



# THE UNIVERSITY OF WINNIPEG

## APPLIED COMPUTER SCIENCE

Course Number: ACS-1904-001, 070L, 071L  
Course Name: Programming Fundamentals II  
Course Webpage: <https://nexus.uwinnipeg.ca/d2l/home/55723>

### Instructor Information

**Instructor:** Jesse Harder  
**E-mail:** [je.harder@uwinnipeg.ca](mailto:je.harder@uwinnipeg.ca)  
**Office Hours:** Mondays 5:00 pm - 6:00 pm 3C07

**Class meeting time:** Tuesdays/Thursdays 4:00 pm - 5:15 pm 3D01  
**Lab time:** 070L Fridays 11:00 am - 12:15 pm 3D03  
071L Fridays 12:15 pm - 1:30 pm 3D03

### Important Dates

1. First Class: Tuesday, September 5, 2023
2. First Lab: Friday, September 8, 2023
3. Reading Week (no classes): October 8 – 14, 2023
4. Midterm Test: Thursday, October 19, 2023
5. Final Withdrawal Date w/o academic penalty\*: Monday, November 13, 2023
6. Last Class: Thursday, November 30, 2023
7. Last Lab: Friday, December 1, 2023
8. Final Exam (Comprehensive): TBD
9. University Closures (no classes or labs):
  - a. Truth and Reconciliation Day Saturday, September 30, 2023
  - b. Thanksgiving Monday, October 09, 2023
  - c. Remembrance Day Saturday, November 11, 2023

\*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 examines more advanced programming concepts using the Java object-oriented programming language. Topics to be covered include major concepts of object-oriented design, inheritance, polymorphism, string/text processing, wrapper classes, searching and sorting algorithms, recursive programming, exceptions, and advanced file I/O among others.

### **Evaluation Criteria**

1. Labs (10%)
  - Eleven weekly labs, worth 1% each
  - Best ten lab grades out of eleven will be taken
  - Each lab is due at midnight on the day of the lab
  - No late lab submissions will be accepted
2. Assignments (15%)
  - Three assignments, worth 5% each
  - Individual due dates will be posted on Nexus
  - No late assignment submissions will be accepted
3. Midterm Test (25%)
  - During the regular class time (see Important Dates)
4. Final Exam (50%)
  - Cumulative
  - Date and location to be announced

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

### **Course Delivery**

The lectures and the labs will be delivered in person on campus. All course material including lecture notes, slides and assignment/lab details will be available on Nexus.

All labs and assignments are to be submitted electronically via Nexus, no other submission methods will be accepted. Assignments and labs may include programming questions, as well as theory. All coding is to be submitted in \*.java format, and any written work in \*.pdf format. Further details and submission procedures will be stated in each lab/assignment. Students are responsible for backing up and protecting their lab and assignment work.

## **Test / Exam Requirements**

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

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 opportunity for students to make up work examinations without penalty. A list of religious holidays can be found in the 2019-20 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%

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

- Java with BlueJ Part 2  
Ron McFadyen  
University of Winnipeg, March 2016  
- Available at [www.acs.uwinnipeg.ca/rmcfadyen/CreativeCommons](http://www.acs.uwinnipeg.ca/rmcfadyen/CreativeCommons)
- Class notes will be available on Nexus

## **Prerequisite Information**

- Requisite courses: ACS-1903 with a minimum grade of C
- ACS-1904L (lab) must be taken concurrently

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

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

*Avoiding Academic Misconduct:* 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). Please note, in particular, the subsection of Student Discipline pertaining to plagiarism and other forms of cheating.

Detailed information can be found at the following:

- Academic Misconduct Policy and Procedures: <https://www.uwinnipeg.ca/institutional-analysis/docs/policies/academic-misconduct-policy.pdf> and <https://www.uwinnipeg.ca/institutional-analysis/docs/policies/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:** Students must follow principles of academic integrity (e.g., honesty, respect, fairness, and responsibility) in their use of material obtained through AI text-generating tools (e.g., ChatGPT, Bing, Notion AI). If an instructor prohibits the use of AI tools in a course, students may face an allegation of academic misconduct if using them to do assignments. If AI tools are permitted, students must cite them. According to the MLA (<https://style.mla.org/citing-generative-ai/>), writers should

- cite a generative AI tool whenever you paraphrase, quote, or incorporate into your own work any content (whether text, image, data, or other) that was created by it
- acknowledge all functional uses of the tool (like editing your prose or translating words) in a note, your text, or another suitable location
- take care to vet the secondary sources it cites

If students are not sure whether or not they can use AI tools, they should ask their professors.

**Non-academic misconduct:** Students are expected to conduct themselves in a respectful manner on campus and in the learning environment irrespective of 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/institutional-analysis/docs/policies/acceptable-use-of-information-technology-policy.pdf>
- Non-Academic Misconduct Policy and Procedures: <https://www.uwinnipeg.ca/institutional-analysis/docs/student-non-academic-misconduct-policy.pdf> and <https://www.uwinnipeg.ca/institutional-analysis/docs/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://copyright.uwinnipeg.ca/basics/copyright-policy.html>

## **Privacy**

Students have rights in relation of the collecting of personal data the University of Winnipeg: <https://www.uwinnipeg.ca/privacy/admissions-privacy-notice.html>.

More information:

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

## **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 204-988-7611. 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

## **Class Cancellation, Correspondence with Students 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.

Please let 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.

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

1. Arrays
2. Text Processing
3. Enumeration
4. Inheritance
5. Classes and Object Orientation
6. Files and I/O
7. Exception Handling
8. Recursion
9. Sorting and Searching Algorithms

*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.*