

CHEMISTRY 12500: Introduction to Chemistry I

Fall 2023

Course Information:

- Students are expected to attend all scheduled lectures, one recitation, and one laboratory each week:
 - o Lecture meets MWF, 8:30-9:20 a.m. in WTHR 172
 - o Laboratory meets on Tuesdays. (cf. section schedule below)
 - o Recitation meets on Thursdays. (cf. section schedule below)
 - o Section schedule (combinations indicated by color):

CRN	Sec	Туре	Cred	Сар	Act	Rem	Days	Time	Dates	Location	Instructor
This combination											
14361	SC1	LEC	5	144	108	36	MWF	8:30-9:20am	Aug21-Dec09	WTHR 172	Rienstra-Kiracofe, JC
21066	102	LAB	0	24	20	4	Т	11:30-2:20pm	Aug21-Dec09	CHAS B011	Lin, AL
14362	202	REC	0	24	20	4	R	11:30-12:20pm	Aug21-Dec09	BRWN 3102	Lin, AL
or ti	his co	mbina	tion								
14361	SC1	LEC	5	144	108	36	MWF	8:30-9:20am	Aug21-Dec09	WTHR 172	Rienstra-Kiracofe, JC
21059	LC2	LAB	0	24	20	4	Т	11:30-2:20pm	Aug21-Dec09	CHAS B005	Pham, KQ
54855	LC1	REC	0	24	20	4	R	12:30-1:20pm	Aug21-Dec09	BRWN 3102	Pham, KQ
or this combination											
14361	SC1	LEC	5	144	108	36	MWF	8:30-9:20am	Aug21-Dec09	WTHR 172	Rienstra-Kiracofe, JC
21056	103	LAB	0	24	21	3	Т	3:00-5:50pm	Aug21-Dec09	CHAS B005	Yachuw, SC
14364	203	REC	0	24	21	3	R	3:30-4:20pm	Aug21-Dec09	SC 108	Yachuw, SC
or this combination											
14361	SC1	LEC	5	144	108	36	MWF	8:30-9:20am	Aug21-Dec09	WTHR 172	Rienstra-Kiracofe, JC
21081	104	LAB	0	24	17	7	Т	3:00-5:50pm	Aug21-Dec09	CHAS B011	Zuercher, EC
14365	204	REC	0	24	17	7	R	4:30-5:20pm	Aug21-Dec09	BRWN 3100	Zuercher, EC
or t	his co	mbina	tion								
14361	SC1	LEC	5	144	108	36	MWF	8:30-9:20am	Aug21-Dec09	WTHR 172	Rienstra-Kiracofe, JC
21093	105	LAB	0	24	15	9	Т	7:30-10:20am	Aug21-Dec09	CHAS B005	Pham, KQ
21057	205	REC	0	24	15	9	R	8:30-9:20am	Aug21-Dec09	BRWN 3100	Pham, KQ
or this combination											
14361	SC1	LEC	5	144	108	36	MWF	8:30-9:20am	Aug21-Dec09	WTHR 172	Rienstra-Kiracofe, JC
21097	106	LAB	0	24	15	9	Т	7:30-10:20am	Aug21-Dec09	CHAS B011	Yachuw, SC
21058	206	REC	0	24	15	9	R	9:30-10:20am	Aug21-Dec09	BRWN 3100	Yachuw, SC

Instructors:

Dr. Jon Rienstra-Kiracofe (Dr. R-K)

Office: BRWN 1149 Phone: 765-494-5499 Email: jonrk@purdue.edu

Office Hours: TBD

Teaching Assistants:	Office Hours
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Aaron Mena (Head TA) <u>mena l@purdue.edu</u> NA

Khai Pham pham90@purdue.edu TBD

Ellis Lin <u>lin1204@purdue.edu</u> TBD

Stephen Yachuw <u>syachuw@purdue.edu</u> <u>TBD</u>

Eli Zuercher <u>eczuerch@purdue.edu</u> TBD

Course Catalog Description:

Introduction to Chemistry I

Credit Hours: 5.00. Principles of chemistry including stoichiometry; atomic structure and chemical bonding; properties of gases, liquids, and solids; thermochemistry; descriptive inorganic chemistry. Recommended for entering students intending to major in chemistry. One year of high school chemistry or one semester of college chemistry required. Typically offered Fall.

Prerequisites

Any of the following undergraduate math classes with a minimum grade of D: MA 15900, 15800, 16100, 16300, 16700, 16500, 15300, 15400, 14700, 14800, 22100, 22200, 16021, 22300, 22400, 16010, or 23100. Or: ALEKS Math Assessment 075 or SAT Mathematics 600 or ACT Math 26

Required Course Materials

- *Interactive General Chemistry 2.0, Atoms First*, by Macmillan Learning. This text will also work for CHM 12600.
- You are required to complete homework assignments online using the Achieve system by MacMillan, which includes the ebook version of the text.
 - Purchase Options:
 - Single Term Access Digital Only
 - Single Term Access Digital with Loose Leaf Textbook
 - Two Term Access Digital Only
 - Two Term Access Digital with Loose Leaf Textbook

CHEM 12500/12600 Achieve Purchase instructions:

- 1. Go to purdue.brightspace.com and login with your Purdue credentials
- 2. Select our course: Fall 2023 CHM 12500 MERGE
- 3. Select: Content/Achieve Homework and Extra Credit/Macmillan Course Tools Launch and follow the instructions thereafter to gain access to Achieve and the course E-Book.

If you want to purchase one-term access or two-term access:

Click the Achieve link in Brightspace. You will be prompted with three options. Select
the "Purchase Access" button and follow the steps to check out from the student
store. ***You must use the same email you use within Brightspace on
the Student Store.***

If you purchased an access code from the bookstore:

• Click the Achieve link in Brightspace. You will be prompted with three options. In the box below the ALREADY HAVE A CODE? option, type your bookstore code exactly as it appears on your access card. You will be granted full access to the course.

If you want to start a grace period (free two weeks of access to the course):

Click the Achieve link in Brightspace. You will be prompted with three options. Select
"Start a Grace Period," check the acknowledgement box, and create an Achieve
account in the student store. You will see a yellow banner at the top of your course
that will count down the days remaining in your grace period. ***You must use
the same email you use within Brightspace on the Student Store.***

If you have grace period access and you want to buy full access:

- Click the Achieve link in Brightspace. Click the "Extend Access" link in the yellow banner on top of the page. You will be prompted to purchase access again. Select the "Purchase Access" button and follow the steps to check out from the student store. You can sign in with your existing Achieve account to check out.
- Scientific Calculator. A simple, battery-operated scientific calculator with exponential, logarithm and square root functions is acceptable, however you may use a "TI"-style graphing calculator.
- Approved safety goggles. Safety goggles must be worn at all times in the laboratory. Safety goggles can be purchased in the bookstores, at the chemistry storeroom, or in CHAS during the first two weeks of class.

- A digital laboratory manual. Digital Materials Charge: Students enrolled in this course must purchase digital materials for lab (\$35). The materials will be released online on a real-time (approximately weekly) basis during the Fall 2023 semester. You will purchase access to the digital materials via a Purdue University Online link:
 http://www.eventreg.purdue.edu/online/CHM2023Fall35. Payment is due by September 4, 2023.
- Note: Other materials may be provided by the instructor.

Course website

Brightspace is our course management system. You can access the course website at http://purdue.brightspace.com. Most class materials, including chapter reading guides and laboratory handouts, will be made available on our class Teams and OneNote site, apart from, or in addition to, our class Brightspace site. Brightspace will be used for your grade records.

Teams and OneNote via O365

All students must use Teams and OneNote via your Purdue O365 account.

• Highly recommended: If you have an iPad or other tablet, or a computer, you may use Teams and OneNote to take class notes during class and/or to follow the lecture notes live.

Lectures will also be presented live via Teams and recordings will be made available via Teams.

- Homework Notebook: All students must keep a homework notebook in OneNote. The homework notebook is NOT the same as your class notes. You may use any notebook you like for class notes, but you may NOT use your homework notebook for class notes.
 - The following should be recorded in the homework notebook:
 - Attempts at practice problems listed on the reading guides.
 - Notes taken on in-class demos.
 - Exam corrections.
 - Notes taken on in-class simulations/videos.
 - Notes taken on other assigned activities.
 - Prompts for homework notebook activities will be distributed electronically by your TA via OneNote.
- Lecture recordings will be made available via Teams.
- Recitation recordings will be made available via Teams.
- Select office hours will be completed in Teams.

- All Laboratory procedures will be made available to you via OneNote (as a Digital Lab Manual).
- All Laboratory notes will be completed via OneNote and your TA will grade your labs electronically.

Recitation

Recitation sessions will be conducted by your TA. These sessions are designed to help you prepare for laboratory work and to learn by completing recommended practice problems and other homework notebook activities with the guidance of your TA. The recitation time may also be used to review key concepts from lecture material, work on problems from the Achieve problem sets, remind students about upcoming deadlines, address questions in preparation for or to clarify after exams, and addressing questions regarding laboratory procedures or reports. Please come to recitation prepared with questions.

Recitation will also be presented live via Teams and recordings will be made available via Teams.

Exams

There will be three (3) during-semester exams and a comprehensive final exam in this course. All exams will be online using the Variate system during select Laboratory Periods. Exams will be timed with one attempt per problem. Exact exam policies will be given separately to this syllabus. Details for the Final Exam, which will also be in Variate, will be given separate to this syllabus as well.

Course Learning outcomes

By the end of the course, you will be able to:

- 1. Demonstrate competency of CHM 12500 chemistry concepts through solving of numerical-based chemistry problems.
 - Methods of Evaluation: On-line homework assignments, OneNote Homework Notebook work, and numerical-based problems on exams
- 2. Demonstrate a mastery of concepts, theories, and ideas of chemistry topics covered in CHM 12500.
 - Methods of Evaluation: Written explanations in OneNote Homework Notebook work and conceptual and qualitative problems on exams
- 3. Connect CHM 12500 chemistry topics to real-world problems and solutions that you and others experience.

- Methods of Evaluation: Written answers using evidence-based arguments in OneNote Homework Notebook work and numerical and qualitative problems on Exams.
- 4. Meet the 10 Laboratory Learning Objectives. (These learning objectives are given during the first week of lab.)
 - Methods of Evaluation: Written lab reports and laboratory notebook.

Class Policies

- If you feel sick, or are asked to quarantine, do not come to class or lab.
- You may use computers or tablets only for OneNote use in class. Use of computers/cell phones/tablets or other internet connected device during class to access non-class related materials (facebook, twitter, youtube, text messages, etc.) is prohibited.
- All work must be completed individually. Please do not share answers to problem sets. Many laboratory experiments may be done in teams of two or three, however, each laboratory report should be completed individually.
- Artificial Intelligence (AI), Large Language Models (LLM), or similar generative technologies are not needed to complete this course. Their use to generate answers (written or math-based) are prohibited.
- In general, class lectures (audio recordings, OneNote Lecture notes, and images therein) are "considered to be 'derivative works' of the instructor's presentations and materials, and they are thus subject to the instructor's copyright in such presentations and materials." As such, they cannot be sold or bartered or posted online without express written permission from Dr. R-K.
- Changing Sections / Dropping the Course / Check-Out:
 - O A change in lab section requires the approval of Dr. R-K after the first week of classes. Because of the processes associated with assigned lab drawers and the formation of teams for lab work, section changes (or late additions to the course) will not be permitted after the third week of classes. Note that if you change sections after you check into a lab drawer, you must check out of your old lab drawer before checking into a lab drawer in your new section.
 - o If you drop CHM 12500 after having checked into a lab drawer, it is your responsibility to check-out of your lab drawer during your scheduled lab period. Failure to check-out of lab will result in a \$45 fee, and forfeiture of the right to determine the acceptability of all lab drawer equipment.

Grading

The grade for CHEM 12500 consists of the following:

- 13 homework problem sets, scaled to 10 pts. each. Homework answers are submitted online via the Achieve website. Late submissions will be accepted with a penalty (25% off per day for up to three days), unless an extension is granted for an excused reason.
- Three exams, 50 pts. each. Exams consist of a combination of multiple choice and numerical problems. Problems are both qualitative and quantitative. Make-up exams will be given for excused reasons only.
- Laboratory: 10 pts. each. 11 laboratory experiments will be conducted with individual reports completed for each lab. Late submissions will not be accepted and missed labs are scored as a zero grade. Students who fail to complete nine labs will fail the course, unless excused by Dr. R-K.
- Homework notebook: 40 pts. Each student must keep a homework notebook within OneNote. See details below.
- Comprehensive final exam: 100 pts.
- Grading Scale (% out of 530 total pts):

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93.0% - 100%
                   A
90.0% - 92.9%
86.0% - 89.9%
                   B+
83.0% - 85.9%
                   В
80.0% - 82.9%
                   B-
76.0% - 79.9%
                   C+
73.0% - 75.9%
                   C
70.0% - 72.9%
                   C-
66.0% - 69.9%
                  D+
63.0% - 65.9%
                  D
60.0% - 62.9%
                   D-
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Below 60% F

Note: Grades are rounded to one decimal place only.

Note: There may be additional opportunities for Honors students in CHM 12600 in the Spring.

Incompletes

A grade of Incomplete (I) will be given only in unusual circumstances. To receive an "I" grade, a written request must be submitted prior to the last lecture date and approved by the instructor. Requests are accepted for consideration but in no way ensure that an incomplete grade will be granted. The request must describe the circumstances, along with a proposed timeline for completing the course work. You will be required to fill out and sign an "Incomplete Contract" form that will be turned in with the course grades. Any requests made after the course is completed will not be considered for an incomplete grade.

Attendance

You will be responsible for all information, including assignments, policy changes, schedule changes, etc., announced in lecture or via e-mail to the class. Recordings of lectures and lecture notes will be available on our class Teams/OneNote page.

Excused Absences

Missed work (homework, homework notebook, lab, exams) will be excused, extended, or allowed for make up in the following cases:

- Grief Absence Policy (GAPS), Military Absence Policy (MAPS), Jury Duty, Parenting Leave, Medically Excused Absence Policy for Students (MEAPS): Students must work with ODOS for any of these excused absences. Generally, MEAPS may be an option for students who must miss class for emergent or urgent care. 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 student's academic work and performance in any given course.
- COVID-19 illness or related quarantine (on a case by case instance and may require notice from the Protect Purdue Health Center/PUSH)
- Other emergency external circumstances, as approved by your instructor.

If you are sick, do not come to lecture or recitation, instead, follow lecture via livestream or watch the lecture recording.

If you are sick, do not come to lab. Instead, inform your TA and an online version of the lab will be assigned. Note: You MUST notify your TA that you are sick within 10 mins of when your lab period starts in order to receive an online version of the lab, or else you will receive a 0 grade for the lab. Students needing more than two online versions of labs will need permission from Dr. R-K.

In most cases, homework, labs, and tests that results from one of the above excused absences must be made up on schedule, however, an extension may be given at the discretion of Dr. R-K. *Official accommodations for extra-time, quiet testing room, etc. must be approved by the DRC.*

Certain instances are unexcused:

- being dismissed from lab for safety violations, including improper dress and goggle infractions
- arriving more than 10 minutes late for lab
- leaving lab early or otherwise not completing the lab project and/or report
- inadequate preparation that hinders lab participation
- not contributing constructively to the group's work in lab
- failure to submit a lab report

Course Evaluation

During the last two weeks of the course, you will be provided with an opportunity to evaluate this course and your instructor. Purdue now uses an online course evaluation system. You will receive an official email from evaluation administrators with a link to the online evaluation site. You will have up to two weeks to complete this evaluation. Your participation is an integral part of this course, and your feedback is vital to improving education at Purdue University. I strongly urge you to participate in the evaluation system.

An opportunity to evaluate your TA will also be provided.

Sources of Help

There are several free sources of help for CHM 12500 students:

- Professor office hours
- TA office hours
- COSINE (College of Science Instructional Nightly Enrichment) is a FREE tutoring
 program to help students succeed in first year science courses. COSINE offers evening
 tutoring right in your own backyard. Our goal is to help you develop problem-solving
 skills needed to do your homework. Mon-Thurs, LILY 3102,
 https://www.purdue.edu/science/Current Students/cosine/index.html
- Chemistry Resource room details TBD

Academic Integrity

Purdue prohibits "dishonesty in connection with any University activity. Cheating, plagiarism, or knowingly furnishing false information to the University are examples of dishonesty." [Part 5, Section III-B-2-a, University Regulations] Furthermore, the University Senate has stipulated that "the commitment of acts of cheating, lying, and deceit in any of their diverse forms (such as the use of substitutes for taking examinations, the use of illegal cribs, plagiarism, and copying during examinations) is dishonest and must not be tolerated. Moreover, knowingly to aid and abet, directly or indirectly, other parties in committing dishonest acts is in itself dishonest." [University Senate Document 72-18, December 15, 1972]

Please review the following resource pages:

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

In CHM 12500, academic integrity means "doing your own work" at all times. Discussion of chemical concepts is encouraged, but sharing your answers and work in person, electronically, or on social media for the express purpose of letting other students copy your work is not acceptable. Such a use of technology does not help you learn the material and is considered academic dishonesty. Note: Changing data for a lab project to fit the perceived answer; that is, what you think the answer should be, also constitutes academic dishonesty.

All incidents of academic integrity are referred to the Office of the Dean of Students. Any violation of course policies as it relates to academic integrity will result minimally in a failing or zero grade for that particular assignment, and at the instructor's discretion may result in a failing grade for the course. A student accused of academic dishonesty will be afforded due process as defined by Purdue University procedures. Students who observe an issue of academic integrity can report it to the Office of the Dean of Students (https://www.purdue.edu/odos/ - see academic dishonesty report), call 765-494-8778 or email integrity@purdue.edu.

The Purdue Honor Pledge:

"As a boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do. Accountable together - we are Purdue"

Inclusivity and nondiscrimination

In this course, each voice in the classroom 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. This class supports Purdue's commitment to diversity and welcome individuals of all ages, backgrounds, citizenships, disabilities, sexes, education levels, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experiences, political views, races, religions, sexual orientations, socioeconomic statuses and work experiences.

Purdue University is committed to maintaining a community that 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 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 of ideas, and enriches campus life. A hyperlink to Purdue's full Nondiscrimination Policy Statement is included in our course Brightspace under University Policies.

Accessibility and Accommodations

Purdue University strives to make learning experiences accessible to all participants. 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.

Safe Learning Environment

As an instructor, one of my responsibilities is to help create a safe learning environment on our campus. I also have a mandatory reporting responsibility related to my role as a faculty member. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep information you share private to the greatest extent possible. However, I am required to share information regarding sexual misconduct or information about a crime that may have occurred on Purdue's campus with the University. Students may speak to someone confidentially by contacting the Center for Advocacy, Response, and Education (CARE) at 765-495-CARE (2273).

Mental Health

If you find yourself beginning to feel some stress, anxiety and/or feeling slightly overwhelmed, try WellTrack, https://purdue.welltrack.com/ Sign in and find information and tools at your fingertips, available to you at any time.

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

Basic Needs Security:

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. There is no appointment needed and Student Support Services is available to serve students 8 a.m.-5 p.m. Monday through Friday. Considering the significant disruptions caused by the current global crisis as it related to COVID-19, students may submit requests for emergency assistance from the Critical Needs Fund

Emergencies -- If there is an emergency, call 911.

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor's control. Relevant changes to this course will be posted onto the course website or can be obtained by contacting the instructors or TAs via email or phone. You are expected to read your @purdue.edu email on a frequent basis.

A link to Purdue's Information on <u>Emergency Preparation and Planning</u> is located on our Brightspace under "University Policies and Statements." This website covers topics such as Severe Weather Guidance, Emergency Plans, and a place to sign up for the Emergency Warning Notification System. I encourage you to download and review the *Emergency Preparedness for Classrooms document (PDF) or (Word)*.

The first day of class, I will review the **Emergency Preparedness plan for our specific classroom**, following Purdue's required <u>Emergency Preparedness Briefing</u>. Please make note of items like:

- The location to where we will proceed after evacuating the building if we hear a fire alarm.
- The location of our Shelter in Place in the event of a tornado warning.

The location of our Shelter in Place in the event of an active threat such as a shooting. In all cases, you should seek additional clarifying information by all means possible...Purdue Emergency Status page, text message, Twitter, Desktop Alert, Albertus Beacon, digital signs, email alert, TV, radio.

The <u>Campus Emergency Status</u> webpage is your primary online resource for current and developing PurdueALERT information and changes to the operational status of campus.

Additional Syllabus Items:

Our class Brightspace page contains various, official University materials:

- Student Support and Resources
- University policies and statements

These resources are considered to be part of this syllabus per Purdue policy.

Lab Safety

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

- Dress appropriately (see below).
- Goggles are required at all times in the laboratory, including during report-writing and lab check-out. If you are in lab and your goggles are not covering your eyes, you will be sent home and will receive a zero for the lab and the lab report (failure to complete).
- Wear gloves.
- If your hair is longer than shoulder length, you must tie it behind your head.
- Contact lens wearers are encouraged to wear glasses in the laboratory.
- Food and beverages are not allowed in the labs. (No water bottles in lab!)
- Follow your instructor's guidance on appropriate handling of hazardous materials and disposal of chemical waste.
- Promptly clean up spills and tidy the laboratory before leaving.

Proper dress (clothing and shoes) is required. Your clothing must cover you from your neck (collarbone) to your ankles when sitting, standing or reaching. Your feet must be completely covered by your shoes.



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

Unacceptable clothing includes, but is not limited to:

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

If you come to lab wearing anything in the list above, you will be sent home and you will get a zero for that lab and it will count as a missed lab.

Your best option for chemistry lab attire is a crew neck t-shirt, jeans without holes, and sneakers with socks.

TENTATIVE: Class and Laboratory Schedule:

Note: In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor's control. Relevant changes to this course will be posted onto the course Brightspace and/or OneNote sites or can be obtained by contacting the instructors or TAs. You are expected to read your @purdue.edu email on a frequent basis.

Week	Day	Date	Lecture or Lab Topic	Notes
	Monday	Aug-21	Course overview & Syllabus Review.	
			No recitation.	
1	Tuesday	Aug-22	No Lab	
1	Wednesday	Aug-23	Class Technology	Bring your Laptop or Tablet to Class
	Thursday	Aug-24	No Recitation	
	Friday	Aug-25	Chapter 1	MUST Test (Extra Credit)
	Monday	Aug-28	Chapter 1	Ch 0 HW due Aug 29 @ 11:59 p.m.
	Tuesday	Aug 29	Lab 0: Learning to Use OneNote	Safety Certification Quiz done in lab
2			Check in, use of iPads, Safety.	(does not count toward course grade)
2	Wednesday	Aug-30	Chapter 1	
	Thursday	Aug-31	Recitation	
	Friday	Sep-1	Chapter 1	Lab 0 Due
	Monday	Sep-4	No Class – Labor Day	
	Tuesday	Sep-5	Lab 1: Density of a Penny	Chapter 1 Homework Due
3	Wednesday	Sep-6	Chapter 2	
	Thursday	Sep-7	Recitation	
	Friday	Sep-8	Chapter 2	
	Monday	Sep-11	Chapter 3	
	Tuesday	Sep-12	Lab 2: How Can We Produce a Salt from	Chapter 2 Homework Due
4			an Element?	
4	Wednesday	Sep-13	Chapter 3	
	Thursday	Sep-14	Recitation	
	Friday	Sep-15	Chapter 3	Lab 1 Due
5	Monday	Sep-18	Chapter 3	
J	Tuesday	Sep-19	Lab 3: Molecular Formula	

	Wednesday	Sep-20	Chapter 3	
	Thursday	Sep-21	Recitation	
	Friday	Sep-22	Chapter 4	Chapter 3 Homework Due Labs 2 & 3 Due
	Monday	Sep-25	Chapter 4	
	Tuesday	Sep-26	Lab 4: H-emission Exam #1	Exam #1 covers chapters $1-3$.
6	Wednesday	Sep-27	Chapter 4	
	Thursday	Sep-28	Recitation	
	Friday	Sep-29	Chapter 4	Lab 4 due
	Monday	Oct-2	Chapter 4	
	Tues	Oct-3	Lab 5: Conductometric and Gravimetric Determination of a Precipitate	
7	Wednesday	Oct-4	Chapter 4	
	Thursday	Oct-5	No Recitation	
	Friday	Oct-6	Chapter 4	Lab 5 due
	Monday	Oct-9	No Lecture – Fall Break	
	Tuesday	Oct-10	No Lab – Fall Break	
8	Wednesday	Oct-11	Chapter 5	Chapter 4 Homework Due
	Thursday	Oct-12	Recitation	
	Friday	Oct-13	Chapter 5	
	Monday	Oct-16	Chapter 6	
	Tuesday	Oct-17	Lab 6: Iron in Cereal	Chapter 5 Homework Due
9	Wednesday	Oct-18	Chapter 6	
	Thursday	Oct-19	Recitation	
	Friday	Oct-20	Chapter 6	Lab 6 Due
	Monday	Oct-23	Chapter 6	
	Tuesday	Oct-24	Lab 7: Molecular Shape and Polarity?	
10	Wednesday	Oct-25	Chapter 7, part I	Chapter 6 Homework Due
	Thursday	Oct-26	Recitation	
	Friday	Oct-27	Chapter 7, part I	Lab 7 Due
11	Monday	Oct-30	Chapter 7, part II	Chapter 7, part I Homework Due

Tuesc	lay Oct-31	Lab 8: What Variables affect Heat of Reaction (online and in lab) Exam #2	Exam #2 covers chapters 4 – 7, part I
Wedn	esday Nov-1	Chapter 7, part II	
Thurs	day Nov-2	Recitation	
Frida	y Nov-3	Chapter 7, part II	Lab 8 due

12	Monday	Nov-6	Chapter 8	
	Tuesday	Nov-7	Lab 9: Riboflavin Fluorescence	Chapter 7, part II Homework Due
	Wednesday	Nov-8	Chapter 8	
	Thursday	Nov-9	Recitation	
	Friday	Nov-10	Chapter 9	Lab 9 Due
	Monday	Nov-13	Chapter 9	Chapter 8 Homework Due
	Tuesday	Nov-14	Lab 10: Do you see the Light?	
13	Wednesday	Nov-15	Chapter 10	Chapter 9 Homework Due
	Thursday	Nov-16	No Recitation	
	Friday	Nov-17	Chapter 10	Lab 10 Due
	Monday	Nov-20	Chapter 10	
14	Tuesday	Nov-21	No Lab	Chapter 10 Homework Due
	Wed-Fri	Nov 22-24	Thanksgiving Vacation	
	Monday	Nov-27	Chapter 11	Final day to withdraw
	Tuesday	Nov-28	Lab 11: Molar Volume of a Gas Exam #3	Exam #3 covers chapters 8–10.
15	Wednesday	Nov-29	Chapter 11	
13	Thursday	Nov-30	Recitation	
	Friday	Dec-1	Chapter 11	Lab 11 Due
				Chapter 11 Homework Due, Sunday, Dec. 4
	Monday	Dec-4	Special Unit: Env. Chem	
16	Tuesday	Dec-5	Lab Check Out	
10	Wednesday	Dec-6	Special Unit: Env. Chem	
	Thursday	Dec-7	No Recitation	

	Friday	Dec-8	Special Unit: Env. Chem	
17	TBD	Dec-11-16	Final Exam, date and time TBD.	Comprehensive Exam

Disclaimer: This syllabus is subject to change.