CEE 6281 Syllabus

Open Channel Hydraulics, CEE 6281, Section 1, 3 Credits

Fall 2026

Instructor Information

Instructor: Chris Lai

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General Course Information

Description

This class introduces the flow physics, methods of prediction, and the design of open channel flows and hydraulic structures.

Course Learning Outcomes

Develop a strong understanding of the flow physics of open channel flows.

Apply the momentum and energy equations to predict water surface profiles and to design hydraulic structures.

Learn basic laboratory instrumentation in the study of open channel flows and effectively communicate their experimental findings; and

Use computer programs to perform flow analysis on networks of channels

Required Course Materials

Sturm, T.W. 2021. *Open Channel Hydraulics*, McGraw-Hill Educations, 498pp.

available for purchase on Amazon and McGraw Hill.

Grading Policy:

Your final grade will be calculated as follows:

Final grade: F<60%≤D<70%≤C<80%≤B<90%≤A≤100%

Assignments

- Six biweekly quizzes, 12%
- Five biweekly homework, 20%
- Three laboratory reports, 20%
- Four reading assignments, 10%
- One midterm exam, 19%
- One final exam, 19%

Description of Graded Components

The quizzes and exams are all in class and closed book and notes. Students are permitted to bring a formula sheet (only on one side of a letter-size paper) to exams.

Course Policies

Attendance and/or Participation

This will be an active classroom, where you will be expected to participate. I have noticed a drastic difference in the exam performance between students who regularly attend class and those who do not.

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.

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.

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 me 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, I encourage you to remain committed to the ideals of Georgia Tech while in this class.

Pre- &/or Co-Requisites

Students are expected to have taken and passed CEE 3040 Fluid Mechanics and CEE 4200 Hydraulic Engineering at Georgia Tech. Similar classes from other institutions are also acceptable.

Collaboration, Group Work, and Use of Generative AI

You are allowed to work in groups on all homework and out-of-class assignments, but any work you turn in must be written in your own hand. In-class quizzes and exams are to be your own work. Students are not allowed to use Generative AI in this class.

Extensions, Late Assignments, & Re-Scheduled/Missed Exams

Only the exceptions defined by Georgia Tech (http://www.catalog.gatech.edu/rules/4/) are accepted as valid reasons for deadline extensions and rescheduling of exams.