Chemistry 11100 is a three-credit hour 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 discussing atoms and isotopes then ions and compounds. We will study a bit about periodic properties and how atoms bond to form molecules. Once you know the names of ions and compounds, we study their shape, since it is the shape of molecules and ions that influences their reactivity. We discuss the chemist's basic measuring unit, the mole, and use that unit to investigate chemical reactions. Across all topics, there is a simultaneous emphasis on development of problem-solving skills and conceptual understanding. Laboratories and recitations 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. We strongly encourage you to attend recitation.

CHM 11100 is taught by Professors Towns and Harwood. There are approximately 24 graduate teaching assistants who teach recitation sections and answer questions weekly. The on campus and online combined total course enrollment is approximately 1,100 students.

The Chemistry 11100 team—the professor, lecture and laboratory coordinators, teaching assistants, administrative assistants, and general chemistry preparations lab—are committed to, 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.

Detailed learning objectives are provided for each module of the course. Broad course learning objectives are

1. Explain the behavior of and interactions between, atoms, molecules, and ions at the molecular and macroscopic levels.
2. Use standardized names and symbols to represent atoms, molecules, ionic compounds, and ions as well as chemical reactions.
3. Predict atomic structure, chemical bonding, and molecular geometry based upon scientific models.
4. Demonstrate competence in quantitative problem solving, conceptual understanding, and the ability
to formulate an argument based upon evidence.
5. Demonstrate competence in collecting, analyzing, and interpreting laboratory data.
6. Use computers in data acquisition and processing and use available software as a tool in data analysis.

**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 Mrs. Marybeth Miller and assistants Mrs. Marlene Miller and Mrs. Melissa Roadruck are able to help you with a variety of requests so you can maximize your success in general chemistry.

**Lecture and Lab Coordinators:** We have three course coordinators this fall who will cover lecture and lab: Zihan (Eric) Qu is primarily a lecture coordinator, qu51@purdue.edu; Casey Wright is primarily a lab coordinator, wrigh401@purdue.edu; and Victoria Paluzzi coordinates both, vpaluzzi@purdue.edu. The General Chemistry Office is in Brown 1144 and the staff in that office can also answer questions for you at genchem@purdue.edu (preferred method) or by telephone at 494-5250, or direct them to Dr. Harwood or Dr. Towns.

**Supplemental Instruction:** Supplemental Instruction (SI) is a program built around peer-led group study sessions. Our SI Leaders Amrita and Abby are undergraduate students at Purdue who are returning SI leaders in CHM 11100 and know what it takes to succeed. They know how to facilitate or guide learning through fun, collaborative activities that provide more practice with challenging course material and concepts. SI attendance is correlated with higher grades in the paired course, but it shouldn’t be thought of as a quick fix or a place to go for last minute help before a quiz. To get the most benefit, you should attend SI early in the semester and continue coming as often as you can. Keep in mind that 1 hour of productive group study is equal to 2 hours of solo studying – **SI helps you maximize your study time while also getting to know your peers and having fun.**

Times and locations for the study session can be found here: [https://www.purdue.edu/asc/si/](https://www.purdue.edu/asc/si/) and you can access the sessions from Brightspace. Amrita’s and Abby’s SI sessions, office hours, and email addresses are:

**SI Leader: Amrita Kapat** (kapat@purdue.edu)
SI Sessions: Tuesdays at 4:30 PM, Thursdays at 6:30 PM (EDT)
Office Hour: Wednesdays at 10:00 AM (EDT)

**SI Leader: Abby Myers** (myers365@purdue.edu)
SI Sessions: Mondays and Wednesdays at 5:30 PM (EDT)
Office Hour: Thursdays at 11:00 AM (EDT)

**Course Information:** Log on to Brightspace ([https://purdue.brightspace.com](https://purdue.brightspace.com)) to find Chemistry 11100. Lecture outlines, reading assignments, announcements, and other course information are available on the course Blackboard page. We recommend you visit it often!

**Required Materials**
**Textbook:** The textbook we have chosen for you this semester is Chang, Chemistry, 13th edition (ISBN: 9781259911156). We have also chosen the McGraw-Hill **Connect** online homework program for our homework platform this year. When you purchase Connect it includes an electronic copy of the textbook, Chang, Chemistry, 13th edition (ISBN: 9781260694420). You can purchase Connect from the University bookstores or directly through McGraw-Hill (it’s cheaper directly from McGraw-Hill because the bookstore adds a small markup to the McGraw-
Hill price. If you would like a physical textbook (loose-leaf version) as well, you must purchase Connect directly through McGraw-Hill online (ISBN: 9781260694857). If you are using an old book (any edition) you will still need to purchase access to the Connect program and that will automatically include an electronic copy of the text. A link on the course Brightspace page will direct you to the McGraw-Hill site where you can make your purchases.

**Lab Manual:** We have a digital laboratory manual this semester from Bluedoor Labs/Tophat. You can purchase access to the online lab manual directly from a link in Brightspace. This will also give you access to BeyondLabz which is an online lab simulation site that we will be using this year.

**Calculator:** A simple battery operated scientific calculator with exponential, logarithm and square root functions will be needed for exams (a TI-30 works well). Two-line non-programmable calculators are allowed.

**Week #1 Assignments:**
- Purchase required materials (see above).
- Register for your Connect account.
- Complete the three (3) CHM 11100 Prep assignments (Structure of Matter, Foundational Skills, and Problem Solving) along with the “How to Navigate and Use Connect” assignment. (These are due September 4 @11:59 pm)
- Begin the first Connect weekly homework assignment. (Due September 4 @11:59 pm)
- Read all the information in this course packet.
- Read the Reading Assignments and Learning Objectives for Module 1 (on Brightspace).
- Read email to find out which recitation group you are in and when you will be meeting for recitation.

**Weekly Assignments:**
*(Also refer to the “Some Ways to Study Chemistry” on the course Blackboard page.)*

- “Attend” lecture, recitation, and lab.
- Complete the reading assignment before watching the 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 and complete the pre-lab exercises.

***For more information on the topics in this course summary, please see course Blackboard page.***
Overview of CHM 11100 Activities and Policies

***For more detailed information, see the course Brightspace page.***

**Brightspace**
This is the learning management system (LMS) that we use in the course. We will post all the course resources on our Brightspace page and you will need to access this page multiple times each week. The course content is broken up into 10 modules that are explained on the course lecture schedule at the end of this document.

**Reading**
See the lecture schedule in the course syllabus for the reading assignments. These are also posted on our Brightspace webpage. *Reading the assigned material prior to listening to the lecture and laboratory materials is recommended.*

**Lectures**
Lectures in each module are broken up into small mini lectures and are posted on Brightspace. This includes a full deck of Powerpoint slides, a short video where we discuss the highlights from the slides, and problem-solving videos with a lot of examples!

**Recitation**
Recitation takes place each Monday and Friday – but the Monday, August 24 recitation will not meet! There will be a recitation guide each week that is integrated into the modules with the answers on the bottom of the page (most, if not all weeks). You will attend a face-to-face recitation section every other week and we will notify you of the recitation group that you are in, the A group or the B group, during the first week of class. Each recitation will be recorded in Boilercast and uploaded to Brightspace so all students can listen to every session.

**Homework (Connect)**
Each week your online homework assignment will consist of required questions and possibly optional assignments (these orient you to Connect and to the course). Required assignments will contribute to your homework point total, while optional assignments will not. However, optional assignments 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 quizzes.

Deadlines for completing the on-line assignments will be listed on the online Connect assignment page and in Brightspace. Homework will usually be due on Fridays at 11:59 pm. You will have a maximum of three attempts to complete each homework assignment before the listed due date. Homework will be scored and recorded on-line and there is no hand grading or regrading of homework. Your best score is the one that is recorded (not the average).

**Worksheets**
There will be worksheets that will give you a chance to apply the skills you are learning to problem solving. There will be between 6-10 of these assignments during the semester for a maximum of 90 points. If we assign more than 90 points worth of assignments we will count your best scores and drop the lowest one(s).

**Activities and Explorations**
These are activities where you might explore a simulation and learn more about the behavior of atoms, or engage in writing about your understanding of polar molecules. Or, you might watch a demonstration video and answer questions about the demonstration. We anticipate 15-20 of these activities for a point total of 200 points. If we go over 200 points, then we will count your best scores (by percentage in case the point total on these tasks varies from task to task) and drop the lowest ones.
**Quizzes**
There will be 13 online quizzes, administered through Brightspace, worth 20 points each. The best 12 out of 13 scores will count toward your final grade. The content will include problems and concepts from the prior or present week of class. Quizzes will be due on Tuesdays and we will announce on Brightspace when they will open and close.

**Laboratory**
Laboratory exercises are an integral part of CHM 11100 and we will complete our labs this year using Top Hat Labs. Please see the Brightspace course webpage to get connected to Top Hat! Below are due dates and guidelines.

- Pre-labs and lab manual chapters for the week will be released on Fridays by 8:00 PM EDT (12:00 AM GMT)
- Pre-labs will be due on Tuesdays at 11:59 PM EDT (Wednesday 4:00 AM GMT)
- Lab data, supporting lab information and lab reports will be released on Top Hat on Tuesdays at 12:00 PM EDT (4:00 PM GMT) (for all sections) and be due on Thursdays at 11:59 PM EDT (3:59 AM GMT)
- Your lab report will be completed online. You should make sure to always:
  - Click SAVE or SUBMIT after you type your responses!
  - 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.

- You will be able to review your graded lab reports online within one week after they are submitted. If you have questions about your grade, speak with your lab instructor or the lab coordinator.

**Exams**
There is only one exam in the course, and that is the final and it is worth 75 points out of 1000 points. Information about scheduling will be available when the final exam schedule is released.

- 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, Fall 2020

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

- your lowest (1) homework score
- your lowest (1) lab score
- your lowest (1) quiz score

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

- Homework .................. 130 pts  (20 pts of prep assignments + best 13 of 14 at 8.46 pts. each)
- Quizzes .......................... 240 pts  (Best 12 out of 13)
- Labs ............................. 265 pts  (Excel lab at 15 pts + best 10 of Labs 2-12 at 25 pts each)
- Activities and Explorations .............. 200 pts
- Worksheets ........................ 90 pts
- Final Exam .......................... 75 pts  (comprehensive)
- Total .......................... 1,000 pts

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

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>900 pts and above</td>
</tr>
<tr>
<td>B</td>
<td>800 – 899 pts</td>
</tr>
<tr>
<td>C</td>
<td>700 – 799 pts</td>
</tr>
<tr>
<td>D</td>
<td>600 – 699 pts</td>
</tr>
<tr>
<td>F</td>
<td>0 – 599 pts</td>
</tr>
</tbody>
</table>

Save all returned graded assignments until after you have received your course letter grade for CHM 11100. To resolve any discrepancies, your assignments will need to be reviewed. At the discretion of the professors there may be extra credit assignments in the course.

Course Activities, Policies and Procedures

**Studying Chemistry**
Expect to spend at least 8-12 hours per week on chemistry. This time includes reading course materials, listening to lectures, watching demonstrations, completing homework and assignments and explorations, quizzes, and lab assignments.

**Sources of Help**
There are several free sources of help for CHM 11100 students: (1) professor office hours, (2) TA office hours, and (3) SI sessions with Amrita and Abby.

**Changing Sections/Dropping**

<table>
<thead>
<tr>
<th>UNIVERSITY DEADLINES - Fall 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mon. Sept 7:</strong> Last day to cancel (drop) a course without it appearing on your record.</td>
</tr>
<tr>
<td><strong>Mon. Sept 21:</strong> Last day to cancel (drop) a course without a grade.</td>
</tr>
<tr>
<td><strong>Tue. Oct 27:</strong> Last day to cancel (drop) a course (with a passing or failing grade).</td>
</tr>
</tbody>
</table>

**Adding the Course/Late Registration:** Students are usually not permitted to add CHM 11100 after week 3 of the semester (Friday, September 4). Notify the course coordinator no later than Friday, September 4, if you register late to see about making up missed assignments.
Emergencies

In the event of a major campus emergency, course requirement, 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 11100 will be posted on the course Brightspace 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.

Again: 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.

Accessibility 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.

**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, drc@purdue.edu, 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. **Within the first three (3) weeks of the semester or within one week of the date of the letter, you are required to (1) electronically share a copy of your letter to genchem@purdue.edu or (2) schedule an appointment via email with Melissa Roadruck (melissa@purdue.edu) or (3) take a copy of your letter to the General Chemistry Office (BRWN 1144) during walk-in hours to discuss your accommodations. Implementation of accommodations may not be possible if insufficient notification is given.**

**Academic Integrity statement and consequences.**
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.” Please read [http://www.purdue.edu/odos/osrr/academic-integrity/index.html](http://www.purdue.edu/odos/osrr/academic-integrity/index.html)

In CHM 11100, academic integrity means “doing your own work” at all times. Discussion of chemical concepts and problem-solving methods 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 and is considered academic dishonesty.

Online quizzes and exams in CHM 11100 are open book and open note, however all collaboration with others (such as Group Me, Zoom, discussion boards, text, in-person, etc.) during a quiz or exam is prohibited. Using online resources such as Chegg to gain answers to any graded assignment (including homework, labs, quizzes, activities and explorations, and exams) is not allowed. Posting any course materials to websites is a violation of copyright laws and is not allowed. Instructor can obtain user information from Chegg and other sites when inappropriate course material is posted and investigate it.

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. 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.

Purdue Honors Pledge
We support and affirm the academic integrity of Purdue in accordance with the Purdue Honors 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

Diversity Welcome
We believe every student in this 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.
See: http://www.purdue.edu/diversity-inclusion/

Nondiscrimination Statement
Purdue university is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange ideas, and enriches campus life. Purdue’s nondiscrimination policy can be found at https://www.purdue.edu/purdue/ea_eou_statement.php

Attendance Policy
Students should stay home and contact the Protect Purdue Health Center (496-INFO) if they feel ill, have any symptoms associated with COVID-19, or suspect they have been exposed to the virus. In the current context of COVID-19, in-person attendance will not be a factor in the final grades, but the student still needs to inform the instructor of any conflict that can be anticipated and will affect the submission of an assignment or the ability to take an exam. Only the instructor can excuse a student from a course requirement or responsibility. When conflicts can be anticipated, such as for many University-sponsored activities and religious observations, the student should inform the instructor of the situation as far in advance as possible. For unanticipated or emergency conflict, when advance notification to an instructor is not possible, the student should contact the instructor as soon as possible by email, through Brightspace, or
by phone. When the student is unable to make direct contact with the instructor and is unable to leave word with the instructor’s department because of circumstances beyond the student’s control, and in cases of bereavement, quarantine, or isolation, the student or the student’s representative should contact the Office of the Dean of Students via email or phone at 765-494-1747.

**Quarantine or Isolation**
If you become quarantined or isolated at any point in time during the semester, in addition to support from the Protect Purdue Health Center, you will also have access to an Academic Case Manager who can provide you academic support during this time. Your Academic Case Manager can be reached at acmq@purdue.edu and will provide you with general guidelines/resources around communicating with your instructors, be available for academic support, and offer suggestions for how to be successful when learning remotely. Importantly, if you find yourself too sick to progress in the course, notify your academic case manager and notify me via email or Brightspace. We will make arrangements based on your particular situation. The Office of the Dean of Students (odos@purdue.edu) is also available to support you should this situation occur.

**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 the Lecture or Lab Course Coordinator for more information.

**MAPS 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 instructors 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.

**Absences Due to University Sponsored Activities**
A student should bring his or her letter stating the reason for the absence to the instructor as far in advance as possible. The student and instructor will meet to discuss the absence and how, if possible, the learning outcomes associated with any missed class activities may be addressed.

**Mental health and Wellness Statement**
If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try WellTrack. 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 contact or see the Office of the Dean of Students. Call 765-494-1747. Hours of operation are M-F, 8 am-5 pm.

If you find yourself struggling to find a healthy balance between academics, social life, stress, etc., sign up for free one-on-one virtual or in-person sessions with a Purdue Wellness Coach at RecWell. Student coaches can help you navigate through barriers and challenges toward your goals throughout the semester. Sign up is completely free and can be done on BoilerConnect. If you have any questions, please contact Purdue Wellness at evans240@purdue.edu.
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 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.

Protect Purdue

The Protect Purdue Plan, which includes the Protect Purdue Pledge, is campus policy and as such all members of the Purdue community must comply with the required health and safety guidelines. Required behaviors in this class include: staying home and contacting the Protect Purdue Health Center (496-INFO) if you feel ill or know you have been exposed to the virus, wearing a mask in classrooms and campus building, at all times (e.g., no eating/drinking in the classroom), disinfecting desk/workspace prior to and after use, maintaining proper social distancing with peers and instructors (including when entering/Exiting classrooms), refraining from moving furniture, avoiding shared use of personal items, maintaining robust hygiene (e.g., handwashing, disposal of tissues) prior to, during and after class, and following all safety directions from the instructor.

Students who are not engaging in these behaviors (e.g., wearing a mask) will be offered the opportunity to comply. If non-compliance continues, possible results include instructors asking the student to leave class and instructors dismissing the whole class. Students who do not comply with the required health behaviors are violating the University Code of Conduct and will be reported to the Dean of Students Office with sanctions ranging from educational requirements to dismissal from the university.

Any student who has substantial reason to believe that another person in a campus room (e.g., classroom) is threatening the safety of others by not complying (e.g., not wearing a mask) may leave the room without consequence. The student is encouraged to report the behavior to and discuss next steps with their instructor. Students also have the option of reporting the behavior to the Office of the Student Rights and Responsibilities. See also Purdue University Bill of Student Rights.

For details about other Purdue University policies, including academic integrity, class attendance and absence reporting, emergency, nondiscrimination, and disability services, see the course Blackboard site.
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture Topic</th>
<th>Reading (textbook), please see associated videos and Powerpoint slides on Brightspace</th>
<th>Laboratory (Prelab due T at 11:59 PM, lab due Th at 11:59 PM) (laboratory manual)</th>
<th>Quizzes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25-Aug</td>
<td>Course overview</td>
<td>1.8-1.9; pp. 18-27</td>
<td>Labs will NOT be held during week 1.</td>
<td>No quiz!</td>
</tr>
<tr>
<td></td>
<td>27-Aug</td>
<td>Scientific Notation; Significant Figures; <em>Unit Conversion practice</em> (You are responsible for sections 1.1-1.9 &amp; 2.1-2.2.)</td>
<td>2.3-2.4; pp. 48-52; 7.1; pp. 275-278 Electron Config. HO 7.8-7.9; pp. 301-309</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>01-Sep</td>
<td>Module 1: Atomic Number &amp; Mass; The Periodic Table</td>
<td>8.2; pp.329-333</td>
<td>L1: Introduction to Excel, Chapter 1</td>
<td>Quiz 1</td>
</tr>
<tr>
<td></td>
<td>03-Sep</td>
<td>Module 2: EM Radiation; Orbitals; Electron Configuration; Valence &amp; Core Electrons</td>
<td>8.3; pp. 333-337</td>
<td>Quiz 2 Due T Sept. 8</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>08-Sep</td>
<td>Periodicity of Electron Configurations; Electron Configuration of Ions</td>
<td>2.5-2.7; pp. 52-66</td>
<td>L2: Measuring Density, Chapter 2</td>
<td>Quiz 3</td>
</tr>
<tr>
<td>4</td>
<td>15-Sep</td>
<td><em>Naming Molecular/Ionic Compounds, Acids practice</em></td>
<td>10.1; pp. 411-420; 10.2; pp. 421-426 3.1-3.3; pp. 79-86</td>
<td>L3: Exploring atoms through flame tests and atomic emission spectra, Chapter 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17-Sep</td>
<td>Ionic &amp; Covalent Bonding; Electronegativity</td>
<td>4.1; pp. 122-124; 4.5; pp. 147-151 12.3; pp. 517-518</td>
<td>L4: To Be Announced, Chapter 4</td>
<td>Quiz 5</td>
</tr>
<tr>
<td>5</td>
<td>22-Sep</td>
<td>Lewis Structures</td>
<td>9.6; pp. 381-384</td>
<td>Quiz 6 Due T Oct. 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24-Sep</td>
<td>Resonance; <em>Lewis Structure practice</em></td>
<td>9.8; pp. 387-389</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>29-Sep</td>
<td>Polarity; <em>Shapes of Molecules practice</em></td>
<td>10.1; pp. 411-420; 10.2; pp. 421-426 3.1-3.3; pp. 79-86</td>
<td>L5: Molecular Geometry, Chapter 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>01-Oct</td>
<td>Atomic &amp; Molecular Mass; Avogadro's Number; Moles</td>
<td>4.1; pp. 122-124; 4.5; pp. 147-151 12.3; pp. 517-518</td>
<td>Quiz 7 Due T Oct.13</td>
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<td>7</td>
<td>06-Oct</td>
<td>Using Moles; Percent Composition</td>
<td>3.5; pp. 88-91</td>
<td>L6: Molecular Geometry and Polarity, Chapter 6</td>
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<td>08-Oct</td>
<td><em>Grams/Moles/Molecules Practice</em></td>
<td>4.1; pp. 122-124; 4.5; pp. 147-151 12.3; pp. 517-518</td>
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<td>13-Oct</td>
<td>Solutions; Concentration and Dilution</td>
<td>4.1; pp. 122-124; 4.5; pp. 147-151 12.3; pp. 517-518</td>
<td>L7: Measuring Moles, Chapter 7</td>
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<td>15-Oct</td>
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<td>4.1; pp. 122-124; 4.5; pp. 147-151 12.3; pp. 517-518</td>
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<td>Laboratory (M &amp; T) (laboratory manual)</td>
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<td>20-Oct</td>
<td>Chemical Reactions and Equations Solutions Practice</td>
<td>3.7; pp. 93-98</td>
<td>L8: To Be Announced, Chapter 8</td>
<td>Quiz 8 Due T Oct. 20</td>
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<td>22-Oct</td>
<td>Precipitation Reactions; Net Ionic Equations</td>
<td>4.2; pp. 125-129</td>
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<td>27-Oct</td>
<td>Acid-Base Reactions; Redox Reactions</td>
<td>4.3-4.4; pp. 130-146</td>
<td>L9: Names and formulas of ionic compounds, and precipitation reactions, Chapter 9</td>
<td>Quiz 9 Due T Oct. 27</td>
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<td>29-Oct</td>
<td>Quantities in Chemical Reactions</td>
<td>3.8; pp. 98-102</td>
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<td>11</td>
<td>03-Nov</td>
<td>How Light Interacts w/Matter; Spectroscopy</td>
<td>PDF file on Bb</td>
<td>L10: Techniques to Determine Concentration, Chapter 10</td>
<td>Quiz 10 Due T Nov. 3</td>
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<td>05-Nov</td>
<td>Solution Stoichiometry</td>
<td>4.7; pp. 153-156</td>
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<td>10-Nov</td>
<td>Solution Stoichiometry Practice</td>
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<td>L11: Work up of data from Techniques to Determine Concentration laboratory.</td>
<td>Quiz 11 Due T Nov. 10</td>
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<td>Energy Changes in Reactions</td>
<td>6.1; pp. 231-234</td>
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<td>13</td>
<td>17-Nov</td>
<td>Stoichiometry and Energy Problem Solving</td>
<td>6.4; pp. 242-244</td>
<td>L12: Chemical reactions and Heat changes, Chapter 11</td>
<td>Quiz 12 Due T Nov. 17</td>
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<td>19-Nov</td>
<td>Specific Heat and Calorimetry</td>
<td>6.5; pp. 246-247; pp. 249-252</td>
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<td>24-Nov</td>
<td>Stoichiometry Practice</td>
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<td>Quiz 13 Due T Nov. 24</td>
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<td>26-Nov</td>
<td>Thanksgiving Break</td>
<td>No lab this week due to Thanksgiving holiday</td>
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<td>15</td>
<td>01-Dec</td>
<td>Limiting reactants</td>
<td>3.9; pp. 102-1-6</td>
<td>L12: Work up of data from Chemical reactions and heat changes laboratory</td>
<td>No quiz</td>
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<td>03-Dec</td>
<td>Limiting reactants; Percent Yield</td>
<td>3.10; pp. 106-109</td>
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<td>16</td>
<td>07-Dec – 12-Dec</td>
<td>FINAL EXAMS</td>
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<td>Final Exam TBA!!</td>
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| 1      | 24-Aug – 02-Sep   | Scientific Notation; Significant Figures;  
\textit{(You are responsible for sections 1.1-1.9 & 2.1-2.2 as well)}  
Atomic Number & Mass; The Periodic Table | 1.8-1.9; pp. 18-27  
2.3-2.4; pp. 48-52 |
| 2      | 03-Sep – 13-Sep   | EM Radiation; Orbitals; Electron Configuration; Valence & Core Electrons  
Periodicity of Electron Configurations; Electron Configuration of Ions  
Atomic & Ionic Size; Ionic & Covalent Bonding | 7.1; pp. 275-278  
Electron Config. Handout  
7.8-7.9; pp. 301-309  
8.2; pp.329-333  
8.3; pp. 333-337 |
| 3      | 14-Sep – 23-Sep   | Naming Molecular/Ionic Compounds and Acids  
Practice pause!  
Ionic & Covalent Bonding; Electronegativity | 2.5-2.7; pp. 52-66  
9.1-9.2; pp. 367-370  
9.4-9.5; pp. 375-380 |
| 4      | 24-Sep – 04-Oct   | Lewis Structures  
Resonance; \textit{Lewis Structure practice}  
Polarity; \textit{Shapes of Molecules practice}; | 9.6; pp. 381-384  
9.8; pp. 387-389  
10.1; pp. 411-420  
10.2; pp. 421-426 |
| 5      | 05-Oct – 14-Oct   | Atomic & Molecular Mass; Avogadro's Number; Moles  
Using Moles; Percent Composition  
\textit{Grams/Moles/Molecules Practice} | 3.1-3.3; pp. 79-86  
3.5; pp. 88-91 |
| 6      | 15-Oct – 21-Oct   | Solutions; Concentration and Dilution  
How light interacts with matter; spectroscopy | 4.1; pp. 122-124; 4.5; pp. 147-151  
12.3; pp. 517-518  
PDF file on Brightspace |
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<td>22-Oct – 04-Nov</td>
<td>Chemical Reactions and Equations; Solutions Practice</td>
<td>3.7; pp. 93-98</td>
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<td>4.7; pp. 153-156</td>
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<td>9</td>
<td>12-Nov – 22-Nov</td>
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<td>23-Nov – 04-Dec</td>
<td>Limiting reactants and percent yield</td>
<td>3.9; pp. 102-106</td>
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<td>Practice Pause</td>
<td>3.10; pp. 106-109</td>
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**Final exams December 7-12**