

tentative COURSE SYLLABUS



COURSE TITLE: ICS124

CLASS SECTIONS: X01, X02

TERM: Winter 2022

COURSE CREDITS: 3

DELIVERY METHOD(S): Flipped Classroom

Camosun College campuses are located on the traditional territories of the Ləkʷəŋən and W̱SÁNEĆ 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: Lynda E. Robbins, PhD

EMAIL: robbinsl@camosun.bc.ca

OFFICE: TEC 254

HOURS: by appointment via email

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

Academic Calendar: Course Description

COURSE LEARNING OUTCOMES / OBJECTIVES

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.

REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

Mandatory Text: This course uses an online, interactive textbook called a zyBook. You will need a credit card for payment which is charged in US\$. Here is the algorithm to obtain access to your zyBook:

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

CAMOSUNICS124RobbinsSpring2022

3. Subscribe

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.

Week Number	Topic
1	<ul style="list-style-type: none">- Course Introduction- Programming Review
2	<ul style="list-style-type: none">- OOP- Complexity Theory
3	<ul style="list-style-type: none">- Searching- Sorting
4	<ul style="list-style-type: none">- Java ArrayList Class- Java: Abstract Classes- Introduction to ADTs (Abstract Data Types)
5	<ul style="list-style-type: none">- Java:<ul style="list-style-type: none">o Genericso Interfaces
6	<ul style="list-style-type: none">- Lists: Introduction
7	<i>Family Day Monday, Reading Break Tuesday-Friday No classes/labs.</i>
8	<ul style="list-style-type: none">- Lists (<i>continued</i>):<ul style="list-style-type: none">o ADTo Implementations:<ul style="list-style-type: none">▪ Array

	- Linked List
9	- Stacks: <ul style="list-style-type: none"> ○ ADT ○ Implementations: <ul style="list-style-type: none"> ▪ Array ▪ Linked List ○ Applications
10	- Recursion - Recursive Sorts
11	- Queues: <ul style="list-style-type: none"> ○ ADT ○ Implementations: <ul style="list-style-type: none"> ▪ Array ▪ Linked List ○ Applications
12	- Trees: <ul style="list-style-type: none"> ○ ADT ○ Implementations: <ul style="list-style-type: none"> ▪ Array ▪ Linked List ○ Applications
13	- Maps - Sets - Hash Tables
14	- Heaps
April 15, April 18	Good Friday and Easter Monday: College Closed
EXAM PERIOD	April 19-27

EVALUATION OF LEARNING

If you have a concern about a grade you have received for an evaluation, please see Lynda 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>

ITEM	Weight (%)	Details
<i>zyBook Participation, Challenge, and zyLabs Activities (not included as part of an assignment.)*</i>	5	Students are expected to work on these zyBook activities during lab/lecture times and on their own time.
Lab Exercises	10	Students will complete specified zyBook activities during their weekly lab period.
<i>zyBook Assignments***</i>	15	Students are expected to work on these assignments during lab/lecture times and on their own time.
Tests**	3 tests * 10%	Three tests throughout the term will be held during Thursday lecture times: <ol style="list-style-type: none">1. <i>Thursday February 10</i>2. <i>Thursday March 10</i>3. <i>Thursday March 31so</i>
Final Exam**	40	The final exam is scheduled by Camosun College. Be sure to check the date before making travel arrangements.

COURSE GUIDELINES & EXPECTATIONS

1. *A weighted average of at least 55% must be achieved on the tests and final exam to pass the course.
2. *A weighted average of at least 65% must be achieved on the tests and final exam to continue in the ICS program.
3. **A mark of 85% must be achieved on the mandatory zyBook participation and challenge exercises to pass the course.
4. ***An average mark of 85% must be achieved on assignments and lab exercises to pass the course.
5. Late work is not accepted except in exceptional circumstances. Please contact Lynda well before the due date if you anticipate a problem with meeting a deadline.

SCHOOL OR DEPARTMENTAL INFORMATION

Course Advice:

1. Keep up to date with the zyBook and lecture materials daily.
2. If you are having difficulties with the course, please contact your instructor sooner rather than later.
3. Programming is a skill. To become a good programmer you must practice, practice, practice every day.
4. *Be sure you do your own work.* **This course utilizes automated and manual checking mechanisms for plagiarism.** 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.

Department Policies:

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

- **Academic Dishonesty:**

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

2nd violation: a grade of "F" in the course

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

- **Electronic Devices:**

You may only use electronic devices during evaluations (quizzes, tests, exams, etc.) when explicitly allowed to do so. Using a cell phone or other unauthorized electronic device (eg ipad, laptop, playbook, etc.) during an evaluation is an academic offence that will automatically result a grade of "F" in the 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 noticed is required. Deadlines scan be reviewed on the [CAL exams page](http://camosun.ca/services/accessible-learning/exams.html). <http://camosun.ca/services/accessible-learning/exams.html> Also: Students who have CAL accommodations must contact Lynda directly when accommodations are requested.

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
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.

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.