

Summer 2021
CHEM 105, Syllabus
FUNDAMENTALS OF GENERAL CHEMISTRY
Location: Web

Instructor: Bangbo Yan, Ph.D. Email: bangbo.yan@wku.edu
Office: Online through ZOOM Office hours: by appointment via ZOOM

Text

We will use a free textbook for CHEM 105.
Chemistry 2e,

Authors: Paul Flowers; Klaus Theopold; Richard Langley; Edward J. Neth;
William R. Robinsonby
Digital ISBN: 978-1-947172-61-6
Publisher: OpenStax
Price: Free
URL: <https://openstax.org/details/books/chemistry-2e>

Course Description

The first half of a one-year course predominantly for majors in agriculture and consumer and family sciences, and for non-science majors desiring a full year sequence in chemistry
This course does not count toward a major or a minor in chemistry
It fulfills part of Colonnade Exploration subcategory (Nature and Physical Sciences)

Course Objectives

Students will learn fundamental knowledge of chemistry including dimensional analysis, atomic theory, nomenclature, bonds, compounds, chemical reactions, chemical equations and acid/base,
Students will learn the scientific method (to make observations, collect data, interpret the data, and reach a scientific conclusion),
Students will develop problem-solving skills,
Students will develop critical and logical thinking skills.

Topics covered

- 1: Introduction
- 2: Standards for measurement
- 3: Elements and compounds
- 4: properties of matter
- 5: Early atomic theory and structure
- 6: Modern Atomic Theory & the Periodic Table
- 7: Chemical Bonds
- 8: Nomenclature of Inorganic compounds
- 9: Quantitative composition of compounds
- 10: Chemical equations

- 11: Calculations from Chemical Equations
- 12: The Gaseous State of Matter
- 13: Properties of Liquids
- 14: Solutions

Homework assignments

Homework assignments: will be assigned through Sampling Learning (please logon to Blackboard for more information), 14 assignments, 20 points/each.

Lecture videos

Lecture videos will be posted on Blackboard.

Grading

Exams

There will be three 80-minute exams and one two-hour final exam

Exam 1:	Jun. 7 (Monday)	100 points
Exam 2:	Jun. 14 (Monday)	100 points
Exam 3:	Jun. 21 (Monday)	100 points
Final (Comprehensive)	Jun. 25 (Friday)	200 points

Homework assignments

Homework assignments: 14 assignments, 20 points/each

Final grades (640pts=best 2 exams 200pts + best 12 assignments 240pts +final 200pts)

A	90-100 %	C	70-79 %	F	≤ 59 %
B	80-89 %	D	60-69 %		

Attendance

Attendance is mandatory. *Consistent and punctual attendance is expected and will be recorded at the beginning of each class.* All absences should be properly documented (such as doctor's notes; Emails or text messages are not acceptable). If you are planning to miss a class, you should notify me before that class. If you have a medical emergency, you must provide the document in the following class meeting.

Make-ups

You must be present and on time for exams. In order to be eligible to take a Makeup Exam, the student **must notify** the instructor in writing (or email) in advance if she/he is missing a test. Failure to make arrangements during the specified time, or to appear for the Makeup Exam at the agreed upon time, will result in the student forfeiting the right for a makeup.

Blackboard (<https://blackboard.wku.edu/>)

The following course materials will be placed on Blackboard:

- a) syllabus,
- b) course calendars
- c) lecture videos
- d) links to homework assignments and exams
- e) exercises

Academic Dishonesty

Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Student Accessibility Resource Center located in Downing Student Union, room 1074 of the Student Success Center. The phone number is 270.745.5004, or email at sarc.connect@wku.edu. Please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from The Student Accessibility Resource Center

Title IX Misconduct/Assault Statement

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.

Although I will make every effort to follow this syllabus exactly, I reserve the right to make changes as I deem necessary throughout the course