

CIS*4030 Mobile Computing
0.50 Credits – Undergraduate – Winter 2023
School of Computer Science – University of Guelph

Lectures: Tuesday/Thursday (MCKN 120) 1pm-2:20pm

Instructor Details:

Connor Geddes geddesc@uoguelph.ca

Office hours: Tuesday/Thursday (MCLN 213) 11am-12pm

Teaching Assistant Email:

Keerthana cis4030@socs.uoguelph.ca

Mahmoud cis4030@socs.uoguelph.ca

Course Website: <https://courselink.uoguelph.ca/d2l/home/803007>

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 become an expert in Flutter (a cross-platform toolkit) development during weekly exercises and demonstrate that expertise by building a substantial Flutter mobile application with your group. The goal of the project is to have it releasable on the mobile app stores by the end of the course.

COURSE PLAN

Weekly Exercises: Each Thursday (from 12 January to 02 March) you will receive a weekly exercise that assesses a core component of Flutter taught during the class lectures. Weekly exercises will be released at the end of the final lecture each week (Thursday class) and will be due a week after being assigned. There will be 6 weekly exercises in total. You will complete these exercises individually.

Group Project: Over the course of the semester, you will build a mobile app with a team using Flutter. Your submission will comprise four Milestone submissions (Milestone 0 – due 20 Jan, Milestone 1 - due 17 Feb, Milestone 2 - due 10 Mar, and Milestone 3 - due 08 Apr).

Milestone 0 will require forming a group and a group agreement. There are currently 81 students in CIS*4030, so there will be 15 groups of 5 and 1 groups of 6. To assist in the formation of groups, I will set up a discussion board on CourseLink. The same groups will be used for the entire course.

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 in flutter, 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 [6 in total - Lowest one is dropped] = 20% (4% each)
- Group Mobile Project:
 - Milestone 0 (5% - Group Agreement). Report due 11:59pm Friday 20 January 2023.
 - Milestone 1 (17.5% - project topic background research + initial interface design (storyboard & mock-up of layout widgets) + implementation plan). Report due 11:59pm Friday 17 February 2023.
 - Milestone 2 (17.5% - interface implementation + updated implementation plan). Report due 11:59pm Friday 10 March 2023.
 - Milestone 3 (25% - in class demo + reflection). Report due 11:59pm Friday 08 April 2023.
- Individual Milestone Reports [3 in total] = 15% (5% each): Milestone individual reports will be required for the major milestones 1-3. Individual Reports are due the day after the deadline for the corresponding milestone it is written for.

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

Course Schedule:

Week (Monday)	Tuesday	Thursday	Weekly Exercise Due Date	Project Deadlines
00 (9 Jan)	Course Introduction	Basics of Flutter	11:59pm 19 Jan	--
01 (16 Jan)	Layout	Stateful Widgets	11:59pm 26 Jan	20 Jan (Milestone 0)
02 (23 Jan)	List & Grid View	Navigation	11:59pm 02 Feb	--
03 (30 Jan)	Flutter Behind the Scenes	State Management	11:59pm 09 Feb	
04 (06 Feb)	State Management	Async & await	11:59pm 16 Feb	--
05 (13 Feb)	Storing Data Locally	HTTP Requests	11:59pm 02 Mar	17 Feb (Milestone 1) 18 Feb (IMR 1)
<i>WB (20 Feb)</i>	--	--	--	
06 (27 Feb)	<i>Group Weekly Meetings (1)</i>	<i>Group Weekly Meetings (2)</i>	--	--
07 (06 Mar)	<i>Group Weekly Meetings (1)</i>	<i>Group Weekly Meetings (2)</i>	--	10 Mar (Milestone 2) 11 Mar (IMR 2)
08 (13 Mar)	<i>M2 Presentations</i>	<i>M2 Presentations</i>	--	--
09 (20 Mar)	<i>Group Weekly Meetings (1)</i>	<i>Group Weekly Meetings (2)</i>	--	--
10 (27 Mar)	<i>Group Weekly Meetings (1)</i>	<i>Group Weekly Meetings (2)</i>	--	--
11 (03 Apr)	M3 Demo		--	08 Apr (Milestone 3) 09 Feb (IMR 3)

Late Policy:Weekly Exercises:

All weekly exercises are scheduled to be due on Thursday at 11:59pm, all weekly exercises will automatically be given a one-day (24 hour) extension. This is done to help accommodate with any unexpected challenges. Any weekly exercises received after the extended deadline will be graded late (receiving a grade of '0').

Milestones and Individual Reports:

The four milestones and three individual reports will all receive a two-day (48 hour) extension automatically. Similar to the weekly exercises these will be provided to help accommodate any unexpected challenges throughout the semester. Any Milestone report or individual report received after the extended deadline will be graded late (receiving a grade of '0').

Communication (i.e., How to get help...)

As per university regulations, all students are required to check their *uoguelph.ca* 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 the TA (email above) or me (email above) to discuss further. The 4030 TA email address (listed at the top of this document) must be used for all email correspondence with the TAs. Only the instructor and TAs have access to this email account.

I get a lot of email, so please state the course title (CIS4030) and your name in any correspondence you send me. If you send me a question that is answerable elsewhere (e.g., Google, course readings, peers, Course Outline, any other resource besides me), I will redirect you instead of answering your question. 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. 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.