CHEMISTRY 1210 Tentative Schedule – Fall 2018

(Subject to moderate change)

Classes held on Tuesdays and Thursdays, 5:15 – 7:45 p.m.

Date	Watch This Before Class (video links on Canvas):	In Class We'll Work On:	Other Stuff (in your testing centers or online):
8/28	**Welcome Video**	**Group Assignment & Intro Survey**	**Intro Survey: 8/28 – 9/14** **Entrance Exam: 9/1 – 9/30**
8/30	**All the Chapter 1 Videos**	**Quiz 1** (at the start of class) Pr. Set 1 (Ch. 1) – *due by 8/31*	
9/4	**Chapter 2:** 1st half of videos	**Quiz 2** (at the start of class) Pr. Set 2 (Chs. 2 and 2.5) – *due by 9/12*	
9/6	**Chapter 2:** 2nd half of videos	Pr. Set 2 (Chs. 2 and 2.5)	
9/11	**Chapter 2.5:** All of the videos	Pr. Set 2 (Chs. 2 and 2.5)	
9/13	**Chapter 3:** 1st half of the videos	**Quiz 3** (at the start of class) Pr. Set 3 (Ch. 3) – *due by 9/21*	
9/18	**Chapter 3:** 2nd half of videos	Pr. Set 3 (Ch. 3)	**Exam 1** (Chs. 1-3): 9/21 – 9/28
9/20	**Chapter 3**	Pr. Set 3 (Ch. 3), **Exam 1 Review†**	
9/25	**Chapter 5:** 1st half of videos	**Quiz 5** (at the start of class) Pr. Set 5 (Ch. 5) – *due by 9/28*	
9/27	**Chapter 5:** 2nd half of videos	Pr. Set 5 (Ch. 5)	**Anonymous Survey** (9/29 – 10/13)
10/2	**Chapter 6:** 1st half of videos	**Quiz 6** (at the start of class) Pr. Set 6 (Ch. 6) – *due by 10/5*	
10/4	**Chapter 6:** 2nd half of videos	Pr. Set 6 (Ch. 6)	
10/9	**Chapter 7:** 1st half of videos	**Quiz 7** (at the start of class) Pr. Set 7 (Ch. 7) – *due by 10/17*	
10/11	**Chapter 7:** 2nd half of videos	Pr. Set 7 (Ch. 7)	
10/16	**Chapter 7**	Pr. Set 7 (Ch. 7), **Exam 2 Review†**	**Exam 2** (Chs. 5-7): 10/17 – 10/24
10/18	**Chapter 8:** 1st half of videos	**Quiz 8** (at the start of class) Pr. Set 8 (Ch. 8) – *due by 10/24*	
10/23	**Chapter 8:** 2nd half of videos	Pr. Set 8 (Ch. 8)	
10/25	**Chapter 9:** 1st half of videos	**Quiz 9** (at the start of class) Pr. Set 9 (Ch. 9) – *due by 10/31*	
10/30	**Chapter 9:** 2nd half of videos	Pr. Set 9 (Ch. 9)	
11/1	**Chapter 10:** 1st half of videos	**Quiz 10** (at the start of class) Pr. Set 10 (Ch. 10) – *due by 11/7*	
11/6	**Chapter 10:** 2nd half of videos	Pr. Set 10 (Ch. 10)	
11/8	**Chapter 10**	Pr. Set 10 (Ch. 10), **Exam 3 Review†**	**Exam 3** (Chs. 8-10): 11/9 – 11/16
11/13	**Chapter 11:** 1st half of videos	**Quiz 11** (at the start of class) Pr. Set 11 (Ch. 11) – *due by 11/9*	
11/15	**Chapter 11:** 2nd half of videos	Pr. Set 11 (Ch. 11)	
11/20	**Chapter 4:** 1st half of videos	**Quiz 4** (at the start of class) Pr. Set 4 (Ch. 4) – *due by 11/28*	
11/22	**NO CLASS – Thanksgiving Holiday**		
11/27	**Chapter 4:** 2nd half of videos	Pr. Set 4 (Ch. 4), **Exam 4 Review†**	**Exam 4** (chapters 11 and 4): 11/26 – 12/1 **Anonymous Survey** (12/1 – 12/14)
11/29	**Nothing**	**Exam 4 Review†**	
12/4	**Nothing**	**Comprehensive Review†**	
12/6	**Nothing**	**Comprehensive Review†**	
12/10 – 12/14	**Comprehensive Final Exam**		

† For these reviews, we will use the exam study guides, which are available through Canvas.

CHEMISTRY 1210 – Fall 2018
Principles of Chemistry I
Tuesdays and Thursdays, 5:15 – 7:45 p.m.

Section	Location	Room
BB1	Brigham City Campus	C225
LB1	Logan Campus	Huntsman Hall 270
PB1	Price (USU Eastern Campus)	Reeves 215A
TB1	Tooele	Science & Tech 202
UB1	Vernal	B133
	Roosevelt	CB116

General Information

Instructor: Dr. Mike Christiansen (please just call me Mike)
Email: m.christiansen@usu.edu (please do NOT email me through Canvas; I don't check it)
Office: 221G Bingham Building
Phone: 435-722-1761 **Home:** 435-781-0749 **Cell:** 435-219-0141
Office hours: Tuesdays and Thursdays, 4–5 p.m.

Required: ***General Chemistry Interactive E-Book, by Ow, Domski, Atwood, Capriotti, Chang, Cooper, Miller, Moussa, and Ross***, ISBN: 978-099-480-2125 (other editions are acceptable)

Note: This is my first year adopting this textbook. I chose it because it's less expensive, and I believe its chapter order and presentation style are superior. There is more information about this further down in the syllabus.

Prerequisites: Math ACT score of at least 25, or MATH 1050 or higher; or a co-requisite of MATH 1050

Course Description: This course is the first of a two-semester sequence (CHEM 1210 and 1220) covering the basic principles of general chemistry, which include: unit conversion, principles of measurement, atomic theory, chemical bonding, nomenclature, stoichiometry, acids and bases, gas laws, and condensed states. This course is designed for science and engineering students.

Course Objectives:

By the end of the semester you should:

1. Understand the basic principles of general chemistry, as described above under **Course Description**.*
2. Be able to explain basic, everyday chemical phenomena and apply this knowledge to solving real-world problems.*, †
3. Be able to explain why chemistry is important and how it applies to everyday life. ‡

*IDEA objectives 1-2 †IDEA objective 3 ‡IDEA objective 7

(For more on using the IDEA course evaluation system, I've posted a document about the IDEA evaluations on Canvas.)

Course Structure: This course is not an ONLINE class. In fact, I DO expect you to attend every class, though I will not grade on attendance (see **Attendance** below).

This class will NOT follow a traditional lecture format. Instead, lecture videos are pre-recorded and posted on Canvas. **You are required to watch each chapter's lecture video before class**, according to our schedule (above). We will spend in-class time doing problem sets in groups (see **Problem Sets** below). The groups, which I will assign, may be modified once or twice during the semester, at my discretion. (If you have serious problems with your group, please tell me through email.)

This type of course structure, where you watch lecture videos online outside of class and then do homework in class, is called ***flipped learning***. I flip my classes for the following reasons:

- Once students get used to it, most strongly prefer it to traditional lecture.
- It generally produces higher grades than traditional lecture.
- I get to know my students better, which means (when applicable) I can write better letters of recommendation for you later on.
- You can re-watch my videos as many times as you want, which can better help you prepare for our exams and (if applicable) entrance exams to professional schools later on.
- Because you do your problem sets in class, with me present, I am here to help answer your questions, right when you need me most.

To take the greatest advantage of the ***flipped learning*** videos outside of class, you must:

- Watch the videos BEFORE CLASS!
- Take notes while you watch the videos.
- Do NOT do other activities (Facebook, listen to music, do your dishes) while watching the videos.
- Come to class. (Don't skip, except in unavoidable emergencies.)

Peer Grades: To encourage participation and to discourage freeloading, at the end of the semester, I will have you anonymously assign a peer grade to each member of your group (including yourself), based on how much each person contributed to your group problem sets. Your individual problem set score will then be readjusted to reflect the combined-average grade you receive from you and your fellow group members, according to the following equation:

Individual Problem Set Grade = (Group's Total Problem Set Grade) × (Y)
(Y) = the numerical average of Peer Grades, by the following conversion:

F	D-	D	D+	C-	C	C+	B-	B	B+	A-	A
0.5	0.575	0.65	0.6833	0.7167	0.75	0.7833	0.8166	0.85	0.8833	0.9167	1

Attendance: **I ask facilitators to please track attendance and email me the final attendance record at the end of the semester.** Attendance is not mandatory, but in-class problem sets are integral to the class. Also, if you skip class, you will miss our in-class quizzes. Furthermore, your **Peer Grade** will probably be low if you don't come. Thus, your grade will correlate strongly with your attendance. Also, if you ask me for letters of recommendation later on, I will take your attendance into account.

Canvas: Beyond videos, I will also post problem sets, lecture slides, overhead notes, answer keys, study guides, announcements, grades, and schedule changes on Canvas. Please check Canvas regularly!

Panopto: In-class proceedings will be recorded by using an app called Panopto. You can find Panopto on our Canvas homepage, which will let you to re-watch anything you miss in class. However, do NOT use this as an excuse to regularly skip class! (Also, Panopto sometimes has glitches.)

Time Expectations: Your primary homework is to watch the video lectures before class, to study for exams, and to prepare for in-class problem sets. If you want more practice, you are welcome to work out additional **Homework** and/or **Integrated Questions** from our text, which is recommended, but not required. Please note that chemistry is a subject that requires a large time commitment to master.

Problem Sets: Problem sets are posted on Canvas in advance. Most take more than one class period to finish. The due date is posted at the top of each problem set and on our course schedule. Everyone in your group receives the same score (later adjusted by your **Peer Grade**, described above), so it's in your best interest to contribute. Your lowest problem set score will be dropped. As a group, you may use any resource you want on problems sets, including notes, our text, the internet, me, and each other. However, I warn you against mindlessly copying answers. Doing so will only disadvantage you and lower your exam performance. I will post problem set answer keys the morning after each one is due.

Video Quizzes: There will be a five-point in-class quiz before each chapter, based on the material covered in the video lecture for that chapter. These quizzes are given to encourage you to watch the lecture videos before class. Your lowest quiz score will be dropped. No makeup quizzes will be given.

Entrance Exam: You are required to take an entrance exam worth 35 points, for which you get full credit, regardless of how you do on it. Its purpose is to provide a baseline measure of your chemistry knowledge, for later comparison.

Exams: Most of your grade comes from exams (four midterms and one comprehensive final), which are based largely on problem sets. *Exams will be taken in your testing centers and are NOT done in groups*. Exams will cover information from our video lectures and/or class and will include modified problems from the text or problem sets. The comprehensive final will have questions from old exams and quizzes, as well as new questions. Exams will be given on the days indicated on the class schedule. If you know ahead of time that you will miss an exam, and if the reason is valid (determined at my discretion), arrangements will be made. No after-the-fact excuses/absences will be considered!

Grade Breakdown:

Your course grade will be calculated, based on the following point amounts:

Intro Survey		5 points (0.83%)
Entrance Exam	(Full credit for taking it, irrespective of grade)	35 points (5.8%)
12 quizzes	(5 points each – lowest score dropped)	55 points (9.2%)
12 problem sets	(10 points each – lowest score dropped)	110 points (18.3%)
4 Midterm Exams	(100 points each – lowest score dropped)	300 points (50.0%)
Comprehensive Final	(100 points, MANDATORY)	100 points (16.7%)
Total		605 points

Of the four midterm exams, **only three will be counted** toward your final grade. If you take all four midterms, your lowest score will be dropped. The comprehensive final is mandatory and will not be dropped. Your final course grade will be based on the following scale:

A: 100-93% A–: 92-90% B+: 89-87% B: 86-83% B–: 82-80%
C+: 79-77% C: 76-73% C–: 72-70% D: 69-60% F: 59% and below

More About the Text: This is my first year using this textbook. I chose it because it's less expensive than a hardcopy text, and I believe its chapter order and presentation style are superior to the previous text for this course. A few key details:

- The text (e-book) is required. However, most of information you need for this course is found in our videos, lecture slides, problem sets, and exam study guides, which are all available through Canvas. Thus, you should use these *Canvas* materials as your primary resource for class. Then use the text (as needed) for supplementary learning.

- I've embedded links to each chapter's videos in the e-text chapters, as well as our Canvas chapter pages. The videos at both locations are the same, so you can choose whichever location (Canvas or the e-text) you prefer, for accessing the course videos.

- We will not use any of the text's online quiz or testing features for this course.

- Despite using a new text, I'm still relying on my old course videos, which were based on my old text's chapter order. The concepts are still the same, but my videos' original chapter order is slightly different from that of our current e-text. I prefer our current text's chapter order. Thus, to keep things as consistent as possible, I've slightly altered the numerical sequence for three of our chapters. To avoid confusion, please be sure to follow the schedule at the top of this syllabus.

University Policies

Academic Freedom and Professional Responsibilities: Academic freedom is the right to teach, study, discuss, investigate, discover, create, and publish freely. Academic freedom protects the rights of faculty members in teaching and of students in learning. Freedom in research is fundamental to the advancement of truth. Faculty members are entitled to full freedom in teaching, research, and creative activities, subject to the limitations imposed by professional responsibility. USU Policy 403 (http://www.usu.edu/hr/files/uploads/Policies/403.pdf) further defines academic freedom and professional responsibilities.

Withdrawal Policy and "I" Grade Policy: Students are required to complete all courses for which they are registered by the end of the semester. In some cases, a student may be unable to complete all of the coursework because of extenuating circumstances not due to poor performance or to retain financial aid. The term 'extenuating' circumstances includes: (1) incapacitating illness which prevents a student from attending classes for a minimum period of two weeks, (2) a death in the immediate family, (3) financial responsibilities requiring a student to alter a work schedule to secure employment, (4) change in work schedule as required by an employer, or (5) other emergencies deemed appropriate by the instructor.

Students with Disabilities: The Americans with Disabilities Act states: "Reasonable accommodation will be provided for all persons with disabilities in order to ensure equal participation within the program." If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the Disability Resource Center (435) 797-2444, preferably during the first week of the course. Any request for special consideration related to attendance, pedagogy, taking of examinations, etc., must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials will be provided in alternative format (e.g. large print, audio, diskette, or Braille) upon request.

Academic Integrity – the "Honor System": Each student has the right and duty to pursue his or her academic experience free of dishonesty. The Honor System is designed to establish the honest conduct expected and required of all Utah State University students. To enhance the learning environment at Utah State University and develop student academic integrity, each student agrees to the following Honor

Pledge: "I pledge, on my honor, to conduct myself with the foremost level of academic integrity." A student who lives by the Honor Pledge is a student who does more than not cheat, falsify, or plagiarize. A student who lives by the Honor Pledge:

- espouses academic integrity as an underlying and essential principle of the Utah State University community,
- understands that each act of academic dishonesty devalues every degree that is awarded by this institution, and
- is a welcomed and valued member of Utah State University.

The Instructor will take appropriate actions in response to Academic Dishonesty, as defined in the Student Code (available at http://www.usu.edu/studentservices/studentcode/). Acts of academic dishonesty include but are not limited to:

- **Cheating:** (1) using or attempting to use or providing others with any unauthorized assistance in taking quizzes, tests, examinations, or in any other academic exercise or activity, including working in a group when the instructor has designated that the quiz, test, examination, or any other academic exercise or activity be done "individually"; (2) depending on the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (3) substituting for another student, or permitting another student to substitute for oneself, in taking an examination or preparing academic work; (4) acquiring tests or other academic material belonging to a faculty member, staff member, or another student without express permission; (5) continuing to write after time has been called on a quiz, test, examination, or any other academic exercise or activity; (6) submitting substantially the same work for credit in more than one class, except with prior approval of the instructor; or (7) engaging in any form of research fraud.

- **Falsification:** altering or fabricating any information or citation in an academic exercise or activity.

- **Plagiarism:** Plagiarism includes knowingly "representing by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials." The penalties for plagiarism are severe. They include warning or reprimand, grade adjustment, probation, suspension, expulsion, withholding of transcripts, denial or revocation of degrees, and referral to psychological counseling.

Grievance Process: Students who feel they have been unfairly treated [in matters other than discipline, admission, residency, employment, traffic, and parking - which are addressed by procedures separate and independent from the Student Code] may file a grievance through the channels and procedures described in the Student Code: https://studentconduct.usu.edu/studentcode/article7.

Sexual Harassment: Sexual harassment is defined by the Affirmative Action/Equal Employment Opportunity Commission as any "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature." If you feel you are a victim of sexual harassment, you may talk to or file a complaint with the Affirmative Action/Equal Employment Opportunity Office located in Old Main, Room 161, or call the AA/EEO Office at (435) 797-1266.

Student Civility Policy: A university is a community of scholars. We learn from one another. For a community to survive and function properly, its members must treat one another with a modicum of mutual respect. Optimally, respect includes simple human courtesy. University education is an opportunity, not a commodity. This opportunity should be fully exploited by everyone involved. Academic courtesy must be observed by all participants in a class. Faculty members are participants in mutually beneficial learning activities together with students, assistants, and tutors.

Etiquette in an academic setting is not merely intrinsically valued, nor are its customs established solely for the sake of a conventional sense of propriety. Classroom courtesy is essential to create an atmosphere in which quality teaching, effective learning, and the creative advancement of a discipline can take place. To that end, we ask all instructors, facilitators, TA's, and students to do the following:

1. Behave toward one another with appropriate respect.
2. Actively participate. Learning is not a passive enterprise. Attention should focus exclusively on class material. Advance preparation by all participants is presumed.
3. Give courtesy and respect when others are asking questions or making comments.
4. Arrive on time and remain for the entire class period. In cases of unavoidable absence, notify each other in advance.
5. Do not hold conversations or activities unrelated to class discussions during class.
6. Only use electronic devices approved by the instructor (such as calculators and laptops).
7. Do not use recording devices without advance permission.
8. Please treat everyone in the class with fairness. No one should expect exception treatment in terms of due dates, class attendance, grading, or university rules.

I have read and understood the course syllabus.

Printed Name **Signature** **Date**