Chemistry 11100 is a foundational general chemistry course for agriculture, health and human science, and other majors. The stated minimum prerequisite for CHM 11100 is two years of high school algebra. The course is oriented around helping you learn the fundamental chemistry concepts, calculations, and laboratory skills you need in your major. We have a diversity of majors in the course and believe that it is important to relate the chemistry you are learning to the topics you will see in other courses.

The course begins by reviewing measurements, mathematics, and energy changes. We next move to investigating atoms and isotopes then ions and compounds. We discuss the chemist's basic measuring unit, the mole, different kinds of chemical formulas, and finally we move into chemical reactions. We will study a bit about periodic properties and how atoms bond to form molecules. Finally we study the shapes of molecules.Across all topics there is a simultaneous emphasis on development of problem-solving skills and conceptual understanding. 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.

There is one lecture section of CHM 11100 taught by Dr. C. Harwood. There are 6 graduate teaching assistants who teach laboratory and recitation sections.

The Chemistry 11100 team—the instructor, lecture and laboratory coordinators, teaching assistants, administrative assistants, and general chemistry preparations lab—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.

BRWN 1144, The General Chemistry Office, 49-45250 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, to change your schedule (weeks 2 and 3), and to get signatures on university forms such as add/drop forms. Instructional specialist Ms. Miller and assistants Ms. Linn and Ms. Reynolds are able to help you with a variety of requests so you can maximize your success in general chemistry.

Lecture and Lab Coordinators: Carly Schnoebelen is the lecture coordinator, BRWN 1144, phone: 49-45250; cschnoeb@purdue.edu. Ben Wilkins is the lab coordinator, BRWN 1144, phone: 49-45250; wilkin40@purdue.edu. The General Chemistry Office is in Brown 1144 and the staff in that office can also answer questions for you or direct them to Dr. Harwood, BRWN 1144-F; charwood@purdue.edu.

Course Information: Information in regards to CHM 11100 is available on Blackboard Learn at [http://www.itap.purdue.edu/tlt/blackboard](http://www.itap.purdue.edu/tlt/blackboard). Lecture outlines, reading assignments, announcements, and other course information will be posted on the Blackboard page. It is recommended you visit it often!

*Foundational Core: This course meets the Science requirement of the university's foundational core.*
Required Course Materials

Textbook: *Introduction to Chemistry, 3rd edition, Bauer/Birk/Marks (Purdue Custom edition)*
ISBN #978-1-25-937662-7; McGraw-Hill ISBN # 978-0-07-340267-3. The McGraw-Hill Connect online homework program access code comes with the book. If you are using an old book you will still need to purchase access to the online homework program. A link on the course webpage will direct you to a site where it can be purchased.

Lab Manual: *Chemistry 11100 Laboratory Manual*, Purdue University, 2014-2015 Edition, Fountainhead Press. The required laboratory notebook pages are included in the lab manual, which is available at the local bookstores.

i-Clicker: The i-Clicker response system will be used this semester. The clickers may be purchased outside WTHR 200 during the first two weeks of the semester between 9 AM and 3 PM (no credit cards). They are cheaper there than the bookstores.

Calculator: A simple, battery-operated scientific calculator with exponential, logarithm and square root functions will be needed for exams. Two-line non-programmable calculators are allowed. Alpha-numeric and programmable calculators will NOT be allowed for exams. Calculators are available for purchase outside WTHR 200 during the first two weeks of class.

Lab Materials: A Sharpie™ (black, permanent ink) for marking lab glassware, a padlock for your assigned lab drawer (by week 4), an electronic storage device for lab data, 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.

Week #1 Assignments:

- Purchase required materials (see above).
- Register for your CONNECT account and begin your first homework assignment.
- Attend lab check-in.
- Attend recitation and lecture.
- Read all the information in this course packet.
- Read the 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 Tues. Jan. 27. You must complete your safety certification before you can work in lab and receive credit for the lab.

Weekly Assignments:
(Also refer to the “Some Ways to Study Chemistry” section found in your custom textbook or on the course Blackboard page.)

- Attend lecture, recitation, and lab.
- Complete the reading assignment before lecture (see lab/lecture schedule, pp. 11-12).
- Complete your Connect homework assignment (due each Friday at 11:59 pm).
- Prepare for lab: read the relevant lab manual chapter, do the textbook reading assignment for lab (see lab/lecture schedule), and complete the pre-lab exercises including the lab procedure outline.

Sources of Help
There are several free sources of help for CHM 11100 students, including instructor office hours, TA office hours, and the Chemistry Resource Room, WTHR 116. Further sources of help can be found on the “Important Purdue Resources Handout” on the Purdue University Foundations of Excellence page at http://www.purdue.edu/foundationsofexcellence.
Overview of CHM 11100 Activities and Policies

***For more detailed information, see the course Blackboard page or the insert in the Purdue custom edition of your textbook.***

**Reading**
See the lecture schedule for the reading assignments. Reading the assigned material prior to lecture and laboratory is recommended. Some of the material will be covered in lecture and some on your own.

**Lectures**
Student versions of the lecture notes will be posted on Blackboard prior to each lecture. These are not verbatim copies of the lectures, but are outlines of the lectures. Audio recordings and video capture of lecture slides can be downloaded from the Boilercast website (http://www.itap.purdue.edu/tlt/BoilerCast/).

Cell phones, computers, iPods or other electronic devices not being used for instruction purposes are distracting for everyone in a learning situation. Please respect your classmates and turn off your cell phones and iPods in lectures as well as in recitations and labs. Computers can be used to take notes and follow lecture, but you should not be using Facebook, texting, etc. during class. Talking out loud to classmates during lecture is distracting to other students and is disrespectful to the lecturer and your classmates. If you have a question please ask, but otherwise remain quiet and allow the students around you the opportunity to pay attention.

**Recitation**
Your teaching assistant conducts a weekly recitation designed to help you understand laboratory that week and to discuss any questions you may have from lecture or the homework. You will have time to ask questions and check your homework and pre-lab answers so take your homework questions and lab manual with you to recitation. You will also have time in recitation to practice some of the material that was presented in class the previous week.

**Homework (CONNECT)**
Each week your online homework assignment will consist of required questions and possibly optional questions. Required questions will contribute to your homework point total, while optional questions will not. However, optional questions and tutorials can be used to help understand how to work problems or to practice and review for exams. A few homework problems will likely appear as questions on exams.

Deadlines for completing the on-line assignments will be listed on the online CONNECT Assignment page and on Blackboard. Homework will usually be due on Fridays at 11:59 pm, 11 days after it is assigned. You will have a maximum of three attempts to complete each homework question before the listed due date. Homework will be scored and recorded on-line and there is no hand grading or regrading of homework.

In addition, there will be LearnSmart assignments for each textbook chapter we cover in class.

No time extensions are possible for homework assignments unless class-wide technical difficulties occur.
Laboratory

Laboratory exercises are an integral part of CHM 11100 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 11100 is a laboratory course. There are no make-up labs or excused absences.
- You are required to complete 10 of the 12 scheduled lab projects to pass the course. If you fail to complete or miss more than 2 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 safety violations, including dress/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
- Before you can work in lab in week 3, you must complete the online safety certification found on Blackboard with a score of 20/25 or better by 11:59 PM on Tue., Jan. 27. You must confirm your score in the Blackboard grade center. You will receive a zero for any lab you miss due to an incomplete safety certification.
- Follow all lab safety regulations (see below).

Lab Preparation

- Before lab, read the experiment and attend recitation to help you prepare.
- Complete the pre-lab exercises and prepare an experimental procedure in your lab notebook before coming to lab. Pre-labs are due at the beginning of the lab period.
- Arrive on time, properly dressed, and prepared for lab work.

Lab Quizzes

There will be a quiz at the beginning of each laboratory period over the prelab assignment and the lab procedure. Quizzes will begin in week 3. The purpose of these quizzes is to ensure your preparation for and safety in lab.
- If you score less than 3/5, you will fail the quiz. If you fail the quiz, you may complete the lab experiment for this week. If you fail the quiz for the second week in a row, you will not be allowed to remain in lab and you will receive a score of zero for the lab.
- If you are 1-10 minutes late for lab, you will not receive extra time to complete the quiz. If you arrive more than 10 minutes late, you will not be allowed to complete the quiz or the lab.
- Each lab quiz is worth 5 points. The lowest lab quiz score will be dropped at the end of the semester. There are no make-up quizzes.
- You need to bring a simple, battery-operated scientific calculator and a non-erasable ink pen with you to each lab quiz. There will be no “spare” calculators available during quizzes and you may not share a calculator with another student. Cell phones and programmable (graphing) or alphanumeric calculators may not be used during quizzes.
**Lab Safety**

Students’ safety in the laboratory is a priority and everyone is required to comply with the following safety regulations. Failure to comply with any of the safety regulations will result in being sent home from lab with a score of zero.

- **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 and prelab. 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 not allowed in the labs.**

- 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.
Lab Reports
- Complete the lab report appropriately:
  - Use pen and write neatly.
  - Label graphs and tables.
  - Use the data you 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.

- 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 2:20 PM or 5:40 PM.
- Graded lab reports will be returned one week after they are submitted. If you have questions about your grade, speak with your lab instructor or the lab coordinator.

Exams
Exams are a chance for you to demonstrate your comprehension of the course material and are worth approximately 56% of your final grade. Your lowest exam score or ½ your final exam score will be dropped at the end of the semester.

**Spring 2015 hour exam schedule:**

<table>
<thead>
<tr>
<th>Exam I:</th>
<th>Tues., Feb. 10</th>
<th>8:00 pm – 9:00 pm</th>
<th>CL50 224</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam II:</td>
<td>Thurs., Mar. 12</td>
<td>6:30 pm – 7:30 pm</td>
<td>CL50 224</td>
</tr>
<tr>
<td>Exam III:</td>
<td>Tues., Apr. 14</td>
<td>8:00 pm – 9:00 pm</td>
<td>CL50 224</td>
</tr>
</tbody>
</table>

**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. If you are absent for one exam, your score will appear as a zero until the end of the semester, at which time one zero score can be dropped. You will receive no score (zero points) for additional missed exams.
- If you have a direct conflict with another exam, class, or required university activity, contact the General Chemistry office (BRWN 1144) at least 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.
- Hour exams are one hour in length. You should arrive at least 15 minutes before the exam start time. If you are more than 15 minutes late for an exam, you will not be allowed to take the exam.
- Exams are given in CL50 224. Take your PU ID, an appropriate calculator (see details on the front page), and #2 lead pencils with you to the exam and plan to arrive 15 minutes before the exam begins. 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-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.**

  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, Spring 2015**

Each of the assigned course activities for CHM 11100 is worth the number of points listed below. Before course grades are finalized at the end of the semester the following scores will be dropped:

- your lowest homework score
- your lowest lab score
- your lowest exam score or ½ your final exam score, whichever is lower

The total number of points for CHM 11100 will be distributed as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>160pts (Connect Homework at 100 pts + LearnSmart chapters at 60 pts)</td>
</tr>
<tr>
<td>Labs</td>
<td>230pts (best 11 of 12 at 20 pts each + 10 pt. pipetting badge)</td>
</tr>
<tr>
<td>Lab Quizzes</td>
<td>50pts (best 10 of 11 at 5 pts each)</td>
</tr>
<tr>
<td>Exams</td>
<td>420pts (3 at 140 pts each)</td>
</tr>
<tr>
<td>Final Exam</td>
<td>280pts (comprehensive)</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td><strong>1,140 pts</strong></td>
</tr>
<tr>
<td><strong>Drop</strong></td>
<td><strong>-140 pts</strong> (drop lowest exam score or ½ final exam score, whichever is less)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,000 pts</strong></td>
</tr>
</tbody>
</table>

After the Final Exam your course grade will be based on the following scale:

- **A:** 875 pts and above
- **B:** 775 – 874pts
- **C:** 675 – 774pts
- **D:** 575 – 674pts
- **F:** 0 – 574pts OR if you have fail-to-complete scores for 3 or more of the 11 (Labs 2-12) scheduled lab projects (i.e. if you miss more than 2 labs, your course grade will automatically be an **F**)  

If you miss more than 2 labs, your course grade will automatically be an **F**. Except for an approved GAPS or MAPS leave, there are NO EXCUSED ABSENCES in CHM 11100.

The point total available for exams is 560 (4 x 140). 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 1-3 (T1, T2, and T3) and the lowest of these 5 scores will be dropped (i.e. not counted into your total points).
Save all returned graded papers and your exams until after you have received your course letter grade for CHM 11100. To resolve any discrepancies, your paper(s) will need to be reviewed.

Extra Credit
- Up to 20 points of extra credit is available during the course by answering i-Clicker questions during class.

Administrative Policies

Emergencies

In the event of a major campus emergency, campus 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.

- “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.

Absences
- Verified grief and military absences are the only excused absences in CHM 11100. See details at the bottom of this page.

- The lowest score in each category (lab, HW, quiz, exam) will be dropped at the end of the semester to account for other types of absence. If you have concerns about absences affecting your course grade, contact your instructor 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. 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.

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 pro-rated (assigned a score based on your average and the class average). See Dr. Harwood for more information.
Military Absence Policy for Students (MAPS)
A student should contact the Office of the Dean of Students (ODOS) to request that a notice of the leave be sent to instructor as soon as the student is informed of the dates of mandatory military training. Given proper documentation, the instructor will excuse the student from class and provide the opportunity to earn equivalent credit and to demonstrate evidence of meeting the learning outcomes for missed assignments or assessments.

Changing Sections/Dropping

<table>
<thead>
<tr>
<th>UNIVERSITY DEADLINES—Spring 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon. Jan 26: Last day to cancel (drop) a course without it appearing on your record.</td>
</tr>
<tr>
<td>Mon. Feb 9: Last day to cancel (drop) a course without a grade.</td>
</tr>
<tr>
<td>Mon. Mar 23: Last day to cancel (drop) a course (with a passing or failing grade).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHEMISTRY DEPARTMENT DEADLINES—SPRING 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon Jan. 19: LAST day to add chemistry or switch lab sections without instructor approval</td>
</tr>
<tr>
<td>Fri. Jan. 30: LAST day to switch lab sections or LAST day to add CHM 11100 (if not enrolled in another CHM course)</td>
</tr>
<tr>
<td>Fri. Feb. 6: LAST day to switch from another CHM course to CHM 11100 (subject to instructor approval)</td>
</tr>
</tbody>
</table>

Late Registration If you register late, notify the Lecture Coordinator, Carly Schnoebelen, no later than Fri., Jan. 30 to see about the possibility of making up missed assignments.

Dropping the Course/Lab Drawer Check-Out If you drop CHM 11100 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 lab will result in your padlock being cut, a $45 fee, and forfeiture of the right to determine the acceptability of all locker drawer 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
If you require accommodations to access course activities or materials, the accommodations must be described and approved by Disability Resource Center, Young Hall Room 830, 302 Wood Street, 494-1247, www.purdue.edu/drc. To implement accommodations you must follow the instructions listed as “Responsibilities of the Student” in the letter prepared by the Disability Resource Center. Take a copy of this letter to the General Chemistry Office (BRWN 1144) within the first three (3) weeks of the semester or within one week of the date of the letter to discuss your accommodations. Timely notification of the General Chemistry office is critical for timely implementation. Mrs. Reynolds, in BRWN 1144 can schedule your exams to be taken in the chemistry department unless you choose to take them at the Disability Resource Center in YONG 853.

Academic Dishonesty
All students are expected to be familiar with Purdue’s policies on academic integrity (https://www.purdue.edu/odos/osrr/academic-integrity-brochure/). Consequences of academic dishonesty include receiving a lower or failing grade for an assignment, being required to repeat the assignment, and/or receiving a lower or failing grade for the course.
**Diversity Welcome**

We believe every student in the course has something of value to contribute. Please take care to respect the different experiences, beliefs and values expressed by students and staff involved in this course. We support Purdue’s commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disabilities, education, ethnicities, family statuses, genders, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.


***For more information on the topics in this course summary, please see the course Blackboard page or the insert in your Purdue custom edition textbook. **
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture Topic</th>
<th>Reading (Textbook)</th>
<th>Week</th>
<th>Laboratory &amp; Pre-lab (Laboratory Manual)</th>
<th>Exams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13 - Jan</td>
<td>Orientation; Scientific Notation; Significant Figures</td>
<td>Math Toolkit 1.1 – 1.2; pp. 36 – 44</td>
<td>1</td>
<td>Check-Into Lab Drawers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15 - Jan</td>
<td>Atomic Theory; Isotopes; Ions</td>
<td>2.1 – 2.3; pp. 56 – 69</td>
<td></td>
<td>Course Policies Review</td>
<td>Complete Safety Certification on Blackboard.</td>
</tr>
<tr>
<td>2</td>
<td>20 - Jan</td>
<td>Atomic Mass; The Periodic Table</td>
<td>2.4 – 2.5; pp. 69 – 77</td>
<td>2</td>
<td>L1: Basics of Excel, Chapter 1</td>
<td>(Lab notebook, safety goggles, and proper clothes for lab work are required)</td>
</tr>
<tr>
<td>3</td>
<td>27 - Jan</td>
<td>Valence and Core Electrons; Condensed Electron Configurations; Electron Configuration of Ions</td>
<td>7.5 – 7.6; pp. 275 – 279</td>
<td>3</td>
<td>L2: Introduction to Laboratory Techniques: Part 1, Chapter 2</td>
<td>Pre-lab Quiz 1</td>
</tr>
<tr>
<td></td>
<td>29 - Jan</td>
<td>Atomic Size; Monatomic Ions; Polyatomic Ions</td>
<td>7.6 – 7.7; pp. 277 – 287; 3.1 – 3.4; pp. 88 – 103</td>
<td></td>
<td></td>
<td>Pipetting Badge Exercise</td>
</tr>
<tr>
<td>4</td>
<td>03 - Feb</td>
<td>Naming Ionic Compounds; Naming Molecular Compounds</td>
<td>3.4 – 3.5; pp. 99 – 106</td>
<td>4</td>
<td>L3: Introduction to Laboratory Techniques: Part 2, Chapter 3 (personal lock for lab drawer needed)</td>
<td>Pre-lab Quiz 2</td>
</tr>
<tr>
<td></td>
<td>05 – Feb</td>
<td>Naming Molecular Compounds; Acids and Bases</td>
<td>3.5 – 3.6; pp. 106 – 112</td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>10 - Feb</td>
<td>Types of Bonding; Electronegativity; Ionic Bonding</td>
<td>8.1 – 8.2; pp. 296 – 304</td>
<td>5</td>
<td>L4: Density Lab, Chapter 4</td>
<td>Pre-lab Quiz 3</td>
</tr>
<tr>
<td></td>
<td>12 - Feb</td>
<td>Covalent Bonding; Lewis Structures</td>
<td>8.3; pp. 305 – 314</td>
<td></td>
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<tr>
<td>6</td>
<td>17 - Feb</td>
<td>Covalent Bonding; Lewis Structures</td>
<td>8.3 – 8.4; pp. 315 – 324</td>
<td>6</td>
<td>L5: Isolation of Fat from Chips and Cookies, Chapter 5</td>
<td>Pre-lab Quiz 4</td>
</tr>
<tr>
<td></td>
<td>19 - Feb</td>
<td>Shapes of Molecules</td>
<td>8.3 – 8.4; pp. 315 – 324</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>24 - Feb</td>
<td>Shapes of Molecules; Polarity; Moles; Using Moles</td>
<td>P 8.3 – 8.4; pp. 315 – 324; 4.1; pp. 125 – 127; 4.2; pp. 128 – 135</td>
<td>7</td>
<td>L6: Molecular Structure and Geometry, Posted on Blackboard</td>
<td>Pre-lab Quiz 5</td>
</tr>
<tr>
<td></td>
<td>26 - Feb</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>8</td>
<td>04 - Mar</td>
<td>Solutions; Concentration; Dilution</td>
<td>4.4; pp. 145 – 153; 11.4; pp. 445</td>
<td>8</td>
<td>No labs on Mar 5</td>
<td>Compensation for night exams</td>
</tr>
<tr>
<td></td>
<td>05 – Mar</td>
<td>Chemical Reactions and Equations</td>
<td>5.1 – 5.3; pp. 168 – 177</td>
<td></td>
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<td>Week</td>
<td>Date</td>
<td>Lecture Topic</td>
<td>Reading (Textbook)</td>
<td>Week</td>
<td>Laboratory &amp; Pre-lab (Laboratory Manual)</td>
<td>Exams</td>
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<tr>
<td>9</td>
<td>10 - Mar</td>
<td>Predicting Chemical Reactions; Oxidation Numbers</td>
<td>5.4 – 5.5; pp. 188 – 196</td>
<td>9</td>
<td>L7: Electrolytes and Nonelectrolytes, Chapter 7</td>
<td>Exam II</td>
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<td>12 – Mar</td>
<td>Net Ionic Equations; Quantities in Chemical Reactions</td>
<td>5.4 – 5.5; pp. 188 – 196, 6.1 – 6.2; pp. 211 – 213</td>
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<td>Pre-lab Quiz 6</td>
<td>Thurs., Mar. 12 6:30 pm CL50 224</td>
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<td>10</td>
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<td>Spring Break</td>
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<td>11</td>
<td>24 - Mar</td>
<td>Quantities in Chemical Reactions</td>
<td>6.1 – 6.2; pp. 211 – 213</td>
<td>11</td>
<td>L8: Chemical Interactions, Chapter 8</td>
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<td></td>
<td>26 - Mar</td>
<td>How Light Interacts with Matter; Spectroscopy</td>
<td>Reading assignment on Bb</td>
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<td>Pre-lab Quiz 7</td>
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<td></td>
<td>02 - Apr</td>
<td>Solution Stoichiometry</td>
<td>11.5; pp. 448 – 454</td>
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<td>Pre-lab Quiz 8</td>
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<td>13</td>
<td>07 - Apr</td>
<td>Solution Stoichiometry</td>
<td>11.5; pp. 448 – 454</td>
<td>13</td>
<td>L10: How Hard is “Hard” Water?, Chapter 10</td>
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<td>09 - Apr</td>
<td>Energy Changes in Reactions</td>
<td>6.4 – 6.5; pp. 217 – 228</td>
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<td>Pre-lab Quiz 9</td>
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<td>14</td>
<td>14 - Apr</td>
<td>Solution Stoichiometry and Energy Practice</td>
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<td>14</td>
<td>L11: Chemical Reactions and Heat Changes, Chapter 12</td>
<td>Exam III</td>
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<td>16 - Apr</td>
<td>Limiting Reactants</td>
<td>6.6; pp. 229 – 231</td>
<td></td>
<td>Pre-lab Quiz 10</td>
<td>Tues., Apr. 14 8 pm CL50 224</td>
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<td>15</td>
<td>21 - Apr</td>
<td>Limiting Reactants; Percent Yield</td>
<td>6.6; pp. 229 – 231</td>
<td>15</td>
<td>L12: Analysis of Wine, Chapter 12</td>
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<td></td>
<td>23 - Apr</td>
<td>Stoichiometry Problem Solving</td>
<td>6.6 – 6.7; pp. 232 – 241</td>
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<td>Pre-lab Quiz 11</td>
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<td>16</td>
<td>28 – Apr</td>
<td>Final Review</td>
<td></td>
<td>16</td>
<td>Check out of lab drawers Apr 29 (safety goggles and proper clothes for lab work are required)</td>
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<td>30 – May</td>
<td>Final Review</td>
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<td>Final Exams TBA!!</td>
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<td>17</td>
<td>04-May – 09-May</td>
<td>FINAL EXAMS</td>
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