THE UNIVERSITY OF WINNIPEG

APPLIED COMPUTER SCIENCE

Course Number: ACS-1904-518, 079L
Course Name: Programming Fundamentals II
Course Webpage: https://nexus.uwinnipeg.ca/d2l/home/67500

Instructor Information

Instructor: Rob Sveinson
E-mail: r.sveinson@uwinnipeg.ca

Office Hours: Friday: 11:00 a.m. – 12:00 p.m. via Zoom
Join Zoom Meeting

https://us06web.zoom.us/j/88017288700

Meeting ID: 880 1728 8700
Passcode: 035845

Class meeting time:	Mondays/Wednesdays	1:00-2:15 pm	1W07
Lab time:	Fridays	1:00-2:15 pm	1W07

Important Dates

1.	First Class:	Monday, January 6, 2025
2.	First Lab:	Friday, January 10, 2025
3.	Midterm Exam:	Wednesday, February 12, 2025
4.	Reading Week (no classes):	February 16-22, 2025
5.	Final Withdrawal Date w/o academic penalty*:	Friday, March 14, 2025
6.	Last Class:	Wednesday, April 2, 2025
7.	Last Lab:	Friday, April 4, 2025
8.	Final Exam (Comprehensive):	*TBD*
9.	University closures: Louis Riel Day	Monday, February 17, 2025
	Good Friday	Friday, April 18, 2025

*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, enumerated classes, searching and sorting algorithms, recursive programming, exceptions, and advanced file I/O among others.

Evaluation Criteria

1. Labs (10%)
   - Highest 10 marks, worth 1% each
   - Labs are to be completed during the Friday lab period
   - No late lab submissions will be accepted

2. Assignments (15%)
   - 3 assignments, evenly weighted
   - All assignments are to be completed individually.
   - Individual due dates will be posted on Nexus
   - Assignments will be accepted up to 1 day late with a 20% penalty

   Course IDE:
   BlueJ will be used during classes, and it is the IDE used in the course textbook. BlueJ is free to download to your own computing environments (see http://www.bluej.org). Other IDEs are available (Netbeans, IntelliJ, Eclipse) and may be used with the instructor's permission.

   Lab/assignment submissions:
   All work is to be submitted electronically via Nexus. All coding is to be submitted in .java format, and any written work is in PDF format. Further details and submission procedure will be stated in each assignment.

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

3. Midterm Exam (25%)
   - During the regular class time (see Important Dates)

4. Final Exam (50%)
   - Cumulative

Test / Exam Requirements

- Exams will be delivered in person.
- A 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 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.

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 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 or examinations without penalty. A list of religious holidays can be found in the 2024-25 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 the 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 Textbook / Reading List

- Ron McFadyen, *Java with BlueJ Part 2,* University of Winnipeg, 2016.
  - Available at www.acs.uwinnipeg.ca/rmcfadyen/CreativeCommons

    - Be sure to download the sample programs, and sample solutions to exercises along with the textbook
- Class Notes will be available on Nexus

Prerequisite Information

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

Email Communication

When contacting the instructor, use only the instructor's uwinnipeg.ca email account. Do not use the Nexus email system to communicate. Include ACS-1904 in the subject line of the email.

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 offence and will be dealt 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 vendors 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).

In ACS-1904 section 518, the utilization of artificial intelligence (AI) tools to generate code, unless explicitly directed in the assessment instructions, for laboratory and assignment

purposes will be considered plagiarism and will be addressed in accordance with the University's policies.

In the case of an assessment where 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 code or translating words) in a note, your text, or another suitable location
- take care to vet the secondary sources it cites

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://copyright.uwinnipeg.ca/docs/copyright_policy_2017.pdf

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.

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 **or** 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 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.

Topics to be covered (tentative)

1) Arrays
    a) 1 and 2 dimensions
2) Text manipulation
3) Enumeration Classes (Enums)
4) Inheritance
5) Interfaces
6) Advanced file I/O
7) Exception handling
8) Recursion
9) Sorting and Searching

Extra topics as time permits.

Note: A permitted or necessary change in the 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.