CHBE 4200/4210

Unit Operations/Bioprocess Unit Ops Laboratory

Spring 2027

Instructor Information

Instructors: Yonathan S. Thio, Jacqueline Mohalley Snedeker

General Course Information

Description

This course illustrates engineering/scientific principles and physical models important to the data collection/interpretation of process important to the practice of chemical engineering.

Course Learning Outcomes

By the end of this course, a student should be able to:

1) Work effectively in teams to cooperatively carry out a project involving problem identification, data gathering and analysis, and written and oral communication.
2) Determine an experimental objective, understand the theory behind the experiment, and operate the relevant equipment safely.
3) Analyze experimental data using standard statistical methods to establish quantitative results.
4) Write effective technical reports for the experiments.
5) Serve as team leader for two experiments and make two oral presentations.

Required Course Materials

None. (All materials are available in class or on our online course management system, Canvas)

Grading Policy:

In this course the following graded assessments and assignments are used to determine the course grade:

Homework	6%
Lab reports	30%
Posters	16%
Lab orals	19%
Job safety analysis	2%
Leadership and teamwork evaluation	4%
Lab practicum	20%
Participation and teamwork	3%

The letter grade cutoffs in this class are 90%+ for A, 80%+ for B, 70%+ for C, 60%+ for D, based on the overall score based on the relative weights above. These cutoff points may be lowered (resulting in a higher grade for some students) but will never be increased.

Course Policies

Attendance and/or Participation

Your academic success will depend strongly on the level of engagement with the course material. Actively participating in all lectures and taking advantage of other learning opportunities offered (e.g. assignments, office hours) is critical for successful attainment of the learning outcomes. The Georgia Tech Catalog describes policies around "approved Institute activities" (e.g., field trips and athletic events) and accommodations around religious observances.

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. Review Georgia Tech's Honor Code and the student Code of Conduct.

Cases of suspected 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.

Core IMPACTS

Not applicable for this course.

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 the Instructors as soon as possible in order to set up a time to discuss your learning needs.

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, you are encouraged to remain committed to the ideals of Georgia Tech while in this class.