



LOYOLA UNIVERSITY CHICAGO

Preparing people to lead extraordinary lives

**CHEM 102 – 002: GENERAL CHEMISTRY B Lec/Disc
SUMMER SESSION II_2022
Loyola University Chicago**

Instructor: Dr. Angela Mahaffey

Phone: (773) 508-2902 (Office)

Email: amahaf1@luc.edu

Office Hours: (Virtual) **Wednesdays 4-5pm - by appointment.**

Class Meeting Location and Times:

Zoom/Panopto (Registered Students ONLY); M/W/F 1045a - 135p (July 5 – August 12).

Prerequisites: CHEM 101 or 105. MATH 118 or equivalent.

Co-requisite: Update: CHEM 112 and CHEM 102 are “*all or nothing*” courses. As such, per the LUC Dept. of Chemistry and Biochemistry, “*You cannot drop 102 and stay in 112.*”

Course Description (LOCUS):

This non-majors course further develops principles from CHEM 101 & requires in-depth integration of concepts. Multiple perspectives of matter will be used to describe/explain characteristics, properties, & relationships across the following topics: liquids & solids, solutions, reaction kinetics, equilibria, acids & bases, reaction thermodynamics, electrochemical reactions.

Outcome:

Students will deepen their understanding of foundational concepts of chemistry and advance their skills in scientific problem solving, critical thinking and synthesis of concepts.

Required Textbook and Online Source:

(1) T.L. Brown et al. (2018). *Chemistry: The Central Science (with MasteringChemistry)*, 14th ed.

(2) **Mastering Chemistry* site will be used for Homework assignments and Exams.

REGISTER AT: <https://mlm.pearson.com/enrollment/mahaffey41562>

COURSE ID: mahaffey41562

(3) CHEM 102: General Chemistry B (Summer) Discussion Sheets to be provided in class.

Attendance, Discussion Participation, Homework (HW) and Exam Policies:

- Lecture/Discussion attendance is **Mandatory** for this General Chemistry B course.
- Participation in Discussion and completion of Discussion worksheets is also a requirement.
- No Discussion worksheets will be assigned on “Exam Days”.
- HW assignments are administered via Mastering Chemistry and is **due no later than 8/10, 1159pm.**
- Exams will cover previously detailed lecture materials. **There is a NO CHEATING policy (see *Academic Integrity* clause). No sharing of Exam contents/nor screenshots.**
- Each student must complete his/her own Discussion Sheet and Exam. Violation of either will result in automatic loss of ALL possible Discussion points and Exam points.

Academic Honesty (“Integrity”) and Student Code of Conduct:

Plagiarism on the part of a student in academic work or dishonest examination behavior will result minimally in the instructor assigning the grade of "F" for the assignment or examination. In addition, all instances of academic dishonesty must be reported to the chairperson of the department involved.

[...]Academic cheating is another serious act that violates academic integrity. Obtaining, distributing, or communicating examination materials prior to the scheduled examination without the consent of the teacher; providing information to or obtaining information from another student during the examination; attempting to change answers after the examination has been submitted; and falsifying medical or other documents to petition for excused absences all are violations of the integrity and honesty standards of the examination process: https://www.luc.edu/academics/catalog/undergrad/reg_academicintegrity.shtml

Community Standards/Student Code of Conduct: We want to underscore that Loyola’s Student Code of Conduct applies equally in face-to-face, online, and community-based instructional spaces. For the complete document, see <https://www.luc.edu/osccr/communitystandards/>

Harassment/Bias Reporting

It is unacceptable and a violation of university policy to harass, discriminate against or abuse any person because of his or her race, color, national origin, gender, sexual orientation, disability, religion, age or any other characteristic protected by applicable law. Such behavior threatens to destroy the environment of tolerance and mutual respect that must prevail for this university to fulfill its educational and health care mission. For this reason, every incident of harassment, discrimination or abuse undermines the aspirations and attacks the ideals of our community. The university qualifies these incidents as incidents of bias. (<http://www.luc.edu/hr/biasreporting.shtml>)

Student Accessibility Center

If you require special accommodations for testing procedures, please obtain a completed SAC form from Student Accessibility Center (6339 N. Sheridan Rd., Chicago, IL 60660 · 773.508.3700 (ph) and provide to Instructor prior to Exam 1. It is the student’s responsibility to make proper accommodations date/time/location arrangements with SAC Testing Center. <https://www.luc.edu/sac/registerwithsac/>

Tutoring Services

Loyola University Chicago’s Center for Tutoring and Academic Excellence Offers Tutoring Services, details can be found here: <http://luc.edu/tutoring/> *Additionally, during the Spring and Fall Semesters LUC’s ACS (American Chemical Society) chapter offers tutoring in Flanner Hall (Rm 129) Time and Dates TBD (see Chemistry Office Personnel for updates).

Course Grade & Points Distribution

Discussion (D.S.)/ Attendance	+0.5pts. Extra Credit per D.S. (Due FRIDAYS in Sakai)
MASTERING CHEMISTRY (Homework)	Best 5 of 7 (10pts each) = 50pts (10%)
EXAMS	3 x 100pts (60%)
FINAL EXAM	150pts (30%)
TOTAL	500 pts

Percentage of Points	Letter Grade
≥ 90%	A
89 – 88%	A-
87 – 85%	B+
84 – 80%	B
79 – 77%	B-
76 – 74%	C+
73 – 69%	C
68 – 66%	C-
65 – 63%	D+
62 – 58%	D
57 - below	F

Tentative Lecture/Discussion Schedule and Assignments Dates

(See Sakai CALENDAR)

WEEK 1	July 6,8	<p><i>*Topics Review (recommended background Readings): Chapters 11-13</i></p> <p>Chp. 14: Chemical Kinetics, Chp. 15: Chemical Equilibrium</p> <p><i>*Sakai Discussion Sheets (D.S.) #1-2 (Due Friday, July 8 - 1155p)</i></p> <p><i>*M.C. Homework (Chp. 14)</i> <i>(*All HW due 8/10 by 1159pm.)</i></p>
WEEK 2	July 11,13,15	<p>Chp. 15: Chemical Equilibrium, Chp. 16: Acid-Base Equilibria</p> <p><i>* Sakai D.S. #3-4 (Due Friday, July 15 - 1155p)</i></p> <p><i>*M.C. Homework (Chp. 15)</i> <i>*M.C. Homework (Chp. 16)</i></p> <p>EXAM #1 (M.C.) open 1045a-1205p (7/15, FRIDAY) – Chapters 14-16</p>
WEEK 3	July 18,20,22	<p>Chp.17: Additional Aspects of Aqueous Equilibria, Chp. 18: Chemistry of the Environment</p> <p><i>*Sakai D.S. #5-6 (Due Friday, July 22 - 1155p)</i></p> <p><i>*M.C. Homework (Chp. 17)</i></p>
WEEK 4	July 25, 27,29	<p>Chp. 19: Chemical Thermodynamics, Chp. 20: Electrochemistry,</p> <p><i>*Sakai D.S. #7 (Due Friday, July 29 - 1155p)</i></p> <p><i>*M.C. Homework (Chp. 19)</i></p> <p>EXAM #2 (M.C.) open 1045a - 1205p (7/29, FRIDAY) – Chapters 17-19</p>
WEEK 5	August 1,3,5	<p>Chp. 22: Chemistry of Nonmetals,</p> <p><i>*Sakai D.S. #8 (Due Friday, August 5 - 1155p)</i></p> <p><i>*M.C. Homework (Chp. 20)</i> <i>*M.C. Homework (Chp. 22)</i></p> <p>EXAM #3 (M.C.) open 1045a - 1205p (8/5, FRIDAY) – Chapters 20 and 22</p>
WEEK 6	August 8,10,12	<p>Chp. 23: Transition Metals and Coordination Chemistry</p> <p><i>*Sakai D.S. #9 (Due Friday, August 12 - 1155p)</i></p> <p>REVIEW</p> <p><i>*DEADLINE for All M.C. HW Assignments - 8/10 by 1159pm</i></p> <p>FINAL (PARTS A-B) [COMPLETE BOTH FOR FULL CREDIT] (M.C.) (FRIDAY, 8/12, Time: 1045a – 135p) – CUMULATIVE (Chapters 14-20,22-23)</p>

Smart Evaluation (Eval) Objectives:

At the end of the Summer Session II semester, you will receive an email with a link for the electronic course evaluation noting the Smart Eval objectives for this course.

It is in the best interest of the student to:

- Take “good” (useful) Lecture Notes.
- Read/Review course material prior to lectures and exams.
- Complete Discussion worksheets by due date – **NO EXCEPTIONS.**
- Meet during Office Hours if more explanation of lecture/exam/ discussion materials is needed.
- Complete Mastering Chemistry (online) Homework Assignments.
- Review Key Equations and Terms (suggestion: create personal study guides).