# APPLIED COMPUTER SCIENCE

http://www.acs.uwinnipeg.ca

Course Number ACS-1903-001, 070L, 071L, 072L, 073L

Course Name Programming Fundamentals I

### **Instructor Information**

Instructor: Ron McFadyen

Office: 3D21

Office Hours: 10:00-11:00 Th

E-mail: <u>ron.mcfadyen@google.com</u> Course Web Page: nexus.uwinnipeg.ca

**Meeting Times** 

Class: 11:30-12:45 Tu Th 3D01

Labs: Friday Rm 3C13: (070L) 8:30-9:45

Friday Rm 3D01: (071L) 11:00-12:15, (072L) 1:30-2:45, (073L) 2:45-4:00

# **Important Dates**

First Class Date: T Sept 4, 2018 First Lab Date: F Sept 7, 2018

Midterm Tests: Th Oct 4, 2018 & Th Nov 1, 2018

Final Exam (3 hours, comprehensive): F Dec 14, 2018 1:30-4:30

http://www.uwinnipeg.ca/exam-schedules/index.html

Final Withdrawal Date w/o academic penalty: M Nov 12, 2018.

(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.)

Fall mid-term Reading Week, October 7-13, 2018

REMEMBRANCE DAY: University closed Nov 11, 2018

# **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%)

Based on the best 10 out of 12 labs. Labs are completed during the Friday lab period. Labs will involve Java programming.

Tentative lab schedule:

1	Sept 7
2	Sept 14
3	Sept 21
4	Sept 28
5	Oct 5
Reading week	
6	Oct 19
7	Oct 26
8	Nov 2
9	Nov 9
10	Nov 16
11	Nov 23
12	Nov 30

ACS workstations in ACS labs 3D03 and 3C13 have a Java editor (BlueJ) installed. BlueJ will be used during classes. It is expected that students will use BlueJ to develop Java programs during labs and for assignments. BlueJ is free to download to your own computing environments (see http://www.bluej.org).

Method of Lab submission is discussed in class and labs.

# Assignments (15%)

3 marks per assignment, based on 5 assignments.

Late assignments accepted (up to 2 days late) with a penalty of 20%.

# Midterm Test (25%)

Tests are during class time.

Test 1: 10%, Test 2: 15%

# Final Exam (50%)

Final examination covers all topics.

Lab work and assignments are submitted via nexus (details are given out during labs). Students are responsible for backing up and protecting their work.

Should illness prevent you from participating in a lab, assignment, test or examination, a medical certificate from a practicing physician may be required before any adjustments are considered.

# **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%
A	85-89%
A-	80-84%
B+	75-79%
В	70-74%
C+	65-69%
С	60-64%
D	50-59%
F	Below 50%

# **Test / Exam Requirements**

Photo ID is required in final exam.

The use of computers, calculators, phones, or other electronic devices is not permitted on tests or exams.

# **Required Text Book(s)/Reading List**

Version 2.0 September 2016 Java Notes available at:

www.acs.uwinnipeg.ca/rmcfadyen/CreativeCommons

Class notes and notices will be available on Nexus.

**Prerequisite Information** (This information can be found in the UW Course 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 2018-2019 UW 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 2018-2019 UW Undergraduate Academic Calendar available at <a href="http://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf">http://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf</a>. Additional information is available at University of Winnipeg library video tutorial "Avoiding Plagiarism" <a href="https://www.youtube.com/watch?v=UvFdxRU9a8g">https://www.youtube.com/watch?v=UvFdxRU9a8g</a>

Avoiding Academic Misconduct. 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.

Avoiding Copyright Violation. Course materials are owned by the instructor who developed them. Examples of such materials are course outlines, assignment descriptions, lecture notes, test questions, and presentation slides. 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 photographing or recording slides, presentations, lectures, and notes on the board.

# **Topics to be covered** (tentative topics and dates)

The dates shown below are subject to change

Week of	Topic	
Sept 3	Introduction to Java/BlueJ	
Sept 10	Java basics	
Sept 17	Control structures	
Sept 24	Control structures	
Oct 1	Java class libraries	
	Test 1 on Oct 4	
Oct 8	<reading week=""></reading>	
Oct 15	Review Test, Arraylists	
Oct 22	Arraylists	
Oct 29	Methods	
	Test 2 on Nov 1	
Nov 5	Classes – fields and methods	
Nov 12	Classes – associations	
Nov 19	Classes – review	
Nov 26	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. No classes: Oct 7-13 Fall Mid-term reading week.