

COURSE SYLLABUS



COURSE TITLE:	CIVE 251 – ASSET MANAGEMENT
CLASS SECTION:	X01A, X01B, X01C
TERM:	2022F
COURSE CREDITS:	3
DELIVERY METHOD(S):	Lecture and Computer Lab

Camosun College campuses are located on the traditional territories of the Lək̓ʷəŋən and WSÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here. Learn more about Camosun's [Territorial Acknowledgement](#).

For COVID-19 information please visit <https://legacy.camosun.ca/covid19/index.html>.

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable explanation in advance, you will be removed from the course and the space offered to the next waitlisted student.

INSTRUCTOR DETAILS

NAME:	Peter Fell
EMAIL:	fellp@camosun.bc.ca
OFFICE:	TEC 108
HOURS:	See office door / D2L

As your course instructor, I endeavour to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me. Camosun College is committed to identifying and removing institutional and social barriers that prevent access and impede success.

CALENDAR DESCRIPTION

Students are provided an overview of current practices as they relate to asset management and infrastructure rehabilitation. Topics include assessment, protection and repair of: pavement, underground pipes, and steel, concrete and masonry structures. Geographic Information Systems (GIS) software is utilized to evaluate infrastructure rehabilitation needs. Basic engineering economics concepts are introduced.

PREREQUISITE(S):	All of: C in CIVE 132
PRE or CO-REQUISITE(S):	none
EXCLUSION(S):	none

COURSE LEARNING OUTCOMES / OBJECTIVES

Upon successful completion of this course a student will be able to:

- Apply the basic concepts of infrastructure asset management planning to preserve and extend the service life of long-term infrastructure assets.

- Evaluate and select appropriate methods for the inspection, condition assessment and rehabilitation of underground pipelines, pavement, steel, concrete and masonry structures, and steel and concrete bridge decks.
- Describe destructive and non-destructive testing methodologies used to assess the condition of civil infrastructure.
- Compare maintenance methods related to infrastructure.
- Describe the process of corrosion and methods for corrosion prevention and rehabilitation.
- Describe the history and process behind building envelope failures.
- Identify methods for building envelope assessment and rehabilitation.
- Apply GIS software tools to develop a record of infrastructure assets.
- Assess infrastructure and develop a rehabilitation plan.
- Assess and apply tools utilized in the inspection, assessment, planning and decision-making process, including: GIS; engineering economics and life-cycle costing; civil analysis and asset management software.

REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

- There is no required text for this course.
- Lecture notes, videos and other supporting material posted on course web pages.
- Students may wish to obtain a reference on ArcGIS such as: *Getting to Know ArcGIS Desktop*, 6th Edition, ESRI Press, 2021 (Note: 6th Ed. for ArcGIS 10.8)

COURSE SCHEDULE, TOPICS, AND ASSOCIATED PREPARATION / ACTIVITY / EVALUATION

The following schedule and course components are subject to change with reasonable advance notice, as deemed appropriate by the instructor.

Lectures are as follows:

- Wednesday 10:00 - 11:20 AM in TEC 175
- Friday 8:30 - 9:50 AM in TEC 181

Labs are as follows:

- X01A: Thursday 3:30 - 5:20 PM in TEC 151
- X01B: Friday 10:30 AM - 12:20 PM in TEC 150
- X01C: Thursday 10:30 AM – 12:20 PM in TEC 150

WEEK	DATE RANGE	LECTURE TOPICS	LAB	OTHER
1	Sept 5 – 9	Course Introduction; Introduction to Asset Management; Intro to Research Topic Report	Engineering Economics	
2	Sept 12 – 16	Asset Management - basic concepts and framework	Engineering Economics	Research Topic Report – Team Selection (due at the start of the 2 nd lecture period)
3	Sept 19 – 23	Asset Management – implementation and examples; Benchmarking	Engineering Economics	

WEEK	DATE RANGE	LECTURE TOPICS	LAB	OTHER
4	Sept 26 – 30	No lecture Friday 30 September (Stat – National Day for Truth and Reconciliation) Inspection and Condition Assessment – Introduction	No lab	Research Topic Report – Draft Outline (due at the start of the 2 nd lecture) Quiz 1 (D2L)
5	Oct 3 – 7	Inspection and Condition Assessment – Pavement;	Engineering Economics	Research Topic Report - Group Meetings (D2L)
6	Oct 10 – 14	Inspection and Condition Assessment – Pipelines	Engineering Economics	Research Topic Report – Finalized Outline (due at the start of the 2 nd lecture) Quiz 2 (D2L)
7	Oct 17 – 21	Inspection and Condition Assessment – Bridges	Engineering Economics	
8	Oct 24 – 28	Maintenance No lecture Wednesday 26 Oct	Engineering Economics	Term Test No. 1 (Wed 26 Oct – D2L)
9	Oct 31 - Nov 4	Corrosion; I&I considerations	GIS	Research Topic Report Progress Report / Group Meetings (D2L)
10	Nov 7 – 11	Rehabilitation Methods – Pipelines	No Lab	Friday 11 th Nov is Remembrance Day Quiz 3 (D2L)
11	Nov 14 – 18	Rehabilitation Methods - Roads	GIS	
12	Nov 21 – 25	Rehabilitation Methods – Misc.	GIS	Quiz 4 (D2L)
13	Nov 28 – Dec 2	Building Envelopes No lecture Wednesday 30 November	GIS	Term Test No. 2 (Wed 30 November – D2L)
14	Dec 5 – 9	Report roundtable discussion	GIS	Research Topic Report due last day of classes Friday 9 Dec)
15/16	Dec 12 – 20	Exam Week (no exam in this course)		

Students registered with the Centre for Accessible Learning (CAL) who complete quizzes, tests, and exams with academic accommodations have booking procedures and deadlines with CAL where advanced notice is required. Deadlines can be reviewed on the CAL exams page. <http://camosun.ca/services/accessible-learning/exams.html>

EVALUATION OF LEARNING

DESCRIPTION	WEIGHTING	Notes
Assignments	15%	Assignments and labs, submitted individually, unless otherwise noted. Includes outlines for Research Topic Report and group meetings.
Quizzes	10%	Open book. Four quizzes are anticipated. Best three quizzes count. Quizzes in D2L.
Term Tests	40%	Open book. Two term tests will be held. 1.5hr duration each. Term Tests in D2L.
Research Topic Report	30%	Group case study research report.
Instructor Evaluation	5%	Based on attendance, cooperation, participation, not submitting plagiarized work, etc.
TOTAL	100%	

If you have a concern about a grade you have received for an evaluation, please come and see me as soon as possible. Refer to the Grade Review and Appeals policy for more information.

<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf>

COURSE GUIDELINES & EXPECTATIONS

- Assignments and labs are due at the start of the applicable lecture or lab period, unless otherwise noted. Late assignments and labs will have 10% deducted. Assignments and labs submitted after graded assignments and labs have been returned or after solutions have been posted are worth 0.
- You must achieve an average of 50% on the term tests in order to pass the course.
- Presence is required for all scheduled course components. Attendance for the lectures and labs is included as part of the instructor assessment portion of your final grade. If you plan to or do miss a lecture or lab you must speak to the instructor.

SCHOOL OR DEPARTMENTAL INFORMATION

Department:

- Civil Engineering Department. Chair is Zoe Broom, TEC 116.
- See the chair if you need:
 - program help such as working out a part-time schedule
 - help with transfer credits
 - info on services from other departments.

See your instructor if you need help with the course.

School:

- School of Trades and Technology. Office TEC 169
- Dean is Eric Sehn
- Associate Dean is Ken Kosik
- Both are in TEC 169
- Student issues are looked after by the Associate Dean. However, if you need anything, go to the department chair first.

Equity, diversity, and inclusion (EDI) are central to Camosun's culture and values. The Camosun community and the engineering community at large commit to pursuing equity in education regardless of race, heritage, religion, gender or gender identity, and ability. We learn best when we feel safe. Inappropriate, hateful or demeaning comments or actions will not be tolerated. Your suggestions on how to make your experience here better are encouraged and appreciated. Please let me or the department chair know ways to improve your experience at Camosun. If you wish to know more about Camosun's EDI policy, please see the EDI page on the college's website: <https://camosun.ca/about/camosun-college-policies-and-directives/governance>

STUDENT RESPONSIBILITY

Enrolment at Camosun assumes that the student will become a responsible member of the College community. As such, each student will display a positive work ethic, assist in the preservation of College property, and assume responsibility for their education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

SUPPORTS AND SERVICES FOR STUDENTS

Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit <http://camosun.ca/students/>.

Support Service	Website
Academic Advising	http://camosun.ca/advising
Accessible Learning	http://camosun.ca/accessible-learning
Counselling	http://camosun.ca/counselling
Career Services	http://camosun.ca/coop
Financial Aid and Awards	http://camosun.ca/financialaid
Help Centres (Math/English/Science)	http://camosun.ca/help-centres
Indigenous Student Support	http://camosun.ca/indigenous
International Student Support	http://camosun.ca/international/
Learning Skills	http://camosun.ca/learningskills

Support Service	Website
Library	http://camosun.ca/services/library/
Office of Student Support	http://camosun.ca/oss
Ombudsperson	http://camosun.ca/ombuds
Registration	http://camosun.ca/registration
Technology Support	http://camosun.ca/its
Writing Centre	http://camosun.ca/writing-centre

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

Academic Accommodations for Students with Disabilities

The College is committed to providing appropriate and reasonable academic accommodations to students with disabilities (i.e. physical, depression, learning, etc). If you have a disability, the [Centre for Accessible Learning](#) (CAL) can help you document your needs, and where disability-related barriers to access in your courses exist, create an accommodation plan. By making a plan through CAL, you can ensure you have the appropriate academic accommodations you need without disclosing your diagnosis or condition to course instructors. Please visit the CAL website for contacts and to learn how to get started:

<http://camosun.ca/services/accessible-learning/>

Academic Integrity

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf> for policy regarding academic expectations and details for addressing and resolving matters of academic misconduct.

Academic Progress

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf> for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

Course Withdrawals Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <http://camosun.ca/learn/fees/#deadlines>.

Grading Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf> for further details about grading.

Grade Review and Appeals

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

Mandatory Attendance for First Class Meeting of Each Course

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable reason in advance, you will be removed from the course and the space offered to the next waitlisted student. For more information, please see the “Attendance” section under “Registration Policies and Procedures” (<http://camosun.ca/learn/calendar/current/procedures.html>) and the Grading Policy at <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>.

Medical / Compassionate Withdrawals

Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal. Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf> to learn more about the process involved in a medical/compassionate withdrawal.

Sexual Violence and Misconduct

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun’s Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. The Office of Student Support will make sure students have a safe and private place to talk and will help them understand what supports are available and their options for next steps. The Office of Student Support respects a student’s right to choose what is right for them. For more information see Camosun’s Sexualized Violence and Misconduct Policy: <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.9.pdf> and camosun.ca/sexual-violence. To contact the Office of Student Support: oss@camosun.ca or by phone: 250-370-3046 or 250-3703841

Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College’s Student Misconduct Policy at <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf> to understand the College’s expectations of academic integrity and student behavioural conduct.

Changes to this Syllabus: Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.