

CHEM 3371 Syllabus

Organic Chemistry Lab, **Restricted**, Sections A3-A5, and 2 Credits
Fall 2026

Instructor Information:

Instructor*	Email	Office	Office Hours
Dr. Kasey Leigh Yearty	klyearty@gatech.edu	Restricted	By appointment

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

TA Information:

Restricted

Course Attributes:

Tech Elect CS, Engr, & Sciences

Restrictions:

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

Grade Basis:

Letter Grade

Pre-Requisites:

Undergraduate Semester level CHEM 2380 (Synthesis Lab I) Minimum Grade of D

GENERAL COURSE INFORMATION:

Description:

Multi-step organic synthesis and biochemical applications. Use of chemical literature and advanced spectroscopic techniques.

Course Learning Outcomes:

Upon successful completion of this course, you should be able to...

- Practice safe laboratory skills and maintain a safe working environment for oneself and others
- Design and execute a reaction sequence where the product of one step is used as the starting material for the next, requiring high yield management and purification
- Characterize products using a suite of analytical instrumentation and use this information to elucidate structure
- Perform aseptic techniques and understand structure-activity relationship for biochemical applications
- Analyze experiment findings critically and communicate scientific results through written and oral formats

Required Course Materials:

- Lab Coat, color: white, knee-length + long-sleeve with traditional buttons or snap-buttons
- Chemical Safety Glasses

- Lab Notebook, 75-pages or 100-pages, duplicate pages, spiral bound
- Lab Manual, provided by instructor

Grading Policy:

Final grades in the course will be calculated using a weighted average of course assignments. Graded assignments will be returned throughout the semester and updated in Canvas. Students are strongly encouraged to incorporate instructor and TA feedback into subsequent assignments prior to submission.

Assignment Weights:

- Safety Training: 10% of total score in course
- Laboratory Notebooks/Reports: 60% of total score in course
- Post-Lab Questions: 10% of total score in course
- Scientific Literature Exam: 10% of total score in course
- Attendance, Participation, and Engagement: 10% of total score in course

Grading Breakdown:

- A: 90-100%
- B: 80-89.99%
- C: 70-79.99%
- D: 60-69.99%
- F: <60%

Description of Graded Components:

- **Safety Training:** A Safety Training will be held during the first course sessions. Completion of this training and earning a passing score on the associated safety quiz is required before students may begin experimentation.
- **Laboratory Notebooks:** These consist of pre-lab, in-lab, and post-lab reports for each experiment. Pre-labs should be completed weekly (unless otherwise noted) prior to arrival to the course, in-labs are completed weekly during the experiment, and post-labs are completed after the experiment is finished.
- **Post-Lab Questions:** Each experiment includes a short list of questions listed in the manual. These are due on the same day as the post-lab for that experiment.
- **Scientific Literature Exam:** As part of Exp. 5, you and a partner will be tasked with using the scientific literature to find a reasonable route for preparing a synthetic target. In preparation for this, a short in-class exam will be administered to allow each student to demonstrate proficiency in finding information within the scientific literature. The anonymized and aggregated results of this assignment also will be used as part of the School of Chemistry & Biochemistry's program learning outcome assessment.
- **Attendance, Participation, and Engagement:** Attendance will be scored based on the student's presence for the duration of each session's experiment or course activities. Participation will be scored based on the student's completion of course tasks or other tasks as assigned by the instructor/TA. Engagement will be scored based on the student's interactions in the course. Examples of strong engagement include leading and contributing to course discussions, connecting ideas to previous lessons or skills learned, asking and understanding the "why" behind the tasks being completed, and positive interpersonal skills with others.

Grading Policy:

At Georgia Tech, final course grades are awarded on a scale of A-F with no +/- grades permitted. Final grades in the course will be calculated using a weighted average of course assignments. Graded assignments will be returned throughout the semester and updated in Canvas. Students are strongly encouraged to incorporate instructor and TA feedback into subsequent assignments prior to submission.

ADDITIONAL COURSE POLICIES AND NOTICES:

Safety

Students will not be allowed to work in the lab if they fail to meet the safety regulations below and all Institute/course safety guidelines. Further safety information will be presented in the in-class safety training and as experiments are presented. If you have any safety concerns or questions about the course experiments, please contact the Course Instructor/TA prior to beginning any lab work for that experiment. Dr. Yearty and/or any course TA reserve the right to instruct students to leave the lab if they are engaging in behavior that places faculty, TAs, and/or students' safety or health at risk. The course instructor or a course TA must always be physically present for you to enter into the lab.

Three-Strike Policy

We will be using a "Three Strikes" policy this semester as described below:

- **Strike 1:** First verbal warning from instructor and/or TA
- **Strike 2:** Second verbal warning from instructor and/or TA and deduction of a minimum of 10 points from each assignment related to the experiment at hand
- **Strike 3:** Student will be instructed to leave the laboratory by the instructor and/or TA and will receive a zero for each assignment related to the experiment at hand

Whenever you are in the lab, be mindful of your safety and the safety of others. Make prudent choices about clothing, footwear and jewelry. No food or drink may be consumed in the laboratory, and smoking or vaping are strictly prohibited.

Required Personal Protective Equipment

You must wear the following Personal Protective Equipment (PPE) at all times while in the lab (**no exceptions**):

- Safety glasses/goggles
- Long-sleeved, knee-length lab coat
- Clothing that fully covers you from the neck to the ankle (i.e. no skirts, shorts, or kilts). Loose clothing, jewelry, and unrestrained hair pose additional risk and should be avoided.
- Closed-toe shoes with backs (perforated shoes or sandals are not allowed)

Before touching lab equipment or reagents, additional PPE such as disposable gloves must be worn. Laboratory gloves should only be worn inside the laboratory to avoid contaminating areas outside the lab (including door handles).

Late Assignments

Late assignments are subject to a 10% deduction of the assignment's total points for each 24 hours late starting from the original submission deadline time of the assignment. Assignments not received after 72 hours will be given an automatic zero.

Each student is awarded **two flex dates** throughout the semester at their own discretion. The use of a flex date permits an assignment to be submitted 24 hours late from the original submission deadline time at no penalty. Flex dates can be used individually or cumulatively, and the use of a flex date must be documented using the following method:

- **Important Note:** Flex dates may only be applied to post-lab reports and post-lab questions. Each assignment is worth 0.5 flex days. Please note that the use of a flex date does not extend the 72 hours final receipt deadline from the original due date of the assignment.
- **Prior to the assignment submission deadline**, email Dr. Yearty and your assigned TAs to acknowledge that you will be taking a flex day to complete the assignment and state which assignment it is. (No further explanation is required.) You should also include when you anticipate submitting the assignment.
- **When submitting the assignment**, reply to the same email thread with Dr. Yearty and your assigned TAs to acknowledge that you have submitted the assignment. (No further explanation is required.)

Attendance, Re-Scheduled, and/or Missed Lab Sessions

Each student must attendance and actively participate in the full duration of each course session. As a result, attendance and active participation are graded components of the course. If a student expects to arrive late to class, an email notification should be sent to Dr. Yearty and your assigned TAs stating the expected arrival time. Students who are more than 15 minutes late to class may not be permitted to begin the experiment. Please review carefully Georgia Tech's expectations and restrictions related to attendance.

If you foresee missing a lab for a valid reason (as determined by Dr. Yearty or deemed an approved Institute activity), please contact Dr. Yearty and your assigned TAs via email as soon as the conflict is known or no later than 24 hours prior to the conflicting event. Students are not permitted to miss more than one week of experimentation, with a make-up required for the missed experimentation. Missing more than one experiment will result in a zero on the subsequent missed experiment(s) and related assignments. At Georgia Tech, some exceptions are made for "approved Institute activities" (e.g., field trips and athletic events) and religious observances. Read more about approved exceptions.

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:

Mobile devices may be used in the laboratory and may be needed for time-keeping, taking notes, uploading work, etc. However, special care should be taken to minimize the introduction of

hazards to your device (and vice-versa). Mobile devices should not be placed inside of chemical fume hoods, inside of biosafety cabinets, near weigh stations, or directly on laboratory benches.

Collaboration, Group Work, and Use of Generative AI:

Collaboration is permitted for the discussion of experiment results and findings. However, all submitted work must be your own, including the formatting of your work. This also includes scenarios where you may be asked to complete an experiment with a partner or as part of a team. Any outside resources utilized must be credited and cited appropriately using ACS-style formatting. The use of generative AI to prepare any component of your assignments, format any component of your assignments, or to analyze data is not permitted.

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

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.