

Course Syllabus: General Chemistry CHEM 1243 Spring 2023

Contact Information

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Course Description

CHEM 1243 is a second semester chemistry course to satisfy lab science requirements for BS majors and provide entry level information for students wishing to pursue other chemistry courses. The content covers basic chemistry concepts, calculations, and background for future courses such as organic, analytical, environmental, and biochemistry. This is a survey course and a continuation of CHEM 1143. Highlights and introductions to various specific and applied concepts will be covered in several areas relating to different aspects chemistry. This course covers intermolecular forces, phase chemistry, aqueous concepts and calculations, acid base, kinetics, thermochemistry, and nuclear chemistry.

Required Textbook & Instructional Materials Chemistry: <u>Chemistry 2e - OpenStax</u> free online access. OWL v2: mandatory homework platform

Study Hours and Tutoring Assistance Professors have office hours for the purpose of asking questions, working problems, and clarifying information – use this! Chemistry also offers free tutoring for lab and lecture classes. Person tutors can be obtained but for an hourly rate (please see office assistant for the current list). Study sessions for each test will be scheduled if time allows. PLEASE COME!

Youtube, chemreview, Khan Academy, and Quizlet are all very good options to look up videos, examples, demonstrations, extra problems, and practice problems.

Student Handbook

Refer to: Student Handbook-2018-19

Academic Misconduct Policy & Procedures

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). Specifics: ONE written warning will be given over similar work on regular assignments and quizzes. ZEROS will be given for any cheating after that assignment. If cheating is obvious, zeros will be given on that assignment and all succeeding assignments. Zeros given for cheating will NOT be part of assignments that are dropped. Phones out, same answers, cheating aids of any kind, and constant, staring eyes during exams will be automatic zeros for that exam. Additional guidelines on procedures in these matters may be found in the Office of Student Conduct. <u>Office of Student Conduct</u>

Grading

Grade distribution: Table 1:

Assignments	Percent
Exams	60
Homework/Quizzes/SI	21
Final Exam	19

Table 2: Total points for final grade.

Grade	Percent
А	89
В	79
С	69
D	59
F	Less than 59

Homework

Chapter OWL homework and all grades will be viewed in D2L. After more difficult chapters, some group work packets will be given. Much of the work will be done in class for those that work diligently, but enough time will not be given to complete packets. You must work with your group in some fashion to finish the assignment by the due date.

Quizzes

Quizzes will be given each week except exam weeks. These are not "pop" quizzes. Study for content, application and calculations related to the material

covered. All quizzes will be given in class to simulate a test environment and to test true knowledge and not Google research skills.

Exams

Exams will be given after every 2 – 3 chapters. You will need a nonprogrammable calculator OR one that can be cleared before each exam. No Inspires will be allowed for exams.

Final Exam

The exam is a comprehensive exam, nationally standardized exam through our accreditation agency, American Chemical Society. Study materials and a practice exam for \$15 online: <u>ACS Exams | ACS Division of Chemical Education</u> <u>Examinations Institute (uwm.edu)</u>

Extra Credit

There are occasions when extra credit may be offered for attendance to professional seminars sponsored by our department.

Late Work/Make Up Work

Quizzes can be made up until they are recorded in D2L, this is approximately 4 days – one week after quiz is given. (Two days for summer courses). It must be a school sponsored absence or an illness that results in a university excuse or doctor's note. There will be no extensions on the online homework assignments. Exams can only be made up with a university excuse.

Important Dates

Refer to: Drops, Withdrawals & Void

Desire-to-Learn (D2L)

Moderate 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. Although in general students are graded on intellectual effort and performance rather than attendance, absences will lower the student's grade because vital information is not gained. Excessive, non-university excused absences or missing TWO exams or THREE quizzes will result in an instructor drop. Missing this amount of material results in the inability to pass the course. The instructor must give the student a verbal or written warning prior to being dropped from the class.

Online Computer Requirements

Taking an online class requires you to have access to a computer (with Internet access) to complete and upload your assignments. It is your responsibility to have (or have access to) a working computer in this class. *Assignments and tests are due by the due date, and personal computer technical difficulties will not be considered reason for the instructor to allow students extra time to submit assignments, tests, or discussion postings.* Computers are available on campus in various areas of the buildings as well as the Academic Success Center. Your computer being down is not an excuse for missing a deadline. There are many places to access your class! Our online classes can be accessed from any computer in the world which is connected to the internet. Contact your instructor immediately upon having computer trouble If you have technical difficulties in the course, there is also a student helpdesk available to you. The college cannot work directly on student computers due to both liability and resource limitations however they are able to help you get connected to our online services. For help, log into D2L.

Services for Students with 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. For more details, please go to <u>Disability Support Services</u>.

College Policies

Campus Carry Rules/Policies Refer to: <u>Campus Carry Rules and Policies</u>

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 designatedsmoking 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 Universitysponsored activities.

Grade Appeal Process

Update as needed. Students who wish to appeal a grade should consult the Midwestern State University <u>Undergraduate Catalog</u>

Notice

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

Dates	Activities/Assignments/Exams
Jan 17 – Feb 9	Chapters 10, 11
Feb 14	EXAM 1
Feb 16 – Mar 7	Chapters 12, 13
Mar 9	EXAM 2
Mar 13 - 17	Spring Break
Mar 21 – Apr 4	Chapters 14, 15
Apr 6 - 7	Break
Apr 11	EXAM 3
Apr 13 -	Chapters 16, 17, parts of 21
May 2	EXAM 4
May 4	Final REVIEW
May 9	FINAL 8:00 AM

Table 3: Course Schedule

Below are the abbreviated topics of the chapters covered in second semester. These topics mainly expand on topics discussed first semester. Many of these chapters are the expanded mathematical concepts learned in chapters 4 and 5. If you need to review and read, these would be the chapters to review. I will periodically refer to these chapters so that you may look up topics if you need help getting started on the concepts.

Table 4: Second Semester Topics

Chapter	Topics
10	Intermolecular Forces Phase Diagram, Heating Curve
	Properties of Solids, Polymers
11	Properties of Solutions,
	Concentration Units, Colligative Properties
12	Kinetics, Rate Law k
13	Equilibrium, K
14	Acid Base Concepts, Strong and Weak Acids and Bases
15	Heterogeneous Equilibria, Buffers, Titrations
	Environmental Chemistry
16	Thermodynamics, 3 Laws, Free Energy
17	Electrochemistry
21	Selected Topics in Nuclear Chemistry