COURSE INFORMATION SHEET

CHEM 1128 – Spring 2023

Instructor	Office	Office hours/ or by appointment	e-mail Address	Lecture Time
Dr. Cady	T-214	TW 3:45-4:45 (A201) Individual times on Nexus	clyde.cady@uconn.edu	TTh 5:00 PM – 6:15 PM (A120)
Dr. Seery	MZ206	TTh 2:00-3:00PM(A201)	thomas.seery@uconn.edu	TTh 12:30 PM-1:45 PM (TLS 154)
Dr. Caldwell	A-212	TTh 10:00-11:00 AM (A201)	karenann.caldwell@uconn.edu	TTh 11:00 AM-12:15PM (A120)
Dr. Papadimitrakopoulos	MZ210	MW 10-11AM (chem A201)	fotios.papadimitrakopoulos@uconn.edu	MWF 9:05-9:55 AM (GW 002) MWF 11:15 AM-12:05 PM (A120)

Course Web Sites: https://lms.uconn.edu/,

Course Needs:

1. (If you took 1127 in Fall22 you should already have this) Cengage Unlimited Access code to gain access to Chemistry 10th edition by Zumdahl, Zumdahl and DeCoste and OWLv2 online homework. (If you need assistance with cengage check the lecture recording for Dr. Caldwell's first lecture and if that doesn't work contact frank.cronin@cengage.com)
2. General chemistry lab manual: available only at the UConn bookstore (If you still have the lab manual from 1127 you don't need a new one)
3. Safety goggles (only the approved model will be allowed). They can be purchased from the UCONN Book Store.
4. Calculators: **You will need a calculator for this class. We suggest a TI-30X (not business) model although we will allow graphing calculators.**

Suggested material:

1. Preparing for your ACS examination in General Chemistry (second edition): available online at http://shopping.na1.netsuite.com/s.nl/c.3773982/it.A/id.1717/.f?sc=11&category=190
   Also available with free shipping from the UConn chemistry club.

Course Overview

Lecture:

Material is explained and sample problems are done. There are opportunities for asking questions. You are responsible for the entire chapter whether discussed in lecture or not,

unless it is otherwise announced. Always bring your calculator to the lecture. You do not need to bring your textbook. You are expected to attend every lecture, and laboratory. Many times, announcements are made in lecture; you are responsible for these announcements even if you are not present.

My lectures, notes, handouts, assessments, and displays are protected by state common law and federal copyright law. Students are authorized to take notes in my class; however, this authorization extends only to making one set of notes for your own personal use and no other use. You must obtain permission from me if you wish to audio record or video record my lecture. If you are so authorized to record my lectures, you may not copy this recording or any other material, provide copies of either to anyone else, or make a commercial use of them without prior permission from me. ***Posting of any of my materials, including but not limited to exams, quiz questions, lab assignments, prelab assignments, PowerPoint slides, and solutions to recommended problems, to any website or social media site violates this policy.***

Laboratory:

Laboratory is an integral part of the course. Data and calculations sheets must be handed in at the end of the lab period in which the experiment is scheduled. All students (including those taking the course for pass/fail) must perform **all of the experiments** to pass the course. In case of emergency or illness you will be allowed to take up to 20% of the in-person labs online by emailing Dr. Cady (clyde.cady@uconn.edu) and your lecture instructor as close to the lab date as possible. If you must do more than 20% of the labs remotely and online you will need to get express written approval from the Dean of Students office or the Center for Students with Disabilities. The course is an official lab course and lab is an in-person experience. If you must miss more than 20% of the in-person labs you will need to contact the Dean of Students or CSD office in order to get the option for an incomplete for the semester otherwise you will receive an F for the course.

How to get Help

Professors:

Each Professor has posted their office hours on the first page of the syllabus. Questions during office hours are always welcome, especially when it is not right before an exam. If you do not see a posted office hour time or have forgotten when that time is you can always email the professor or ask before or after lecture. Your professor is your best source of information about your grade and will often be the quickest way to answer a question. Keep in mind that professors usually work on a 9-5 schedule.

Q Center:

http://qcenter.uconn.edu The Q center is a tutoring service specifically for students taking Q (quantitative) courses. Chemistry 1127/1128 are Q courses so you can go to the Q-center and get help. The Q center will often be open during evening hours and organize extra review sessions before exams.

Supplemental Instruction (SI):
The UConn Academic Achievement Center sponsors Supplemental Instruction sessions for general chemistry (1127/1128). http://achieve.uconn.edu/si/ Supplemental Instruction is a weekly help session carried out by an Undergraduate Student who has succeeded in the course. These sessions allow you to ask a fellow undergraduate questions about what and how you should study for the course. The SI instructors took the course just like you and through this program are available to help you.

How to succeed in the course

1. Attend the class. Either watching lectures synchronously online or in person. This seems easy but it's always a problem.

2. Make sure you do your online homework every week. Online homework is worth more than an exam but you have all week to complete it and you can retry the problems multiple times. Online homework can take a lot of time so start early in the week. Don't wait until Friday afternoon.

3. When you encounter a problem that you don't understand on the online homework or the book problems you need to ask someone for help. The point of doing online homework and the book problems is to show you what you understand and what you don't understand. If you struggle with a problem, you don't understand it. Take that problem to any of the help options listed above and learn how to do the problem. We encourage you to work out problems on your own but if you can't solve a problem after 30 minutes of effort then you will probably benefit from asking a professor or TA for help. You will not have 30 minutes per problem on the exam.

4. If you get a problem on an exam wrong make sure that you understand how to get it right next time. Review the exams with a Professor during office hours and with whomever else you feel is necessary. Put the exam aside for a week or so but then, after you have cooled down from the exam, go back and try to do the problems again. If you still understand the problems you got wrong you will probably be in good position to move forward.

5. Exams questions will rarely be exact copies of the homework problems with different numbers. We write exam problems to see if students understand chemistry not to see if students can memorize the homework problems. An exam problem may be a homework problem done backwards or two homework problems combined into one. We want students to succeed in the course but we want that success to mean that you know chemistry not that you know how to repeat a problem. When preparing for the exams see if you can see how

practice problems are related. Can you identify practice problems that use the same concept but are the reverse of one another? Do you understand why you did each math step?

HuskyCT is important

You should learn how to access HuskyCT (https://lms.uconn.edu/) for Chem 1127/1128.

After the due date for a Prelab quiz (Sunday night) you can look up your answers and the correct answers by going to the lab HuskyCT page, selecting "My Grades" in the bar on the left, select the pre-lab quiz in question, On the quiz page select the score number which is a link. You should then see the complete answer key for the quiz if it is after the due date. This same method works to look up the answer for lab quizzes. Lab quiz answers are not posted until the week after the lab quiz.

You should check HuskyCT each day in order to see if there is an announcement. HuskyCT "announcements" will be used to announce the arrangements in case of **late opening/early closing or cancellation**.

When you send an e-mail to your instructor please indicate the reason in the subject line, such as Online homework, lab, missing an exam etc. Also include the course number since each instructor teaches more than one course.

What to do if you missed a lab or an exam

Missed Lab:

- If you miss a lab or anticipate missing a lab, **try to make up this work the same week the experiment is assigned.** Follow the procedure below:
  1. Contact your professor and Dr. Cady (clyde.cady@uconn.edu) Immediately. You can not get access to a make up lab by talking to your TA.
  2. Once you have been granted Make up access by a professor you should go to the "weekly task" folder for the week you missed lab and you will now see the online make up lab.
  3. Watch the lab video and review the equations required with the help of your lab manual.
  4. Take the Online post lab quiz to get points for the lab you missed.
  5. You must contact your professor within 2 business days of the missed lab in order to get make up lab access.
     You will be allowed to do this **no more than 20% of the in-person labs online** in a semester. If you need to miss more than 20% of the in-person labs online you will need permission from the Dean of Students office or the Center for Students with Disabilities. If you must do more than 20% of the in-person labs online you will have to get permission from the Dean of Students or the CSD in order to get an incomplete or you will automatically get an F in the course.
- **Do NOT** make private arrangements with your TA to make up the lab.
- All students (including those taking the course for pass/fail) must perform **all of the experiments** to pass the course. If you must do more than 20% of the in-

person labs online you will have to get permission from the Dean of Students or the CSD in order to get an incomplete or you will automatically get an F in the course.

Absence from Exams:

Exams will be given during lecture sessions. You will be limited in the number of times you can make up an exam in this class because they are given during class. If there is a rare emergency that causes you to miss an exam you contact your professor and Dr. Cady (clyde.cady@uconn.edu) to arrange an attendance of the make up exam at 6:30 AM on Monday. If you make up more than one exam you will be denied access to the make up and be given a zero for the exam unless you have written permission by the Dean of Students office or CSD.

If you are not able to attend the regularly scheduled exam or the make up exam you should contact your professor as soon as possible to make arrangements.

- **Supplying false or forged documentation is equivalent to cheating in the course and the minimum sanction will be an F for the course**. If you have any questions about this policy, talk to your instructor.

- If you take the exam, make sure that you are physically able to do so. Once the exam is started, the work you do on that exam will be graded and counted toward your final course grade. The request that the work you did on that exam be nullified because you were ill at the time will not be accepted.

  Note that practices and competitions for club sports are not considered a valid reason for missing an exam.

Final Exam (From Dean of Students)
When students are forced to miss a final examination due to illness, accident, death in the family or other unavoidable reasons they can come to the Dean of Students Office to receive approval to arrange another exam time with their instructor. Students should present appropriate documentation to support their request. **Come to the Dean of Students Office for this service.** With other exams and assignments which are required during the semester students bring their documentation of extenuating circumstances directly to their instructors.

Grades

Exam Grades:

Exam grades are posted to huskyCT. Please make sure to check your grades after they are posted. If there is a mistake you need to contact Dr. Cady or your lecture professor.

After one week grades are final and cannot be changed for any reason. All grades will be posted in the HuskyCT gradebook.

Exam grades **WILL NOT** be given out by e-mail.

Final Course Grade:

The syllabus lists the value of each part of the course according to Plan 1 and Plan 2. Your final letter grade for the course will be calculated according to the percent values of both Plan 1 and Plan 2. You will receive the higher of the two grades.

	Points Distribution	Plan 1	Plan 2
Exams (3 exams 100 pts each)	300 points	30%	20%
Weekly Quizzes	125 points	12.5%	12.5%
Final Exam	200 points	20%	30%
Laboratory	150 points	15%	15%
Online Homework	175 points	17.5%	17.5%
Pre-lab quiz	50 points	5%	5%
Total	1000 points	100%	100%

Grading
As a starting point, we will use a >90% = A; 80-89% = B; 70-79% = C; 60-69% = D, <60% = F scale. Plus and minus grades will be assigned within each bracket.

Additional Information

Academic Integrity:

Although students may discuss their assignments, and support each other's learning process, each student is required to do his or her own work on online homework, and lab related work (Prelabs and Data and Calculations). This is true even when students work with a lab partner to collect data. Cheating in any form and at any task will not be tolerated. The minimum consequence will be an **"F"** for the course. For possible University sanctions, consult "The Student Conduct Code" available at http://www.community.uconn.edu by clicking on **"**Part IV Student Conduct Policies".

Lecture decorum
Be considerate of your classmates at all times. Turn off cell phones as you enter the lecture hall. If you have to leave early, sit near the back and minimize your disruption as you leave. Side conversations are distracting to those around you and interfere with the learning process. For more on this topic please explore The Student Code at http://www.community.uconn.edu/student_code.html .
Support Services:

- Counseling and Mental Health Services: 486-4705 (after hours: 486-3427) www.cmhs.uconn.edu
- Career Services: 486-3013 www.career.uconn.edu
- Alcohol and Other Drug Services: 486-9431 www.aod.uconn.edu

Office of Student Services and Advocacy: 486-3426 www.ossa.uconn.edu

FROM Center for Students with Disabilities:

Please contact your instructor during office hours to discuss academic accommodations that may be needed during the semester due to a documented disability. If you have a disability for which you wish to request academic accommodations and have not contacted the Center for Students with Disabilities (CSD), please do so as soon as possible. The CSD engages in an interactive process with each student and reviews requests for accommodations on an individualized, case-by-case basis. The CSD collaborates with students and their faculty to coordinate approved accommodations and services. The CSD is located in Wilbur Cross, Room 204 and can be reached at (860) 486-2020 or at csd@uconn.edu. Detailed information regarding the process to request accommodations is available on the CSD website at www.csd.uconn.edu.

CHEM 1128 **SPRING 2023**

WEEK	DATES	PROBLEM SET/LAB
1	1/17 – 1/20	**Online Homework:** None
		Lab: None
		Lecture: Introduction and chapter 11 (Properties of solutions)
2	1/23 – 1/27	**Online Homework:** Chapter 10 review- extra credit
		Lab:None
		Lecture: Chapter 11 (Properties of solutions - skip colloids)
3	1/30 – 2/3	**Online Homework: HW1** Chapter 11 part 1
		Pre lab: Pre lab 10 due (2/5)
		Lab: • Check-in. **BRING SAFETY GOGGLES**
		Lecture: Chapter 12 (Chemical Kinetics)
4	2/6 – 2/10	**Online Homework: HW2** Chapter 11 part 2
		Pre lab: Pre lab 11 due (2/12)
		Lab: *E10*
		Lecture: Chapter 12 (rates – rate laws and catalysis)
5	2/13 – 2/17	**Online Homework: HW3** Chapter 12
		Pre lab: Pre lab 17 due (2/19)
		Lab: *E11*
		Lecture: Chapter 13 (Equilibrium – intro) ***EXAM 1 (chapter 11 and 12) (2/16 and 2/17)***
6	2/20 – 2/24	**Online Homework: HW4** Chapter 13 part 1
		Pre lab: Pre lab 12 due (2/26)
		Lab: *E17*
		Lecture: Chapter 13 (Equilibrium – ICE tables and problem solving)
7	2/27– 3/3	**Online Homework: HW5** Chapter 13 part 2
		Pre lab: Pre lab 13 due (3/5)
		Lab: *E12*
		Lecture: Chapter 14 (acid/base)

8	3/6 – 3/10	**Online Homework: HW6** Chapter 14
		Pre lab: Pre lab 14 due (3/19)
		Lab: *E13*
		Lecture: Chapter 14 and Chapter 15 (Equilibrium- Titrations and assumptions related to the quadratic equation)
3/13 – 3/17		**SPRING BREAK**
9	3/20 – 3/24	**Online Homework: HW7** Chapter 15 part 1
		Pre lab: Pre lab 15 due (3/26)
		Lab: E14
		Lecture: Chapter 15 ***EXAM 2 (chapter 13 and 14) 3/23 and 3/24***
10	3/27 – 3/31	**Online Homework:HW8** Chapter 15 part 2 start chapter 16
		Pre lab: Pre lab 16 due (4/2)
		Lab: *E15*
		Lecture: Chapter 16
11	4/3 – 4/7	**Online Homework:HW9** Finish chapter 16
		Pre lab: Pre lab 18 due (4/9)
		Lab: *E16*
		Lecture: Chapter 17
12	4/10 – 4/14	**Online Homework: HW10** Chapter 17
		Pre lab: Pre lab 19 due (4/16)
		Lab: E*18*
		Lecture: Chapter 18 (Electrochemistry- Reduction potentials)
13	4/17 – 4/21	**Online Homework: HW11** Chapter 18 part 1
		Pre lab: No pre lab
		Lab: E*19*
		Lecture: Chapter 18/19 (Electrochemistry- cells and Nernst equation) **EXAM 3 (chapter 15,16,17) 4/20 and 4/21**
14	4/24 – 4/28	**Online Homework:HW12** End chapter 18 and chapter 19
		Pre lab: No pre lab
		Lab: check out
		Lecture: Chapter 19 (Nuclear chemistry- particles and decay)
		ACS FINAL EXAM: Check Student Admin for Final exam date and time for confirmation

Final Exam Review Topics by Chapter in Chemistry, 10th Edition, by Zumdahl, Zumdahl, an DeCoste

Chapter 11	Practice problems from Chapter 11
Solution units (Molality, mass%, mole fraction)	37, 39
Solubility and henry's law	51, 53, 57
Vapor pressure (Raoult's law)	59
Boiling point/Freezing point change	71, 73, 77
Osmotic pressure	83
Electrolyte solutions (Van't hoff factor)	85

Chapter 12	Practice problems from Chapter 12
Rates (intro)	27
Rate order, rate constant	29, 31, 33
Integrated Rate law	43,47
Mechanism and Kinetic theory	61, 67
Arrhenius Equation	73, 75
Catalysis	85

Chapter 13	Practice problems from Chapter 13
Equilibrium constant	25, 27, 33, 41
Equilibrium calculations	45, 51, 63, 65
ICE Tables	Read section 13.6 in book
Le Chatelier's Principle	71, 79

Chapter 14	Practice Problems from Chapter 14
Bronsted-Lowry Acid Base	41, 45
pH-acidity	49, 53,55, 59, 65
pOH-base	95, 99
Polyprotic acids	105, 109
Acid/base of salts	113, 117
Predicting acidity	131
Lewis acids and bases	137

Chapter 15	Practice Problems from chapter 15
Common ion effect	11
Buffered solutions	23, 25, 39, 41, 47
Titrations	61, 65, 67, 71, 100

Chapter 16	Practice Problems from end of Chapter 16
Ksp	23, 27, 29, 33
Common ion effect	45, 47, 51
Precipitation	57, 59, 63
Complex ion equilibria	67, 71

Chapter 17	Practice Problems from end of Chapter 17
Entropy	37, 39, 45, 51
Free energy	39, 59, 63, 67
Free energy and equilibrium	71, 75, 79

Chapter 18	Practice problems from chapter 18
Galvanic cells	37, 41
Standard Reduction Potentials	45, 49, 57
Cell concentration/Nernst equation	67, 71, 73
Electrolysis/electrolytic cell	103, 105

Chapter 19	Practice problems from chapter 19
Types of radioactive decay	Table 19.2, 15, 17,19
Half life	37
Mass defect	55

We have tried to include everything, but we may have missed some concepts, so be sure to go through our book, your notes, and all of the homework. Study any concepts that you come across!!