Chemistry 11500 is the foundational general chemistry course for engineering, science, and some agricultural majors. The stated minimum prerequisite for CHM 11500 is one year of algebra and one year of chemistry.

At the beginning of the course, you will have a chance to review your high school chemistry using several resources. Topics covered during the semester will include nuclear chemistry, quantum theory and atomic structure, periodic trends, thermochemistry, models in bonding, shapes of molecules, intermolecular forces, organic chemistry, polymers, infrared spectroscopy, biochemistry, and liquids, solids and phase changes. Detailed learning objectives for each unit will be posted on Blackboard.

The course has been designed and structured so that in addition to the treatment of the concepts and topics listed above, there is a simultaneous emphasis on development of problem-solving skills. Laboratories are scheduled weekly and offer an opportunity to reinforce and extend what is discussed in lecture, explore new topics, and to develop your hands-on laboratory skills.

The Chemistry 11500 team—the professors, TA supervisor, teaching assistants, administrative assistants, and preparations lab staff—are committed and focused on helping you learn chemistry. We know that this is a foundational course for your major and in order to achieve your goals and dreams you need to do well in the course! Please read on to learn about the required materials, lecture and lab schedule, recommended ways to study, lab policies, grading, and other course policies and procedures.

CHM 11500 meets the science requirement of the university's foundational core.

Course Information  Blackboard  https://mycourses.purdue.edu/
Assignments, announcements, learning objectives and other course information are available on the course Blackboard page. It is recommended you visit it often.
Required Materials

- **Textbook:** *The Molecular Nature of Matter and Change*, 8th Edition, Silberberg, McGraw-Hill Publishing. There are several options available for purchasing the textbook. The recommended option is to purchase the E-Book with Loose-leaf print option – 2 year access - $55.00 (978-1-264-06693-3 through the course Blackboard page. Students may also purchase a used copy of the 8th Edition textbook (ISBN: 978-1-259-63175-7). Materials may also be purchased in the bookstores, but the costs will most likely be higher.

- **Access to On-Line Homework Platform (Sapling):** In CHM 11500, you are required complete homework assignments online using the Sapling program. Direct on-line purchase prices through the CHM 11500 Blackboard site are: one semester access = $42.00; multi-semester access = $64.00 (for students who plan to take CHM 11600 in Spring 2020). Sapling access cards can also be purchased from the local bookstores for the same price. **Specific instructions for purchasing Sapling via Blackboard, or using your access cards from the bookstore, will be given in a separate handout.**

- **Lab Notebook:** 50-page Student Lab Notebook, ISBN #978-1-68036-200-8; Fountainhead Press -- includes carbonless student lab notebook pages.

- **A simple scientific calculator** will be necessary for exams. Alphanumeric and programmable calculators are not allowed for exams.

- **Approved chemical splash-proof goggles (NOT safety glasses)** are available at the bookstores or from the chemistry storeroom on the 1st or 2nd floor in BRWN.

- **A black, permanent ink Sharpie pen** for marking lab glassware.

- **A padlock** for your assigned lab drawer **(by June 20).**

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**Week #1 Assignments:**

- Complete the safety certification available on the course Blackboard page with a score of at least 20/25 before lab by 11:59 PM on June 12, 2019.
- Read all the information in this course packet.
- Purchase the required materials (see above).
- Attend recitation, lab, and lectures.

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**Overview of CHM 11500 Activities and Policies**

**How to Study for CHM 11500** *(written by Dr. John Nash and Dr. Marcy Towns)*

It will take you at least two hours out of class for every hour we spend in class in order to study and learn the material. This means about 8-12 hours of distraction-free studying and working with chemistry each week. You may spend this time reviewing and annotating your lecture notes, reading the text, doing homework, working practice problems, studying for exams, or other things. You may find yourself spending *more than* 8-12 hours per week if your math skills need improvement or if it has been a few years since you took a chemistry course. If you are committed to your goals and dreams, then dedicate yourself to spending the necessary time to perform well.
Before Class
- Review your notes from the previous class.
- Review the assigned reading and read the sample problems within the assigned section of the textbook.

Use the textbook in ways that work best for you.
- Use the textbook as a reference when you study your lecture notes. Fill in any gaps and correct any information.
- Processing technical information will be more effective in the absence of Netflix, TVs, radios, headsets, etc. Turn your phone on silent and set it aside.
- With technical material, the subheadings often carry important information. This is different from the chapter headings in a novel that usually contain no information.
- Read technical material (like your Chemistry textbook) differently than you would read a novel. Read in short "chunks" and give yourself time to reflect and interpret the information presented. With technical material, it is often difficult to pick up the "story" in the second paragraph if you did not process the first paragraph.
- Try the problems in the book without looking at the solutions! If you have understood what you’ve read, then you should be able to do the problems. First, cover the solution and try the problem. Second, quickly look at the answer to see if you are correct. If your answer is incorrect, try re-reading the section to see if you missed anything. Third, look at your work again to find your mistake. Fourth, look at the solution of the problem presented in the book. **The key is to force yourself to recall and apply material.**

During Class
- Take notes!
- Write down each step of every problem or example even if you do not understand the step. You can always ask about it later.
- Try to answer all the questions and work all the problems that the professor presents.
- Write a question mark next to things you don't understand so you can return to them after class.
- Use shorthand or abbreviations so that you can write quickly, but understandably.
- Periodically note the time in the margin so that you can quickly find a certain section of the lecture when you review the lecture in Boilercast.
- Turn off distractions (i.e. Netflix, other HW, social media, etc.).

After Class
- Review your notes while things are still fresh in your mind.
- Listen to the Boilercast lecture recordings on Blackboard to fill in things you missed.
- Attend graduate instructor (TA) office hours to ask questions and get help.
- Never miss lecture. Chemistry is cumulative. What is presented tomorrow depends upon your knowledge of what was covered today. If you will miss class, then get a friend to take notes for you or get the notes from the Boilercast recording.
When Should I do the Homework?
- Do some work in chemistry every day. Work at least two chemistry problems each day. If you are drawing a blank about the problem after 5-10 minutes, go on to another a problem. Seek help from a graduate instructor (TA) the next day during office hours. After a day or so, work related problems in the textbook.

- Review your class notes and the assigned pages in the textbook before you attempt any of your homework problems.

Practice, Practice, Practice
- Work additional problems at the end of each chapter that were not assigned as homework.

- Look for similarities and differences in problems (homework questions, lecture examples). Classify problems by the type of knowledge that is needed to solve the problem.

Sources of Help
Professor – The professor will hold office hours by appointment! E-mail address: jonrk@purdue.edu (the best way) and phone number (765) 494-5499.

TA Office Hours -- Each CHM 11500 TA will hold a one-hour office hour each week in BRWN 1147 where any CHM 11500 student can go to get help with chemistry from a CHM 11500 TA at no charge. Your TA is the person who has the closest contact with you in this course. The teaching assistants in the Department of Chemistry are not just “a bunch of grad students”. They are graduate students who have been through a training program in teaching and tutoring skills and may have several years of experience in teaching. If you are having a problem with some aspect(s) of the course, go first to your TA. He/she wants to help you and is available for consultation both at specific hours and by appointment. Feel free to go to the office hours with a classmate or small group if you feel uncomfortable going alone. You may attend the office hours of any of the TAs, not just yours.

Reading Assignments
Reading assignments will be given for each lecture. These assignments will be announced in lectures, posted on Blackboard and can be found on the lecture/lab schedule.

Lectures
You can’t learn from lectures if you do not attend them or do not think about the information as it is presented during lectures.

You will be responsible for all material covered, announcements, or course changes that are made in all lectures. Lectures will be held in WTHR 104. The lecture times are listed on the front of this packet and are on your course schedule.

- Lecture attendance is required and is integral to learning the material presented.
- If slides are used, then student versions of lecture slides will be available on OneNote. These are outlines of the lectures and are not a substitute for taking notes in lecture.
- Recordings and slide capture of lectures may be viewed or downloaded using the Boilercast link on Blackboard.
- Cell phones, computers, iPods or other electronic devices not being used for instruction purposes are distracting for everyone in a learning situation. Computers can be used to take notes and follow lecture, but please respect your classmates by not using Facebook, texting, surfing the internet, watching Netflix, etc. during class.
Talking aloud to classmates during lecture is distracting to other students and is disrespectful to the lecturer. If you have a question please ask, but otherwise remain quiet and allow the students around you the opportunity to pay attention.

**Recitation**
You will be responsible for any information given or problems done in these scheduled weekly sessions. These sessions provide you with the opportunity to ask questions and work with your classmates and graduate instructor in small groups. Recitation is not a time to begin your homework assignments. Unannounced quizzes will be given during the recitation period. Bring your textbook, lab manual, and homework and/or lecture questions with you to recitation.

You will have time to ask questions. However, 50 minutes is not sufficient time to answer all the questions that all students may have. If you have difficulties or have questions about certain problems, you should go to the CHM 11500 graduate instructors’ office hours and ask for help. You can attend these office hours by yourself, with a classmate or in a small group.

**Homework (Sapling)**
When should I do homework? Your assigned homework is considered a minimum requirement for keeping focused and learning the material in each chapter. You should practice using additional problems from the text similar to those assigned.

- Most weeks you will have two homework assignments, usually due on Wednesdays and Saturdays at 11:59 PM. All links and due dates are in the Homework folder on Blackboard.
- Each homework assignment is worth 10 points. The one lowest homework score will be dropped at the end of the semester.
- No time extensions are possible for any homework assignments. Allow plenty of time to do your homework and get the highest possible score. If you wait until the last minute, you risk the possibility of technical difficulties, illness, or other situations interfering with your success.
- Exams are likely to include questions taken from homework assignments.

**Laboratory**
Laboratory exercises are an integral part of CHM 11500 and are an opportunity for you to experience in a hands-on way the chemical concepts discussed in lecture.

**Laboratory Attendance**
- Lab attendance is required since CHM 11500 is a laboratory course. There are no make-up labs or excused absences, except those covered by the GAPS and MAPS policies (see p. 11).
- You are required to complete 10 of the 12 scheduled lab projects (Labs 2-12) to pass the course. If you fail to complete or miss more than two labs (Labs 2-12), an automatic grade of “F” will be assigned for the course at the end of the semester. (The 15-point Lab 1 exercise does not count as a lab project and the score cannot be dropped.)

A failure to complete (zero score) will be assigned in the following cases:

- being absent for any reason (except GAPS or MAPS approved absences)
- being dismissed from lab for an incomplete Safety Certification (score <20/25)
- being dismissed from lab for safety violations, including improper dress and goggle infractions
- arriving more than 10 minutes late
- leaving lab early or otherwise not completing the lab project and/or report
• 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 and pass the online safety certification found on Blackboard with a score of 20/25 or better by 11:59 PM on Wed. June 12. You must confirm your score in the Blackboard grade center by clicking the My Grades link. You will be sent home and will receive a zero for each lab you miss due to an incomplete safety certification.

• In lab, you must endeavor to work as an effective member of a team. Each pair or group will turn in a single lab report unless otherwise stated. While we encourage you to discuss concepts with other members of your class, the lab reports are to be unique efforts by you and your partner or group. You and your partner or group share the responsibility for writing lab reports that honestly reflect your work. It is also your responsibility as a team to ensure that everyone whose name is on the report participated in preparing it.

• If you come to lab unprepared, don’t carry your fair share of the load, and/or don’t do what you are supposed to do, you may receive a lower score for the lab project. (See above for examples of situations in which a zero or reduced score can be assigned.)

End of Summer Session Lab Check-Out
• If you do not attend lab check-out (at your scheduled lab time) at the end of the Summer session, you will be charged a minimum $45 fee, and
• Forfeit the right to determine the acceptability of all drawer equipment. You will be charged for the cost of replacing dirty, damaged or missing equipment.

Lab Preparation
• Read the experiment and attend recitation to help you prepare.
• Answer the pre-lab questions found on Blackboard (or OneNote) and prepare an experimental procedure in your lab notebook before coming to lab. Pre-lab assignments are due at the beginning of the lab period. If you arrive 1-10 minutes late for lab, answers to pre-lab questions will be considered late and not accepted for grading.
• 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 (failure to complete).

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

• Dress appropriately (see below).
• Splash-proof 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 and the lab report (failure to complete).
• Wear gloves when specified.
• Remove your gloves if/when you leave the lab room for any reason and throw them away.
• 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.
• Food and beverages are not allowed in the labs. (No water bottles in lab!)
• 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.

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.

If you attend lab in unacceptable attire, you will be sent home and will receive a zero for the lab (failure to complete).

**Unacceptable** clothing includes, *but is not limited to:*
- tops that are sleeveless, low-cut or V-neck (below the collar bone), bare midriff or tank-style
- see-through, transparent or sheer clothing
- pants that are ripped or have holes in the fabric of any size
- tights or thin (translucent or transparent) leggings
- Capri or cropped pants
- Skinny or ankle pants that reveal skin between the shoe and the bottom of the pant leg
- shorts
- short skirts
- open-toed and/or open-heeled shoes (including Crocs, Birkenstocks or other clogs)
- sandals (with or without socks)
- **boat shoes**, ballet flats, slippers, moccasins, or any shoe that doesn’t cover the **entire** top of your foot and ankle, with or without socks

► If you come to lab wearing anything in the list above, you will be sent home and you will get a zero for that lab and it will count as a missed lab.
►Your best option for chemistry lab attire is a crew neck t-shirt, jeans without holes, and sneakers with socks.

**Lab Reports and Grades**

For each lab project, you will complete a group lab report. (Refer to the course schedule on pp. 14-15 or on Blackboard.)

- Lab grades are the sum of your prelab assignment and your lab report grades. Each lab is worth 25 points. You will not receive credit for the prelab and the lab report if you do not attend lab. The lowest lab score is dropped at the end of the summer session.

- Complete the lab report appropriately. Make sure of the following:
  - **Use pen and write neatly.**
    - The report is complete and organized correctly.
    - The presentation is legible and logical. Headings and subheadings are used to identify or describe the contents of a particular section.
    - Sentences are complete.
    - Label graphs and tables.
    - Use the data your team collected for the calculations and analysis.
    - Use correct units of measurement and significant figures.
    - Use chemical terms and concepts correctly.
    - Ensure results and conclusions are consistent with your data and observations.

- Make sure you know how to do all of the calculations required in the lab report because exams will include lab-related questions.

- Lab reports are due before leaving lab the day lab work is completed and the lab is closed, that is 10:50 AM. Lab reports submitted after the lab period ends, up to 24 hours late, are worth 50%. Lab reports submitted after 24 hours are worth no (zero) credit.

- Graded prelab assignments and lab reports will be returned by your lab instructor one week after they are submitted. It is suggested that all lab partners review the graded group lab report, as exams will include lab-related questions. If you have questions about a lab grade, speak with your lab instructor (TA) or the TA Supervisor (Keelan Trull) within one week of the report being returned to you.

- If you have a question about the score on any of your lab work, first ask your TA for clarification. If your TA cannot answer your questions, you may discuss the graded lab with the TA Supervisor, Keelan Trull, in BRWN 1144 for possible re-grading. You will need to do this within one (1) week (that is, 7 calendar days) after the graded lab has been returned to you. The lab supervisor will re-grade the entire lab, not just the part where you think an error has been made.
Exams
Exams are a chance for you to demonstrate your comprehension of the course material and are worth approximately 60% of your final grade. Your lowest exam score or ½ your final exam score will be dropped at the end of the summer session.

Lecture Exam schedule:
- **Exam I:** Mon. Jun. 24 9:50 AM  Scheduled Recitation Hour (BRWN 3100 or 3102)
- **Exam II:** Wed. July 3 8:00 AM  Scheduled Lab Hour (BRWN 1125 or 1135)
- **Exam III:** Wed. July 24 9:50 AM  Scheduled Recitation Hour (BRWN 3100 or 3102)

**Final Exam: time and place to be announced – see below**

- Attendance at exams is required. There are NO make-up exams and absences are not excused except those covered by the GAPS or MAPS policy (see p. 11). If you are absent for one exam, your score will appear as a zero until the end of the summer session, at which time one zero score can be dropped. You will receive a score of zero for additional missed exams.

- Exams I, II and III are each one hour in length. You should arrive at least 15 minutes before the exam start time. Student will not be able to leave the exam during the first 15 minutes of the scheduled exam period. If you are more than 15 minutes late for an exam, you will not be allowed to take the exam and will receive a score of zero.

- Exams will be administered in your scheduled Recitation and/or Lab Room on the dates listed above. Bring your PUID, an appropriate calculator (see p. 2), and #2 lead pencils with you to the exam. You may not share a calculator with another student.

Final Exam
- The final exam is a 2-hour comprehensive exam. The time and place will be announced mid-summer session.

- 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.

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

Each of the assigned course activities for CHM 11500 is worth the number of points listed below. Before course grades are finalized at the end of the summer session the following scores will be dropped:

- your one lowest homework score
- your one lowest lab score (Labs 2-12), provided you have completed at least 10 of 12 labs. (The 15-point Lab 1 exercise in Week 2 cannot be dropped.)
- your one lowest exam score or ½ your final exam score, whichever is lower (see below)

The total number of points for CHM 11500 will be distributed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>140 pts</td>
<td>(best 14 of 15 assignments at 10 pts each)</td>
</tr>
<tr>
<td>Labs</td>
<td>265 pts</td>
<td>(best 10 of 11 (Labs 2-12) at 25 pts each plus Lab 1 (15 pts))</td>
</tr>
<tr>
<td>Exams</td>
<td>450 pts</td>
<td>(3 at 150 pts each)</td>
</tr>
<tr>
<td>Final Exam</td>
<td>300 pts</td>
<td>(comprehensive)</td>
</tr>
<tr>
<td>Sub-total</td>
<td>1155 pts</td>
<td></td>
</tr>
<tr>
<td>Dropped exam</td>
<td>150 pts</td>
<td>(drop lowest exam score or ½ final exam score, whichever is less)</td>
</tr>
<tr>
<td>Total</td>
<td>1005 pts</td>
<td></td>
</tr>
</tbody>
</table>

Extra Credit 20 pts (Sapling review assignments)

►If you miss more than 2 labs your course grade will automatically be an F. Except for approved GAPS or MAPS leaves, there are no excused absences in CHM 11500.

The total points available for exams is 600 (4 x 150). Your dropped exam score will be determined as follows: Your points earned on the Final Exam will be divided in half and considered as separate scores, T4 and T5. These scores will be compared with your scores on Exams I-III (T1, T2, and T3) and the lowest of these five scores will be dropped (i.e. not counted into your total points). The remaining four scores will comprise your exam total.

Up to 20 points of extra credit will be available for completing review assignments using the Sapling system. See Blackboard.

At the end of the summer session, the total scores for all students will be arranged in numerical order, the score that corresponds to either the 99th percentile ($S_{99}$) will be determined, and then letter grades will be assigned based on this percentile score as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$Total Score \geq 0.90 \times S_{99}$</td>
</tr>
<tr>
<td>B</td>
<td>$0.80 \times S_{99} \leq Total Score &lt; 0.90 \times S_{99}$</td>
</tr>
<tr>
<td>C</td>
<td>$0.70 \times S_{99} \leq Total Score &lt; 0.80 \times S_{99}$</td>
</tr>
<tr>
<td>D</td>
<td>$0.60 \times S_{99} \leq Total Score &lt; 0.70 \times S_{99}$</td>
</tr>
<tr>
<td>F</td>
<td>$Total Score &lt; 0.60 \times S_{99}$ or if you fail to complete 9 of the 11 lab projects (L2-12)</td>
</tr>
</tbody>
</table>

This system has several advantages:

- It lets you know several times during the summer session how you are doing in the course.
- Unlike a curved scale, it encourages cooperation among students because no student is penalized when another is successful.
- Unlike an absolute scale, it tends to neutralize the effects of differences from one semester to another and thereby ensures that the same criteria are used to assign grades from one semester to another.

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.
Mid-term tentative grade cutoffs. After each of the first three (hour) exams, your total points will be calculated and tentative grade cutoffs will be posted so that you can see how well you are doing in the course. Note that these tentative grade cutoffs will be based on an absolute (90/80/70/60) grading scale (i.e., earning 90% of the maximum possible points is an A, 80% is a B, etc.).

Checking your grades/scores. Check all your grades/scores on Blackboard frequently. If there are any errors or discrepancies, notify the TA Supervisor, Keelan Trull, within one (1) week of the time they were posted. All disputed scores must be resolved with your TA or instructor before the final exam. There will be no score correction considerations after the final exam.

Save Graded Papers. Save all returned graded papers and your exams until after you have received your course letter grade for CHM 11500. To resolve any discrepancies, your paper(s) will need to be reviewed.

UNIVERSITY AND COURSE POLICIES
Absences

• Verified grief and military absences are the only excused absences in CHM 11500. 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. (See below.)

• The lowest score in each category (lab, HW, exam or ½ final exam) is dropped at the end of the summer session to account for absences due to illnesses, trips, conflicts or other situations that are not excused absences. If you have concerns about how an absence will affect your course grade, contact Dr. R-K, or TA Supervisor Keelan Trull at the time of the absence.

• 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. As a courtesy to the student, a member of the Dean of Students staff will notify your instructor(s) of the circumstances. This intervention does not excuse you or change in any way the outcome of the instructor’s decision regarding your academic work and performance in CHM 11500.

• 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 covered under a verified GAPS absence will be pro-rated (assigned a score based on your average grade for that type of assignment). See Dr. R-K, or TA Supervisor, Keelan Trull for more information.

• Military Absence Policy for Students (MAPS)
If you are required to complete mandatory military training, 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 Dr. R-K for more information.

Adding/Dropping/Changing Sections

<table>
<thead>
<tr>
<th>UNIVERSITY DEADLINES – Summer 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sun. June 16:</strong> Last day to cancel (drop) a course without it appearing on your record.</td>
</tr>
<tr>
<td><strong>Fri. June 21:</strong> Last day to cancel (drop) a course without a grade.</td>
</tr>
<tr>
<td><strong>Wed. July 10:</strong> Last day to cancel (drop) a course (with a passing or failing grade).</td>
</tr>
</tbody>
</table>

Late Registration If you register late, notify your Dr. R-K no later than June 21 to see about the possibility of making up missed assignments.
Course Drop/Switching Sections and Lab Drawer Check-Out  If you drop CHM 11500 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 check-out of your lab drawer will result in:

- A minimum $45 fee, and
- Forfeit the right to determine the acceptability of all drawer equipment. You will be charged for the cost of replacing dirty, damaged or missing 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.

Disability 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, Young Hall, Room 830, 302 Wood Street, 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).

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 (https://www.purdue.edu/odos/academic-integrity/).

“Dishonesty in connection with any University activity may result in informal action or disciplinary sanctions. Cheating, plagiarism, or knowingly furnishing false information to the University are examples of dishonesty. The commitment of acts of cheating, lying, stealing, and deceit in any of their diverse forms (such as the use of ghost-written papers, the use of substitutes for taking examinations, the use of illegal cribs, plagiarism, and copying during examinations) is dishonest and must not be tolerated. Moreover, knowingly to aid and abet, directly or indirectly, other parties in committing dishonest acts is in itself dishonest.” From University Senate Document 72-18.

In CHM 11500, academic integrity means “doing your own work” at all times. Discussion of chemical concepts is encouraged, but 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.

Consequences of academic dishonesty include receiving a lower or failing grade for an assignment, being required to repeat the assignment, receiving a lower or failing grade for the course and/or dismissal from the University. All incidents of academic integrity are referred to the Office of the Dean of Students. A student accused of academic dishonesty will be afforded due process as defined by Purdue University procedures.
This course packet is a contract between CHM 11500 students and instructors. If a student violates the contract by committing an act of academic dishonesty, the instructor reserves the right to alter the terms of the contract (including grading policies) at his/her discretion.

Students who observe an issue of academic integrity can report it to the Office of the Dean of Students (https://www.purdue.edu/odos/ - see academic dishonesty report), call 765-494-8778 or email integrity@purdue.edu.

**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 through its counselors physically located in 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.

**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 CHM 11500 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.

“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, earthquake, release of hazardous materials in the outside air, active shooter, building intruder, or a civil disturbance. If you hear the **All Hazards Outdoors Emergency Warning Sirens** or are notified via text or other means, immediately go inside a building to a safe location and use all communication means available to 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. There is no “all safe siren;” the notification will come via text, internet, or email announcement.

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.
<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Lecture Topic Summer 2019 (corresponding HW #)</th>
<th>Reading Assignment</th>
<th>Lab/Recitation</th>
<th>HW Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-Jun</td>
<td>1</td>
<td>Introduction to CHM 11500 + begin review (atomic theory, element, compounds, moles, formulas)</td>
<td>Course Packet</td>
<td>No Recitation</td>
<td>E.C. 1 (8 pts)</td>
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<tr>
<td>11-Jun</td>
<td>2</td>
<td><strong>Review: atomic theory, elements, the mole, formulas (HW 1)</strong></td>
<td>2.5-2.6; 3.1-3.2</td>
<td>Lab 1: Check in, Lego Lab, Tech training</td>
<td>HW 1 due June 12</td>
</tr>
<tr>
<td>12-Jun</td>
<td>3</td>
<td>Nuclear Chem 1</td>
<td>24.1-24.2</td>
<td>Recitation</td>
<td>HW 2 due June 15</td>
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<tr>
<td>13-Jun</td>
<td>4</td>
<td>Nuclear Chem 2</td>
<td>24.4-24.7</td>
<td>Lab 2: Do you see the light?</td>
<td></td>
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<tr>
<td>17-Jun</td>
<td>5</td>
<td><strong>Review: balancing equations, stoichiometry, combustion; begin Thermochemistry 1</strong></td>
<td>3.3, 3.4; 6.1-6.2</td>
<td>Recitation</td>
<td>HW 3 due June 19</td>
</tr>
<tr>
<td>18-Jun</td>
<td>6</td>
<td>Thermochemistry 2</td>
<td>6.3-6.4</td>
<td>Lab 3: What Variables Affect Heat of Reaction?</td>
<td>HW 4 due June 22</td>
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<tr>
<td>19-Jun</td>
<td>7</td>
<td>Thermochemistry 3</td>
<td>6.5-6.6</td>
<td>Recitation</td>
<td>E.C. # 2 (3 pts)</td>
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<tr>
<td>20-Jun</td>
<td>8</td>
<td>Quantum Theory/Atomic Structure 1</td>
<td>7.1-7.2</td>
<td>Lab 4: Accurate and Precise Measurements</td>
<td>HW 5 due June 26</td>
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<tr>
<td>24-Jun</td>
<td>9</td>
<td>Quantum Theory/Atomic Structure 2</td>
<td>7.3-7.4</td>
<td>Exam 1 during recitation hour. Lectures 1-7</td>
<td></td>
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<tr>
<td>27-Jun</td>
<td>12</td>
<td>Periodic Trends/Trends in Chemical Reactivity</td>
<td>8.3-8.4</td>
<td>Lab 6: Synthesis of Alum</td>
<td>HW 7 due July 3</td>
</tr>
<tr>
<td>1-Jul</td>
<td>13</td>
<td>UV/Vis Spectroscopy &amp; Concentration Terms</td>
<td>pp. 308-9; 4.1</td>
<td>Recitation</td>
<td></td>
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<tr>
<td>2-Jul</td>
<td>14</td>
<td><strong>Review: ionic &amp; covalent compounds; classes of molecules, how we represent molecules</strong></td>
<td>2.7-2.8</td>
<td>Lab 7: Concentration and Absorption</td>
<td>HW 8 due July 6</td>
</tr>
<tr>
<td>3-Jul</td>
<td>15</td>
<td>Models of Bonding 1</td>
<td>9.1-9.2</td>
<td>Exam 2 during lab hour. Lectures 8-14</td>
<td>HW 9 due July 10</td>
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<tr>
<td>8-Jul</td>
<td>16</td>
<td>Models of Bonding 2</td>
<td>9.3-9.4</td>
<td>Recitation</td>
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<tr>
<td>9-Jul</td>
<td>17</td>
<td>Models of Bonding 3</td>
<td>9.5-9.6</td>
<td>Lab 8: You put Iron in my Cereal?</td>
<td>HW 10 due July 13</td>
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<tr>
<td>10-Jul</td>
<td>18</td>
<td>Shapes of Molecules 1 (Lewis Structures)</td>
<td>10.1</td>
<td>Recitation</td>
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<tr>
<td>11-Jul</td>
<td>19</td>
<td>Shapes of Molecules 2 (VSEPR)</td>
<td>10.2</td>
<td>No Lab</td>
<td>HW 11 due July 17</td>
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<tr>
<td>15-Jul</td>
<td>20</td>
<td>Shapes of Molecules 3 (Molecular Polarity); <strong>introduce TLC</strong></td>
<td>10.3</td>
<td>Recitation</td>
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<tr>
<td>17-Jul</td>
<td>22</td>
<td>Organic Chemistry 2 (hydrocarbons, isomers, functional groups)</td>
<td>15.1-15.2, 15.4</td>
<td>Recitation</td>
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<tr>
<td>18-Jul</td>
<td>23</td>
<td>Intermolecular Forces 1 (types of IMF)</td>
<td>12.3</td>
<td>Lab 10: Chromatography of Plants</td>
<td>HW 13 due July 23</td>
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<tr>
<td>Date</td>
<td>Day</td>
<td>Topic</td>
<td>Sections</td>
<td>Activity</td>
<td>Notes</td>
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<td>23-Jul</td>
<td>25</td>
<td>finish IMF; start Colligative Properties of Solutions</td>
<td>13.6</td>
<td>Lab 11: Synthetic and Biological Polymers</td>
<td>HW 15 due July 30 E.C. 5 (3 pts)</td>
</tr>
<tr>
<td>24-Jul</td>
<td>26</td>
<td>Colligative Properties of Solutions</td>
<td>13.6</td>
<td>Exam III during recitation hour. Lectures 15-24</td>
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<tr>
<td>25-Jul</td>
<td>27</td>
<td>IR Spectroscopy</td>
<td>pp. 384-5</td>
<td>Lab 12: Molecular Interactions of Washing</td>
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<tr>
<td>29-Jul</td>
<td>28</td>
<td>Polymers - synthetic and biological</td>
<td>15.5, pp. 516-20</td>
<td>Recitation</td>
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<tr>
<td>30-Jul</td>
<td>29</td>
<td>Inorganic Chemistry</td>
<td>12.6</td>
<td>Lab check out</td>
<td>No homework</td>
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<tr>
<td>Jul-31 - Aug 2</td>
<td>Final Exam, Date and time TBD</td>
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