
CIVE 440 – Hydrology and Hydraulics**Term – Summer2020 (202005)**

We acknowledge with respect the Lekwungen peoples on whose traditional territory the university stands and the Songhees, Esquimalt and WSÁNEĆ peoples whose historical relationships with the land continue to this day.

Instructor: Tara Troy

Phone: 250-472-5084

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Office: N/A

Office Hours

Days: Mondays

Time: 2:20-3:30

Location: Zoom

TA: Thomas Boerman

Phone: N/A

E-mail: tboerman@uvic.ca

Office: N/A

Office HoursDays: **TBD First Week of Class**

Time:

Location:

TA: Sara Daneshvar

Phone: N/A

E-mail: sara.daneshvar@gmail.com

Office: N/A

Office HoursDays: **TBD First Week of Class**

Time:

Location:

List all prerequisites and co-requisites:

CIVE 345 Fluid Mechanics

CIVE 340 Sustainable Water Resources

Course Objectives

The purpose of this course is to acquaint students with the following:

1. Various aspects of hydrology and hydraulics;
2. Role of probability analysis in hydrology and hydraulics;
3. Stormwater management and design;
4. Principles of open channel flow.

Learning Outcomes

- Design a pipe for water distribution or stormwater
- Design an open channel for water distribution
- Describe how water moves through the natural and built environment
- Calculate return periods and develop design storms
- Design a culvert
- Design green stormwater infrastructure

Syllabus

Days: Monday and Thursday
Time: 1-2:20pm
Location: N/A

Required Text

N/A

Optional text

N/A

References

Readings are posted on CourseSpaces either as PDFs or links. The readings associated with a topic is contained in each Module Overview document on CourseSpaces.

Modules:

This course is organized in four distinct modules:

1. Water conveyance
2. Flood frequency analysis and design storms
3. Traditional stormwater management
4. Green stormwater management

Each module consists of several topics, with associated readings, pre-recorded lectures, practice problems and quizzes. There is a design project associated with each module.

Assessment

Quizzes	30%
Design Project 1:	20%
Design Project 2:	10%
Design Project 3:	20%
Design Project 4:	20%

Quizzes:

There will be approximately 10 quizzes throughout the term. These will be conducted on CourseSpaces and students will have a time window within which to complete the quiz. Quizzes will be based on the lecture material, readings, and practice problems. They will contain a mix of conceptual questions and problem solving. Each module's overview document contains a calendar with the quiz dates. These dates are tentative and subject to change. If the quiz time is changed, this will be announced as far in advance as possible.

Projects:

There are four design projects in this class, each due the week after the module ends. The exception is Design Project 4, which is due the last day of class.

NOTES:

1. Quizzes should represent each student's work. Discussion between students about the quiz is not permissible when a quiz is open on CourseSpaces to be completed.
2. Design projects should represent each group's work.
3. No make-up quizzes will be given.
 - a. An unexcused quiz will result in a zero grade.

- b. In the case of an excused absence for a quiz, the course quiz grade will be comprised of the other quizzes.
4. Mistakes happen during marking! If a student disagrees with a mark, they may appeal it within seven calendar days of the grade being posted. To appeal a grade, the student(s) should file a written appeal to the course instructor who will discuss it with the TAs when appropriate.
5. There will be no tolerance for academic offences/dishonesty. All offences will be reported.

Course Withdrawal Deadlines:

- May 16: Withdrawal with 100% reduction of tuition fees
- June 6: Withdrawal with 50% reduction of tuition fees
- July 1: Last day for withdrawal (no fees returned)

The final grade obtained from the above marking scheme for the purpose of GPA calculation will be based on the percentage-to-grade point conversion table as listed in the current Undergraduate Calendar.

There will be no supplemental examination for this course.

Grading: Please see the Grading information in the current calendar at: <https://www.uvic.ca/calendar2020-05/undergrad/index.php/home#/policies>

Course policies and guidelines

Late Assignments: *No late assignments will be accepted unless prior arrangements have been made with the instructor at least 48 hours before the assignment due date.*

Coursework Mark Appeals: *All marks must be appealed within 7 days of the mark being posted.*

Attendance: We expect students attend all lectures and labs. It is entirely the students' responsibility to recover any information or announcements presented in lectures from which they were absent.

Electronic devices in labs and lectures: No unauthorized *audio* or *video* recording of lectures is permitted.

Electronic devices in midterms and exams: Calculators are only permitted for examinations and tests if explicitly authorized and the type of calculator permitted may be restricted. No other electronic devices (e.g. cell phones, pagers, PDA, etc.) may be used during examinations or tests *unless explicitly authorized.*

Plagiarism: Submitted work may be checked using plagiarism detection software. Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult the link given below for the UVic policy on academic integrity. Note that the university policy includes the statement that "*A largely or fully plagiarized assignment should result in a grade of F for the course.*"

Academic Integrity: You must make yourself aware of the University of Victoria guidelines and policy concerning fraud and academic integrity at this link, <https://www.uvic.ca/current-students/home/academics/academic-integrity/index.php>

Policy on Academic Integrity: <https://www.uvic.ca/calendar2020-05/undergrad/index.php#/policies>

Standards of Professional Behaviour: You are advised to read the Faculty of Engineering Document Standards for Professional Behaviour in current Undergraduate Calendar, which contains important information regarding conduct in courses, labs, and in the general use of facilities. Please find the document at this link: <https://www.uvic.ca/engineering/assets/docs/professional-behaviour.pdf>

Notes to Students:

Students who have issues with the conduct of the course should discuss them with the instructor first. If these discussions do not resolve the issue, then students should feel free to contact the Chair of the Department by email or the Chair's Secretary to set up an appointment.

University of Victoria Privacy Policy: If any student has concerns about their private information being stored or accessed outside of Canada, they are required to inform the course instructor about their concerns before the end of second week of classes.

Accommodation of Religious Observance: See entry in current Undergraduate Calendar.

Equality: This course aims to provide equal opportunities and access for all students to enjoy the benefits and privileges of the class and its curriculum and to meet the syllabus requirements. Reasonable and appropriate accommodation will be made available to students with documented disabilities (physical, mental, learning) in order to give them the opportunity to successfully meet the essential requirements of the course. The accommodation will not alter academic standards or learning outcomes, although the student may be allowed to demonstrate knowledge and skills in a different way. It is not necessary for you to reveal your disability and/or confidential medical information to the course instructor. If you believe that you may require accommodation, the course instructor can provide you with information about confidential resources on campus that can assist you in arranging for appropriate accommodation. Alternatively, you may want to contact the Centre for Accessible Learning located in the Campus Services Building, <https://www.uvic.ca/services/cal/>.

The University of Victoria is committed to promoting, providing, and protecting a positive, and supportive and safe learning and working environment for all its members.

Sexualized Violence Prevention and Response at UVic: UVic takes sexualized violence seriously, and has raised the bar for what is considered acceptable behaviour. We encourage students to learn more about how the university defines sexualized violence and its overall approach by visiting www.uvic.ca/svp. If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). Whether or not you have been directly impacted, if you want to take part in the important prevention work taking place on campus, you can also reach out:

Where: Sexualized violence resource office in EQHR; Sedgewick C119

Phone: 250.721.8021

Email: svpcoordinator@uvic.ca

Web: www.uvic.ca/svp

Policy on Inclusivity and Diversity: See the entry in the current Undergraduate Calendar.

Course Lecture Notes

Unless otherwise noted, all course materials supplied to students in this course have been prepared by the instructor and are intended for use in this course only. These materials are NOT to be re-circulated digitally, whether by email or by uploading or copying to websites, or to others not enrolled in this course. Violation of this policy may in some cases constitute a breach of academic integrity as defined in the UVic Calendar.

Syllabus statement

A note to remind you to take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. You are not alone.

Counselling Services - *Counselling Services can help you make the most of your university experience. They offer free professional, confidential, inclusive support to currently registered UVic students.*

<https://www.uvic.ca/services/counselling/>

Health Services - *University Health Services (UHS) provides a full service primary health clinic for students, and coordinates healthy student and campus initiatives.* <http://www.uvic.ca/services/health/>

Centre for Accessible Learning - *The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations* <https://www.uvic.ca/services/cal/>. *The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.*

Elders' Voices - *The Office of Indigenous Academic and Community Engagement (IACE) has the privilege of assembling a group of Elders from local communities to guide students, staff, faculty and administration in Indigenous ways of knowing and being.*

<https://www.uvic.ca/services/indigenous/students/programming/elders/index.php>

The [Office of the Ombudsperson](#) is an independent and impartial resource to assist with the fair resolution of student issues. A confidential consultation can help you understand your rights and responsibilities. The Ombudsperson can also clarify information, help navigate procedures, assist with problem-solving, facilitate communication, provide feedback on an appeal, investigate and make recommendations.

Phone: 250-721-8357; Email: ombuddy@uvic.ca; Web: uvicombudsperson.ca.