CAMOSUN COLLEGE
School of Trades and Technology
Computer Science Department

ICS 124 – Algorithms and Data Structure Programming
Winter 2019

COURSE OUTLINE

Calendar Description:
http://camosun.ca/learn/calendar/current/web/ics.html#ICS124

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) Instructors	Lynda E. Robbins
(b) Office hours	by appointment made via email
(c) E-mail	robbinsl@camosun.bc.ca
(d) Website	D2L

2. Intended Learning Outcomes

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

- Design, implement, test and debug object-oriented solutions for small systems involving multiple objects;
  - including programming techniques of inheritance, abstraction, modularization, information hiding, overloading, interfaces
- Identify appropriate abstract data types and data structures based on the characteristics of the application;
  - including use of software libraries
- Implement and evaluate the trade-offs between a static and a dynamic implementation of an abstract data type using Big-O notation;
- Apply problem-solving skills and provide a foundation for advanced programming courses;
  - developing, understanding, and debugging software components
- Apply accepted standards to ensure security, privacy, and integrity of data while recognizing the ethical, legal, and social implications of computing.

3. Required Materials:

1. Sign in or create an account at learn.zybooks.com
2. Enter zyBook code

   CAMOSUNICS124RobbinsSpring2019

3. Subscribe

A subscription is **$59US** and will last until May 13, 2019.

4. Basis of Student Assessment (Weighting)

(a) **30% Three module tests worth 10% each.** The module tests will occur during regularly scheduled lectures.
Students must achieve a passing average on the module tests to pass the course.

(b) **5% Quizzes**
Quizzes will be held during labs. The lowest quiz mark will not be included in the calculation. This also implies that you may miss one quiz without penalty. (The missed quiz will receive a mark of zero. That will be your lowest quiz mark and will not be included in the calculation.)

(c) **15% zyBook *Participation*, *Challenge, and Lab* activities.**

(d) **15% Assignments**
ALL assignments must be attempted to pass the course. Part marks will be given for non-working assignments.
Note: Suggested due dates will be given for labs/assignments. It is strongly recommended that students complete their work by the due dates; however, students will have until the last day of classes to submit the labs/assignments.

(c) 35% Final Exam
Students must pass the final to pass the course.

5. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There is a variety of services available for students to assist them throughout their learning. This information is available in the College Calendar, Student Services or the College web site at http://www.camosun.bc.ca

STUDENT CONDUCT POLICY

There is a Student Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.

http://www.camosun.bc.ca/policies/policies.html

Be sure to do your own work, do not share you work with others, and cite anything that is not your own work.

6. GRADING SYSTEM *http://www.camosun.bc.ca/policies/policies.php*

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