



# THE UNIVERSITY OF WINNIPEG

## APPLIED COMPUTER SCIENCE

**Course Number - ACS-1903-002, 070L, 071L, 072L, 073L**

**Course Name – Programming Fundamentals I**

### **Instructor Information**

**Instructor:** Ron McFadyen **Office:** 3D21  
**E-mail:** ron.mcfadyen@acs.uwinnipeg.ca **Office Hours:** Th: 2:00-3:00  
or by email appointment

**Class Meeting Time:** Tu, Th: 2:30 pm – 3:45 pm **Room No:** 3D04

**Lab Meeting Times (with teaching assistant) is one of:**

Fridays 8:30-9:45 (3C13) or 11:00-12:15 (3D03) or 1:30-2:45 (3D03) or 2:45-4:00 (3D03)

**Course Web Page:** <https://courses.acs.uwinnipeg.ca/1903-002>

### **Important Dates**

First Class:	Tu Sep 5 <sup>th</sup> , 2017
First Lab:	Fr Sep 8 <sup>th</sup> , 2017
Reading Week (no classes, no labs)	Su Oct 8 <sup>th</sup> – Sat Oct 14 <sup>th</sup> , 2017
Midterm Tests:	Tu Oct 3 and Th Nov 2, 2017
Final Withdrawal Date w/o academic penalty:	Fr Nov 10 <sup>th</sup> , 2017
(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)	
Last Class:	Th Nov 30 <sup>th</sup> , 2017
Last Lab:	Fr Dec 1 <sup>st</sup> , 2017
Final Exam:	Tu Dec 11 <sup>th</sup> , 2017 @ 1:30 pm

### **Course Objectives/Learning Outcomes**

This course introduces fundamental programming concepts using the Java programming language. Topics to be covered include primitive data types and their manipulation, control structures, classes, objects, methods, and arraylists.

## Evaluation Criteria

- Labs: 10%
  - There are 12 labs
  - The best 10 of 12 labs are taken into account
  - Each selected lab is worth 1%
  - Labs are completed during the Friday lab period
  - Lab work is submitted via email to the teaching assistant
  
- Assignments: 15%
  - All assignments are to be completed individually
  - There will be 3 assignments worth 5% each
  - Due by midnight on due dates
  - Late assignments are accepted, up to 1 day, with 20% off
  - Assignments typically involve programming and are submitted via email to the lab teaching assistant
  - Multiple submissions are not permitted. Students may submit a partially completed assignment, and will receive credit for those attempted problems
  - Combination of functionality, quality of design, programming style and documentations are considered for programming assignments
  - Problem solving and programming assignments are time consuming. Start early. Students are responsible for maintaining backups of their work
  - Students are responsible to review their assignments before submission to make sure the correct files are attached to the email
  - \*.java files must be submitted for programming questions. Non programming questions must be typed using a word processor or drawing software and submitted as a PDF file (Portable Document Format). The details of submission procedure will be stated in each assignment
  
- Midterm Tests: 25%
  - (10%) Tuesday Oct 3, Test #1 is during class time
  - (15%) Thursday Nov 2, Test #2 is during class time
  
- Final Exam: 50%
  - The final exam covers all material discussed in the course

## **Exam Requirements**

- Photo ID at exam is required.
- You are expected to write the test/exam on its given day.
- No electronic devices (e.g. cell/smart phone, laptop, scientific calculators, translators, etc.) are permitted.
- Tests and final exams are closed-book.
- Unless a medical certificate is provided, no accommodation is made for missed tests or exams.

## **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 - 90%	B	70 - 74%	D	50 - 59%
A-	80 - 84%	C+	65 - 69%	F	below 50%

## **Prerequisite and Restriction Information**\*

(This information can be found in the UW Undergraduate Academic Calendar)

- Pre-Calculus Mathematics 40S or Applied Mathematics 40S or a grade of at least C in ACS-1805.

## **Email Communication**

Emails from accounts at uwinnipeg.ca are usually not filtered by the UofW email filter. Thereby it is recommended electronic communication used for the course utilize a UofW email account to minimize the risk of filtering.

## **Services for Students**

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 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 <http://www.uwinnipeg.ca/accessibility> .

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 2017-18 Undergraduate Academic Calendar.

All students, faculty and staff have the right to participate, learn, and work in an environment that is free of harassment and discrimination. The UW Respectful Working and Learning Environment Policy may be found online at [www.uwinnipeg.ca/respect](http://www.uwinnipeg.ca/respect) .

### **Misuse of Computer Facilities, Plagiarism, and Cheating**

Academic dishonesty is a very serious offense and will be dealt with in accordance with the University's policies. Be sure that you have read and understood Regulations & Policies #8, in the 2017-2018 UW Undergraduate Academic Calendar available at <http://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf>.

Additional information is available at University of Winnipeg library video tutorial "Avoiding Plagiarism" <https://www.youtube.com/watch?v=UvFdxRU9a8g>

### **Text Book(s) / Tools**

We will use the following text:

- Java with BlueJ Part 1  
Ron McFadyen  
University of Winnipeg, Sept 2017  
Available at [www.acs.uwinnipeg.ca/rmcfadyen/CreativeCommons](http://www.acs.uwinnipeg.ca/rmcfadyen/CreativeCommons)

Class notes and notices will be available on the course web page. Students are responsible for material covered in class and announcements made in class.

There are different IDEs you can use to program and test Java. In class we will use the following Java IDE software:

- BlueJ  
Available at <https://www.bluej.org>

BlueJ is available on the ACS laboratory computers.

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

Week of	Topic
Sept 4	Introduction to Java/BlueJ
Sept 11	Java basics
Sept 18	Control structures
Sept 25	Control structures
Oct 2	Java class libraries
Oct 9	<Reading week>
Oct 16	Review and Test
Oct 23	Arraylists
Oct 30	Methods
Nov 6	Classes – fields and methods
Nov 13	Classes – associations
Nov 20	Classes – review
Nov 27	Review
As time permits – 1D arrays and/or Graphical user interfaces	

## **Additional Course Related Information**

1. When it is necessary to cancel a class due to exceptional circumstances, instructors will make every effort to inform you via uwinnipeg email, as well as the departmental assistant and Chair/Dean so that class cancellation forms can be posted outside classrooms.
2. Your uwinnipeg email address will normally be used for course related correspondence.
3. Please note that withdrawing before the VW date does not necessarily result in a fee refund.
4. April 5, 2018 is the class make-up date for courses that conflict with Good Friday, March 30.
5. No classes: Oct. 8 – 14 Mid-term reading week; Feb. 18-24 Winter Mid-term reading week; Friday, March 30 (Good Friday).