CAMOSUN COLLEGE
School of Trades and Technology
Computer Science Department

ICS 224 X01 – Mobile App Development
Spring 2019

COURSE OUTLINE

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

∧ *Please note: This outline will not be kept indefinitely. It is recommended students keep this outline in their records, especially to assist in transfer credit to post-secondary institutions.*

1. Instructor Information

(a)	**Instructor**	Michael Y Liu
(b)	**Office hours**	By Appointment
(c)	**Location**	Technology Building 263
(d)	**Phone**	250-588-1368 **Alternative:** N/A
(e)	**E-mail**	LiuM@camosun.bc.ca
(f)	**Website**	D2L

2. Intended Learning Outcomes

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

- Get familiar with mobile application development for iOS and Android platforms
- Design, implement, test, and deploy mobile applications using an appropriate development environment
- 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

Week numbers relate to the schedule listed in *Course Content and Schedule* below.

3. Required Materials

(a) Required Texts
Provided Online & in-class Printouts

(b) Optional Texts
N/A

3. Course Content and Schedule

Week 01:
Introduction to Swift (Reading: *The Swift Programming Language*), MVC Pattern, Xcode, Android Studio.

Week 02:
Swift Language continues, Introduction to iOS and Android App GUI Design (Reading: *Start Developing iOS Apps*, Andriod Developer Guide), *Human Interface Guidelines (Reading: iOS Human Interface Guidelines)*
Lab1 Starts

Week 03:
Swift Language continues, Introduction to Mobile App Controller components (Reading: *Start Developing iOS Apps*, Android Developer Guide).
Lab2&3 Starts, Project Proposal Starts
Quiz1

Week 04:
Swift Language continues, Introduction to Mobile App Navigations. (Reading: *Start Developing iOS Apps*, Android Developer Guide).

Week 05:
Introduction to Mobile App Configurations. System Permissions on Android and iOS.
Lab4 Starts, Project Proposal Due.

Week 06:
Mobile App Development Debugging (Reading: Debugging with Xcode), Testing (Reading: Testing with Xcode)
Quiz2, Lab5 Starts, **Project Skeleton Demo**

Week 07:
Reading Break

Week 08:
Iintroduction to Mobile App Networking, Privacy, Security , Data Storage Topics.
Lab6 Starts

Week 09:
Continue to Mobile App Networking, Privacy, Security , Data Storage Topics.

Week 10:
Android Device Diversity (Reading: Andriod Developer Guide), Android app Architecture and Frameworks (Reading: Android Developer Guide)
Quiz3, Lab 7 starts, **Project Preliminary Demo**

Week 11:
iOS App Performance Tuning (Reading: App Programming Guide for iOS)

Week 12:
iOS App Architecture (Reading: App Programming Guide for iOS), and Frameworks (Reading: iOS Technology Overview)
Lab 8 Starts

Week 13:
App Distribution Review(Reading: App Distribution Guide), App Store Review (Reading: App Store Review Guidelines)
Quiz4

Week14:
Mobile Application Trends and Limitations
Project Final Demos with Documentation

This schedule is subject to change.

5. Basis of Student Assessment (Weighting)

(a) Assignments
Lab + Home Components   20%
Must complete ALL labs to pass the course

(b) Quizzes   40%
Must pass the quiz portion to pass the course

(c) Exams
N/A

(d) Other (e.g. Project, Attendance, Group Work)
iOS Project or Android Project   40%

Must pass course project to pass the course

Late work will **not** be accepted, except by the instructor's prior written permission or in the presence of a dire and documented short-term medical or family emergency. Mark appeals must be made **within 7 days** of the mark being posted.

6. Grading System

| X | Standard Grading System (GPA) |

| | Competency Based Grading System |

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

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are 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

G. RADING 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	*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.