



CAMOSUN COLLEGE
School of Trades and Technology
Department of Civil Engineering Technology

CIVE 255
Municipal Design
Fall 2019

COURSE OUTLINE

Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.

1 Instructor Information

Instructors	Perry Peterson
Office hours	See office door
Location	TEC 105
Phone	Mobile 250 812 2214
E-mail	petersonp@camosun.bc.ca
Website	http://civil.camosun.bc.ca/student/

2 Prerequisites and Corequisites

- C in CIVE 152 (or CIVL 146)
- C in CIVE 132 (or CIVL 133)
- Pre-co: CIVE 276 (or CIVL 276)
- Pre-co: CIVE 271 (or ENGR 177)

3 Hours and Credits

Course Activity

- Lecture (Direct Instruction)
- Seminar (Direct Instruction)
- Lab /Collaborative Learning
- Supervised Field Practice
- Workplace Integrated Learning (Coop, Internship, etc.)
- Other*(*please note*):

Hours / Week	Instruction – No of Weeks (Q=11; S=14; "P or S" = 7)
2	14
4	14

Credits = 4

4 Short Description

Students are introduced to municipal engineering design procedures through the creation of a land development project. Concept plans are created and critiqued for best fit to the site considering relevant government regulations and selected best practices. Detailed design is documented and drawings are produced for road, storm, sanitary, and water.

5 Intended Learning Outcomes

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

- Review site characteristics and propose a development (or redevelopment) appropriate for the site considering legal, social, economic and environmental objectives.
- Design and draft municipal site servicing for road design, storm water management, sanitary sewage collection, and water distribution, while also allowing space for works designed by others such as gas and electrical works [using current design standards (regulations) and practices].
- Create a set of municipal drawings that conform to prescribed drafting standards and practices.
- Use suitable specialized software for design of municipal services.
- Discuss the benefits and challenges of creating green / sustainable developments as defined by current green development practices.

6 Required Materials

- a) Access to Civil 3D Student Version with Tutorials
- b) Texts – recommended: A Civil 3D reference book such as Mastering AutoCAD Civil 3D by Cyndy Davenport or AutoCAD Civil 3D 2016 Essentials by Eric Chappell
- c) Other – material posted on course web pages

7 Course Content and Schedule (these are estimates and will vary based on class progress and interests)

Week	Lecture	Lab
1	Course Overview / OCPs, zoning, and the development process	Intro to C3D menus, entity types and properties, drawing setup: scale CRS styles text annotations etc Backup and recovery/ site visit
2	Development options and philosophies	Using the Saanich GIS / mapping and legal descriptions / spatial reference systems/ BC One-Call / Assembling Existing Plan View - Property, services, roads topography, surface water, features and constraints (using existing imagery and vectors)
3	Road design	Design Parcel Fabric and Alignment - Proposed Road Allowance and lots: sizing and numbers, road geometry. Per Municipal geometric standards
4	gravity main design	Continue previous week
5	Municipal drafting practices	Surface modelling - TIN, Grid and breaklines, generating contours, catchment areas
6	Sewage lift station design	Profile and Assemblies, Corridor workflow, cross sections and quantities 3D viewing
7	Midterm and Sewage lift station design	Continue previous week
8	Pump curve development	Lift station lab time
9	Rational method and urban storm networks	Gravity Pipe network, design and layout, parts catalog, quantities, standard drawings. Per Municipal sewer and water standards
10	Woonerven	Continue previous week
11	Cost Estimates tips for your storm design	Continue previous week

12	Austin lift station drawing review / site visit	Feature lines and Grading Parking lots and woonerven
13	Working with Indian Affairs	Continue previous week
14	Woonerf presentations	Assembling drawings and plotting plan profiles
15	Exam Week	Yes, there is an exam in this course

8 Student Assessment

<i>Component</i>	<i>Weighting %</i>	<i>Comments</i>
Assignments	25	Weekly progress submission – 10% Gravity main calculations – 5% Sewage lift station design calculations – 10%
Mid-term Test	15	
Final Drawings & Woonerf	35	
Final Exam	25	
TOTAL	100	

9 College Supports, Services and Policies



Immediate, Urgent, or Emergency Support

If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @ <http://camosun.ca/about/mental-health/emergency.html> or <http://camosun.ca/services/sexual-violence/get-support.html#urgent>

College Services

Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at <http://camosun.ca/>

College Policies

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at <http://camosun.ca/about/policies/>. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

10 Grading System

- Standard Grading System (GPA)*
- Competency Based Grading System*

See [Camosun Grading Policy E-1.5](#)

11 A Safe Place for EVERYONE

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: <http://camosun.ca/about/policies/equity-diversity-inclusion.html>

12 Class Policies

- Late assignments may be given a grade of 0%
- You must pass both the final exam and the final drawing submission to pass the course even if your overall score in the course is over 60%.