#### APPLIED COMPUTER SCIENCE

Course Number: ACS-1904-002, 072L, 073L

Course Name: Programming II

Course Webpage: <a href="https://nexus.uwinnipeg.ca/d2l/home/64187">https://nexus.uwinnipeg.ca/d2l/home/64187</a>

### **Instructor Information**

**Instructor:** Jesse Harder

**E-mail:** je.harder@uwinnipeg.ca

Office Hours: Tuesdays 5:00 pm - 6:00 pm Zoom

Class meeting time: Mondays, Wednesdays 4:00 pm - 5:15 pm 2D12

Lab time: 072L Mondays 8:30 am - 9:45 am 3D03

073L Tuesdays 8:30 am - 9:45 am 3D03

#### **Important Dates**

First Class: Wednesday, September 04, 2024
 First Lab: Mon/Tu, September 09/10, 2024

3. Reading Week (no classes): October 14 – 18, 2024

4. Midterm Test: Wednesday, October 23, 2024
5. Final Withdrawal Date w/o academic penalty\*: Wednesday, November 13, 2024
6. Last Class: Wednesday, December 04, 2024
7. Last Lab: Wednesday, December 04, 2024

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8. Final Exam (Comprehensive): TBD

9. University Closures (no classes or labs):

a. Truth and Reconciliation Day
b. Thanksgiving
c. Remembrance Day
Monday, October 14, 2024
Monday, November 11, 2024
Tuesday, December 03, 2024
Wednesday, December 04, 2024

<sup>\*</sup>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
  - 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 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 a 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 tests and exams.
- 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.

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 <a href="mailto:accessibilityservices@uwinnipeg.ca">accessibilityservices@uwinnipeg.ca</a> to discuss appropriate options. All information about a student's disability or medical condition remains confidential. <a href="https://www.uwinnipeg.ca/accessibility-services">https://www.uwinnipeg.ca/accessibility-services</a>.

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 2024-25 Undergraduate Academic Calendar online at <a href="http://wwinnipeg.ca/academics/calendar/docs/important-notes.pdf">http://wwinnipeg.ca/academics/calendar/docs/important-notes.pdf</a>

### **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%	С	60 – 64%
Α	85 – 89 %	В	70 – 74%	D	50 – 59%
Δ-	80 – 84%	C+	65 – 69%	F	helow 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
- Class notes will be available on Nexus

#### **Prerequisite Information**

- Requisite courses: ACS-1903 with a minimum grade of C must be completed prior to taking this course
- ACS-1904L (lab) must be taken concurrently

### 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 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: <a href="https://library.uwinnipeg.ca/use-the-library/help-with-research/academic-integrity.html">https://library.uwinnipeg.ca/use-the-library/help-with-research/academic-integrity.html</a>

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). Use of AI Tools is prohibited in

this course: students may face an allegation of academic misconduct if using them to do assignments.

**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: <a href="https://www.uwinnipeg.ca/policies/docs/policies/acceptable-use-of-information-technology-policy.pdf">https://www.uwinnipeg.ca/policies/docs/policies/acceptable-use-of-information-technology-policy.pdf</a>
- 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/basics/copyright-policy.html

#### Privacy

Students have rights in relation of the collecting of personal data the University of Winnipeg

- Student Privacy: <a href="https://www.uwinnipeg.ca/privacy/admissions-privacy-notice.html">https://www.uwinnipeg.ca/privacy/admissions-privacy-notice.html</a>
- Zoom Privacy: https://www.uwinnipeg.ca/privacy/zoom-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 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.