

CHEM 2311 Syllabus

Organic Chemistry I, Section TBA, 3 credits
Fall 2026

Instructor Information:

Instructor	Email
Dr. Kasey Leigh Yearty	TBA

Course Attributes:

STEM USG, Tech Elect CS, Engr, &Sciences

Restrictions:

Must be enrolled in at the following campus: Georgia Tech-Atlanta

Grade Basis:

LAP - Letter Grade, Audit, Pass

Pre-Requisites:

CHEM 1211K and 1212K (Principles of Chemistry I+II), Minimum Grades of D

GENERAL COURSE INFORMATION:

Description:

This is the first semester of a two-semester introduction to the foundations of organic chemistry. This course covers basic concepts in the chemical structure, reactivity and mechanism of alkanes, alkenes, alkynes, alkyl halides, alcohols, ethers and epoxides. We will also cover analytical methods such as FT-IR spectroscopy and NMR spectroscopy.

Course Learning Outcomes:

Upon successful completion of this course, you will be able to:

- Understand atomic hybridization, 3D geometry, and the stereochemistry of organic molecules
- Predict how an organic molecule will react based on its functional groups and structure
- Identify nucleophiles and electrophiles to predict reaction pathways and outcomes
- Apply knowledge of organic reactions to plan and execute multi-step syntheses of complex molecules
- Utilize Infrared (IR) Spectroscopy and NMR spectroscopy to elucidate and verify molecular structures.
- Transferable skills gained: Critical and analytical thinking, application-based problem solving, scientific communication, time management, organization, and teamwork

Required Course Materials:

- **Textbook and Corresponding Solutions Manual (required):** Organic Chemistry by David Klein - 5th Edition. The text is integrated with Canvas and must be purchased via Canvas (Wiley course resources tab).
- **WileyPlus (required):** You must purchase WileyPlus access to be able to complete assigned homeworks.

- **Model Kits (optional):** A model kit is strongly recommended for exploring the 3D structure of molecules and molecular orbitals. The 1003Alpha Organic Chemistry Basic Set by Maruzen is a good, reasonably priced option. While model kits may be shared for study purposes, kits (or models) may not be shared during exams.
- **ACS Exam Study Guide (optional):** Part of the final exam will include completing the Organic Chemistry standardized exam from the American Chemical Society. The American Chemical Society offers a study guide for the exam to support preparation. Study guides may be shared with other students as needed.
- **Additional Reading (optional):** "Organic Chemistry as a Second Language" from David Klein, Wiley. CHEM 2311 aligns best with the first semester book.

Topics Covered:

Topic Covered
Atomic and MO Lewis Structures
Alkanes and Alkyl Groups - Nomenclature
Identification of Functional Groups, Intermolecular Forces
Acids and Bases
Nucleophiles and Electrophiles
Conformational Alkanes & Cycloalkanes
Stereochemistry
Radical and Intro to Radical Reactions
S _N 1 and S _N 2
E1 and E2
Addition
Spectroscopy: IR and NMR
Epoxide/Ethers/Polymers
Multistep Synthesis

Course Interactions:

This is a fast-paced course that will require a number of hours of your time every day. A typical day in this course will include you reviewing course material before attending and participating in lecture, following up afterwards with homeworks and/or quizzes. Additionally, it is the norm to come to office hours or ask questions via email as needed. A pacing guide is provided within the CHEM 2311 subpage in case you need assistance breaking down the course material into more manageable chunks.

Grading Policy:

At the end of the semester, course grades will be assigned based on the following breakdown. At Georgia Tech, final course grades are awarded on a scale of A-F with no +/- grades permitted.

Letter Grade	Points	Percentage*
A	616+	88.00-100%
B	490-615	70.00-87.99%
C	420-489	60.00-69.99%
D	350-419	50.00-59.99%
E	<350 pts	<50.00%

*The percentage grade is indicative and based on possible points. The points shown in Column 2 must be achieved and guarantee to earn the corresponding letter grade. No "rounding" will occur. There is no curve for the course. Any percentages displayed on canvas have no meaning or relevance to the calculation of your grade.

Your grades will be posted on Canvas in a timely manner all throughout the semester. At any time, you can calculate your standing in the course at any time in the semester using the equation and information above. If you have any questions or concerns, please reach out to the Course Instructor. We are here to support you!

Students who meet certain qualifications will receive an exemption for the final exam. Please read the following breakdown carefully:

To qualify for the final exam exemption, both of the criteria outlined below must be met. Qualifying students will be notified formally via email after all Unit Exams, Quizzes, and Homeworks have been scored, but may also track their progress separately. Qualifying for the final exam exemption will result in the student earning an A in the course.

Exemption Criteria: (Must meet both)

- A) All Homework assignments must be submitted by the designated due date.
- B) Total Cumulative Points Earned Must be 450 pts or greater (out of 500) for the following assignments:
 - Unit Exam 1 (100)
 - Unit Exam 2 (100)
 - Unit Exam 3 (100)
 - Unit Exam 4 (100)
 - Quizzes (100)

*Students who qualify to be exempted from the final exam may still opt-in to taking the American Chemical Society portion of the final exam, along with their classmates, so that they may receive formal documentation of their performance on this assignment compared to nation-wide performance statistics. The ACS exam score will not be incorporated into the student's overall final score in the course score for students who have exempted from the final exam but still choose to take the ACS portion.

If you do not qualify for the final exam exemption, your final grade will be assigned a letter grade according to the following scale:

Score (out of 700): *The lowest Unit Exam will be dropped.

- Unit Exam 1 (100)
- Unit Exam 2 (100)
- Unit Exam 3 (100)
- Unit Exam 4 (100)
- Quizzes (100)
- Homework (100)
- Final Exam (200)

Regrade Policy:

Unless otherwise noted, you have three business days from the time that scores are returned for an assignment is handed back to submit a regrade request. Do not ask an instructor or TA to

provide their opinion on whether or not to submit a regrade request. This is your decision to make at your discretion within the specified timeframe. It is highly recommended to review your request to ensure that it is both professional and cordial. Remember that this is a regrade request, not a regrade demand. Any unprofessional, uncordial, or demand-focused requests will be promptly denied. All regrade requests must be received via the designated assignment platform and each request should be submitted individually. Late requests and requests received outside of the appropriate regrade platform will not be considered. Please note that since the entire assignment will be regraded by Dr. Yearty (not a TA), it is possible that your exam score may go down rather than up.

Description of Graded Components:

- **Unit Exams:** There are 4 units exams (Exam 1-4), which are administered in-person and on paper. Each exam is worth up to 100 points. The lowest score from the unit exams will be dropped. Thus, only the three highest unit exam grades count if the combined score does not qualify for exemption. Exam rules and guidelines will be posted on Canvas prior to each exam.
- **Quizzes:** There are 10 quizzes, each worth up to 10 points. The quizzes will be administered over a 24 hours period and submitted using Canvas. Together, the 10 quizzes count for 100 points of the total final grade. The quizzes are all pre-scheduled (see course schedule). Each quiz will be timed for 25 minutes and will include 5 multiple choice questions. There are two attempts possible, with the highest quiz score being kept. You may use your course textbook, solutions manual, notes, or resources accessed through the course Canvas page. However, any other living or non-living resources may not be utilized.
- **Homework:** Homeworks will be assigned and submitted through WileyPlus. There are 10 homework assignments, counting for 10 points each (5 questions x 2 pts each). Overall, homework assignments will count for 100 points of the total final grade. Students are encouraged to work together on homework. (Working together means that all participants participate in the process. The exchange of information and ideas has been found to support active learning.) For this reason, multiple attempts (5) are allowed. However, each student must submit their own online homework.
- **Final Exam:** The final exam counts for 200 points of the total final grade. It will be administered in-person and on-paper. The schedule is provided by the Institute and as a consequence, the final must be taken on the given date and at the given time (see course schedule). No exception will be made. The exam will be cumulative and its format is a combination of the ACS multiple choice questions (110 min) and instructor-made questions for 60 min. There is a possibility to exempt the final exam. Please review the Course Syllabus carefully for more details for exemption qualifications. Final exam rules and guidelines will be posted on Canvas prior to each exam.

ADDITIONAL COURSE POLICIES AND NOTICES:

Late Assignments:

The only valid reasons for missing an assignment are illness or Institute-approved circumstances. Please review carefully Georgia Tech's [expectations and restrictions related to attendance](#).

- **Unit Exams:** All unit exams are pre-scheduled and dates are available on the first day of class. Missed exams will receive a zero grade and automatically be the lowest dropped score unless prior arrangements and/or documented exceptional circumstances. There

are no make-up exams or remote options. Under **very rare** circumstances, an exception will be made to arrange makeup exams and must always be completed before exams are returned to the class. These rare exceptions will only be scheduled if the following criteria are met: (1) mutual prior arrangement and (2) documentation of exceptional circumstances (official notification must be presented and/or confirmed by the Dean of Students office). Please remember that instructors are not authorized to handle private medical information. To document medical circumstances, you must contact the Dean of Students' office for an equitable and confidential process.

- **Quizzes:** Late quizzes are not accepted as there is a 24 hours window to complete the quiz (25 minutes). Rescheduling quizzes must be arranged at least 24 hours prior to the scheduled day.
- **Homework WileyPlus.** All homework assignments are open for about a week and are due by 11:59 PM EST on the due date. Students are responsible for troubleshooting login and website technical issues. It is strongly recommended to not wait the last hours to submit your answers. Late homework will not be accepted (the online submission will be closed by the designated date/11:59 PM). No extension will be provided for homework as the solutions are automatically release by the deadline.

Missed Course Sessions

Lectures will be recorded by the instructor and posted for student use. In the off-chance that the recording fails, lecture notes will be provided. However, regular attendance for lectures is expected.

Inclement Weather or Other Safety Events:

If a weather-related or other safety-related event affects course or campus operations, Dr. Yearty will send guidance via Canvas as quickly and safely as possible. As information during weather- or other safety-related events can unfold quickly, any Institute guidance will supersede Dr. Yearty's guidance.

Student Use of Mobile Devices in the Classroom:

Students may use devices that are appropriate for their learning needs; however, the instructor reserves that right to dismiss students who are off-task and/or disruptive to the course learning environment (for either the students or instructor) from the classroom.

Collaboration, Group Work, and Use of Generative AI:

Students are encouraged to collaborate with others for course discussions, in office hours, homework assignments, and while studying. Students must still submit homework assignments individually. Collaboration is not permitted for any exam or quiz. While generative AI may be helpful for reviewing or studying course material, it may not be used on any course assignments unless specified by the course instructor.

Student Well-Being:

Your health and wellbeing are important to all members of the Georgia Tech community. If you are struggling or need support, a [comprehensive list](#) of wellness-related resources can be found here and is maintained by the Office of the Vice President for Student Engagement and Well-being (student-resource-guide.gatech.edu).

Undergraduate Student Academic Success Resources:

A list of resources for undergraduate students' academic success and information about advising can be found at [Success at Tech](#). Academic Support: Academic Success and Advising (a unit in the Office of Undergraduate Education & Student Success) provides free support for undergraduate courses. Students can attend scheduled supplemental review (PLUS) sessions, stop by Drop-In Tutoring, or schedule a one-on-one appointment through Knack. To explore what options work best for you, please visit us online at success.gatech.edu/tutoring, email us at tutoring@gatech.edu, or come see us at Clough Undergraduate Learning Commons, Suite 283.

UNIVERSITY SYSTEM OF GEORGIA COURSE POLICIES

Attendance and/or Participation

Each student is expected to attend and participate in course lectures regularly. If a student must miss class because of illness or Institute-approved circumstances, the student should notify the Instructor as soon as the date of the potential absence is known and plan to review the recorded lecture. Please review carefully Georgia Tech's [expectations and restrictions related to attendance](#). Please also review the Late Assignments and Missed Course Sessions segments of this Syllabus.

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Please review carefully [Georgia Tech's Honor Code](#) and the student [Code of Conduct](#).

Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

GEORGIA TECH POLICIES

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, [contact the Office of Disability Services](#) (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail Dr. Yearty as soon as possible in order to set up a time to discuss your learning needs. If you anticipate having accommodations, but are still working to obtain your accommodations letter, please also email Dr. Yearty.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. [The Student-Faculty Expectations](#) articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.