

CHEMISTRY 12600: Introduction to Chemistry II

Spring 2021

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 WALC 1055
 - o Laboratory meets on Mondays and Tuesdays (cf. section schedule below)
 - o Recitation meets on Fridays. (cf. section schedule below)
 - o Section schedule:

| This co | This combination | | | | | | | | | | | |
|---------|---------------------|-------|------|----|----|---|-----|---------------|-------------|-----------|---|---|
| 14072 | 001 | LEC | 5 | 96 | 92 | 4 | MWF | 8:30-9:20am | Jan19-May01 | WALC 1055 | Rienstra-Kiracofe, JC Clark, DE | Microsoft Teams enabled lecture class |
| 28339 | 031 | LAB | 0 | 12 | 12 | | М | 2:50-5:40pm | Jan19-May01 | CHAS B005 | Kempen, AL Clark, DE | Technology assisted iPad labs Microsoft Teams enabled lab class |
| 14073 | | | 0 | 24 | 24 | | F | 10:30-11:20am | Jan19-May01 | WALC 3154 | Calderon Cazorla, SI Clark, DE Kempen, AL | |
| or th | or this combination | | | | | | | | | | | |
| 14072 | 001 | LEC | 5 | 96 | 92 | 4 | MWF | 8:30-9:20am | Jan19-May01 | WALC 1055 | Rienstra-Kiracofe, JC Clark, DE | Microsoft Teams enabled lecture class |
| 28340 | 032 | LAB | 0 | 12 | 12 | | Т | 11:30-2:20pm | Jan19-May01 | CHAS B005 | Calderon Cazoria, SI Clark, DE | Technology assisted iPad labs Microsoft Teams enabled lab class |
| 14073 | 030 | REC | 0 | 24 | 24 | | F | 10:30-11:20am | Jan19-May01 | WALC 3154 | Calderon Cazorla, SI Clark, DE Kempen, AL | |
| or th | nis co | mbina | tion | | | | | | | | Rempen, AL | |
| 14072 | | | 5 | 96 | 92 | 4 | MWF | 8:30-9:20am | Jan19-May01 | WALC 1055 | Rienstra-Kiracofe, JC Clark, DE | Microsoft Teams enabled lecture class |
| 18316 | 011 | LAB | 0 | 12 | 12 | | М | 2:50-5:40pm | Jan19-May01 | CHAS B011 | Poore, AT Clark, DE | Technology assisted iPad labs Microsoft Teams enabled lab class |
| 14074 | | | 0 | 24 | 23 | 1 | F | 11:30-12:20pm | Jan19-May01 | BRNG B222 | Poore, AT Clark, DE | |
| | | mbina | | | | | | | | | | |
| 14072 | | | 5 | 96 | 92 | | MWF | 8:30-9:20am | | | Clark, DE | Microsoft Teams enabled lecture class |
| 18317 | | | 0 | 12 | | 1 | Т | 7:30-10:20am | Jan19-May01 | | Clark, DE | Technology assisted iPad labs Microsoft Teams enabled lab class |
| 14074 | | | 0 | 24 | 23 | 1 | F | 11:30-12:20pm | Jan19-May01 | BRNG B222 | Poore, AT Clark, DE | |
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| 14072 | | | 5 | 96 | 92 | 4 | MWF | 8:30-9:20am | | | Clark, DE | Microsoft Teams enabled lecture class |
| 18319 | | | 0 | 12 | 12 | | Т | 11:30-2:20pm | Jan19-May01 | | Clark, DE | Technology assisted iPad labs Microsoft Teams enabled lab class |
| 14075 | 020 | KEC | 0 | 24 | 23 | 1 | F | 1:30-2:20pm | Jan19-May01 | WALC 3122 | Clark, DE | |
| or th | nis co | mbina | tion | | | | | | | | | |
| 14072 | 001 | LEC | 5 | 96 | 92 | 4 | MWF | 8:30-9:20am | Jan19-May01 | WALC 1055 | Rienstra-Kiracofe, JC Clark, DE | Microsoft Teams enabled lecture class |
| 18322 | 022 | LAB | 0 | 12 | 11 | 1 | Т | 2:50-5:40pm | Jan19-May01 | CHAS B011 | Kempen, AL Clark, DE | Technology assisted iPad labs Microsoft Teams enabled lab class |
| 14075 | 020 | REC | 0 | 24 | 23 | 1 | F | 1:30-2:20pm | Jan19-May01 | WALC 3122 | Kempen, AL Clark, DE | |
| | | mbina | tion | | | | | | | | | |
| 14072 | | | 5 | 96 | 92 | | MWF | 8:30-9:20am | | | Clark, DE | Microsoft Teams enabled lecture class |
| 28341 | | | 0 | 12 | | 1 | Т | 7:30-10:20am | | | Clark, DE | Technology assisted iPad labs Microsoft Teams enabled lab class |
| 18315 | | | 0 | 24 | 22 | 2 | F | 3:30-4:20pm | Jan19-May01 | BRNG B222 | Calderon Cazorla, SI Clark, DE | |
| | or this combination | | | | | | | | | | | |
| 14072 | | | 5 | 96 | 92 | | MWF | 8:30-9:20am | | | Clark, DE | Microsoft Teams enabled lecture class |
| 28342 | | | 0 | 12 | | 1 | Т | 2:50-5:40pm | Jan19-May01 | | Clark, DE | Technology assisted iPad labs Microsoft Teams enabled lab class |
| 18315 | 040 | REC | 0 | 24 | 22 | 2 | F | 3:30-4:20pm | Jan19-May01 | BRNG B222 | Calderon Cazorla, SI Clark, DE | |

Instructor:

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

Office: BRWN 1149 Phone: 756-494-5499 Email: jonrk@purdue.edu

Office Hours: Tuesdays, 9:30 - 10:30 a.m. and Thursdays, 12:30 - 1:30 p.m.

Teaching Assistants:

| TA | E-mail | Lab Section | Office Hour(s) (online) |
|--------------|---------------------|---------------|-------------------------|
| Dan Clark | clark611@purdue.edu | Head TA | |
| | | CHM 12600-OL1 | |
| Andrew Poore | poorea@purdue.edu | CHM 12600-011 | T: 4-5 p.m. |
| | | CHM 12600-012 | _ |
| Alli Kempen | akempen@purdue.edu | CHM 12600-021 | F: 12-1 p.m. |
| | | CHM 12600-022 | |
| | | CHM 12600-031 | |
| Sebastian | calder17@purdue.edu | CHM 12600-032 | M: 6-7 p.m. |
| Calderon | | CHM 12600-042 | |
| | | CHM 12600-LC1 | |

Course Catalog Description:

CHM 12600 - <u>Introduction to Chemistry II</u> Credit Hours: 5.00. A continuation of CHM 12500. Properties of solutions; chemical equilibrium calculations; elementary thermodynamics; oxidation-reduction reactions and electrochemical cells; rates of reaction; qualitative analysis; descriptive chemistry. Typically offered Spring.

Prerequisites

Undergraduate level CHM 12500 Minimum Grade of D; or Undergraduate level CHM 13500 Minimum Grade of D; or Undergraduate level CHM 11500 Minimum Grade of D; or (Undergraduate level CHEM C1050 Minimum Grade of D and Undergraduate level CHEM C1250 Minimum Grade of D)

Required Course Materials

- Chemistry: The Molecular Nature of Matter and Change, 8th Ed., by M. S. Silberberg and P. Amateis, McGraw-Hill, 2017. You may use new, used, hardbound, loose-leaf, rental or e-book versions of the text as long as they are the 8th edition. The Bookstore is selling a loose-leaf copy with e-book access for \$54.95.
- You are required to complete homework assignments online using the Sapling
 Homework system. You may purchase single semester access to Sapling or two semester
 access directly from Sapling on-line.

- Scientific Calculator. A simple, battery-operated scientific calculator with exponential, logarithm and square root functions is acceptable, however students may use any "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 outside WTHR 200 during the first two weeks of class.
- A face mask is required for class and laboratory. The face mask included with your Protect Purdue packet is acceptable.
- A face shield is required for laboratory. The face shield included with your Protect Purdue packet is acceptable.
- A digital laboratory manual. The manual will be distributed to you electronically. You will pay for access to the manual via a Purdue Online link:
 - http://www.eventreg.purdue.edu/online/DigitalChemistryLabNotebook
- Note: Other materials will 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 OneNote site, apart from, or in addition to, our class Brightspace site. BrightSpace will be used for your grade records.

Sapling Homework Access

You must register for access to Sapling Learning Homework via our course Brightspace page. During the registration process, you may either pay directly for your access, or enter your access card information from the bookstore. For help, see:

https://macmillan.force.com/macmillanlearning/s/article/Students-Register-for-Sapling-Learning-courses-via-your-school-s-LMS#d2l

Students who purchased single-term access to CHM 12500 last term will need to submit a single-term payment for CHM 12600.

Students who purchased multi-term access last term will have a credit on their account to cover the cost of CHM 12600. They should enroll as usual, then select "Use my credit" when prompted for payment.

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.
 - 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.
- 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 Sapling 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.

Course Learning outcomes

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

- 1. Demonstrate competency of CHM 12600 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 12600.
 - Methods of Evaluation: Written explanations in OneNote Homework Notebook work and through conceptual problems on exams
- 3. Connect CHM 12600 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 multiple choice and conceptual problems on Exams.
- 4. Meet the 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

- All students will adhere to all Protect Purdue Guidelines. This includes following seating recommendations in class and wearing a mask while in class. This also includes wearing a mask and face shield during lab. Finally, 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. Students taking the Online section will complete labs individually.
- 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 / Quarantine / Check-Out:
 - 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.
 - If you drop CHM 12600 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.
 - o If you must quarantine or isolate at any point in time during the semester, please reach out to me via email so that we can communicate about how you can continue to learn remotely. Work with the Protect Purdue Health Center (PPHC) to get documentation and support, including access to an Academic Case Manager who can 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. Your Academic Case Manager can be reached at acmq@purdue.edu. Importantly, if you find yourself too sick to progress in the course, notify your academic case manager and notify me via email. Your TA and I will make arrangements based on your particular situation.

Grading

The grade for CHEM 12600 consists of the following:

- 12 homework problem sets, scaled to 10 pts. each. Homework answers are submitted online via the Sapling website. Late submissions will not be accepted.
- Three exams, 50 pts. each. Exams consist of a combination of multiple choice problems, conceptual questions, and quantitative problems. There will be three (3) during-semester exams and a comprehensive final exam in this course. All exams will be online using the Sapling homework system. 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 be online, will be given separate to this syllabus as well.
- Laboratory: 10 pts. each. 12 laboratory experiments will be conducted with individual reports completed for each lab.

- 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%
                   Α
90.0% - 92.9%
                   A-
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: There may be additional grading for students taking CHM 12600 as an HONR course.

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.

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. Our course Brightspace includes a link on Attendance and Grief Absence policies under the University Policies menu.

Excused Absences

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

- GAPS or MAPS approved absences
- COVID-19 illness or related quarantine (on a case by case instance)
- Other emergency external circumstances, as approved by your instructors

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

Students who experience the death of a family member or close friend, and students who are called into military service should contact the Office of the Dean of Students (765-494-1747). If you experience an absence that is expected to be for an extended period of time (normally a week or more), you should also contact the Office of the Dean of Students. 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.

Protect Purdue

The <u>Protect Purdue Plan</u>, which includes the <u>Protect Purdue Pledge</u>, 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, properly wearing a mask <u>in classrooms and campus building</u>, at all times (e.g., mask covers nose and mouth, no eating/drinking in the classroom), disinfecting desk/workspace prior to and after use, maintaining appropriate 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.

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.

Surveys on General Chemistry Lab Environment

You may be asked to complete two or more surveys this semester for the development and improvement of the teaching and learning environment in General Chemistry laboratories. Taking part in these surveys will enable you and future students to have an optimal learning experience in lab. Your input is very valuable, so we encourage you to complete all of the surveys.

Participation in the surveys is optional (not required) and has no impact on your course grade. Instructors will not know which students participate in the surveys. Survey information will only be viewed after grades have been submitted at the end of the semester. Your identity will be coded and hidden during the analysis of survey results. Individuals not associated with your course will only use your identity to correlate your responses from the beginning and end of the semester. You can opt out of participation in the surveys at any time.

Sources of Help

There are several free sources of help for CHM 12600 students:

- Professor office hours
- TA office hours
- The Chemistry Resource Room (WTHR 117 B)
- *Possible:* 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 problemsolving skills needed to do your homework. Please visit us in Shreve for assistance. COSINE at Shreve Hall, Room C107, University Residences Support Center: Monday Thursday 6:00-9:00 pm

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:

http://www.education.purdue.edu/discovery/research integrity.html.

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

In CHM 12600, 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

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. We support 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.

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.

Emergencies

EMERGENCY NOTIFICATION PROCEDURES are based on a simple concept – if you hear a fire alarm inside, proceed outside. If you hear a siren outside, proceed inside.

- Indoor Fire Alarms mean to stop class or research and immediately evacuate the building.
- Proceed to your Emergency Assembly Area away from building doors. Remain outside until police, fire, or other emergency response personnel provide additional guidance or tell you it is safe to leave.
- All Hazards Outdoor Emergency Warning Sirens mean to immediately seek shelter (Shelter in Place) in a safe location within the closest building.
 - o "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, an active threat including a shooting or release of hazardous materials in the outside air. Once safely inside, 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.
- 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.

*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

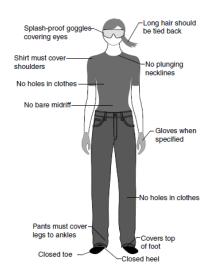
If there is an emergency, call 911.

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 when specified.
- 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.

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. <u>You</u>

are expected to read your @purdue.edu email on a frequent basis.

| Week | Day | Date | Lecture or Lab Topic | Notes |
|------|----------------|-----------|--|--------------------------------------|
| | Monday | Jan-18 | No Lecture | MLK Holiday |
| 1 | Monday/Tuesday | Jan-18/19 | No Lab | |
| 1 | Wednesday | Jan-20 | Syllabus Review | |
| | Friday | Jan-22 | Chapter 12 | |
| | Monday | Jan-25 | Chapter 12 | Safety Certification due Sun, Jan 24 |
| 2 | Monday/Tuesday | Jan-25/26 | Lab 1: Intermolecular Forces & Check-in | |
| 2 | Wednesday | Jan-27 | Chapter 13 | Chapter 12 Homework Due |
| | Friday | Jan-29 | Chapter 13 | Lab 1 report due |
| | Monday | Feb-1 | Chapter 14 | |
| 3 | Monday/Tuesday | Feb1/2 | Lab 2: Freezing Point Depression | Chapter 13 Homework Due |
| 3 | Wednesday | Feb 3 | Chapter 15 | Chapter 14 Homework Due |
| | Friday | Feb 5 | Chapter 15 | Lab 2 report due |
| | Monday | Feb-8 | Chapter 15 | |
| 4 | Monday/Tuesday | Feb-8/9 | Lab 3: Do you see the light? | |
| 4 | Wednesday | Feb-10 | Chapter 22 & Env. Chm | Chapter 15 Homework Due |
| | Friday | Feb-12 | Chapter 22 & Env. Chm | Lab 3 report due |
| | Monday | Feb-15 | Chapter 22 & Env. Chm | |
| | Monday/Tuesday | Feb-15/16 | Lab 4: Biologically important molecules? | |
| 5 | Wednesday | Feb-17 | No class – Reading Day | Chapter 22 Homework Due |
| | Friday | Feb-19 | No Lecture. Exam 1 – Chapters 12-15 & | |
| | | | 22 | Lab 4 report due |
| | Monday | Feb-22 | Chapter 16 | |
| 6 | Monday/Tuesday | Feb-22/23 | Lab 5: Rates of Chemical Reactions | |
| | Wednesday | Feb-24 | Chapter 16 | |
| | Friday | Feb-26 | Chapter 16 | Lab 5 report due |

| | Monday | Mar-1 | Chapter 16 | |
|----|----------------|-----------|--|--|
| | Monday/Tuesday | Mar-1/2 | Lab 6: Chemical Kinetics | |
| 7 | Wednesday | Mar-3 | Chapter 17 | |
| | Friday | Mar-5 | Chapter 17 | Chapter 16 Homework Due Lab 6 report due |
| | Monday | Mar-8 | Chapter 17 | |
| | Monday/Tuesday | Mar-8/9 | Lab 7: Activation Energy | |
| 8 | Wednesday | Mar-10 | Chapter 17 | |
| | Friday | Mar-12 | Chapter 17 | Lab 7 report due Homework Notebook part I due |
| | Monday | Mar-15 | Chapter 18 | • |
| | Monday/Tuesday | Mar 15/16 | Lab 8: Iron(III) Thiocyanate Equilibrium | Chapter 17 Homework Due |
| 9 | Wednesday | Mar-17 | Chapter 18 | |
| 9 | Thursday | Mar-18 | Reading Day | Exam includes: |
| | Friday | Mar-19 | No Lecture. Exam #2 Ch. 16, 17, & | Lab 8 report due |
| | | | part. 18 | , |
| | Monday | Mar-22 | Chapter 18 | |
| 10 | Monday/Tuesday | Mar 22/23 | Lab 9: How much copper is in a penny? | |
| 10 | Wednesday | Mar-24 | Chapter 18 | |
| | Friday | Mar-26 | Chapter 18 | Lab 9 report due |
| | Monday | Mar-29 | Chapter 19 | |
| 11 | Monday/Tuesday | Mar 29/30 | Lab 10: Acid-Base Equilibria | Chapter 18 Homework Due |
| 11 | Wednesday | Mar-31 | Chapter 19 | |
| | Friday | Apr-2 | Chapter 19 | Lab 10 report due |
| | Monday | Apr-5 | Chapter 20 | |
| 12 | Monday/Tuesday | Apr-5/6 | Lab 11: Determination of K, Δ H, Δ S, Δ G | Chapter 19 Homework Due |
| 12 | Wednesday | Apr-7 | Chapter 20 | |
| | Friday | Apr-9 | Chapter 20 | Lab 11 report due |
| | Monday | Apr-12 | Chapter 20 | |
| 13 | Monday/Tuesday | Apr-12/13 | No Lab – Reading Day | Chapter 20 Homework Due |
| 13 | Wednesday | Apr-14 | No Lecture. Exam #3, Ch. 18 - 20 | |
| | Friday | Apr-16 | Chapter 21 | |

| | Monday | Apr-19 | Chapter 21 | |
|----|----------------|-----------|--------------------------------------|-------------------------------|
| 14 | Monday/Tuesday | Apr-19/20 | Lab 12: A Metal Ion Sensor | |
| 14 | Wednesday | Apr-21 | Chapter 21 | |
| | Friday | Apr-23 | Chapter 21 | Lab 12 report due |
| | Monday | Apr-26 | Chapter 24 | |
| | Monday/Tuesday | Apr-26/27 | Lab Check out (Possible make-up lab) | Chapter 21 Homework Due |
| | | | Each student must be on-time and | |
| 15 | | | present | |
| 13 | Wednesday | Apr-28 | Chapter 24 | |
| | Friday | Apr-30 | Chapter 24 | |
| | Saturday | May 1 | | Chapter 24 Homework Due |
| | | | | Homework Notebook part II Due |
| 16 | TBD | May ?? | Final Exam, TBD | Comprehensive Exam |

Disclaimer

This syllabus is subject to change.