Course: DMED 540: Shipping Digital Products:
An overview for non-technical people (3-credits)
Term: Summer 2024
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Course Description
Digital products are all around us. We depend on them to organize our lives, entertain us, keep us informed, and improve our health. But how do digital products—the apps on our phones, computers, cars, and, increasingly, strapped to our faces—actually work?

Turning a "product concept" into a "production application" is often a bumpy process filled with interrelated technical and business trade-offs. The best product teams—comprised of product owners, project managers, creative professionals, technical teams, and business managers—can navigate those challenges efficiently because they all share a common understanding of the key technologies, processes, and constraints in play.

This course is for people who see themselves as "non-technical" project contributors who want to be more familiar with the basic building blocks that are needed to design, build, ship, and maintain digital products. The goal of this course is not to turn students into professional developers. Instead, this course will provide a comfortable understanding of the technologies, constraints, and trade-offs required to ship a digital product, and help them prepare to work effectively with technical professionals in industry.

Course Objectives
Upon completion of this course students will be able to:

- Identify the technical components of modern digital products and how they work together.
- Understand what's going on behind the scenes of a digital product when they interact with a UI.
- Plan for what happens after a digital product has been built.
- Understand the trade-offs associated with different development technologies.
- Contribute to technical conversations at a high level.

Format of the Course

The course will consist of graduate-level seminars, in-class activities, mock scenarios, and a panel discussion with technical and "non-technical" industry professionals. Classes will be highly interactive, and students should show up ready to ask questions and participate. Each class will consist of lectures, hands-on activities, and lots of discussion.

Course Schedule
The course will run on Mondays, 4pm – 7pm, May 6 – July 29, 2024. Classes scheduled on a statutory holiday will be rescheduled at the instructor's discretion.
The following schedule outlines most of the topics covered during the course. *Based on discussions with students as well as topics covered in parallel courses, some topics may be added or modified during the semester at the discretion of the instructor.*

Class	Topic
Week 1	Discussion: closing the gap between “technical” and “non-technical” project contributors
Week 2	The basic architecture of a digital product
Week 3	The Backend: an app’s behind-the-scenes infrastructure
Week 4	Data: storage considerations, regulatory issues, and security for non-developers
Week 5	The Frontend: shaping how users interact with a product
Week 6	API hands-on: what is an Application Programming Interface and how to work with them
Week 7	Workshop: putting it all together to deconstruct our favourite apps
Week 8	Product lifecycle planning: mapping out a product’s life, from launch to sunset
Week 9	Effective technical communication: Git, Gherkin, and other tools
Week 10	Product testing: QA, bugs, user testing, and iteration
Week 11	Distribution: app stores and approval requirements
Week 12	Legal: terms and conditions, privacy policies, client contracts, and the interrelationship with the technologies that power a product
Week 13	Panel discussion: insights from industry professionals about the “technical” vs “non-technical” divide

Evaluation

Grades will be based on the following criteria (subject to instructor revision if deemed necessary):

Participation and engagement ***30%***
Contribute meaningfully to class discussions.
Collaborate effectively in small team activities.
Workshop assignment ***40%***
Demonstrate understanding of core concepts.
Apply core concepts to new situations.
In-class assignments & presentations ***30%***
Use in-class time effectively for assignment completion.

Demonstrate professionalism in submitted and presented work.

Total ***100%***

Note on assessment:

- *Unless specified, a student's grade will be based on their individual contribution to team assignments and presentations.*

Recommended Readings

Recommended readings will be provided in the course notes for students interested in delving deeper into the course content.

Attendance and Participation

Regular attendance is expected of students in all their classes (including participation, group work, tutorials, seminars, online etc.). Students who are unavoidably absent due to illness or disability should notify their instructors of their situation.

- Students are expected to attend every class on the schedule (based on their assigned group) and be fully present**.** While sickness is sometimes inevitable, understand that due to the experiential nature of the material, classes cannot be made up.
- Lateness also informs grading. Classes start punctually every week according to the schedule. Instructions will not be repeated, nor will it be tolerated if a latecomer bothers another student for instructions. If arriving later than half an hour into a class, a student may be marked as absent.
- Due dates: Assignments granted an extension beyond the due date will have no extended comments; assignments handed in late without prior permission will be returned with a grade only, no comments, and 2% per day late, including weekends (i.e., 4% for Saturday and Sunday), deducted from the grade assigned to your paper. Assignments submitted after the assignment has been returned to the rest of the class will not normally be accepted.

https://www.sfu.ca/students/enrolment-services/policies-and-procedures/academic-concessions.html

Grading Profile

A+	95-100	Exemplary expectations
A	90-94	Exceeding expectations
A-	85-89	Meet expectations
B+	80-84	Approaching expectations
B	75-79	
B-	70-74	Below expectations
C	60-69	Far below expectations
F	0 – 59	Fail (Students must retake the course).

A student in a master's or doctoral program must maintain a CGPA of 3.0. Under no circumstances will a student whose CGPA is below 3.0, be awarded a graduate degree.
https://www.sfu.ca/students/advising-resources/calculators/gpa-calculator.html

Laptops & Cell Phones
The use of laptops and cell phones during class is at the discretion of the instructor. *Please respect your classmates and instructors and refrain from text messages, social media, games and videos during class and workshop times.* Please note you should always bring pen and paper to class.

Written & Spoken English
English is the official language of the school and all communication (written and spoken) is expected to be conducted in English. SFU and the MDM Program provide a wide range of free language support for those who need and it's up to each learner to seek that support.

Accommodations
The university accommodates students whose religious obligations conflict with attendance, submitting assignments, or completing scheduled tests and examinations. Please let your instructor know in advance, preferably the first week of class, if you will require any accommodations on these grounds. The Centre for Accessible Learning (CAL) will make every effort to assist students with disabilities so that they achieve their educational goals. https://www.sfu.ca/students/accessible-learning/establishing-accommodations/accommodation.html

Academic Integrity: Your Work, Your Success
SFU's Academic Integrity website http://www.sfu.ca/students/academicintegrity.html is filled with information on what is meant by academic dishonesty, where you can find resources to help with your studies and the consequences of cheating.
Each student is responsible for their conduct as it affects the university community. Academic dishonesty, in whatever form, is ultimately destructive of the values of the university. Furthermore, it is unfair and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the university. http://www.sfu.ca/policies/gazette/student/s10-01.html

Inappropriate use of technology in coursework
If you are using any technology, including generative AI, to produce or edit content that will be part of your graded work in the course, you must be transparent about the tools that you use. Undeclared use of the tool/technology will be considered a violation of the academic integrity policy. Be aware that any tool used will require you to evaluate the output for accuracies and be responsible for making the appropriate corrections.

Graduate Studies Notes
Important dates and deadlines for graduate students are found here: http://www.sfu.ca/dean-gradstudies/current/important_dates/guidelines.html.