

CTC 261L
Hydraulics Lab
Instructor: Jayne Baran

Time: TBD
Lab: Wed 2-4 pm (Don 1155/1159)
Semester: Spring 2023

Course Description:

Laboratory section to accompany CTC 261T. Two hours of laboratory per week. This class must be taken with the theory course (CTC 261T) in the same semester. Successful completion of both theory and lab courses (CTC 261T and 261L) is required. Co-requisite: CTC 261T. Credit Hours: 1

Course Outcomes:

1. Learn fundamental principles of hydraulics by conducting various experimental labs.
2. Perform standard analysis and design using hydraulics software and principles.

Required Text and Materials:

Gribbin, John E., *Introduction to Hydraulics and Hydrology*, 4th edition, Prentice Hall, 2014, ISBN-10: 1-133-69183-8; ISBN-13: 978-133-69183-9

Office Hours and Contact Info:

Monday TBD
(Or by appointment)
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Topics and Projects:

Topics:	Description	Hrs	Activity or Project
1	Lab Report Guidelines	2.0	Lab Report Expectations
2	Flow Visualization (Hydrogen Bubble Generator)	4.0	Individual Lab Report Required
3	Center of Pressure	4.0	Individual Lab Report Required
4	Water Bench Demonstration	2.0	None
5	Pipe Flow Demonstration	2.0	None
6	Flowmaster/Culvertmaster Software	2.0	None
7	New Culvert Design Project (team)	2.0	Chapter 11 / Culvert Design Project
8	Replace Culvert-Design Project (team)	2.0	Chapter 7 / Culvert Replacement
9	Stormwater Design Project (team)	2.0	Chapter 10 / Stormwater Design
10	Design Project Presentations	2.0	Oral Presentations and Written Reports
11	Midterm and Final	4.0	

Methods of Evaluation:

Projects/Labs:

Applied design projects and reports emphasize teamwork and communication, as well as the application of industry-standard hydraulic, word-processing, spreadsheet, and presentation software. The need for professionalism and excellence is reinforced through the requirement for assignments to be completed on time and in a neat and well-organized manner. Several laboratory experiments and reports will be completed in this course. Lab expectations can be found on Blackboard.

Attendance/Participation:

Students are expected to attend every period and have assignments completed and ready to present. A missed lab does not excuse responsibility for the work covered in the lab.

Method of Evaluation:

Student grades will be based on homework, laboratory reports, design projects and exams. Assignments for both theory and lab will be combined into one final grade for both sections with the distribution shown below.

Labs w/ Reports and Design Projects	20%
Homework	20%
Midterm Exam	30%
Final Exam	30%
TOTAL	100%

Code of Conduct:

Students are referred to the Student Handbook for SUNY Poly's current Academic Integrity Policy regarding plagiarism and other inappropriate academic activities.

Cancellation of Classes Due to Inclement Weather or Other Emergency:

SUNY Poly has a 24-hour hotline to inform students, faculty and staff when severe winter weather prompts the cancellation of all classes. On-campus, you can call the "Snowline" by dialing ext. 7669 ("SNOW"). Off-campus, Snowline can be reached by calling 315-792-7385. Snowline cards are available at various locations on campus.

In the event of severe weather, Snowline will announce only the cancellation of ALL classes. The cancellation of all classes will also be posted online, at sunypoly.edu, and will be broadcast on radio and television stations in the Utica-Rome, Syracuse and Albany areas. Individual class cancellations are always available at sunypoly.edu/apps/cancelled_classes.

Accommodations for Students with Disabilities:

Your access in this course is important to me. In compliance with the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act, SUNY Polytechnic Institute is committed to ensuring comprehensive educational access and accommodations for all registered students seeking access to meet course requirements and fully participate in programs and activities. Students with documented disabilities or medical conditions are encouraged to request these services by registering with the Office of Disability Services. Please request accommodations early in the semester, or as soon as you become registered with Disability Services, so that we have adequate time to arrange your approved academic accommodation/s. Once Disability Services creates your accommodation plan, it is your responsibility to provide me a copy of the accommodation plan. If you experience any access barriers in this course, such as with printed content, graphics, online materials, etc., reach out to me or Disability Services right away. For information related to these services or to schedule an appointment, please contact the Office of Disability Services using the information provided below.

Leslie K. Reid, Director (she/her/hers)
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