

Chemistry 105 Syllabus

Summer 2017

Professor: Dr. Jim Lawrence

Office: Science D142

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Office Hours: You can drop by my office anytime. I love to talk science with students.
(I reserve the right to be busy, but I will almost always make time to talk)

Times:

Lecture: MTWR 9:00-10:15 Room: Science A109

Discussion: T R 10:30-11:45 Room: Science A109

Lab: M W 10:30-13:15 Room: Science B140

Required Material:

Textbook: Gilbert, Kirss and Foster; Chemistry An atoms-focused approach. Available at text rental.

Lab Manual: Available for purchase at Text Rental.

Calculator: A scientific calculator with scientific notation will be virtually indispensable for this course.

D2L: Exam and lab scores will be available for viewing on D2L throughout the summer.

Course Description:

CHEM 105. Fundamental Chemistry. 5 cr. (Two semester basic course) Fundamental principles and theories of chemistry, including stoichiometry, atomic and molecular structure and bonding, nuclear chemistry, thermodynamics, descriptive chemistry of nonmetals and transition metals, chemical kinetics and equilibria, introduction to organic chemistry. 3 hrs lec, 1 hr disc, 3 hrs lab per wk. Prereq: Math 90 or placement in 100 or above. (See notes 1,3,4,5.) (I, II) GDR:NS

Attendance:

Attendance may be taken periodically and extended absences will be reported to the Dean of Students. Attendance, in itself, will have no direct effect on your grade, but it is almost guaranteed that you can not perform adequately on the exams and problem sets if you do not attend lectures and discussion sections. You, the student needs to take an active role in your education. That is impossible to do unless you routinely attend all lecture, discussion and lab sessions. Students are responsible for all missed material. It is allowable and encouraged to get class notes from other classmates if you miss a lecture.

Class Notes

I will not be making my class notes available to students. This is not as sinister as it sounds. I'm doing it for two simple reasons:

1. I believe that students think about and retain knowledge better if they write it down themselves versus simply reading it.
2. I want everyone to show up for lecture every day.

Academic Morality

Your career as a student is closely linked to your participation. Simply put, the more you put into your studies, the more you will get out of your education. This is as true for school as it is for life. However, in spite of this, some students feel the need to resort to cheating, plagiarism and other academic misconduct. I will do everything I possibly can to prevent this type of behavior. I reserve the right to assign seats, video tape and/or photograph test sessions. I am also likely to use multiple test versions to ensure academic honesty. There will be absolutely no cell phones, cameras or other electronic devices, except for calculators, allowed in any test sessions.

Below is the UWSP Academic Misconduct policy

UWSP 14.03 ACADEMIC MISCONDUCT SUBJECT TO DISCIPLINARY ACTION.

Academic misconduct is an act in which a student:

1. Seeks to claim credit for the work or efforts of another without authorization or citation;
 2. Uses unauthorized materials or fabricated data in any academic exercise;
 3. Forges or falsifies academic documents or records;
 4. Intentionally impedes or damages the academic work of others;
 5. Engages in conduct aimed at making false representation of a student's academic performance; or
 6. Assists other students in any of these acts.
- Examples of academic misconduct include, but are not limited to: cheating on an examination; collaborating with others in work to be presented, contrary to the stated rules of the course; submitting a paper or assignment as one's own work when a part or all of the paper or assignment is the work of another; submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas; stealing examinations or course materials; submitting, if contrary to the rules of a course, work previously presented in another course; tampering with the laboratory experiment or computer program of another student; knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.

The penalty for any academic misconduct is an F for the course grade.

Lecture schedule

Week of:	Material Covered			
	Mon	Tues	Wed	Thursday
May 29	☺ No Class ☹	Chapter 1	Chapter 1	Chapter 2
June 5	Chapter 2	Chapter 3	Chapter 3	Chapter 3
June 12	Chapter 3	Exam # 1	Chapter 4	Chapter 4
June 19	Chapter 4	Chapter 5	Chapter 5	Chapter 5
June 26	Chapter 5	Chapter 6	Chapter 6	Exam # 2
July 3	Chapter 7	☺ No Class ☹	Chapter 7	Chapter 7
July 10	Chapter 8	Chapter 8	Chapter 8	Exam # 3
July 17	Chapter 9	Chapter 9	Final Exam	☺ No Class ☹

We will cover a large amount of material in a short period of time this summer. As a result, we will have to work quickly. Some material will be covered in depth while other material may be given less attention. The actual pace of the lectures may deviate slightly from this schedule depending on several factors. It is my goal to move quickly, yet at a pace that allows everyone to grasp the material and not be constantly overwhelmed. I may have to slow down at some points throughout the semester to more thoroughly cover some material.

Some other very important dates:

Mon 6/5	week 2	Last day to drop a course so that course will not appear on student record
Fri 7/10	week 7	Last day to drop a course; W will appear on student record

Test Schedule

- Exam #1 = Chapters 1-3, Tuesday, June 13th
- Exam #2 = Chapters 4-6, Tuesday, June 29th
- Exam #3 = Chapters 7-9, Friday, July 13th
- Final Exam = Cumulative, Wednesday, July 19th 9:00 – 11:00 AM

Lab Schedule

We will be having 12 individual labs. If you can not attend a lab session as scheduled, you have to come see me the week before you miss the lab. If you do not come see me to reschedule your lab section, there is no opportunity to make up that lab. You will work with a lab partner during the semester's regular labs. Weekly labs are worth 10 points each.

Date:	Title
May 31	CHECK IN
June 5	MEASUREMENT AND SIGNIFICANT FIGURES
June 7	INTRODUCTION TO EQUIPMENT AND TECHNIQUES
June 12	DENSITY AND GRAPHING
June 14	LAW OF DEFINITE PROPORTIONS
June 19	WATER IN A HYDRATE
June 21	INTRODUCTION TO ABSORPTION SPECTROPHOTOMETRY
June 26	SPECTROPHOTOMETRIC DETERMINATION OF IRON
July 28	SEPARATION OF A MIXTURE
July 3	CHEMICAL REACTIVITY
July 5	LIMITING REACTANT
July 10	TITRATION OF VINEGAR
July 12	ENTHALPY BY SOLUTION CALORIMETRY
July 17	CHECK OUT

Grading Opportunities

- Exams = 100 Points each (100 X 3)
- Final = 200 Points
- Labs = 10 Points each (10 X 12)
 - 620 points total

I will not be grading on a curve. Grades will be given according to actual points earned divided by total possible points awarded during exams, problem sets and labs. I reserve the right to lower the percentages required to achieve each grade if class performance dictates such a correction. I will not raise the percentages under any circumstance. In no case will the adjustment result in requiring more than the averages listed below for any grade. There will be no extra credit, individual or group, awarded in this class.

A = 93% or greater **A⁻** = 90-92%
B⁺ = 88-89% **B** = 83-87% **B⁻** = 80-82%
C⁺ = 78-79% **C** = 73-77% **C⁻** = 70-72%
D⁺ = 68-69% **D** = 60-67%
F = Below 60%

Simple, Effective Ways to Increase Your Satisfaction and Success Throughout Your Academic Career.

1. Be comfortable socially with campus life.

- a. Do become active with the social aspects of UWSP
 - i. Live on campus, at least for a while
 - ii. Join a sports team, intramural team, organization or group on campus
 - iii. Make friends and spend time with them
 - iv. Form study groups
- b. People who don't get comfortable with their social surroundings seldom excel academically.

2. Show up for class every time

- a. This sounds easy, but, for most students, it is the most often broken rule to success. This is your life. You need to show up.
- b. There is no website, textbook or resource that is a substitute for being present at lectures, labs or discussion sections.
- c. You can't succeed anywhere in life if you choose not to show up. You might as well get used to it now and start forming good work habits.

3. Read the textbook BEFORE lecture

- a. You can read the textbook the night before the exam, but it's going to largely waste your time and frustrate you greatly.
- b. If you read the text before the lecture instead of after, you will have a much deeper and clearer understanding of the material. Also, it won't sound like I am simply blithering on and on. You'll actually GET what I'm saying instead of having to somehow sort it all out later by yourself
- c. Take notes on the text as you read. Note any material that is unclear to you and ask questions in class or come see me directly about it.

4. Talk to your professors

- a. Professors are not scary people. I am here to help you learn and will do just about anything to help you succeed. We are a team in every sense of the word. You can not succeed without me and you certainly cannot succeed without you. Use both you and me to the fullest extent possible.
- b. It is a fact that students who come to talk with their professors throughout the semester routinely out perform other students.

5. Do the work routinely

- a. The exams will be very similar to the homework (graded and ungraded) problems and questions. If you regularly read, work problems sets and do home work assignments you are very likely to find yourself performing well on exams.
 - i. Athletes, musicians, etc. don't just show up for a performance and expect to excel. That would be ridiculous. Instead they prepare daily, for months, even years, just to be ready for the opportunity to perform once.
 - ii. If you train as a student like an athlete or musician does, working a bit every day, you will enable yourself to perform at the highest possible level on exam day.