CAMOSUN COLLEGE
School of Trades and Technology
Information and Computer Systems

ICS 114
Algorithms and Programming

Fall 2020

COURSE OUTLINE

The calendar description is available on the web @   http://camosun.ca/learn/calendar/current/web/ics.html

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.*

1. Instructor Information

(a)	**Instructor**	Benjamin Leather	
(b)	**Office hours**	By request	
(c)	**Location**		
(d)	**Phone**	250-885-6966	**Alternative:**
(e)	**E-mail**	LeatherB@camosun.bc.ca	
(f)	**Website**		

2. Intended Learning Outcomes

- Design and code a medium-complexity (non-database, non-web form) C# program;
- Understand the language syntax rules for the C# programming language;
- Write statements that call methods and to write their own class methods;
- Test, troubleshoot, and debug issues associated with C# programming;
- Describe how to declare and perform compile-time initialization of array elements;
- Define and code object-oriented classes, methods, and objects;
- Create, open, close, read, and write files;
- Understand the language syntax rules for the C# programming language;
- Think critically to evaluate information, solving problems, and making decisions as they relate to the use of software tools for software development; and
- Apply accepted standards to ensure security, privacy, and integrity of software while recognizing the ethical, legal, and social implications of software development.

3. Required Materials

None. All material provided through D2L.

4. Course Content and Schedule

	lecture	lab	due
Week 1 Sept 8-11	**Chapter 1** Introduction to Computer and Application Development		
Week 2 Sept 14-18	**Chapter 2** Data Types and Expressions	**Lab 1** Use Visual Studio 2019 to build applications	
Week 3 Sept 21-25	**Chapter 3** Methods and Behaviours	**Lab 2** Data Types and Expressions	
Week 4 Sept 28-Oct 2	**Chapter 4** Creating your own classes	**Lab 3** Methods and Behaviours	
	Chapter 5 Making Decisions		
Week 5 Oct 5-9	**Chapter 6** Repeating Instructions	**Lab 4** Designing Classes	
Week 6 Oct 12-16	**Chapter 7** Arrays Quizzes / Review / Practice	**Lab 5** Making Decisions	
Week 7 Oct 19-23	**Chapter 8** Advanced Collections **Midterm (Oct 21st)**	**Lab 6** Repeating Instructions	
Week 8 Oct 26-30	**Chapter 9** Introduction to Windows Programming	**Lab 7** Arrays	
Week 9 Nov 2-6	**Chapter 10** Programming Based on Events	**Lab 8** Arrays and Collections	
Week 10 Nov 9-13	**Chapter 11** Advanced Object Oriented Programming Features	**Lab 9** Windows Forms	
Week 11 Nov 16-20	**Chapter 12** Debugging and Handling Exceptions	**Lab 10** Events	
Week 12 Nov 23-27	**Chapter 13** Working with Files		
Week 13 Nov 30-Dec 4	**Review**		
Week 14 Dec 7-11	**Exam**		

5. Basis of Student Assessment (Weighting)
(Should be directly linked to learning outcomes.)

Lab Assignments:	30%
Midterm Exam:	20%
Quizzes:	10%
Final Practical Exam:	20%
Final Written Exam:	20%

6. Grading System
(If any changes are made to this part, then the Approved Course description must also be changed and sent through the approval process.)
(Mark with "X" in box below to show appropriate approved grading system – see last page of this template.)

X Standard Grading System (GPA)

☐ Competency Based Grading System

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

Home computer with broadband internet access.

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

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://camosun.ca/about/policies/index.html*

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://camosun.ca/about/policies/index.html for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	*Incomplete*: 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	*In progress*: 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	*Compulsory Withdrawal*: 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.