

CHEM 2311 Syllabus

Organic Chemistry I, Section A2, **Restricted**, 3 credits
Fall 2026

Instructor Information:

Name

Dr. Kasey Leigh Yearty

Email

klyearty@gatech.edu

Office

Restricted

**You may refer to me as Dr. Yearty. Yearty is pronounced like the number "thirty" but starting with a Y.*

Teaching Assistant Information:

Restricted

Learning Assistant Information:

Restricted

Course Attribute:

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 Textbook Solutions Manual (required):** Organic Chemistry by David Klein - 5th Edition. WileyPlus access includes the e-textbook and the option to purchase the solutions manual as an add-on. (See the WileyPlus tab in Canvas to purchase.)
- **WileyPlus (required):** You must purchase WileyPlus access to be able to complete assigned homeworks and extra credit opportunities. WileyPlus access includes the e-textbook. Whether you purchase a semester-long or year-long subscription is up to you as whether WileyPlus is used in Organic Chemistry II is decided by each instructor.
- **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:

Disclaimer: Topics may be presented in a sequence other than what is listed below. Course content may include a limited number of sections within some chapters. *See the Course Pacing Guide for a detailed breakdown of each unit.*

#	Chapter Name
1	A Review of General Chemistry
2	Molecular Representations
3	Acids and Bases
4	Alkanes and Cycloalkanes
5	Stereoisomerism
6	Chemical Reactions and Curved Arrows
7	Alkyl Halides: Substitution and Elimination Reactions
8	Reactions of Alkenes
9	Alkynes
10	Radical Reactions
11	Synthesis
12	Alcohols and Phenols
13	Ethers and Epoxides; Thiols and Sulfides
14	IR Spectroscopy (No Mass Spectrometry)
15	Nuclear Magnetic Resonance Spectroscopy

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.

Pacing Guide:

Our course will utilize a spreadsheet referred to as the “Pacing Guide”. This spreadsheet has a number of tabs that include the day-to-day schedule for each unit, assignment deadlines, and recommended readings/book problems to complete. **Please be sure to review each tab carefully!** The recommended book problems will not be graded, but are **highly recommended**.

Course Lectures:

During course lectures, we will go through content for each chapter, see examples, and solve problems. Active learning (interactive problem-solving) days are noted as Wrap Up & Review days on the course, though this activity may not be restricted to the designated dates. Lectures will be recorded by the instructor and posted within 24-48 hrs after class for student use. In the off-chance that the recording fails, lecture notes will be provided. However, regular attendance for lectures and participation in in-class activities are expected.

Help Sessions:

Office hours for the course are known as “help sessions” and are quite valuable in the learning process. Help sessions are judgment-free, Q&A-based drop-in sessions where we talk through questions you have about the material. Whether you're ahead, on-track, behind, have no questions, have a laundry-list of questions, and/or are just working, these sessions are for you! See the “Help Sessions” tab on Canvas for the weekly schedule.

- Depending on the number of students present, we may have each student ask one question at a time so that everyone has a chance to connect with us. (You can always say "skip me" if you're just there to listen or work. Some students use the time as a dedicated workspace in their schedule.)
- There may also be an opportunity to review your practice work with us. If there are lots of students, we may ask you to present a key example you'd like us to review during your turn.
- Please note that if you'd like to discuss a confidential matter (such as accommodations, personal circumstances, etc.), you will need to schedule a meeting with Dr. Yearty for private discussion. If you'd like to review any assignment or course performance (FERPA-restricted information), you may schedule a meeting with the Course Instructor or any CHEM 2311 team member (TAs/LAs).

Recitations:

Recitations are weekly problem-solving sessions hosted by our Teaching Assistants (TAs) and Learning Assistants (LAs). These sessions provide an opportunity for students to get direct feedback on their work as it is being completed. Recitations are optional, but **highly recommended**. Worksheet responses are not graded. Select problems (not all problems) from a short worksheet will be covered each week, with the exceptions of exam weeks. All sessions will have the same planned activities, so one session per week will suffice.

Grading Policy:

Assignment	Method	Mode	Points Available	Total Possible Pts	Note
Unit Exams	In-Person	On-paper	4 @ 100 pts/exam	300	Drop 1 Lowest Exam Score
Final Exam	In-Person	On-paper	1 @ 200 pts	200	See Exemption Policy
Homeworks	Remote-based; Online	Electronic (WileyPlus)	11 @ 10 pts/HW	100	Drop 1 Lowest HW Score
Quizzes	Remote-based; Online	Electronic (Canvas)	11 @ 10 pts/Quiz	100	Drop 1 Lowest Quiz Score
Reflections	Remote-based; Online	Electronic (Canvas)	1 Initial Course Reflection @ 10 pts; 8 Exam Reflections @ 10 pts/reflection; 1 Letter to Future Students @ 20 pts	100	Drop 1 Lowest Exam Reflection; Cannot Drop Initial Course Reflection or Letter to Future Students
Extra Credit	Remote-based; Online	Electronic (WileyPlus)	11 @ 2 pts/assignment	20	Drop 1 Lowest Extra Credit Assignment; Adaptive Assignment; Must Earn 50% Progress to Receive Credit
Max Points				820	Graded out of 800 pts

Your grades will be posted on Canvas in a timely manner all throughout the semester. If you have any questions or concerns, please reach out to Dr. Yearty. 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	704 or greater	88.00-100%
B	560-703	70.00-87.99%
C	480-559	60.00-69.99%
D	400-479	50.00-59.99%
E	399 or below	<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. Instead, you should add your points earned and compare the total to the table above. There will not be further opportunities to earn credit outside of what is listed above.

Description of Graded Components:

- **Unit Exams (300 pts):** There are 4 units exams (Exam 1-4), which are administered in-person and on paper.

Restricted

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.

- **Final Exam (200 pts):** 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. All holiday travel must be planned to begin after this date.

Restricted

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 – see the Final Exam Exemption Policy section within this syllabus. Final exam rules and guidelines will be posted on Canvas prior to each exam.

- **Quizzes (100 pts):** Quizzes will be assigned and submitted through Canvas. See Canvas and the Pacing Guide for the availability window and deadline for each assignment. To prepare for each quiz, it is recommended that you review your lecture notes, recommended book problems, recitation worksheets, and homework assignments carefully. There are 11 total quiz assignments, with the lowest score being dropped. Each quiz is worth 10 points each (5 questions x 2 pts each). 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. Dr. Yearty, TAs, and LAs may not help with solving problems on this assignment while it is open for student submissions. Any questions should be directed to Dr. Yearty.
- **Homeworks (100 pts):** Homeworks will be assigned and submitted through WileyPlus. See Canvas and the Pacing Guide for the availability window and deadline for each assignment. There are 11 total homework assignments, with the lowest score being dropped. Each homework assignment is worth 10 points each (10 questions x 1 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. Dr. Yearty, TAs, and LAs may not help with solving problems on this assignment while it is open for student submissions. Any questions should be directed to Dr. Yearty.

- **Reflections (100 pts):** This semester, you will complete reflections, which are components of the self-regulated learning process. Literature shows that having a strong grasp on your progress in the course is helpful in identifying areas for improvement. For example, if you feel you did not do well on an exam, but when you get your score back it shows you did quite well, it is helpful to gain confidence in your assignment preparation. If you feel you did well on an exam, but when you get your score back it shows that you did not meet your goals, it provides an opportunity to adjust your study plan. There are three types of reflections this semester described below. Reflections will be assigned and submitted through Canvas. See Canvas and the Pacing Guide for the availability window and deadline for each assignment. There are 11 reflections assignments with point breakdowns listed below. Credit will not be awarded for gibberish, images, space-fillers, and/or other non-serious responses.
 - **Initial Course Reflection (required, 10 pts):** This is a get-to-know-you reflection and helps our team learn more about you and your learning needs. Due by the Friday of the 2nd week of school. This assignment cannot be dropped.
 - **Pre- and post-exam reflections (must complete 7 of 8 at 10 pts/each):** These take place in the 24 hrs leading up to an exam and the 24 hrs after completing an exam. Deadlines may be adjusted to omit weekend dates. See Canvas and the Pacing Guide for the availability window and deadline for each assignment.
 - **Letter to Future Student (required, 20 pts):** This one-page letter provides peer-to-peer tips for creating a successful learning plan and seeing progress in the course. This assignment opens December 1st and is due by December 8th. This assignment cannot be dropped.
- **Extra Credit (Up to 20 pts):** The WileyPlus Adaptive problem sets provide individualized and targeted practice, with an emphasis placed on progress rather than achieving a specific score or completing all content. **Achieving 50% progress on an assignment guarantees 2 pts of completion for that assignment.** Because the assignments are adaptive, each response determines the subsequent question and its level of difficulty. Correct responses prompt progression to more advanced questions, while incorrect answers lead to questions that reinforce the specific skills requiring development. These assignments are available to all students as a learning resource, regardless of whether they intend to pursue bonus credit. A total of 11 adaptive assignments are accessible and scheduled to complement the course content and pacing. Students will max out at 20 bonus pts and may not earn additional bonus points for completing further adaptive practice. There are encouraged deadlines for completion scheduled within each unit; however, students will have access to complete these assignments through Tuesday, December 8th. It is recommended that you begin these assignments early as your progress on each assignment directly impacts the length of the assignment. Dr. Yearty, TAs, and LAs may not help with solving problems on this assignment while it is open for student submissions. Any questions should be directed to Dr. Yearty.

Regrade Policy:

- **Unit Exams:** Unless otherwise noted, you have three business days from the time that unit exam scores are returned to submit a regrade request for the particular unit exam that is released. 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.

- **Final Exam:** Is not released and is not eligible for regrades.
- **Homeworks and Quizzes:** Not eligible for regrades.

Final Exam Exemption Policy:

Students who meet certain qualifications will receive an exemption for the final exam. **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. Scores will not be “rounded”.

Exemption Criteria: (Must meet both criteria)

- A) 10 of 11 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 tables outlined in the Grading Policy sections of this Syllabus.

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 there is a prior arrangement 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 these exams must always be completed before exams are returned to the class (a short time window). 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) prior to the original exam window beginning. It is the student's responsibility to ensure this notification and confirmation is received prior to the start of the exam period. 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 this is a time-sensitive assignment with a 24+ hour window to complete the assignment. Students are responsible for troubleshooting login and website technical issues. Solutions are automatically released after the submission deadline. No extension will be provided. Missed a quiz? See the assignment description in the Grading Policy section of this Syllabus to learn about dropped assignments. Please also review the Extra Credit section in this Syllabus.
- **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. Solutions are automatically released after the submission deadline. No extension will be provided. Missed a homework? See the assignment description in the Grading Policy section of this Syllabus to learn about dropped assignments. Please also review the Extra Credit section in this Syllabus.
- **Reflections:** Late work will not be accepted as this is a time-sensitive assignment with a 24+ hour window to complete the assignment. No extension will be provided. Missed a reflection? See the assignment description in the Grading Policy section of this Syllabus to learn about dropped assignments. Please also review the Extra Credit section in this Syllabus.

Missed Course Sessions:

Lectures will be recorded by the instructor and posted within 24-48 hrs after class for student use. In the off-chance that the recording fails, lecture notes will be provided. However, regular attendance for lectures and participation in in-class activities are 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 Dr. Yearty.

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 \(gatech.edu\)](http://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. For timed quizzes (completed remotely), additional time will be added to your assignments as prescribed in your accommodations letter. For timed exams (completed in-person), it is your responsibility to arrange these through the Office of Disability Services at the beginning of the semester. **All exams should be arranged (with specific dates and time scheduled) at the beginning of the semester (by the end of the 2nd week of the semester).** You should not wait until later in the semester or during a later unit as the testing center books up quickly.

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. These expectations also extend to student interactions with other members of our CHEM 2311 team, including teaching assistants and learning assistants.