

**Course:** DMED 540: Shipping Digital Products:  
*An overview for non-technical people (3-credits)*

**Term:** Summer 2023 – Term 3

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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.

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.

### 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

Each class will consist of lectures, hands-on activities, and lots of discussion.

### Course Schedule

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):

<b>Participation and engagement</b>	<b>30%</b>
<i>Contribute meaningfully to class discussions.</i>	
<i>Collaborate effectively in small team activities.</i>	
<b>Workshop assignment</b>	<b>40%</b>
<i>Demonstrate understanding of core concepts.</i>	
<i>Apply core concepts to new situations.</i>	
<b>In-class assignments &amp; presentations</b>	<b>30%</b>
<i>Use in-class time effectively for assignment completion.</i>	
<i>Demonstrate professionalism in submitted and presented work.</i>	
<b>Total</b>	<b>100%</b>



*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**

Attendance and punctuality are mandatory. Repeated offences will not be tolerated and WILL affect your grade. You are responsible for making up for materials, in-class activities, and assignments missed. Students who are unavoidably absent due to illness or disability should notify their instructors of their situation.

Note that late assignments/projects will not be accepted without prior arrangement or medical documentation.

### **Written & Spoken English Requirement**

As with all MDM courses, this course has a high expectation with respect to communication. You will be expected to write, speak and otherwise express yourself to a high standard in English. Written and spoken work may receive a lower mark if it is, in the opinion of the instructor, deficient in English. It is the student's responsibility to seek extra help if they are not able to perform to expectations. Please talk to your professors or to your advisors if you would like recommendations on getting extra help.

### **Religious Accommodation**

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.

### **Academic Integrity**

MDM considers plagiarism to be the most serious academic offense that a student can commit. Regardless of whether or not it was committed intentionally, plagiarism has serious academic consequences and can result in expulsion from the university. Plagiarism involves the improper use of somebody else's words or ideas in one's own work.

It is the student's responsibility to ensure you fully understand what plagiarism is. Please see the SFU website for an explanation of the various types of plagiarism and to take the plagiarism tutorial:

<http://www.lib.sfu.ca/help/writing/plagiarism>

### **Grading Profile**

A+	95-100
A	90-94
A-	85-89
B+	80-84



B	75-79
B-	70-74
C+	65-69
C	60-64
F	0 - 59

### **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.

### **Policies**

The student and academic policies of the Masters of Digital Media Program and of Simon Fraser University apply within this course.

Relevant SFU policies can be found at:

- Graduate General Regulations  
[http://students.sfu.ca/calendar/for\\_students/grad\\_regulation.html](http://students.sfu.ca/calendar/for_students/grad_regulation.html)
- Academic Honesty and Student Conduct Policies  
<http://www.sfu.ca/policies/Students/index.html>
- Teaching and Instruction Policies  
<http://www.sfu.ca/policies/teaching/index.htm>
- University Policies (complete site)  
<http://www.sfu.ca/policies>

