CIS*4030 Mobile Computing
0.50 Credits – Undergraduate – Winter 2024
School of Computer Science – University of Guelph

Lectures: Mon/Wed/Fri (THRN 2420) 10:30-11:20am (01) / 1:30-2:20pm (02)

Instructor Details: *Office hours:* send email to schedule.
Connor Geddes geddesc@uoguelph.ca

Course Website: https://courselink.uoguelph.ca/d2l/home/870924
The course website will be used to post any materials, announcements, and assignment specifications and grades. You are responsible for checking this site regularly.

Textbook: *None*

Course Prerequisites: CIS*2030, CIS*2750, CIS*3110

Course Description: This course introduces students to mobile computing and mobile application development. It examines mobile technology, application development, user interaction, data storage, and software tools.

Course Objectives: The purpose of this course is to help you become familiar with the technical skills and experience necessary to be competitive for an entry-level cross-platform Mobile Developer job. To build this expertise, you will be completing exercises and a project with a mobile development language or framework: Native (iOS or Android) or Cross Platform (Flutter or React Native). The goal of the project is to have it releasable on the mobile app stores by the end of the course.

COURSE PLAN

Exercises: Each Monday & Wednesday (from 10 January to 20 March) you will receive an exercise that assesses a core component of mobile development taught during the class lectures. Each exercise must be submitted underline during class time on Monday's and Wednesday's.

Group Project: Over the course of the semester, you will build a mobile app with a team. Your submission will comprise three Milestone submissions:

Milestone 1 will consist of declaring a potential project idea, background research for the idea, and initial interface design (i.e., storyboard and potential layout widgets).

Milestone 2 will consist of the development of the initial interface design of your mobile application, updating the implementation plan for the final deliverable, and an in-class presentation both discussing your project idea and showing off the initial prototype developed.

Milestone 3 will consist of a live in class demo of your application (Note: this will require you to deploy your app to a physical device), and a reflection on the creation of this application throughout the semester.

Grading Scheme:
- Weekly Exercises [15 in total - Lowest two are dropped] = 52% (4% each)
- Group Mobile Project:
    - Milestone 1 (15% - project topic background research + initial interface design (storyboard & mock-up of layout widgets) + implementation plan). Presented in class February 16, 2024.
    - Milestone 2 (15% - interface implementation + updated implementation plan). Presented in class March 15, 2024.
    - Milestone 3 (18% - in class demo). Live demo in class April 5, 2024.

Your final grade will be the weighted average of your grades for the above components.

Course Schedule:

Week (Monday)	Monday	Wednesday	Friday
00 (8 Jan)	Course Introduction	Basics & Styling	Group Formation
01 (15 Jan)	Layout	Interactivity	Group Project Work
02 (22 Jan)	Mobile Design	Lists	Group Project Work
03 (29 Jan)	Grids	Navigation	Group Project Work
04 (05 Feb)	State Management	Async	Group Project Work
05 (12 Feb)	M1 Presentations	M1 Presentations	M1 Presentations
WB (19 Feb)	--	--	--
06 (26 Feb)	Accessibility	Animations	Group Project Work
07 (04 Mar)	Serialization	Storing Data Locally	Group Project Work
08 (11 Mar)	M2 Presentations	M2 Presentations	M2 Presentations
09 (18 Mar)	HTTP Requests	Firebase	Group Project Work
10 (25 Mar)	--	--	Group Project Work
11 (01 Apr)	--	--	M3 Demo

Late Policy:

Exercises:

All exercises are scheduled to be due after the class they were assigned. However, in all cases you will be provided with an automatic two-week extension to finish and submit each exercise. As an example, for the first exercise "Basics & Styling" it will be assigned Jan 10th, but you will have until Jan 24th to submit in class.

Milestones:

Milestones will be strictly completed as presentations and as such will have no auto extension provided to them. Failure to present the milestone in the allotted time in class will result in a '0' on that milestone.

Communication (i.e., How to get help…)
As per university regulations, all students are required to check their *uoguelph.ca* email account regularly. E-mail is the official route of communication between the University and students.

The best way to get help is to ask during lectures and office hours. Failing that, please reach out to me (email above) to discuss further. In all emails sent to me please append the course title (CIS4030) to any email (e.g., CIS4030: Question for lists exercise). Emails without CIS4030 at the start will be ignored. Please be respectful in all email correspondence. I will do the same.

When You Cannot Meet a Course Requirement:
When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. These notices must be made known as soon as possible and prior to the deadline. Any requests made after the deadline of assignments will not be considered. See the undergraduate calendar for information on regulations and procedures for Academic Consideration.

Drop Date:

Courses that are one semester long must be dropped by the end of the last day of classes. The regulations & procedures for dropping courses are available in the Undergraduate Calendar: https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml

Copies of out-of-class assignments:
Keep reliable back-up copies of any work that you do in the course; you may be asked to resubmit your work at any time.

Accessibility:
The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required, however, interim accommodations may be possible while that process is underway. Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to make a booking at least 14 days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time. More information is available at: http://www.uoguelph.ca/sas

Academic Misconduct:
The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor. The Academic Misconduct Policy is detailed in the Undergraduate Calendar: http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml

Recording of Materials:
Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

Resources:
The Academic Calendars are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs: http://www.uoguelph.ca/registrar/calendars/index.cfm?index

Illness:

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).

Disclaimer:

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email. This includes on-campus scheduling during the semester, midterms, and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (https://news.uoguelph.ca/2019-novel-coronavirus-information/) and circulated by email.

For information on current safety protocols, please follow these links:
https://news.uoguelph.ca/return-to-campuses/how-u-of-g-is-preparing-for-your-safe-return/
https://news.uoguelph.ca/return-to-campuses/spaces/#ClassroomSpaces

Please note, these guidelines may be updated as required in response to evolving University, Public Health, or government directives.