



**CAMOSUN COLLEGE**  
*Trades and Technology*  
*Computer Science*

**COMP 130**  
**Computing for Engineers**  
**Fall 2020**

**COURSE OUTLINE**

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The calendar description is available on [camosun.ca/learn/calendar/current/web/comp.html](http://camosun.ca/learn/calendar/current/web/comp.html)  
the web @ \_\_\_\_\_

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Ω 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.

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**1. Instructor Information**

- (a) Instructor  Ryan Lidstone   
(b) Office hours  TBA   
(c) Location \_\_\_\_\_  
(d) Phone \_\_\_\_\_ Alternative: \_\_\_\_\_  
(e) E-mail  lidstoner@camosun.bc.ca   
(f) Website \_\_\_\_\_

**2. Intended Learning Outcomes**

1. prepare an algorithm for solving a problem;
2. use functions and parameters appropriately and correctly;
3. define, reference, and modify one- and two- dimensional arrays correctly;
5. perform engineering calculations using matrices using high-level functions;
6. use functions from selected libraries;
7. effectively use the computer environment for program development;
8. write program documentation appropriately;
9. write functions that are general solvers for engineering applications; and
10. test and debug code.

### 3. Required Materials

(a) Texts

Recommended: Moore, Holly. 2018. *MATLAB® for Engineers*. Salt Lake City: Pearson.

### 4. Course Content and Schedule

(Can include: Class hours, Lab hours, Out of Class Requirements and/or Dates for quizzes, exams, lecture, labs, seminars, practicums, etc.)

Week	Date	Subject	Reference	Labs & Exams
1	Sep. 08, 2020	MATLAB Intro, IDE	Ch 1, 2	Lab 0
2	Sep. 14, 2020	Built-In Functions, Matrices	Ch 3, 4	Lab 1
3	Sep. 21, 2020	Plotting	Ch 5	Lab 2
4	Sep. 28, 2020	User-Defined Functions	Ch 6	Lab 3
5	Oct. 05, 2020	Console and File I/O, Selection Statements	Ch 7, 8	Lab 4
6	Oct. 12, 2020	Looping, Numerical Integration	Ch 9	Lab 5
7	Oct. 19, 2020	Root Finding, Matrix Algebra	Ch 10	Lab 6
8	Oct. 26, 2020	Review		Midterm
9	Nov. 02, 2020	Matrix Algebra, Other Arrays	Ch 10, 11	Lab 7
10	Nov. 09, 2020	Advanced Graphics	Ch 14	Lab 8
11	Nov. 16, 2020	Differential Equations, Finite Differences, and Interpolation		Lab 9
12	Nov. 23, 2020	Symbolic Mathematics	Ch 12	Lab 10
13	Nov. 30, 2020	Simulink	Ch 16	Lab 11
14	Dec. 07, 2020	Review		

### 5. Basis of Student Assessment (Weighting)

(b) Labs

40%

Must complete all labs.

Must achieve a minimum average of 55% on the labs.

Late labs are subjected to an 50% penalty, except by the instructor's prior written permission or in the presence of a dire and documented short-term medical or family emergency.

(c) Exams

Midterm 25%

Final 35%

Must achieve a minimum of 55% on the midterm.

Must achieve a minimum of 55% on the Final exam to pass the course.

## 6. Grading System

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

## 7. Recommended Materials to Assist Students to Succeed Throughout the Course

none

## 8. 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>

### Department Policies:

**Grade review:** You have 7 days after marks are posted to review with your instructor.

#### Academic Dishonesty:

1<sup>st</sup> violation: minus the weight of the deliverable and a note on your departmental file.

2<sup>nd</sup> violation: F in the course

3<sup>rd</sup> violation: Student Conduct [Policy](#) E-2.5 is applied

**Missed Examinations/Quizzes:** If a student misses a quiz or an exam, a mark of zero will be assigned unless there are extenuating circumstances. In such cases, the proportion of grade assigned to the missed quiz or exam will be added to the proportion assigned to the final exam. The final exam will be held during exam week. NO consideration will be given to any student wishing to write the exam at any other time than that assigned.

**Electronic Devices:** The school's policy regarding electronic devices is that any student who has a cell phone or other unauthorized electronic device (ie. ipad, laptop, playbook, etc.) on their person or around their desk during an exam will be guilty of cheating and will a grade of "F" for the course.

## 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.

### A. GRADING SYSTEMS <http://www.camosun.bc.ca/policies/policies.php>

The following two grading systems are used at Camosun College:

#### 1. Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

#### 2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

## B. Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at <http://www.camosun.bc.ca/policies/E-1.5.pdf> for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.