

Chemistry 1121 Syllabus

Principles of Chemistry

Spring 2024

INSTRUCTOR Dr. Andy Napper

OFFICE Massie 323

TELEPHONE 351-3100

E-MAIL anapper@shawnee.edu

OFFICE HOURS

M	1 – 3 PM
W	2 – 3 PM
F	10 – 11 AM

LECTURE MW 3:30 PM – 4:50 PM (Massie 204)

LABORATORY

M	5 PM – 7:50 PM (Massie 333)	– section 01 (Bakenhaster)
W	5 PM – 7:50 PM (Massie 333)	– section 02 (Napper)

ATTENDANCE POLICY

Attendance at lectures and laboratories is required. *Two or more unexcused lab misses will result in an F grade for Chem 1121.* Missed labs cannot be made up. You may be excused from lab for illness (provided a doctor's note is made available to me clearly stating the days you were ill), or because of hazardous weather conditions.

EXCUSED ABSENCE POLICY

In case of illness, accident, family emergency, or university-sponsored activity, you may be excused from labs, quizzes, and/or homework. In case of a missed exam, a make-up exam will be provided.

For university-sponsored activities, an official excused absence slip must be obtained. This must be obtained in advance of the activity and given to the instructor one-week before your absence.

For other absences, suitable documentation (such as a doctor's note, police accident report, etc.) must be provided within one-week of the excused absence. For absences longer than one week, an academic dean or the dean of students may issue you an excused absence which you can present to your instructor.

Unexcused absences will result in a grade of zero for the assignment.

REQUIRED MATERIALS

Note: you already have access to both the e-textbook and MasteringChemistry today!

Fundamentals of General, Organic, and Biological Chemistry, 8/e
—McMurry, Castellan, and Ballantine

MasteringChemistry—Bundled with the textbook or a separate access card

Chemistry 1121 lab manual

A **non-programmable** scientific calculator such as a TI-30 XIIS

Safety goggles or visorgogs. (ANSI Z87)

GRADING

4 exams 50 %

Final exam (Comprehensive)..... 15 %

Online Homework..... 15 %

Laboratory 20 %

GRADING ERRORS

If you notice a grade error on BlackBoard for quizzes, exams, etc.—you need to bring it to the instructor's attention in writing within one week of the due date (for an online assignment) or one week from the assignment being handed back (lab/exam assignments).

COURSE WEBSITE

PowerPoint lecture notes, practice exams, and other useful information will be posted on the course website: <http://chem1121.ssuchemistry.com>

GRADING SCALE

%	Grade	%	Grade	%	Grade
>93	A	77–80	C+	60–63	D–
90–93	A–	73–77	C	<60	F
87–90	B+	70–73	C–		
83–87	B	67–70	D+		
80–83	B–	63–67	D		

LECTURE MATERIAL

Chapter 1 Matter and Measurements

Chapter 2 Atoms and the Periodic Table

Chapter 3 Ionic Compounds

Chapter 4 Molecular Compounds

Chapter 5 Classification and Balancing of Chemical Reactions

Chapter 6 Chemical Reactions: Mole and Mass Relationships

Chapter 9 Solutions

Chapter 8 Gases, Liquids, and Solids

Chapter 7 Chemical Reactions: Energy, Rates, and Equilibrium

Chapter 10 Acids and Bases

Chapter 11 Nuclear Chemistry

ONLINE GRADEBOOK

Grades will be posted on Blackboard (<http://blackboard.shawnee.edu>). The grades will be weighted according to the percentages listed on the syllabus.

EXAM SCHEDULE

Exam 1	Wed, Jan 31st
Exam 2	Wed, Feb 21st
Exam 3	Mon, Mar 25th
Exam 4	Wed, Apr 17th
Final Exam	Wed, Apr 24th (2 PM, MAS 204)

MASTERINGCHEMISTRY You should log on and create your account as soon as possible! Online homework will be assigned on a weekly basis. The homework set may consist of tutorials, homework problems, and review problems. Each homework set will be made available on Friday by 5 P.M., and will be due the following Friday by 5 P.M.

- You will be able to access online assignments on Blackboard. They are in the “eBook and Homework” tab on the left side of the screen. The first time you take an assignment you will be required to log onto your MasteringChemistry account. After doing so, your account will be linked to SSU’s BlackBoard site, and you will not have to log in separately.
- The inclusive-access course-fee provides you with access to the textbook and an account with MasteringChemistry at a significant cost savings. The access-code for MasteringChemistry (for students who do not opt out of the inclusive-access plan) can be obtained by going to the “Course Materials” course area on Blackboard, followed by clicking the “Reveal access code” link which should give you the required access code.

HOMEWORK

Problem solving is an *essential* part of your study of chemistry. As you study, you should be working problems from your textbook on each topic. It is strongly suggested that you work the following problems which will serve as a guide for material for quizzes and exams. The answers and worked-out solutions are available to you in the solutions manual for the even-numbered questions in the book. Answers to the even-numbered questions are found at the end of our textbook.

Chapter 1:	36, 44, 48, 56, 62, 68, 78, 88, 90
Chapter 2:	34, 40, 42, 46, 50, 58, 76
Chapter 3:	32, 40, 44, 48, 60, 64, 66, 68, 72, 74, 75, 80, 84
Chapter 4:	26, 32, 36, 48, 50, 52, 62, 66, 72, 74, 76, 82, 84, 94
Chapter 5:	18, 24, 28, 30, 34, 40, 44, 62
Chapter 6:	20, 30, 32, 34, 38, 42, 64
Chapter 7:	26a, 27a, 30a–b, 42, 46, 50, 60a, 60c, 62, 64, 66
Chapter 8:	26, 32, 34, 40, 42, 44, 48, 50, 52, 54, 58, 62, 64, 82, 86, 92
Chapter 9:	28, 36, 38, 42, 46, 56, 58, 60, 68, 76, 80, 80, 84
Chapter 10:	40, 44, 48, 50, 54, 56, 58, 66, 76
Chapter 11:	46, 48, 54, 58, 78

DISABILITIES

Any student who believes they may need an accommodation based on a documented disability should first contact the Coordinator of Accessibility Services at 740-351-3608, or SSUAccessibility@shawnee.edu (Hatcher Hall, 1001 4th Street) and schedule a meeting to identify potential reasonable accommodation(s). Students are strongly encouraged to initiate the accommodation process in the early part of the semester or as soon as the need is recognized.

The Office of Accessibility Services will gather relevant information and determine whether an accommodation is warranted. When an accommodation is determined to be warranted, an accommodation letter will be sent to the instructor(s) and student via secure e-mail prior to the semester start date, when possible, or as soon as is feasible.

The Office of Accessibility Services will not disclose the nature of any disability with instructor(s); if the student wishes to discuss the disability with one or more instructors, they may do so.

Any questions regarding the academic accommodation on the letter should be addressed to the Coordinator of Accessibility Services. If a student does not make a timely request for academic accommodation and/or fails to meet with the Coordinator of Accessibility Services, a reasonable accommodation may be denied or delayed.

RELIGIOUS ACCOMMODATIONS:

As an essential part of a liberal society, an individual should have the freedom to believe or not in a religion or spiritual belief system. Under the Ohio Revised Code section 3345.024, also known as “The Testing Your Faith Act,” a student may be absent for up to three days per semester to “take holidays for reasons of faith or religious or spiritual belief system or participate in organized activities conducted under the auspices of a religious denomination, church, or other religious or spiritual organization.” Pursuant to University Policy 2.21 and Procedure 2.21:1, students are required to notify faculty of their various classes about necessary absences as early as possible after the commencement of a course, and not more than fourteen (14) calendar days after the first day of instruction in the course. Faculty will make accommodations without questioning the sincerity of the student’s religious or spiritual belief system and will keep all requests confidential. For additional information about this policy or procedure, please contact the Office of the Registrar at (740) 351-4734 or ssu_registrar@shawnee.edu. Complaints regarding this policy and procedure may be submitted by selecting “Religious Accommodation” online at www.shawnee.edu/complaint.

GENERAL EDUCATION PROGRAM

Chemistry 1121 counts towards the Natural Science component of the General Education Program (GEP) and addresses Scientific Reasoning.

WHO SHOULD TAKE THIS COURSE?

The typical audience for this course are: health-science, nursing, medical laboratory technology, and middle-childhood education majors. You may also be taking this course if you are interested in chemistry (yay!), are seeking to satisfy the natural sciences general education category, or curious about how things work.

LAB SCHEDULE

Week Beginning	Monday	Wednesday
January 8th	1	1
January 15th	<i>MLK Jr. Day</i>	2
January 22nd	2	3
January 29 th	4	4
February 5th	5	5
February 12th	6	6
February 19th	7	7
February 26th	<i>Spring Break</i>	
March 4th	8	8
March 11th	9	9
March 18th	10	10
March 25th	11	11
April 1st	12	12
April 8th	13	13
April 15th	14	14

LABORATORIES

1. TECH 380—Safety practices in the chemistry laboratory (handout)
2. REAC 399—Detecting signs of chemical change
3. PROP 602—Determining density
4. PROP 375—Separating the components of a ternary mixture
5. REAC 480—A sequence of chemical reactions: transforming copper
6. STRC 631—Visualizing chemical structures using Lewis models
7. Handout—9 Bottles: An adventure in chemical detection!
8. REAC 390—Double replacement reactions
9. STOI 388—The empirical formula of an oxide
10. PROP 615—Studying some aspects of solubility
11. Handout—Malic acid titration of apple juice
12. Handout—Determining the ideal gas constant, R
13. EQU 616—Introducing chemical equilibrium
14. EQU 411—Estimating the pH of household products & CHECKOUT

LABORATORY INFORMATION

Safety goggles or visorgogs are required to be worn for all laboratories. They must meet ANSI Z87 requirements (normally this information is permanently stamped on the goggles). Laboratory coats are recommended, but not required.

Full length pants or full-length skirts are required to be worn in lab. Shoes that cover all parts of your feet are also required.

If you are improperly dressed for lab, you will be asked to leave and awarded a zero for the lab assignment.

You must remain in lab with your lab partner until the lab report is turned in. If you leave lab early you will be counted as absent and will receive a zero.

Lab reports must be turned in *at the end* of each lab. Late lab reports will not be accepted. Turned in lab reports must have your full name and your lab partner's full name clearly written on the front page to receive a grade.

Professor Slater Bakenhaster will be teaching the **Monday laboratory** part of the course. His contact information is:

Telephone: (740) 351-3895 or (740) 351-3456

email: sbakenhaster@shawnee.edu

Office: Massie Hall, room 403

IS CHEMISTRY HARD?

Yes. But not impossible. Consider setting aside several hours a week to practice end-of-chapter homework problems, forming a study group, re-reading your MasteringChemistry assignments, reading the textbook, and quizzing yourself. Reviewing old material every few weeks has been shown to dramatically improve retention of material in college!

DO I HAVE TO ATTEND EVERY LECTURE?

Not attending lecture tends to correlate with doing poorly in chemistry. Do not get into the habit of missing class if you can possibly avoid it.

At mid-term I will be reporting your expected grade and attendance to the Registrar. This information will be provided to your academic advisor(s), as well as student support services.

WHAT SHOULD I DO IF I NEED HELP?

If you need help—don't wait too long before you seek it out! The following is a partial list of options that are available to you:

- Student success center tutoring. Stop by the success center and sign up for a tutor!
- Browse my course website for objectives, old exams, lecture notes, quizzes, etc.
- YouTube. Amazing selection of videos on any topic you can think about. The Khan Academy videos are an excellent place to start.
- Office hours. Stop by if you have any questions about the course!

ELECTRONIC DEVICE POLICY

Cell phones (and other similar electronic devices, such as laptop computers, netbooks, iPads, iPods, smart watches, etc.) are not permitted to be used during exams and lab.

DISCLAIMER

ALL DATES AND POLICIES ARE SUBJECT TO CHANGE AS ANNOUNCED IN CLASS.



Cation
cat•i•on

Pronunciation: [kat-ahy-uh n, -on]

-noun, Chemistry

1. An ion with a paws-itive charge.
2. The cutest ion ever.