help us explain and predict natural phenomena? | Thermometer from *ChemMatters* |
|       |        |                                                                      |                                                                                                              |                                                                       |
| 12    | 11/5   | Acids and Bases                                                      | • What are acids and bases?  
• How does chemistry explain phenomena related to acids and bases? | Sinkholes from *ChemMatters* |
| 13    | 11/12  | Electrochemistry                                                     | • How do behaviors of electrons explain electricity and oxidation/reduction? | Flaking Away from *ChemMatters* |
| 14    | 11/19  | Polymers and Plastics                                                | • What are polymers?  
• What are environmental concerns posed by use of synthetic polymers? | Plastics Go Green from *ChemMatters* |
| 15    | 11/26  | Food and Chemistry                                                   | • What chemistry knowledge helps us understand food and nutrition? | TBA |
| 16    | 12/3   | Course Review                                                        | • What are key chemistry ideas relevant to our life and elementary science teaching? |                                                                       |

**Exam 1 Week:** Tuesday, September 17, 2019 - 8:00 p.m., LYNN G167

**Exam 2 Week:** Tuesday, October 29, 2019 - 8:00 p.m., LYNN G167

**Final Exam:** Week of 12/09/18 - TBA
### LABORATORY SCHEDULE

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lab Project</th>
<th>Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8/19</td>
<td>Lab Week 1: No Lab (Compensation for Night Exams)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>8/26</td>
<td>Lab Week 2: Properties of Matter 1: Classification of matter</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>9/2</td>
<td>No Lab (compensation for night exams)</td>
<td>Homework 1</td>
</tr>
<tr>
<td>4</td>
<td>9/09</td>
<td>Lab Week 4: Properties of Matter 2: Density of matter</td>
<td>Homework 2</td>
</tr>
<tr>
<td>5</td>
<td>9/16</td>
<td>Lab Week 5: Atomic Models</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>9/23</td>
<td>Lab Week 6: Properties of Gas</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>9/30</td>
<td>Lab Week 7: Amazing Properties of Water</td>
<td>Homework 3</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td><strong>Fall Break (No Lab)</strong></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>10/14</td>
<td>Lab Week 9: Intermolecular Forces</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>10/21</td>
<td>Lab Week 10: Properties of Solutions</td>
<td>Homework 4</td>
</tr>
<tr>
<td>11</td>
<td>10/28</td>
<td>Lab Week 11: Energy</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>11/4</td>
<td>Lab Week 12: Acids and Bases</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>11/11</td>
<td>Lab Week 13: Electrochemistry</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>11/18</td>
<td>Lab Week 14: Polymers</td>
<td>CHEM Project</td>
</tr>
<tr>
<td>15</td>
<td>11/25</td>
<td>Lab Week 15: Alka Seltzer Rockets**</td>
<td>Homework 5</td>
</tr>
<tr>
<td>16</td>
<td>12/2</td>
<td>Lab Week 16: Checkout</td>
<td></td>
</tr>
</tbody>
</table>

*Four pop-up quizzes* are going to be administered in labs throughout the semester.

**Note that for Lab Week 15, you will also be submitting your work to TaskStream. More information is provided below.

**Lab Week 15: Alka Seltzer Rockets**

For this experiment only, students will not only submit hard copies of their lab report and technical report but also submit through TaskStream. In order to access TaskStream, please use this link for further instructions: https://social.education.purdue.edu/edit/taskstream/taskstream-information-for-students/

- One way of submitting your lab report and technical report can be taking pictures of each page and then submitting them online.
- A self-enrollment code will be distributed to you shortly so that you can enroll in CHM 20000 on TaskStream.
- **REMEMBER:** Make sure you submit the lab report AND the technical report **INDIVIDUALLY PER STUDENT** (even though you are working in groups). Make sure that your clearly write your group identification at the top of the submitted documents.
CHEMISTRY COURSE POLICIES

Attendance
The University expects that students will attend lectures for which they are registered. At times, however, either anticipated or unanticipated absences can occur. The student bears the responsibility of informing the instructor in a timely fashion, when possible. The instructor bears the responsibility of trying to accommodate the student either by excusing the student or allowing the student to make up work, when possible. The University expects both students and their instructors to approach problems with class attendance in a manner that is reasonable.

Attendance will be taken for laboratory sessions. It is not possible to make-up a missed lab. A student who fails to complete more than three labs will automatically earn a grade of "F". Completion of an experiment includes completion and timely submission of a satisfactory laboratory report. Please silence all cell phones and pagers before coming to lectures and laboratories. See below for the detailed grading policy for lab absences.

All lectures will start promptly at 9:30 and end at 10:20. Students have to arrive at the lecture hall prior to the start time and are not allowed to pack up before the end time. Failures to do so may affect negatively your participation grade.

Students with excessive absences will also be reported to Elementary Education-Department of Curriculum and Instruction. Teacher Education Council, Form D-2 dealing with attendance may be filed with Elementary Education.

Laboratory Attendance
Lab attendance is required since CHM 20000 is a laboratory course. There are no make-up labs or excused absences, except those covered by the GAPS or MAPS policies (see pp. 12-13).

You are required to complete at least 9 of the 12 scheduled lab projects to pass the course. If you fail to complete or miss more than three lab projects, an automatic grade of “F” will be assigned for the course at the end of the semester.

A failure to complete (zero score) will be assigned in the following cases:
- being absent for any reason (except GAPS/MAPS approved absences)
- being dismissed from lab for an incomplete Safety Certification (score <20/25)
- being dismissed from lab for safety violations, including dress and goggle infractions
- arriving more than 10 minutes late
- inadequate preparation that hinders lab participation
- not contributing constructively to the group’s work in lab
- failure to submit a lab report
- not participating in preparation of the lab report

You must complete the online safety certification found on Blackboard with a score of 20/25 or better by 11:59 PM on Sunday August 25. You must confirm your score in the Blackboard grade center. You will receive a zero for each lab you miss due to an incomplete safety certification.

Lab Preparation
Before each lab, read the experiment to help you prepare. Arrive on time, properly dressed, and prepared for lab work. If you arrive at lab more than 10 minutes late or improperly dressed, you will be asked to leave the lab and will receive a score of zero for that week’s lab and a quiz if it is scheduled on that day.
Lab Absences

CHM 20000 is a laboratory course and the professors have determined that participation in and completion of a minimum of nine (9) labs throughout this semester will be required to pass the course. Absences or fail-to-complete labs will be graded as follows at the end of the semester since we are not evaluating reasons for absences.

1st absence or fail-to-complete lab
score of zero; you will be provided an opportunity to make up **maximum 50% of the score** by writing and submitting an essay addressing: key learning objectives of the lab, key procedure, key findings of the lab, and connection to the lecture.

2nd absence or fail-to-complete lab
score of zero; no opportunity will be given to make up any missing point.

3rd absence or fail-to-complete lab
score of zero; **your final grade will be dropped by one letter grade** at the end of the semester

4th absence or fail-to-complete lab
grade of “F” in CHM 20000

Note: If you are dismissed from lab at any time during a lab because of a safety violation (e.g., not wearing safety goggles as directed, wearing improper clothing or shoes for the laboratory work environment, disposing of hazardous waste in an improper manner) then that lab will count as an absence or fail-to-complete lab and a score of zero will be recorded and handled as described above.

Before you come to the lab on August 26

- Purchase required materials.
- Read all the information in this course packet.
- Read the relevant Reading assignments and Learning Objectives (on Blackboard).
- Complete the safety certification available on the course Blackboard page with a score of at least 20/25 by **11:59 PM on Sunday August 25. You must complete your safety certification before you can work in lab.**

Evaluation of Your Learning

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams (2 mid-terms at 100 pts each and 1 final at 150 pts)</td>
<td>350 pts</td>
</tr>
<tr>
<td>Lab Activities (12 at 30 pts each)</td>
<td>360 pts</td>
</tr>
<tr>
<td>Quizzes</td>
<td>40 pts</td>
</tr>
<tr>
<td>Homework</td>
<td>50 pts</td>
</tr>
<tr>
<td>CHEM Project</td>
<td>100 pts</td>
</tr>
<tr>
<td>Class participation</td>
<td>100 pts</td>
</tr>
<tr>
<td><strong>TOTAL POSSIBLE SCORE</strong></td>
<td><strong>1000 pts</strong></td>
</tr>
<tr>
<td>Extra credits</td>
<td>30 pts</td>
</tr>
</tbody>
</table>

After the Final Exam your course grade will be based on the following guaranteed percent of total points for the semester. Lower cutoff ranges may be used if the professor considers it appropriate.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percent Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90.0% - 100%</td>
</tr>
<tr>
<td>B</td>
<td>80.0% - 89.9%</td>
</tr>
<tr>
<td>C</td>
<td>70.0% - 79.9%</td>
</tr>
<tr>
<td>D</td>
<td>60.0% - 69.9%</td>
</tr>
<tr>
<td>F</td>
<td>0.0% - 59.9%</td>
</tr>
</tbody>
</table>
This approach to grading means that the grade you get in this course depends primarily on your own effort and performance. It also ensures that all students who do well in the course will get good grades.

**Exams**

**Exams are mandatory!** There will be two 90-minute evening exams in this course (100 points each). The **Final Exam** is a 2-hour comprehensive exam (150 points). The time and place will be announced mid-semester. Wait until you know the date of the final exam before you make travel plans that might conflict with the exam. Final exams will **NOT be rescheduled to accommodate your travel plans.** The exams will be multiple choice and short answer questions that will probe your general knowledge and understanding of the ideas that have been presented and will test your ability to apply learned knowledge to new situations that you may not have considered previously.

<table>
<thead>
<tr>
<th>Exam I</th>
<th>Tuesday, Sep. 17</th>
<th>8:00 – 9:30 p.m.</th>
<th>LYNN G167</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam II</td>
<td>Tuesday, Oct. 29</td>
<td>8:00 – 9:30 p.m.</td>
<td>LYNN G167</td>
</tr>
<tr>
<td>Final Exam:</td>
<td>TBD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attendance at exams is required. There are **NO** make-up exams and absences are not excused except those covered by the GAPS/MAPS policies (see pp. 13-14).

If you have a direct conflict with another exam, class, or required university activity, contact the General Chemistry office (BRWN 1144) **one week before** the conflict. You will be asked to provide written verification of the conflict. If an emergency occurs, contact the General Chemistry office (BRWN 1144) as soon as possible.

You should arrive at least 15 minutes before the exam start time. If you arrive more than 15 minutes after the exam start time, you will not be allowed to take the exam. Take your PUID, an appropriate (non-graphing) calculator, and two lead pencils with you to the exam. You may not share a calculator with another student.

University policy on Final Exams states: *“Students scheduled for more than two (final) examinations in one calendar day are entitled to reschedule and examination in excess of two. It is the responsibility of the student to make necessary arrangements before the last week of regularly scheduled classes.”*

**Laboratory Activities**

**Safety:** We take your safety and that of your classmates seriously. You should too. You can be dismissed from lab and receive no credit for attendance if you appear to be a danger to yourself or to your classmates or if you violate safety regulations presented on the page in this packet titled "Safety Policies for Chemistry Labs".

Each lab period you will engage in a laboratory activity designed to encourage your understanding of that week’s material (30 points each). Laboratory work is designed to provide you with hands-on experiences of doing chemistry, and to assist you in making connections between the chemical concepts and what is observed in lab, and in everyday life. Many of the investigations are appropriate for the instruction of elementary school children. It is hoped that by performing these activities, you will be enabled to more effectively use them in your own teaching. **All of the activities will be completed and submitted for evaluation within the laboratory period.** The laboratory period is 2 hours and 50 minutes in length.

You should review the experimental purposes and procedures for the investigations to be performed that day prior to coming to lab. A laboratory schedule of the experiments that will be performed each week is located in the course packet and on the course Blackboard site.
If you are more than 10 minutes late to lab, you will not be allowed to stay in lab, and you will be given a grade of zero for that laboratory assignment. If you arrive to lab inappropriately dressed, you will also be asked to leave the lab and you will be given a grade of zero for that laboratory assignment.

Lab activities will be graded based on your lab reports. Complete the lab report appropriately:

- Use pen and write neatly.
- Label graphs and tables.
- Use the data your team collected for the calculations and analysis unless asked otherwise.
- Use correct units of measurement and significant figures.
- Ensure results and conclusions are consistent with your data and observations.
- **Note:** Lab report grading is not solely based on the correctness of your response. Some questions, in particular those in which you are asked to “think,” “brainstorm,” “provide an explanation,” “come up with ideas,” or “reason,” do not presume one right answer. It is to encourage you to reason about experiments and observations you made. For those questions, your grading will be based on **how solid your reasoning is, how detailed and specific your explanation is, how well you support your answer with data and logic.**

In the lab, you will be working in teams. You have to endeavor to work as an effective member of a team. Lab reports are due before leaving lab the day lab work is completed and the lab is closed, that is 10:20 AM or 2:20 PM. Lab reports submitted up to 24 hours late are worth 50%. Lab reports submitted after 24 hours are worth no (zero) credit. Graded lab reports will be returned one week after they are submitted.

It is suggested that all lab partners review the graded report, as exams will likely include lab-related questions.

**Quizzes**

Throughout the semester, you will have four pop-up quizzes in laboratories. The quizzes serve as a means to check your preparation for the lab. To be prepared for the quiz, you must review the lab manual of the week and understand foundational concepts of the lab and procedure. **NO MAKE-UP QUIZZES WILL BE GIVEN.**

**Homework**

Homework has a very specific purpose: to give you, the learner, first-hand experience in applying the concepts to some other situations in which contents you have learned in class can be used and to supplement course content that cannot be covered in lecture due to time constraints. The assignment, along with appropriate due dates, will be posted on Blackboard. Consult the course calendar (Pages 3-4) for the exact dates of homework assignment. **NO LATE HOMEWORK ASSIGNMENTS WILL BE ACCEPTED.** You may e-mail your TA your assignment if you are going to miss class.

**Readings**

It is a huge problem that many students in K-12 grade levels do not like to read in content areas, in particular in science. Throughout the semester, reading materials will be assigned each week. All reading materials are 3-5 pages long and written in non-technical languages targeting middle to high school students. It will not be checked whether you read the material or not. It is your responsibility to read the materials. Content in all reading materials will be drawn upon in lectures, labs, homework, and exams. You are encouraged to post a short summary of reading each week (a guideline will be posted on Blackboard) and will earn participation points by doing so.
Class Participation and Participation Grade

Your active participation is a vital aspect of this course. You are required to:

- Arrive at the lecture hall and laboratories on time and stay focused until the very end of the session. Note that dismissal time for the labs may be earlier than the scheduled time (10:20 or 2:20) and vary in each week and different lab sections. **No complaints on the lab dismissal time will be tolerated.**

- Be ready to participate cognitively and verbally in various classroom learning activities, such as class discussions, group discussions, presentations, and iClicker, in the lectures and labs, as well as in the Blackboard activities. To be ready for class participation, you should read assigned materials, review lecture notes, preview lab manual, and complete homework assignments. In class, your role is not a passive observer or absorber of knowledge, but an active constructor of knowledge. You should actively think about given problems, share your ideas, listen to others’ ideas, and refine your ideas. From this process, you will reach understandings that actually make sense to you. **When we have class discussions, it does not matter if you have correct ideas or not. What matters most is how actively you think, share, and develop ideas and understanding.** In lectures, we will use i>clickers to gauge your ideas and understandings. Class participation also includes your active participation in the blackboard, such as participating in discussion forum and frequent access to the course materials posted in Blackboard.

- Contribute to creation of positive learning environments. Every individual contributes to the learning environment of the course. You must exhibit professional attitude and behavior, which includes positive attitude to learning, respect for the course instructor, TAs, and other students, and support for each other’s learning. **Your disruptive behavior and attitude can lead to lowering your participation points.**

You can earn up to 100 pts from participation. It will be calculated based on the following grading scheme:

- Answering iClicker question: 1 pt each question
- Answering online discussion questions and responding to other’s response: 3 pts and 1 pt respectively per each post
- Visiting the course Blackboard: 1 pts per one hour spent in the blackboard (In previous semesters, students spent 8-10 hours on average throughout a semester)
- Posting reading summary: 3 pts per each post
- Sharing publicly your ideas in lecture and labs: 1 pts per each session

If you do EVERYTHING that you can do, your score can add up to 130 points or so. However, it is understood that you cannot do everything. If you do not earn enough points from some areas, try to make up points through other ways of class participation.

Extra Credit

There will be several opportunities to earn extra credit throughout the semester, but no later than the final. Those opportunities will include, but not be limited to, participating in interviews, submitting short papers, giving presentations, etc. Opportunities and guidelines will be announced in the lecture, lab, and/or course Blackboard. Make sure to check the Blackboard announcements regularly. If you are interested, take the opportunities early on and don’t wait until it’s too late.

CHEM Project

In this project, you and your classmates (up to three people in each group) will create multimodal texts about your selected topic. Multimodal text is any form of presentations that contain more than one “modes” – written texts, visual representation, videos, music, etc. It includes, but is not limited to, a short storybook with visual representations, comics, performance, song, videos etc. If you decide to create a performance or song, you will video-record your performance and submit the video footage. For more details, visit [http://creatingmultimodaltexts.com/](http://creatingmultimodaltexts.com/). Each group will comprise of two or three members, from either the lab partner group or other groups. Each group will choose a topic covered in class, create multimodal texts to present the selected topic. By November 19, your group has to submit:

- A brief synopsis of your multimodal texts that describes (less than one page, single-spaced)
  - Target topics
What “modes” of communication are incorporated
Target audience of your project
Multimodal texts that may be, but are not limited to
3-5 minute long video footage
3-5 pages long storybook or comics

To determine an appropriate format and length of your project, you may consult Matt for further inquiries.

Feedback on Learning
Throughout the semester, you will receive feedback on your learning as a form of grades in homework, quizzes, lab reports, and midterm exams. All these feedbacks are to help you learn in the course beyond simply monitoring the final grades. You are responsible for reading comments provided by the course instructor and TAs rather than checking only the grades. If you have any question on grading, you can submit a request to review your grades. Any request other than addition error must be submitted in legible writing along with the graded material. You should wait at least 24 hours after receiving a grade before a complaint is made. After the 24 hours has passed, you will write to Matt a short explanation that shows as concisely as possible why you think the grading is inaccurate. Matt will take action on your appeal, and a reply will be made in writing. Direct, person-to-person pleading with the instructor or teaching assistants WILL NOT be allowed. NO negotiation of grades will be tolerated. Your materials (except for exams) must be completed in pen to be eligible for a regrade.

Saving Graded Materials
Save all of your quizzes, exams, laboratory reports and your laboratory notebook until your final grade for the course is given.

THERE ARE NO CHM 20000 LAB OR EXAM MAKE-UPS!
THERE IS NO MAKE-UP WORK FOR ANYTHING!
NO LATE WORK WILL BE ACCEPTED!

Lab Safety
Students’ safety in the laboratory is a priority and everyone is required to follow the following lab safety regulations. Failure to comply with any of the safety regulations will result in being sent home from lab with a score of zero, which counts as a lab absence.

Proper dress (clothing and shoes) is required. Your clothing must cover you from your neck (collarbone) to your ankles when sitting, standing or reaching. Your feet must be completely covered by your shoes. Your best option for chemistry lab attire is a t-shirt, jeans without holes, and sneakers with socks. If you attend lab in unacceptable attire, you will be sent home and will receive a zero for the lab. Unacceptable clothing includes, but is not limited to: sleeveless or low-cut (i.e. below the collar bone) tops, pants that have holes or rips of any size, cropped pants, shorts, short skirts, open-toed and/or open-heeled shoes, sandals (with or without socks), ballet flats, or slippers. In short, your skin must be covered from your collarbone down to your feet.

Goggles are required at all times in the laboratory, including during report-writing and lab check-out. If you are in lab and your goggles are not covering your eyes, you will be sent home and will receive a zero for the lab report and lab quiz. This includes the period of time during which you are writing the lab report.

Wear gloves when specified.
• Food and beverages (including water bottles) are never allowed in the labs.
• All backpacks, coats and other personal belongings must be placed on the coat rack.
• If your hair is longer than shoulder length you must tie it behind your head.
• Contact lens wearers are encouraged to wear glasses in the laboratory.
• Follow your instructor’s guidance on appropriate handling of hazardous materials and disposal of chemical waste.
• Promptly clean up spills and tidy the laboratory before leaving.
• Cell phones generally are not permitted in the laboratory except when the lab activities require the use of it, such as responding to Hot Seat questions or online research. The use of a cell phone for other reasons that are not related to lab activities (e.g., online shopping, Facebook, texting, etc.) may result in being dismissed from the laboratory and result in a zero on that lab. For extenuating circumstances, please check with your TA before lab starts.
• You will be required to follow the instructions printed in your lab manual or given to you by the teaching assistant for appropriate handling of hazardous materials.
Administrative Policies

Emergencies

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor’s control. Relevant changes to this course will be posted on the course Blackboard site or can be obtained by contacting the instructors or TAs via email or the General Chemistry office via phone at 765-494-5250. You are expected to read your @purdue.edu email on a frequent basis. In the case of a major campus emergency involving a shelter-in-place, all laboratory experiments will be halted while students shelter in lab. Students’ lab grades will not be penalized in this situation.

EMERGENCY NOTIFICATION PROCEDURES are based on a simple concept – if you hear a fire alarm inside, proceed outside. If you hear a siren outside, proceed inside.

- **Indoor Fire Alarms** mean to stop class or research and immediately evacuate the building.
  - Proceed to your Emergency Assembly Area away from building doors. Remain outside until police, fire, or other emergency response personnel provide additional guidance or tell you it is safe to leave.

- **All Hazards Outdoor Emergency Warning Sirens** mean to immediately seek shelter (Shelter in Place) in a safe location within the closest building.
  - “Shelter in place” means seeking immediate shelter inside a building or University Residence. This course of action may need to be taken during a tornado, a civil disturbance including a shooting or release of hazardous materials in the outside air. Once safely inside, find out more details about the emergency*. Remain in place until police, fire, or other emergency response personnel provide additional guidance or tell you it is safe to leave.

*In both cases, you should seek additional clarifying information by all means possible...Purdue Emergency Status page, text message, email alert, TV, radio, etc...review the Purdue Emergency Warning Notification System multi-communication layers at http://www.purdue.edu/ehps/emergency_preparedness/warning-system.html

EMERGENCY RESPONSE PROCEDURES:


- Review the **Building Emergency Plan** (available on the Emergency Preparedness website or from the building deputy) for:
  - evacuation routes, exit points, and emergency assembly area
  - when and how to evacuate the building.
  - shelter in place procedures and locations
  - additional building specific procedures and requirements.

EMERGENCY PREPAREDNESS AWARENESS VIDEOS

- "Shots Fired on Campus: When Lightning Strikes," is a 20-minute active shooter awareness video that illustrates what to look for and how to prepare and react to this type of incident.
  (Link is also located on the EP website)

MORE INFORMATION

Reference the Emergency Preparedness web site for additional information:
[https://www.purdue.edu/ehps/emergency_preparedness/](https://www.purdue.edu/ehps/emergency_preparedness/)
Absences

- Verified grief (GAPS) and military (MAPS) absences are the only excused absences in CHM 20000. Students who experience the death of a family member or close friend and students who are called into military service should contact the Office of the Dean of Students at 765-494-1747.

- If you experience an absence that is expected to be for an extended period of time (normally a week or more), you should contact the Office of the Dean of Students at 765-494-1747. A member of the Dean of Students staff will notify the student’s instructor(s) of the circumstances. The student should be aware that this intervention does not change in any way the outcome of the instructor’s decision regarding the students’ academic work and performance in any given course.

Purdue’s Honor Pledge

As a boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do. Accountable together - we are Purdue. (https://www.purdue.edu/provost/teachinglearning/honor-pledge.html)

Academic Integrity

All students are expected to be familiar with Purdue’s policies on academic integrity (http://www.purdue.edu/odos/osrr/academic-integrity/index.html).

Academic integrity is one of the highest values that Purdue University holds. Individuals are encouraged to alert university officials to potential breaches of this value by either emailing integrity@purdue.edu or by calling 765-494-8778. While information may be submitted anonymously, the more information that is submitted provides the greatest opportunity for the university to investigate the concern. Incidents of academic misconduct in this course will be addressed by the course instructor and referred to the Office of Student Rights and Responsibilities (OSRR) for review at the university level. All students are encouraged to discuss about course materials with peers in and outside of class, online and offline. However, sharing your answers and work on social media for the express purpose of letting other students copy it is not acceptable. Such a use of technology does not help you learn the material and is considered academic dishonesty. Any violation of course policies as it relates to academic integrity will result minimally in a failing or zero grade for that particular assignment, and at the instructor’s discretion may result in a failing grade for the course. In addition, all incidents of academic misconduct will be forwarded to OSRR, where university penalties, including removal from the university, may be considered.

Mental Health

Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, such individuals should contact Counseling and Psychological Services (CAPS) at 765-494-6995 and http://www.purdue.edu/caps/ during and after hours, on weekends and holidays, or by going to the CAPS office of the second floor of the Purdue University Student Health Center (PUSH) during business hours.

If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try WellTrack, https://purdue.welltrack.com/. Sign in and find information and tools at your fingertips, available to you at any time. If you need support and information about options and resources, please see the Office of the Dean of Students, http://www.purdue.edu/odos/, for drop-in hours (M-F, 8 am – 5 pm).

If you’re struggling and need mental health services: Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of mental health support, services are available. For help, such individuals should contact Counseling and Psychological Services (CAPS) at 765-494-6995 and http://www.purdue.edu/caps/ during and after hours, on weekends and holidays, or by going to the CAPS office of the second floor of the Purdue University Student Health Center (PUSH) during business hours.

Course Materials

As used in this paragraph, the term "instructor" is defined as the individual who authored the material being presented as part of the course.

Among the materials that may be protected by copyright law are the lectures, notes, and other material presented
in class or as part of the course. Always assume the materials presented by an instructor are protected by copyright unless the instructor has stated otherwise. Students enrolled in, and authorized visitors to, Purdue University courses are permitted to take notes, which they may use for individual/group study or for other non-commercial purposes reasonably arising from enrollment in the course or the University generally.

Notes taken in class are, however, generally considered to be "derivative works" of the instructor's presentations and materials, and they are thus subject to the instructor's copyright in such presentations and materials. No individual is permitted to sell or otherwise barter notes, either to other students or to any commercial concern, for a course without the express written permission of the course instructor. To obtain permission to sell or barter notes, the individual wishing to sell or barter the notes must be registered in the course or must be an approved visitor to the class. Course instructors may choose to grant or not grant such permission at their own discretion, and may require a review of the notes prior to their being sold or bartered. If they do grant such permission, they may revoke it at any time, if they so choose.

**Changing Sections/Dropping**

<table>
<thead>
<tr>
<th>UNIVERSITY DEADLINES - Fall 2019</th>
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<tbody>
<tr>
<td><strong>Mon. Sept 2:</strong> Last day to cancel (drop) a course without it appearing on your record.</td>
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<tr>
<td><strong>Mon. Sept 16:</strong> Last day to cancel (drop) a course without a grade.</td>
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<tr>
<td><strong>Tue. Oct 22:</strong> Last day to cancel (drop) a course (with a passing or failing grade).</td>
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**Late Registration:** If you register late, notify the Course Coordinator, no later than date to see about the possibility of making up missed assignments.

**Lab Drawer Check-Out:** If you drop CHM 20000 after having checked into a lab drawer, it is your responsibility to check-out of your assigned drawer during your scheduled lab period. Failure to properly check-out of your lab drawer will result in a failure to check-out fee ($45) assessed against you. In addition, you will be charged for missing and/or unacceptablle equipment.

If you change sections after you check into a locker drawer, you must check out of your old locker drawer before checking into a drawer in your new section.

**Students with Disabilities and Accommodations**

Purdue University strives to make learning experiences as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, you are welcome to let me know so that we can discuss options. You are also encouraged to contact the Disability Resource Center at: drc@purdue.edu or by phone: 765-494-1247.

If you require accommodations to access course activities or materials, the accommodations must be described in your Accommodation Letter, and approved by the Disability Resource Center. To implement accommodations, you must take a copy of the Accommodation Letter to the General Chemistry Office (BRWN 1144) within the first week of the Summer Session, or within one week of the date of the letter to discuss your accommodations. Letters must be received in BRWN 1144 at least one week before an exam to be eligible for accommodations (unless your letter is dated within a week of the exam).

**Grief Absence Policy for Students (GAPS)**

If you experience the death of a family member or close friend, notify the Office of the Dean of Students at 765-494-1747. Scores for any missed assignments under a verified GAPS absence will be prorated (assigned a score based on your average and the class average). See the Course Coordinator for more information.
Military Absence Policy for Students (MAPS)
If you are required to complete mandatory military service, notify the Office of the Dean of Students (ODOS) at 765-494-1747 to request that a notice of the leave be sent to instructors. See the Course Coordinator for more information.

***For additional information about Purdue University Policies, Sources of Help, Ways to Study Chemistry, and Safety Policies, see the “Course Information” folder on the course Blackboard page***

DROPPING A CHEMISTRY COURSE/CHECK-OUT
A. Dropping a course: If a student drops a chemistry course after having checked into a locker drawer, it is the student's responsibility to immediately follow check-out procedures.
B. Check-out: Check-out procedures are required of every student on the last day of lab for each freshman chemistry course. It is your responsibility to check-out of your assigned drawer during your scheduled lab period. Failure to properly check-out of your lab drawer will result in a failure to check-out fee ($45) assessed against you. In addition, you will be charged for missing and/or unacceptable equipment.