



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

**ICS 224**  
**Mobile App Development**  
**Winter 2021**

**COURSE OUTLINE**

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The calendar description is available on the web @ [camosun.ca/learn/calendar/current/web/ics.html](https://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.

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**1. Instructor Information**

(a) Instructor	Michael Horie
(b) Office hours	By appointment
(c) Location	Online
(d) Phone	Please email <b>Alternative:</b>
(e) E-mail	horiem@camosun.bc.ca
(f) Website	D2L

**2. Intended Learning Outcomes**

At the end of this course, students will be able to:

- Describe technology and business trends impacting mobile applications
- Describe and apply the different types of application models/architectures used to develop mobile software applications
- Identify the limitations and challenges working in a mobile and wireless environment
- Design, implement, test, and deploy mobile applications using an appropriate development environment
- Apply accepted standards to ensure security, privacy, and integrity of data while recognizing the ethical, legal, and social implications of wireless computing

### 3. Required Materials

(a) Texts

The Swift Programming Language (Apple)

iOS Human Interface Guidelines (Apple)

App Store Review Guidelines (Apple)

App Distribution Guide (Apple)

(b) Other

Lab manual (online)

### 4. Course Content and Schedule

Week 01:

Introduction to Xcode and Swift (Reading: The Swift Programming Language)

Week 02

Introduction to Xcode and Swift Cont'd (Reading: The Swift Programming Language)

Week 03:

Introduction to Xcode and Swift Cont'd (Reading: The Swift Programming Language)

Lab 1 due

Week 04:

Introduction to Xcode and Swift Cont'd (Reading: The Swift Programming Language)

Lab 2 due

Week 05:

Introduction to Xcode and Swift Cont'd (Reading: The Swift Programming Language)

Lab 3 due

Week 06:

Reading Break

**No labs this week**

Week 07:

Introduction to iOS Frameworks

Human Interface Guidelines (Reading: iOS Human Interface Guidelines)

App Store Review Guidelines (Reading: App Store Review Guidelines)

App Distribution Guidelines (Reading: App Distribution Guide)

Mobile Application Trends and Limitations

Lab 4 due

Week 08:

Introduction to ARKit

Lab 5 due

Week 09:

Introduction to Games

Lab 6 due

Week 10:

Introduction to Navigation

Lab 7 due

Week 11:

Introduction to Notifications

Lab 8 due

Week 12:

Introduction to Messaging

Introduction to Contacts

**No labs on Wednesday or Friday (due to Good Friday)**

Week 13:

Introduction to Pasteboards and Preferences

Introduction to Extensions

**No labs on Monday (due to Easter Monday)**

Lab 9 due

Week 14:

Review

Lab 10 due

Quizzes almost every week, with each quiz being scheduled at the beginning of the lab

This schedule is subject to change

## 5. Basis of Student Assessment (Weighting)

See Department Policy (Section 8) for additional details

(a) Assignments

N/A

(b) Labs

15%

Must complete all labs.

Late labs are subject to a 100% 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) Quizzes

80%

One lowest quiz mark will be dropped

Must achieve a minimum average of 55% on quizzes.

(d) Exams

N/A, except as outlined under Department Policies (Section 8)

(e) Other (e.g. Project, Attendance, Group Work)

5%

Lab attendance and participation (specifically, arriving on time with the required materials)

## 6. Grading System

Standard Grading System (GPA)

Competency Based Grading System

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

### Student Conduct:

It is important that you familiarize yourself with College policy around academic honesty and what it means when you violate the Standards of Integrity.

Policy E-1.13: Academic Integrity

<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf>

Policy E-2.5.1: Plagiarism: Definitions and Consequences

<http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.1.pdf>

See Department Policy (Section 8) for additional details

### Academic Accommodations:

“You are responsible to communicate with your instructors. If you are registered with CAL, CAL will provide you with a letter for each course instructor outlining what accommodations you require.

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Connecting with your course instructors shortly after you have shared your letter of academic accommodation (as early as possible at the beginning of the term, if possible) will provide an opportunity to discuss the content, structure and expectations of the

course as they relate to your academic accommodations. Connecting in with your instructor(s) gives you both a good opportunity to consider how the term might work and any contingency plans that may be needed. You are not required to disclose the nature of your disability to your course instructor(s), just what academic accommodations you need.

If you have accommodations for exams, it is your responsibility to review and follow the processes outlined on the Exams page.” (<http://camosun.ca/services/accessible-learning/current-students.html>)

The following document is also helpful in understanding academic accommodations: <http://camosun.ca/services/accessible-learning/documents/academic-accommodation.pdf>

## 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. You must provide a note from a medical practitioner (Doctor, Nurse, Psychologist, Counsellor, etc) In such cases, the proportion of grade assigned to the missed quiz or exam will be added to the value 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 receive 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://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>

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.
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## 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/education-academic/e-1-programming-and-instruction/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.