



# THE UNIVERSITY OF WINNIPEG

## APPLIED COMPUTER SCIENCE

Course Number: ACS-1805-051  
Course Name: Introduction to Programming  
Course Webpage: <https://nexus.uwinnipeg.ca/d2l/home/75740>

### Instructor Information

<b>Instructor:</b>	Amanpreet Kaur		
<b>E-mail:</b>	<a href="mailto:am.kaur@uwinnipeg.ca">am.kaur@uwinnipeg.ca</a>		
<b>Office Hours:</b>	Thursdays	3:00 pm - 4:00 pm	3C08B
<b>Class meeting time:</b>	Thursdays	6:00 pm - 9:00 pm	3D01
<b>Lab time:</b>	L-072 Fridays L-073 Fridays	8:30 am - 9:30 am 9:30 am - 10:30 am	3D03 3D03

### Important Dates

1. First Class:	Thursday, January 8, 2026
2. First Lab:	Friday, January 9, 2026
3. Reading week (no classes):	February 15 – 21, 2026
4. Midterm Test:	Thursday, February 26, 2026
5. Final Withdrawal Date without academic penalty*:	Friday, March 13, 2026
6. Last Class:	Thursday, April 2, 2026
7. Last Lab:	Monday, April 6, 2026
8. Final Exam:	TBD
9. Final Exam Period:	April 9 – 22, 2026
10. University closures: Louis Riel Day Good Friday	Monday, February 16, 2026 Friday, April 3, 2026
11. Make-up Lab on holiday closures:	Monday, April 6, 2026

\*A minimum of 20% of the work on which the final grade is based will be evaluated and available to the student before the voluntary withdrawal date.

## **Course Objectives / Learning Outcomes**

This course introduces fundamental programming concepts using MIT's App Inventor (MIT AI). Students learn to develop and test programs that can run on Android phones and tablets. Fundamental topics include app architecture, software engineering principles, variables, functions, decision structures, iteration, lists, procedures, databases, user interface, events, and sensors.

The programming environment we use for this course is MIT AI. MIT AI runs on an internet browser on Windows, Macintosh, and Linux computers. MIT AI is a user-friendly visual programming environment for creating Android applications. It employs a drag-and-drop interface for designing apps and a block-based language for defining behavior. With real-time testing on Android and iOS (Apple) devices, students can quickly iterate and debug their creations. MIT AI is particularly popular in education, offering a hands-on approach to programming concepts through its intuitive design and diverse set of built-in components.

Free access to MIT AI and other MIT AI resources can be found at <https://appinventor.mit.edu>

## **Evaluation Criteria**

### **1. Labs (10%)**

- Best 10 labs out of 11 labs. Each Lab is worth 1% each.
- Labs are to be completed during the Friday lab period and are required to be submitted to Nexus no later than 11:59 pm on the same day.
- No late lab submissions will be accepted.
- When submitting your Lab files, please name the file with lab number, your first name, and student ID e.g., Lab1\_John\_12345. So, for PDF file it should be Lab1\_John\_12345.pdf and for application created in app inventor, it should be Lab1\_John\_12345.aia.

### **2. Assignments (15%)**

- There will be three assignments. Each assignment will be worth 5%, making the total 15% of the overall course final grade.
- Due at 11:59 pm on the assignment indicated due date.
- Assignments will be accepted up to 1 day late with a 20% penalty. Late or handwritten assignments will not be accepted other than under exceptional circumstances, e.g., medical, death in a family, etc., and are subject to approval.
- Assignments and labs are required to be submitted through Nexus. All coding is to be submitted in \*.aia format, and any written work in PDF format. Further details and submission procedures will be stated in each lab/assignment.
- When submitting your assignment files, please name the file with assignment number, your first name, and student ID e.g., Assignment1\_John\_12345. So, for a PDF file, it should be Assignment1\_John\_12345.pdf, and for an application created in App Inventor, it should be Assignment1\_John\_12345.aia.
- Assignments that do not meet all the requirements, including those for the submissions, may not be accepted, or a portion of the marks will be

deducted. Marks will be deducted for not following the file submission and file naming formats, and for not following the instructions in the assignment.

- Problem-solving assignments can be very time-consuming. So please start early. Students are responsible for reviewing their assignments before submission to make sure the correct files are submitted. All assignments are to be completed individually.
- Multiple submissions are permitted, but only the last submission will be accepted as the official final and be marked. Students may submit a partially completed assignment and will receive credit for those attempted problems.

Students are responsible for backing up and protecting their lab and assignment work.

3. Midterm Test (25%)
  - During the regular class time (see Important Dates)
4. Final Exam (50%)
  - Cumulative

### **Test / Exam Requirements**

- Photo ID is required for the final exam.
- The use of computers, calculators, phones, or other electronic devices is not permitted during exams.
- Midterm and final exams are closed book.

*Students should contact the instructor as soon as possible* if extenuating circumstances require missing an assignment, test, or examination. A medical certificate from a practicing physician may be required before any adjustments are considered.

Students with documented disabilities, temporary or chronic medical conditions, requiring academic accommodations for tests/exams (e.g., private space) or during lectures/laboratories (e.g., note-takers) are encouraged to contact Accessibility Services (AS) at 204-786-9771 or [accessibilityservices@uwinnipeg.ca](mailto:accessibilityservices@uwinnipeg.ca) to discuss appropriate options. All information about a student's disability or medical condition remains confidential.

<https://www.uwinnipeg.ca/accessibility-services>

Students may choose not to attend classes or write examinations on holy days of their religion, but they must notify their instructors at least two weeks in advance. Instructors will then provide an opportunity for students to make up work examinations without penalty. A list of religious holidays can be found in the 2025-26 Undergraduate Academic Calendar online at <http://uwinnipeg.ca/academics/calendar/docs/important-notes.pdf>

### **Final Letter Grade Assignment**

Historically, numerical percentages have been converted to letter grades using the following scale. However, instructors can deviate from these values based on pedagogical nuances of a particular class, and final grades are subject to approval by the Department Review Committee.

A+	90 – 100%	B+	75 – 79%	C	60 – 64%
A	85 – 89 %	B	70 – 74%	D	50 – 59%
A-	80 – 84%	C+	65 – 69%	F	below 50%

NOTE: Final grades require departmental/program approval and may be subject to change.

### **Required Text Book / Reading List**

#### **App Inventor 2: Create your own Android Apps**

Second Edition

David Wolber, Hal Abelson, Ellen Spertus, Liz Looney ISBN 13: 978-1491906842.

Available for free online: <http://www.appinventor.org/book2>

- There may be additional reading materials that will be provided in class.
- Class notes and notices will be posted on the course website. Students are responsible for the material covered in class and announcements made in class.

### **Prerequisite Information**

- None

### **Requisite Information**

- ACS-1805L (lab) must be taken concurrently.
- Students are expected to be capable of performing basic computer operations (understand and manipulate file folders, copy/paste files/contents, etc.) and using the Internet (especially using a web browser).

### **Regulations, Policies, and Academic Integrity**

Students are encouraged to familiarize themselves with the Academic Regulations and Policies found in the University Academic Calendar at:

<https://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf>

Particular attention should be given to subsections 8 (Student Discipline), 9 (Senate Appeals) and 10 (Grade Appeals).

***Avoiding Academic Misconduct:*** Academic dishonesty is a very serious offense and will be dealt with in accordance with the University's policies.

Detailed information can be found at the following:

- Academic Misconduct Policy and Procedures:  
<https://www.uwinnipeg.ca/policies/docs/policies/academic-misconduct-policy.pdf> and  
<https://www.uwinnipeg.ca/policies/docs/procedures/academic-misconduct-procedures.pdf>
- About Academic Integrity and Misconduct, Resources and FAQs:  
<https://library.uwinnipeg.ca/use-the-library/help-with-research/academic-integrity.html>

Uploading essays and other assignments to essay vendor or trader sites (filesharing sites that are known providers of essays for use by others who submit them to instructors as their own work) involves “aiding and abetting” plagiarism. Students who do this can be charged with Academic Misconduct.

**Academic Integrity and AI Text-generating Tools:** The use of AI tools in this course **is prohibited**. This includes all forms of generative AI, like ChatGPT, Claude, Gemini, etc., as well as AI writing and paraphrasing tools, such as Grammarly, Quillbot, etc. If you are unsure whether the use of a specific technology is permitted, ask the instructor before using the tool for coursework. Suspected misuse of AI may result in a report to the Senate Academic Standards and Misconduct Committee.

**Non-academic misconduct:** Students are expected to conduct themselves in a respectful manner on campus and in the learning environment, irrespective of the platform being used. Behaviour, communication, or acts that are inconsistent with a number of UW policies could be considered “non-academic” misconduct. More detailed information can be found here:

- Respectful Working and Learning Environment Policy:  
<https://www.uwinnipeg.ca/respect/respect-policy.html>,
- Acceptable Use of Information Technology Policy:  
<https://www.uwinnipeg.ca/policies/docs/policies/acceptable-use-of-information-technology-policy.pdf>
- Non-Academic Misconduct Policy and Procedures:  
<https://www.uwinnipeg.ca/policies/docs/policies/student-non-academic-misconduct-policy.pdf> and <https://www.uwinnipeg.ca/policies/docs/procedures/student-non-academic-misconduct-procedures.pdf>

**Copyright and Intellectual Property:** Course materials are the property of the instructor who developed them. Examples of such materials are course outlines, assignment descriptions, lecture notes, test questions, and presentation slides—irrespective of format. Students who upload these materials to filesharing sites, or in any other way share these materials with others outside the class without prior permission of the instructor/presenter, are in violation of copyright law and University policy. Students must also seek prior permission of the instructor/presenter before, for example, photographing, recording, or taking screenshots of slides, presentations, lectures, and notes on the board. Students found to be in violation of an instructor’s intellectual property rights could face serious consequences pursuant to the Academic Misconduct or Non-Academic Misconduct Policy; such consequences could possibly involve legal sanction under the Copyright Policy:

<https://www.uwinnipeg.ca/policies/docs/policies/copyright-policy.pdf>

## **Privacy**

Students have rights in relation to the collection of personal data by the University of Winnipeg.

- Student Privacy: <https://www.uwinnipeg.ca/privacy/admissions-privacy-notice.html>
- Zoom Privacy: <https://www.uwinnipeg.ca/privacy/zoom-privacy-notice.html>
- Exam and Proctoring: <https://www.uwinnipeg.ca/privacy/zoom-test-and-exam-proctoring.html>

## **Class Cancellation, Correspondence with Students, Email Communication Requirements and Withdrawing from Course**

When it is necessary to cancel a class due to exceptional circumstances, the course instructor will make every effort to inform students via UWinnipeg email and Nexus.

Students are reminded that they have a responsibility to regularly check their UWinnipeg e-mail addresses to ensure timely receipt of correspondence from the University and/or the course instructor.

The email sent to the instructor must include your full name, your student #, and the COURSE # and SECTION # (like ACS-1805-051) in the subject line of your email. A respectful manner is also expected in email communications.

Please let the course instructor know if you plan on withdrawing from the course. Note that withdrawing before the VW date does not necessarily result in a fee refund.

## **Student Wellness**

The University of Winnipeg affirms the importance of student mental health and our commitment to providing accessible, culturally appropriate, and effective services for students. Students who are seeking mental health supports are encouraged to reach out to the Wellness Centre at [studentwellness@uwinnipeg.ca](mailto:studentwellness@uwinnipeg.ca) or 204-258-3809. For community-based mental health resources and supports, students are encouraged to dial 2-1-1. This program of United Way is available 24/7 in 150 languages. Other resources and contact information can be found at the following link: <https://www.uwinnipeg.ca/student-wellness/contact-us.html>.

## **Sexual Violence and Human Rights Advisor (SVHRA)**

Students who have experienced Sexual Violence can access support from the SVHRA. The SVHRA receives disclosures and can support students with on and off-campus reporting. In collaboration with the Sexual Violence Response Team (SVRT), the SVHRA also provides fast-track referrals to Student Wellness, academic accommodations, security support, and other on and off campus supports. The SVHRA and SVRT operate within a confidential, survivor-

centered, and trauma-informed framework. <https://www.uwinnipeg.ca/respect/sexual-violence/>

*Disclosures may be made in-person, email, by text, by phone, or Zoom/Teams.*

5Ri55, 5<sup>th</sup> Floor (Rice Centre)  
204.230.6660 – *call or text (confidential line)*  
[svrt@uwinnipeg.ca](mailto:svrt@uwinnipeg.ca)

### **Topics to be covered (tentative)**

Chapters 1 through 13 are tutorials for programming. Chapters 14 through 23 cover more general topics, including app architecture and programming concepts.

- Chapter 1 Hello Purr
- Chapter 2 Paint Pot
- Chapter 3 Mole Mash
- Chapter 4 No Texting While Driving
- Chapter 5 Ladybug Chase
- Chapter 6 Paris Map Tour
- Chapter 8 Presidents Quiz
- Chapter 9 Xylophone
- Chapter 10 MakeQuiz and TakeQuiz
- Chapter 11 Broadcast Hub
- Chapter 12 Robot Remote
- Chapter 13 Amazon at the Bookstore
- Chapter 14 Understanding an App's Architecture
- Chapter 15 Engineering and Debugging an App
- Chapter 16 Programming your app's memory
- Chapter 17 Creating animated apps
- Chapter 18 Programming Your App to Make Decisions: Conditional Blocks
- Chapter 19 Programming Lists of Data
- Chapter 20 Repeating Blocks
- Chapter 21 Defining Procedures and Reusing Blocks
- Chapter 22 Working with Database
- Chapter 23 Reading and Responding to Sensors

Note that all topics listed may not be covered and may be offered in a slightly different time order.

*A permitted or necessary change in mode of delivery may require adjustments to important aspects of course outlines, like class schedule and the number, nature, and weighting of assignments and/or exams.*

*In order to ensure a safe and comfortable learning environment for everyone, we kindly ask that **all students refrain from wearing or using scented products** while attending class.*