



CHEM1243-180: General Chemistry 2  
McCoy College of Science, Mathematics & Engineering  
Fall 2019  
TR 5:00 – 6:20 pm BO312

### Contact Information

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### Course Description

Second semester general chemistry introduces students to solutions, chemical thermodynamics, equilibrium, electrochemistry, and kinetics. This is the foundational course for all upper level chemistry courses and many biology courses. Critical thinking and problem solving will be emphasized.

### Purpose of Syllabus

The purpose of the syllabus is to inform you of course expectations, policies, and content. Ignorance of course policies because you did not read your syllabus will not be an acceptable excuse for not adhering to these policies. Because the syllabus is also available online, you cannot lose it. By accepting this syllabus and remaining enrolled in the course, you affirm that you understand the contents of this syllabus and that you will adhere to its requirements.

### Textbook & Instructional Materials

*Chemistry: The Central Science*, 14th edition. Print (Pearson), Brown, LeMay, Bursten, Murphy, Woodward, and Stoltzfus (older editions will also work)

Scientific Calculator: **bring your calculator every day.**

Access to D2L: You will need to access homework and answer keys, online tutorials, and extra reading assignments.

An official ACS Study Guide for General Chemistry (full year; available from the ACS website; STRONGLY suggested)

### Study Hours and Tutoring Assistance

For every 1 hour in class, students should spend 3 hours studying, doing homework, and otherwise preparing for this course. Free tutoring will be available during the semester.

### Expectations and Goals

It is expected that you will try your best to understand the material; complete all quizzes, exams, and assignments; ask for help when you need it; and seek to understand **why** you are in this class (what purpose does it serve to you, your major, and your future?).

Chemistry tutors will be available throughout the semester to help you. Additionally, [Khan Academy](#) videos can be useful. It is further expected that you **remember** your first semester general chemistry because you will apply it in this class.

### Grading

Grades will be distributed as follows. There will be NO extra credit.

Table 1: Distribution of Grades.

Assignments	Percentage of Grade
Midterms (2 at 100 points each)	55
Quizzes (12 at 15 points each; lowest dropped)	20
Homework (points will vary)	5
ACS Full Year Final Exam	20
Total Percent	100

Table 2: Percentage Breakdown for Final Grades.

Grade	Percentage Range
A	89.5% and higher
B	79.5% to 89.4%
C	69.5% to 79.4%
D	59.5% to 69.4%
F	59.4% and lower

### Homework

Occasional homework assignments will be handed out during class throughout the semester. Homework assignments will be due as specified when the assignment is handed out. Homework is designed to help you to do better on quizzes and exams. Failure to do homework will hurt your grade. If you are struggling to do the homework, it is your responsibility to seek help from the instructor or the chemistry tutors.

Looking up the answers through Google searches is called CHEATING. Cheating will not help you pass the quizzes or the exams.

You are also strongly encouraged to do the problems at the end of the chapters. You will not learn the material if you do NOT do problems. If you are not motivated to do problems on your own because you want to know the answer, you are likely in the wrong major.

### Quizzes

Quizzes will be given every Thursday throughout the semester except for exam days and Thanksgiving. There will be NO make-ups for missed quizzes. Each quiz will be worth 15 points and there will be a total of 12 quizzes. The lowest quiz grade will be dropped (missed quizzes beyond the 1 drop will count against you). In total, quizzes carry the same weight in your grade as the ACS final—do you seriously want to fail 20% of the class by NOT preparing for the quizzes by studying and doing problems?

Quizzes will be physically handed out at the very beginning of the class period. If you come late, you will NOT be allowed to take the quiz. Quizzes may include problems from the book (practice problems and related questions) or new questions/problems not from the book and may involve memorization or problem-solving. Problems will be representative of what you may expect on the exams and as such, you should treat them as exams.

Disability students must take their quizzes under the same conditions as all other students.

## Exams

There will be 2 (**two**) midterms. Midterms will be written (not multiple-choice) and will not be cumulative. Midterms are designed to test problem-solving skills. These types of exams cannot be crammed for; you must study every day to do well and to finish the exams in the allotted time-frame.

Exam dates are listed on the Lecture Schedule and will not be moved. No make-up midterms will be offered. Students are not allowed to miss the final exam. Failure to take the final exam will result in an F in the course. All graduating seniors are required to take the final exam.

Students with a legitimate, excusable reason for missing a midterm will be given consideration. A substitute score based on the ACS final will be used to replace the zero received. **Excusable reasons** for missing an exam include: a) extreme and verifiable illness (you must provide doctor/hospital verification); b) accident or injury (must present verification); c) MSU sanctioned event (active participant and you must have provided documentation BEFORE the exam); and d) extreme family emergency (e.g., funeral the day of the exam; immediate family only). **Inexcusable reasons** for missing an exam include: a) scheduling doctor, dentist, therapy or other appointments for the day/time of the exam (possible exception: court dates); b) failure to show up (this includes sleeping through the exam); c) weather (if MSU is open, then you must be here); d) congested exam schedule or overlapping classes; e) failure to obtain babysitter or caregiver; and f) work schedule conflict. Students **MUST** notify me **PRIOR** to the start of the exam to receive consideration for an excused absence. Notifying me after the fact will result in an unexcused absence.

Absolutely no electronic devices of any kind may be used during exams. All exams are closed book and will be monitored for cheating. If you are caught doing anything suspicious, your exam will be taken away from you and you will receive an automatic zero for the exam. NOTE: using old notes and exams from other students to prepare for this class is considered cheating and is not allowed. Copying your notes or exams to give to others either in or out of this class is considered cheating and is not allowed. Working in small groups for the purposes of skewing exam scores is considered collusion and is not allowed.

## ACS Full Year Final Exam

All students will be required to take the ACS Full Year General Chemistry exit exam consisting of both FIRST and SECOND semester general chemistry. This is a national exam and you will be graded according to national norms. This is NOT a trivial exam. You **MUST** begin to prepare for the Final on the first day of the semester by setting up a review schedule that covers both first semester material and new material.

## Extra Credit

Absolutely **NO** extra credit will be offered for this course. You need to do the work assigned and do it well to do well in the course.

## Late Work

Absolutely **NO** late work will be accepted; this includes any homework or other assignments, quizzes, and exams.

### **Make Up Work/Tests**

Absolutely NO make-ups will be allowed for any assignment, quiz, or exam. Legitimate absences will be worked around (documentation must be provided), but not through a make-up process.

### **Important Dates**

Last day for term schedule changes: August 26 – 28, 2019.

Last Day to drop with a grade of "W:" 4:00pm on October 28, 2019

Refer to: [Drops, Withdrawals & Void](#)

### **Desire-to-Learn (D2L)**

Extensive use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into [D2L](#) through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

### **Attendance**

Students are expected to attend all meetings of the classes in which they are enrolled. Lecture attendance is thus required. Students with excessive absences may be instructor dropped from the course with an "F". Missing more than **3 classes** in a TR class is considered excessive.

Students are expected to always be ON TIME. Students are expected to have read all required materials before walking into class. If you need to leave class early, it must be for a good reason and you must tell me before class begins or you will be marked absent.

### **Instructor Class Policies**

Do not walk through the classroom or leave once class has begun (exception: sudden illness) and NEVER WALK IN FRONT OF ME ONCE I HAVE BEGUN TO LECTURE. Do not talk during lecture except to ask questions of the instructor. Do not engage in disruptive or disrespectful behavior. Do not play games on your electronic devices or play with your social media sites, do homework for other classes, read books or newspapers, sleep, listen to music, etc. during the lecture; pay attention to the lecture! Do not eat or drink in class unless you can do so quietly; no one needs to listen to crinkling food wrappers or worse, listen to you chew or slurp.

Turn off or silence (note: vibrate is not the same as silent) all cell phones, pagers, music players/headphones, and other electronic devices that make noise or have the potential to disrupt the class before you walk into the room. NO cell phones are permitted to be out and/or in my (or your) sight in this class. If your phone is out and/or in sight and/or you are caught using it and/or it goes off during lecture, you will be asked to put it away and you will lose 1% from your final lecture grade in the course for each violation. If you want to use your phone to record the lecture, it must be placed at the front of the room and out of your reach. No laptops/tablets are allowed PERIOD. You need to physically take notes to learn the material. ALL ear buds, blue-tooth buds, and headphones to phones and music devices must be turned OFF during class AND **REMOVED FROM YOUR HEAD** and put in your backpacks.

Disruptive students will be given one (1) verbal warning to improve their behavior. Second offenders will be asked to leave the classroom and will be referred to the Dean of Students. Abusive students will be dismissed from the class permanently.

## **University Teams and Organizations**

All members of in-season sports teams or other campus organizations who will be missing class because of university sanctioned events MUST present to me a written statement on university letterhead and signed by a university official indicating those dates that will be missed because of travel or participation in the university-sponsored event. Athletics documentation must be presented to me within the first 2 weeks of the beginning of the semester. Other documentation (such as for theater, etc.) must be presented to me at least one week prior to the time that will be missed. NOTE: if you KNOW you will be missing more than 3 classes during the semester, you MUST come talk with me the first week.

## **Services for Students with Disabilities**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. The instructor then needs to be notified by the student of the nature of these accommodations. This notification will take the form of an official letter obtained from DSS by the student and given to the instructor. Every effort should be made to provide me with this documentation within the first 2 weeks of the semester to avoid losing accommodations because you failed to provide proper notification in a timely manner. It is always the responsibility of the student to arrange accommodations with DSS. Students with disabilities must still take their exams on the same day as the rest of the class. For more details, please go to [Disability Support Services](#).

## **College Policies**

### **Campus Carry Rules/Policies**

Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus, effective August 1, 2016. Areas excluded from concealed carry are appropriately marked, in accordance with state law. For more information regarding campus carry, please refer to the University's [Campus Carry](#) homepage. If you have questions or concerns, please contact MSU Chief of Police Patrick Coggins at [patrick.coggins@mwsu.edu](mailto:patrick.coggins@mwsu.edu).

### **Smoking/Tobacco Policy**

College policy strictly prohibits the use of tobacco products in any building owned or operated by WATC. Adult students may smoke only in the outside designated-smoking areas at each location.

### **Alcohol and Drug Policy**

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly

enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

### University Code of Conduct

In general, students are to attend all meetings of all classes; instructors may drop students for excessive absences, indifference, disruptive behavior, or failure to complete class assignments; students are prohibited from cheating, plagiarizing, or colluding. Students are expected to have read the Student Handbook.

### Academic Dishonesty

Cheating, plagiarism, and collusion (as well as several other forms of conduct) are all strictly prohibited at MSU. Please read the MSU Student Handbook definitions of cheating, plagiarism, and collusion and MAKE SURE that you do not engage in any of these behaviors. If you are unclear on what may count as cheating, plagiarism, or collusion after reading the material below, please see the instructor or the Dean of Students.

The term "cheating" includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the university faculty or staff or another student.

The term "plagiarism" includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. Plagiarism also includes the use of someone else's thoughts, words, ideas, or lines of argument in your own work without appropriate documentation (a parenthetical citation at the end and a listing in "Works Cited") whether you use that material in a quote, paraphrase, or summary. It is a theft of intellectual property and will not be tolerated, whether intentional or not.

The term "collusion" means collaboration with another person in preparing **any** work offered for credit if that collaboration is not authorized by the faculty member in charge.

### Student Honor Creed

*"As an MSU Student, I pledge not to lie, cheat, steal, or help anyone else do so."*

"As students at MSU, we recognize that any great society must be composed of empowered, responsible citizens. We also recognize universities play an important role in helping mold these responsible citizens. We believe students themselves play an important part in developing responsible citizenship by maintaining a community where integrity and honorable character are the norm, not the exception. Thus, We, the Students of Midwestern State University, resolve to uphold the honor of the University by affirming our commitment to complete academic honesty. We resolve not only to be honest but also to hold our peers accountable for complete honesty in all university matters. We consider it dishonest to ask for, give, or receive help in examinations or quizzes, to use any unauthorized material in examinations, or to present, as one's own, work or ideas which

are not entirely one's own. We recognize that any instructor has the right to expect that all student work is honest, original work.

We accept and acknowledge that responsibility for lying, cheating, stealing, plagiarism, and other forms of academic dishonesty fundamentally rests within each individual student. We expect of ourselves academic integrity, personal professionalism, and ethical character. We appreciate steps taken by University officials to protect the honor of the University against any who would disgrace the MSU student body by violating the spirit of this creed."

Written and adopted by the 2002-2003 MSU Student Senate.

### Safe Zones Statement

The professor considers this classroom to be a place where you will be treated with respect as a human being regardless of gender, race, ethnicity, national origin, religious affiliation, sexual orientation, political beliefs, age, or ability. Additionally, diversity of thought is appreciated and encouraged, provided you can agree to disagree. It is the professor's expectation that ALL students consider the classroom a safe environment.

### Instructor Drops

According to the MSU Student Handbook, "An instructor may drop a student any time during the semester for excessive absences, for consistently failing to meet class assignments, for an indifferent attitude, or for disruptive conduct." For the purposes of this course, "consistently failing to meet class assignments" includes consistently not turning in assigned work or turning in work that consistently receives a failing grade.

### Intellectual Property

By enrolling in this course, the student expressly grants MSU a "limited right" in all intellectual property created by the student for the purpose of this course. The "limited right" shall include but shall not be limited to the right to reproduce the student's work product to verify originality and authenticity, and for educational purposes.

### Study Tips

It is **STRONGLY** recommended that you buy AND USE the ACS General Chemistry Study Guide. The study guide is for the full year, provides instruction on how to solve problems, and gives you sample ACS problems. You will see some of these problems on your quizzes.

Every day you should go home and go through your **notes**. Annotate them, expand them, mark what is difficult. Then, go to the book and review only the problem sections and add to your notes.

**DISSECT** the green box problems in the text to make sure you understand where the numbers come from and what they mean. Then, do the problems in the green boxes. Then, go to the end of the chapter and do some of those problems too. You CANNOT learn chemistry without doing a lot of problems.

**Study and review EVERY DAY.** You cannot be an A student without a lot of work. Do your **OWN work**. You can form study groups, etc., but do your own problems. Missing points tells you what you don't know; googling answers just shows you can cheat.

## Notice

Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

### Course Schedule

Week and Dates	Topic	Quizzes/Exams
Week 1 8/27 to 8/29	<b>Course Introduction</b> <b>Chapter 11:</b> Liquids and Intermolecular Forces	8/29: Quiz 1
Week 2 9/3 to 9/5	Chapter 11 continued <b>Chapter 12:</b> Solids and Modern Materials	9/5: Quiz 2
Week 3 9/10 to 9/12	Chapter 12 continued	9/12: Quiz 3
Week 4 9/17 to 9/19	<b>Chapter 13:</b> Properties and Solutions	9/19: Quiz 4
Week 5 9/24 to 9/26	Chapter 13 continued	<b>9/26: EXAM 1</b>
Week 6 10/1 to 10/3	<b>Chapter 14:</b> Chemical Kinetics	10/3: Quiz 5
Week 7 10/8 to 10/10	Chapter 14 continued <b>Chapter 15:</b> Chemical Equilibrium	10/10: Quiz 6
Week 8 10/15 to 10/17	Chapter 15 continued	10/17: Quiz 7
Week 9 10/22 to 10/24	<b>Chapter 16:</b> Acid-Base Equilibrium	10/24: Quiz 8
Week 10 10/29 to 10/31	Chapter 16 continued	<b>10/31: EXAM 2</b>
Week 11 11/5 to 11/7	<b>Chapter 17:</b> Additional Aspects of Aqueous Equilibria	11/7: Quiz 9
Week 12 11/12 to 11/14	Chapter 17 continued <b>Chapter 19:</b> Chemical Thermodynamics	11/14: Quiz 10
Week 13 11/19 to 11/21	Chapter 19 continued	11/21: Quiz 11
Week 14 11/26 to 11/28	<b>Chapter 20:</b> Electrochemistry <b>THANKSGIVING HOLIDAY</b>	11/28: No quiz
Week 15 12/3 to 12/5	Chapter 20 continued	12/5: Major Quiz
FINALS WEEK 12/10	<b>ACS FULL YEAR FINAL EXAM</b> Tuesday, 12/10/2019, 5:45-7:45pm	