

Syllabus – General Chemistry A

The purpose of this syllabus is to describe the course, resources, and policies. It is meant help all students understand the expectations and requirements for the course, and it should be used as a reference for questions about policies. When updates to the syllabus are made during the term, a new version will be posted electronically, and all students will be notified.

Course Information

Course: Chemistry 101 – General Chemistry A (3 credits: Lecture & Discussion)

Prerequisites: A satisfactory performance on the Loyola math diagnostic test, completion of Math 117 with a grade of C- or better, or the equivalent. A student missing a prerequisite may be withdrawn at any time.

Time Zone: This syllabus lists dates/times using Chicago local time (U.S. Central Time Zone)

Lectures: 4:15-5:30 pm Flanner Auditorium

Discussions: You must attend the section for which you registered:

T 5:45 pm Flanner Auditorium

W 12:30pm Flanner 105

Course Coordinator: Dr. Patrick L. Daubenmire (pdauben@luc.edu)

Chemistry 101 is a multi-section lecture & discussion course with common content and common outcomes across all sections. This course includes a Final Exam during the Common Final Exam Period as scheduled by the University. The Course Coordinator is responsible for consultation and coordination with instructors regarding policies, exam writing, and grading. Your Section Instructor is responsible for communicating with you regarding all course content and policies and is the first and primary person you should contact with questions about all aspects of the course. As needed, all Section Instructors will consult with the Course Coordinator throughout the semester.

Section Instructor: Dr. Conrad A Naleway

Instructor Contact Information

Office: Flanner Hall-200C

Email: cnalewa@luc.edu

Office Hours Policy: There will be weekly office hours in-person and on-line plus additional review session prior to each exam.

Office Hours Schedule. In-person FH129 (Conference Room) Wednesdays 11:00-12:00am and Zoom Evening Office: 7:00 pm Wednesdays

Student Instructor: Sufia Khan

There are Supplemental Instruction (SI) study sessions available for this course. SI sessions are led by an SI leader (Sufia Khan), who is a student that has recently excelled in this course. Session attendance is open to all, and while it is voluntary, it is extremely beneficial for those who attend weekly. Times and locations for the SI session can be found here: www.luc.edu/tutoring. Students who attend these interactive sessions find themselves working with peers as they compare notes, demonstrate and discuss pertinent problems and concepts, and share study and test-taking strategies. Research shows students whom regularly attend sessions have higher grades at the end-of-the-semester and more deeply understand course concepts than those who do not. Students are asked to arrive with their Loyola ID number, lecture notes, and textbook.

Required Course Materials

- Textbook: **Chemistry The Central Science, Brown et. al., 14th edition**; eText or hard copy
- Loyola email, Sakai (and integrated tools), Zoom, Gradescope & additional software & online resources.
- You will need to purchase the **MasteringChemistry access code**,
MasteringChemistry ID= **naleway17560**
- Scientific Calculator (non-programmable, non-graphing, and independent of another device such as a phone or tablet)
- Additional web-based systems will be used for uploading your work and facilitating feedback and evaluation. Registration will be free but required. These may include Gradescope and other sites

Copyright/Intellectual Property reminder: Course materials provided by your instructors at Loyola, including my materials, may not be shared outside any course without the instructor's **written permission**. Content posted without permission will be in violation of Copyright/Intellectual Property laws.

Course Content & Learning Outcomes

This course is the first in a 2-term sequence of general chemistry. We will focus on building a conceptual understanding of fundamental chemical principles including properties of atoms, molecules, states of matter, and chemical reactions. Students will learn the language of chemistry and develop their skills in scientific problem solving and critical thinking. This will serve as a foundation for further study in chemistry, other sciences and related disciplines.

You will learn to:

- Differentiate types of matter based on their chemical and physical properties (for example, pure substances vs. mixtures, metals vs. nonmetals, ionic vs. covalent vs. metallic, electrolyte vs. nonelectrolyte).
- Use multiple perspectives of matter (macroscopic, particle, symbolic levels) to qualitatively describe and explain characteristics, properties, and relationships of the following: atomic structure, nuclear chemistry, periodicity, molecular structure, chemical bonding, chemical reactions, thermochemistry, aqueous solutions, gases.
- Quantify relationships between variables controlling chemical systems.
- Solve quantitative multistep problems combining multiple concepts within the systems.
- Differentiate among closely related factors, categorize problem types, and select appropriate tools to solve these problems.
- Apply chemical principles to explain natural phenomena

Class Attendance & Course Coverage

- The primary information is presented in-class and also appears in lecture handout materials and on our website (www.conradnaleway.net/chem101.html)
- Please note that the text is a secondary source of information to help clarify concepts presented in lecture
- You will have the chance to introduce yourself to multiple classmates early in the course, this may be very valuable in later creating personal study groups.
- Our actual pace may vary from this schedule: if you miss a class for any reason, it is your responsibility to work through the content, and I also suggest you contact a classmate for further discussion of the topics as you are still responsible for all material covered and assigned.
- We will not cover every topic in every chapter of the textbook this semester.

- Focus first on the material that is directly covered in lecture and assigned or recommended. Explore the additional material in the textbook for your own interest and enrichment.

Student Accommodations

Loyola University provides reasonable accommodations for students with disabilities. Any student requesting accommodations related to a disability or other condition is required to register with Student Accessibility Center (SAC), located in Sullivan Center, Suite 117. Professors receive the accommodation notification from SAC via Accommodate. Students are encouraged to meet with their professor individually in order to discuss their accommodations. All information will remain confidential. Please note that in this class, software may be used to record class lectures in order to provide equal access to students with disabilities. Students approved for this accommodation use recordings for their personal study only and recordings may not be shared with other people or used in any way against the faculty member, other lecturers, or students whose classroom comments are recorded as part of the class activity. Recordings are deleted at the end of the semester. For more information about registering with SAC or questions about accommodations, please contact SAC at 773-508-3700 or SAC@luc.edu.

Course Repeat Rule

Students are allowed only THREE attempts to pass a particular chemistry course with a C- or better grade. The three attempts include withdrawals (W). The Department advises to complete a course with a grade of C or C-, and to demonstrate growth in future coursework, rather than to withdraw from a course.

After the second attempt, the student must secure approval for a third attempt. Students must come to the Chemistry Department, fill out a permission to register form or print it from the Department of Chemistry & Biochemistry website: <https://www.luc.edu/chemistry/forms/> and personally meet and obtain a signature from either the Undergraduate Program Director, Assistant Chairperson, or Chairperson in Chemistry. A copy of this form is then taken to your Academic Advisor in Sullivan to secure final permission for the attempt.

Academic Integrity

All students in this course are expected to have read and to abide by the demanding standard of personal honesty, drafted by the College of Arts & Sciences, which can be viewed at:

<https://www.luc.edu/cas/advising/academicintegritystatement/>

A basic mission of a university is to search for and to communicate the truth as it is honestly perceived. A genuine learning community cannot exist unless this demanding standard is a fundamental tenet of the intellectual life of the community. Students of Loyola University Chicago are expected to know, to respect, and to practice this standard of personal honesty. Academic dishonesty can take several forms, including, but not limited to cheating, plagiarism, copying another student's work, and submitting false documents.

Any instance of dishonesty (including those detailed on the website provided above or in this syllabus) will be reported to The Chair of The Department of Chemistry & Biochemistry who will decide what the next steps may be. Evidence of cheating in this course will result in, at a minimum, a score of zero (which cannot be dropped from grade calculations) and penalty up to failure of the course. College policies include that instructors will report incidents of academic misconduct to their chairperson as well as to the Assistant Dean for Student Academic Affairs in the CAS Dean's Office. I will report incidents to the Chemistry & Biochemistry Department for further action(s).

Loyola University Absence Policy for Students in Co-Curricular Activities (including ROTC):

Students missing classes while representing Loyola University Chicago in an official capacity (e.g., intercollegiate athletics, debate team, model government organization) shall be allowed by the faculty member of record to make up any assignments and to receive notes or other written information distributed in the missed classes.

Students should discuss with faculty the potential consequences of missing lectures and the ways in which they can be remedied. Students must provide their instructors with proper documentation i.e., "Athletic Competition & Travel Letter" describing the reason for and date of the absence. This documentation must be signed by an appropriate faculty or staff member and it must be provided to the professor in the first week of a semester. It is the responsibility of the student to make up any assignments. If the student misses an examination, the instructor is required to allow the student to take the examination at another time. (<https://www.luc.edu/athletheadvising/attendance.shtml>)

Students who will miss class for an academic competition or conference must provide proper documentation to their instructor as early in the semester as possible.

Accommodations for Religious Reasons

If you have observances of religious holidays that will cause you to miss class or otherwise effect your performance in the class you must alert the instructor **within 10 calendar days of the first class meeting of the semester** to request special accommodations, which will be handled on a case by case basis.

Other Items

- A link to the official Loyola calendar can be found here: <https://www.luc.edu/academics/schedules/>
- The Withdraw deadline for the semester is on Friday, November 4.
- Loyola is using SmartEvals to provide instructor & course feedback. OIE will send emails near the end of the term.

Class Recording & Content Information

In general lecture, class sessions may be recorded. The following is a mandatory statement for all courses in the College of Arts & Sciences (CAS). We will discuss class norms and standards during the first week and continue the discussion as needed throughout the semester.

Privacy Statement

Assuring privacy among faculty and students engaged in online and face-to-face instructional activities helps promote open and robust conversations and mitigates concerns that comments made within the context of the class will be shared beyond the classroom. As such, recordings of instructional activities occurring in online or face-to-face classes may be used solely for internal class purposes by the faculty member and students registered for the course, and only during the period in which the course is offered. Students will be informed of such recordings by a statement in the syllabus for the course in which they will be recorded. Instructors who wish to make subsequent use of recordings that include student activity may do so only with informed written consent of the students involved or if all student activity is removed from the recording. Recordings including student activity that have been initiated by the instructor may be retained by the instructor only for individual use.

Additional Content, Copyright & Intellectual Property Statement

By default, students may not share any course content outside the class without the informed written consent of the owner of that content. This includes any additional recordings posted by students, materials provided by the instructor, and publisher-provided materials. For example, lectures, quiz/exam questions, book figures/slides, and videos may not be shared online outside the class. In some cases, copyright/IP violations may overlap with breaches of academic integrity. Remember that obtaining consent to share materials is an active process.

Pass/Fail Conversion Deadlines and Audit Policy

A student may request to convert a course into or out of the "Pass/No-Pass" or "Audit" status only within the first two weeks of the semester. For the Fall 2022 semester, students are able to convert a class to "Pass/No-Pass" or "Audit" through Monday, September 12th. Students must submit a request for Pass/No-Pass or Audit to their Academic Advisor.

Health, Safety, and Well-Being On-Campus

Please be familiar with and adhere to all policies and protocols posted on the *Campus Info & Resources* site:

<https://www.luc.edu/healthsafetyandwellbeing/campusinforesources/>

Fall 2022 Classroom Masking Policy

We will begin with a conservative policy and require face masks to be worn in both lecture and discussion. This policy will likely be relaxed later in the term if there is no observed spread of covid, flu or any other illness. Instructor will not wear mask during formal lecture but will wear when in closer contact with students. Exception: you may be asked to lower your mask while asking questions during classes to better improve audio clarity.

Final Exam

The University sets the schedule for all final exams. The final will be held on:

Thursday December 15th, 7:00pm

Location will be updated on LOCUS when available.

You will have exactly 2 hours to complete the exam. Additional time will not be granted, even if you start late. There will be no make-up final exams given under any circumstance, and the exam will not be given early, either.

Instructors may not reschedule final exams for a class for another day and/or time during the final exam period. There can be no divergence from the posted schedule of dates for final exams. Individual students who have four (4) final examinations scheduled for the same date may request to have one of those exams rescheduled. If a student reports having four final examinations scheduled for the same date, students should be directed to e-mail a petition to Adam Patricoski, Assistant Dean for Student Academic Affairs, CAS Dean's Office (apatricoski@luc.edu).

Universal Absence Accommodation Policy

Students are strongly encouraged to attend all lectures as explained above. Attendance at Discussion periods though is required since your participation in the completion of group problem sets will determine the discussion segment of your grade. We believe that class attendance and participation are essential for your success in this class, but also that your health is important to us and our shared community. Please use good judgement and stay home if necessary/prudent for your circumstances.

A missed in-class exam due to absence for any reason is already accommodated in the course grading system. Given that only the best two in-class exams are included in this calculation, a missed exam would be the one not included in this calculation, as it would be the lowest score (0%) of the three exams.

Course Grading System

The standards for each letter grade are listed here according to all required course components. Each student will receive a midterm grade via LOCUS at least one week prior to the Withdraw

deadline for the semester. Grades are only based on the criteria listed in the syllabus: no substitutions, and no additions.

Grading Scheme

Homework	10% (MasteringChemistry & Handout Assignments.)
Discussion	15% (Completion of in-class Discussion Assignments during class)
Unit Exams	50% (Best two of three exam grades are recorded)
<u>Final Exam</u>	25% * Final exam is mandatory to earn a passing grade

Total score 100%

Letter Grade Cutoffs:

Grade	Percentage
A	93.0-100
A-	89.0-92.9
B+	85.0-88.9
B	81.0-84.9
B-	77.0-80.9
C+	73.0-76.9
C	69.0-72.9
C-	65.0-68.9
D	60.0-64.9
F	0-59.9

Units Exams: **Sept 22, Oct 27, and Nov 17**

Changes to Syllabus

There may be changes to the syllabus during the semester. ***You are responsible for all syllabus changes made in class whether or not you attend. These updates will also be shared on the Sakai course page.***

Course Topics & Initial Schedule (*attached as separate document*)