THE UNIVERSITY OF WINNIPEG

APPLIED COMPUTER SCIENCE

Course Number - ACS-1903-001, 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: 11:30 am – 12:45 pm **Room No:** 3D01
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/1903-001

Important Dates

First Class: Tu Sep 5th, 2017
First Lab: Fr Sep 8th, 2017
Reading Week (no classes, no labs)   Su Oct 8th – Sat Oct 14th, 2017
Midterm Tests: Tu Oct 3 and Th Nov 2, 2017
Final Withdrawal Date w/o academic penalty: Fr Nov 10th, 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 30th, 2017
Last Lab: Fr Dec 1st, 2017
Final Exam: Tu Dec 11th, 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 <u>individually</u>
  - 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. <u>Start early.</u> Students are <u>responsible for maintaining backups of their work</u>
  - 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 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 .

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

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).