

CHEMISTRY 109

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Office Hours: Posted on Office Door

The best way to get in touch with me is via email. Emails must be in the following format:

- Email subject line - Must state the class (Chem 109 online) followed by one of the following categories: grading, attendance, miscellaneous, appointment, blackboard, homework, etc.
- Salutation – Professor Skipworth
- Body of email – Brief statement/description of your question/request
- Closing – Your name and 800 #

Any email not received in this format will not be answered. Anything that can be answered by looking at your syllabus will receive the reply, “see syllabus”. I am available to help you. I check my email several times throughout weekdays. I will help you!!! I typically respond within 48 hours during weekdays. I may respond on the weekend but I don’t guarantee it. If you haven't heard from me in 2-3 days, e-mail again with **Chem 109 online** in the subject line. **Do not use “text talk” when sending emails.**

It is very important that students read the Professor’s documents, materials, and information carefully. Do NOT skip anything! Read every word.

All work in this course must be your work! Students who cheat and plagiarize will be given an F for the course.

Please, please, please feel free to ask me questions. I am here to help you!

Technology Requirements:

Technology is used in this course. I cannot answer your technology questions. The WKU IT Help Desk number is 270-745-7000. The Tech Support for Achieve online homework is via automated chat at <https://macmillan.force.com/macmillanlearning/s/chat-with-us>.

Study Time:

Please realize this course requires a large amount of study time. This course is a four credit hour course; therefore, it is more time demanding than a normal three credit hour course. You should read your lecture notes/PowerPoints and the book chapters corresponding to your lecture notes/PowerPoints. You should also watch all my videos. The documents or PowerPoints used in the videos are not available. Refer to the study tips listed later in the syllabus for a more detailed description on studying for the course.

Text Information: http://saylordotorg.github.io/text_the-basics-of-general-organic-and-biological-chemistry/index.html. This book is a free open education resource

Online Homework: Achieve – you do not need to purchase a code. This online homework system will be automatically added to your Blackboard site. See below for payment information. Achieve will cost approximately \$40 and will be billed to your student account.

Calculator:

A calculator with a scientific notation function is also required. You may NOT use a graphing calculator. I suggest using one of the following calculators:

Texas Instrument 30xs, 30XA , or 30xx IIs

Here is a math problem to complete on your calculator. Make sure you are getting the correct answer! I do not want you to get incorrect answers on an exam due to calculator issues. You may need to refer to your calculator’s instruction book for information on how to correctly key in this problem. Hint: Many calculators do not want you to actually push (x 10). There is typically a button on the calculator to use.

Scientific Notation

$$5.22 \times 10^{22} / 6.02 \times 10^{23} = 0.086$$

Lecture Notes and videos:

I have provided lecture notes/PowerPoints on blackboard. Make sure to use these lecture notes as you are studying for each chapter. I have also provided numerous videos discussing course content. Make sure to watch all my videos.

Practice Exercises:

Your book author provides practice exercises throughout each chapter. The answers to the odd numbered questions are provided. Completing these problems is an important part of the learning process.

Evaluation:

Exams – There will be six exams (including the final exam). A portion of the final exam will be comprehensive. Exams include a combination of multiple choice, completion, problem solving, and short answer/essay questions. Exams are worth 100 points. Due to the pandemic exams do not have to be taken at a testing center. You must have a secure internet connection as I will not reset exams. Exams can be taken early. This exam is set to be completed in one setting which means you cannot log back in at a later time to complete. It will show 1 question at a time with no backtracking to previous questions. You will have a time limit to complete the exam. The time limit will be given to you closer to the exam time and will be different for each exam. I have prepared a large pool of questions; therefore, students will not be receiving the same questions. You may not share questions and answers with each other. Questions will be randomized from a pool of questions. I expect you to be honest while taking the exam on your home computer. You are not allowed to take the exam in a group. You are not allowed to use internet resources when taking the exam. Cheating will not be tolerated and can result in the student receiving an F for the course. Questions will be randomized from a pool of questions. I have made a “cheat sheet” for you to use while taking exams. You can find the “cheat sheet” under the exam button on blackboard. Please look at the “cheat sheet” so you will know the items you will be given for each exam. You may also use a non-graphing calculator during the exam. You may not use your cell phone as a calculator at any time in the course. Exams will cover your book, lecture material/problems that I present (even if it is not in the book), videos I share, homework supplements, online homework assignments, and exam sample questions/study guide. Please check the calendar for test due dates.

Exam 1: Scientific Method, Chapters 1 and 2

Exam 2: Chapters 3, 4, and 11

Exam 3: Chapters 7, 5, 6, and 8

Exam 4: Chapters 9 and 10

Exam 5: Chapters 12, 13, 14, and 16

Exam 6: Chapter 18 and comprehensive information over all chapters

Do not share your answers or the questions with other students in the course. This type of sharing/getting answers is a form of cheating and will result in a student receiving an F for the course. Also, do not use the internet in order to obtain answers to exam questions. This action is a form of cheating and will result in a student receiving an F for the course.

Exam Cheat Sheet: I will provide an exam cheat sheet for you; therefore, you do not have to provide your own ☺. Please look at the cheat sheet under the exam button on blackboard. This cheat sheet should be printed for use during every exam. I suggest using it while you complete your homework so you get familiar with using it.

Note to students concerning exams: Statistics reveal there is not one exam more difficult than another. Many students will do great on exam 1; however, will struggle with exam 4 or vice versa. Please make sure to study hard for every exam!

Achieve Online Homework – Completing homework is crucial for your success in chemistry. Refer to the calendar for online homework assignment due dates.

Homework Supplements – There will be homework supplements for most chapters on Blackboard. Homework supplements are typically easier than online homework. They should be completed first followed by the online homework. The homework supplement answers are also on Blackboard. The homework supplements will not be graded.

Elements – Please know the names and element symbols of the first 18 elements on the periodic table. There will not be a quiz over the names and symbols; however, I will expect that you know them throughout the semester.

Videos: I have made videos associated with many (NOT ALL) topics covered. Please watch the videos. I would not take the time to make them if I didn't feel they are important. Please realize I am not a professional videographer; therefore, you may hear a phone ringing, etc. Please use the “disruptions” as comedy relief for you ☺. Some of the documents or PowerPoints used in the videos are not available. Please call the IT Help Desk 270-745-7000 if you have problems viewing these videos.

Grades: Grades will be assigned based on the percent total of points earned. The university grading scale will be used to assign grades (A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=59% and below). I will not curve final course grades. Your course grade will be the grade you earned throughout the semester.

Missed Assignments: Make up work is for EXCUSED absences only and will require proper documentation. Students must notify instructor within 24 hours of absence in order to be eligible to make up any work. Students are responsible for getting missed material from a classmate when absent from class.

E-Mail Addresses: All students are required to have an active e-mail account that is listed as their preferred e-mail address under TopNet. Class announcements, homework assignments, etc. may be distributed by this method.

Blackboard: Students should be able to use Blackboard. Class materials will be distributed by this method.

Student Learning Objectives:

- Students will gain problem solving skills to use throughout this course, other courses, and life.
- Students will be able to understand the scientific method.
- Students will be able to understand the concept of an atom and the importance of the periodic table
- Students will gain a basic understanding of organic and biological chemistry.
- Students will be able to realize the significance of chemistry in our society and in the health field.

Topics Covered:

- Matter and Measurement (Clinical Conversions and Temperature)
- Atoms and the Periodic Table
- Ionic and Covalent Compounds
- Energy and Matter
- Chemical Reactions
- Gases (Respiration, Partial Pressure)
- Solutions (Osmosis and Dialysis)
- Acids and Bases (Blood Buffers, Acidosis/Alkalosis)
- Nuclear Chemistry (Medical Isotopes, PET, CT, XRAY, etc.)
- Organic Chemistry (Saturated and Unsaturated Hydrocarbons, fatty acids, oral contraceptives, structure of medication, phenols - antioxidants)
- Organic Compounds Containing Oxygen, Halogen, and Sulfur
- Carboxylic Acids, Esters, Amines, Amides (antiseptics, anesthetics)
- Carbohydrates (starch, fiber, artificial sweeteners)
- Lipids
- Amino Acids, Proteins, and Enzymes (Disease diagnosis, vitamins)

Course Description:

Chem 109 is a course designed to emphasize the practical aspects on inorganic, organic and biochemistry as related to human health. The course is offered specifically for students in the allied health programs, but is also recommended for students in physical education, recreation, health and safety and other disciplines dealing with human health. It does not count toward a major or minor in chemistry, but does satisfy a general education requirement (Colonnade Category: E-NS and Former Gen Ed Category: D1. No laboratory accompanies this course.

University General Education Goal:

The course fulfills the E-NS Colonnade requirement and the D.1. (Science) former general education requirement. It will help you attain an understanding of the scientific method and will give you knowledge of a natural science and its relevance in our lives.

Through coursework, literature research, and other class activities Chemistry 109 helps to improve the quality of life of citizens by elucidating the steps of the scientific method and giving the opportunity to realize the significance of chemistry in the medical field and in our lives.

Academic Misconduct (Excerpt from the WKU Student Handbook):

The University expects students to operate with the highest standard of integrity in all facets of the collegiate experience. Broadly defined, academic misconduct is any unethical self-serving action in the performance of an academic activity, deliberate or unintentional, that affords a student an unfair, unearned, or undeserved advantage.

Any incident of cheating will result in the student being assigned an F for the course.

ADA Accommodation: In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu . Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

Title IX Discrimination and Harassment: Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070)

at <https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and

Discrimination and Harassment Policy (#0.2040)

at https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf. Under these policies, discrimination, harassment

and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121. Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are “Responsible Employees” of the University and MUST report what you share to WKU’s Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU’s [Counseling and Testing Center](#) at 270-745-3159.

Other syllabus information can be found at <http://www.wku.edu/syllabusinfo/>.

Instructor reserves the right to make changes to the syllabus at any time during the semester.

Study Tips

1. Read the chapter in the book.
 2. Read/review PowerPoint lecture notes. Watch videos associated with each section.
 3. Complete Homework Supplement.
 4. Complete online homework assignment.
 5. Possibly complete homework in book if you are still unsure of the material. Selected answers are at the end of each chapter. Practice examples throughout each chapter are also great questions to use for review. The answers to the odd numbered questions are given.
 6. Complete questions listed at end of PowerPoint lecture notes (if available) and exam sample questions/study guide.
 7. Review all information to get ready for the exam.
- Please study every day. Do not wait until the day before the exam to study.

Chem 109 Calendar

Refer to this calendar for all due dates. You may complete the online homework and exams early.

Week #			Assignment/Exam Due						
1	20-Jan	Thur	Online Homework, Chapter 1						
2	27-Jan	Thur	Online Homework, Chapter 2 and Email Instructor Assignment						
3	3-Feb	Thur	Exam 1 (Chapters 1 and 2)						
4	10-Feb	Thur	Online Homework, Chapters 3 and 4						
5	17-Feb	Thur	Online Homework, Chapter 11						
5	17-Feb	Thur	Exam 2 (Chapters 3, 4, and 11)						
6	24-Feb	Thur	Online Homework, Chapter 7						
7	3-Mar	Thur	Online Homework, Chapters 5 and 6						
8	10-Mar	Thur	Online Homework, Chapter 8						
8	10-Mar	Thur	Exam 3 (7, 5, 6, and 8) - Fall break..can take exam early						
9		Thur	Spring Break - No Assignments Due						
10	24-Mar	Thur	Online Homework, Chapter 9						
11	31-Mar	Thur	Online Homework, Chapter 10						
11	31-Mar	Thur	Exam 4 (Chapters 9 and 10)	Tuesday, April 5 - Last Day to Drop Class with W or Audit					
12	7-Apr	Thur	Online Homework, Chapters 12 and 13						
13	14-Apr	Thur	Online Homework, Chapters 14 and 16						
14	21-Apr	Thur	Exam 5 (Chapters 12, 13, 14, and 16)						
15	28-Apr	Thur	Online Homework, Chapter 18						
16	4-May	Wed	Final Exam (Chapter 18 and comprehensive over all chapters)						