



# THE UNIVERSITY OF WINNIPEG

## APPLIED COMPUTER SCIENCE

**Course Number: ACS-1903-770, 090L, 091L**

**Course Name: Programming Fundamentals I**

### **Instructor Information**

**Instructor:** Philemon Pak

**E-mail:** [p.pak@uwinnipeg.ca](mailto:p.pak@uwinnipeg.ca)

**Office hours:** Wed 9:00 – 10:00 (via Zoom)

**Class Meeting Time:** Mon and Wed: 14:30 – 16:30

**Lab Meeting Time:** Mon: 17:00 – 18:30 (090L)

Wed: 17:00 – 18:30 (091L)

**Note:** All class time and lab time will be posted on the Nexus course calendar.

**Course Web Page:** Nexus

### **Important Dates**

**First Class:** May 4, 2020

**First Lab:** May 4, 2020

**Midterm Exam:** June 3, 2020 (online delivery)

**Victoria Day (No class):** May 18, 2020

**Canada Day (No Class):** July 1, 2020

**Final Withdrawal Date w/o academic penalty:** June 16, 2020

(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:** June 29, 2020

**Last Lab:** June 29, 2020

**Final Exam (Comprehensive):** July 2, 2020 13:30 – 16:30 (online delivery)

### **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 For ACS-1903 Students**

### ***Assignments: 12%***

- There will be 3 assignments worth 4% each.
- Due at 11:59:59 pm on due date (with the exception on labs, see Labs section).
- Course IDE:  
All students are required to download BlueJ and it is expected that students will use BlueJ to develop Java programs during labs and for assignments. BlueJ will be used during classes for code demonstration. BlueJ is free to download to your own computing environments (see <http://www.bluej.org>)
- Lab/assignment submissions:  
All work is to be submitted electronically in Nexus. All coding is to be submitted in .java format, and any written work in PDF format. Further details and submission procedure will be stated in each assignment.
- No late or handwritten assignment will be accepted. Only under special circumstances e.g. medical, death in a family, and etc., and subject to approval before late assignment will be accepted with a 20% penalty off for each late day.
- Assignments that do not meet all the requirements, including those for the submissions, may not be accepted or a portion of the marks will be deducted. Marks will be deducted for not following the file submission format, file naming format and instruction in the assignment.
- **Problem solving and programming assignments could be very time consuming.** So please 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 submitted. All assignments are to be completed individually.
- Multiple submissions are not permitted. Students may submit a partially completed assignment, and will receive credit for those attempted problems.

### ***Lab: 8%***

- 8 labs, each worth 1% each
- Labs are to be completed and submit no later than midnight that same day
- No late lab submissions will be accepted
- Students are responsible for backing up and protecting their work

### ***Midterm Exam: 25%***

- In-class midterm exam.
- During the regular class time

### ***Final Exam: 55%***

- The final exam covers all material discussed in the course.

**Note:** Students should contact the instructor as soon as possible if extenuating circumstances require missing an 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%	B+	75 - 79%	C	60 - 64%
A	85 - 90%	B	70 - 74%	D	50 - 59%
A-	80 - 84%	C+	65 - 69%	F	below 50%

## **Test/Exam Requirements**

- Photo ID at exam is required.
- You are expected to write the test/exam on its given day.
- Electronic devices (e.g. cell/smart phone, laptop, scientific calculators, translators, etc.) are only permitted to provide the delivery of the midterm and final exam, and any related task with respect to the online learning experience.
- Midterm and final exams are delivered online.
- Unless a medical certificate is provided, no accommodation is made for missed exams.

## **Prerequisite and Restriction Information**

(This information can be found in the UW General calendar)

- Pre-Calculus Mathematics 40S or Applied Mathematics 40S or a grade of at least C in ACS-1805.
- ACS-1903L (lab) must be taken concurrently

## **Email Communication Requirements**

- 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.
- The email sent to the instructor must include your full name, your student #, and the COURSE # WITH YOUR COURSE SECTION # (like ACS-1903-770) in the subject line of your email. If your email address already includes your name (like in UW's webmail) then you can skip typing your name there. A respectful manner is also expected in the email communications.

## **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 204-786-9771 or [accessibilityservices@uwinnipeg.ca](mailto:accessibilityservices@uwinnipeg.ca) to discuss appropriate options. All information about a student's disability or medical condition remains confidential.

<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 opportunity for students to make up work examinations without penalty. A list of religious holidays can be found in the 2019-20 Undergraduate Academic Calendar online at <http://uwinnipeg.ca/academics/calendar/docs/important-notes.pdf>

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 <https://www.uwinnipeg.ca/respect>.

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

Academic dishonesty is a very serious offense and will be dealt in accordance with the University's policies.

*Avoiding Academic Misconduct and Non-academic Misconduct.* 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). Please note, in particular, the subsection of Student Discipline pertaining to plagiarism and other forms of cheating.

Detailed information can be found at the following:

- Academic Misconduct Policy and Procedures: <https://www.uwinnipeg.ca/institutional-analysis/docs/policies/academic-misconduct-policy.pdf> and <https://www.uwinnipeg.ca/institutional-analysis/docs/policies/academic-misconduct-procedures.pdf>
- Non-Academic Misconduct Policy and Procedures: <https://www.uwinnipeg.ca/institutional-analysis/docs/student-non-academic-misconduct-policy.pdf> and <https://www.uwinnipeg.ca/institutional-analysis/docs/student-non-academic-misconduct-procedures.pdf>

*Misuse of Filesharing Sites.* 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.

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

- Ron McFadyen and Jeanette Bautista, Java with BlueJ Part 1, Version 4.0, University of Winnipeg, September 3, 2019. Available at [www.acs.uwinnipeg.ca/rmcfadyen/CreativeCommons](http://www.acs.uwinnipeg.ca/rmcfadyen/CreativeCommons)

And any additional reading materials that will be provided in class.

Class notes and notices will be posted in Nexus. Students are responsible for material covered in class and announcements made in class.

### **Course Outline (Tentative)**

- Introduction to Java/BlueJ
- Basics: datatypes, variables, expressions, etc.
- Control structures: conditional, iteration
- Java class libraries: Random, Character, Math, Integer, Scanner
- ArrayLists
- Methods
- Classes: objects, constructors, fields, methods
- Graphical User Interfaces (time permitting)

Note that all topics listed may not be covered and may be offered in a slightly different time order.

## **Additional Course Related Information**

- When it is necessary to cancel a class due to exceptional circumstances, instructors will make every effort to inform students via uwinnipeg email (and/or using the preferred form of communication, as designated in this outline), as well as the Departmental Assistant and Chair/Dean so that class cancellation forms can be posted outside classrooms
- Students are reminded that they have a responsibility to regularly check their uwinnipeg e-mail addresses (and/or using the preferred form of communication, as designated in this outline) and course website to ensure timely receipt of correspondence from the university and/or their course instructors
- 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.
- Please note that withdrawing before the VW date does not necessarily result in a fee refund
  - June 16, 2020 is final VW date for classes that begin in May 4<sup>th</sup> and ends June 30<sup>th</sup>.
- Make-up class/lab scheduled:
  - None
- University closures:
  - May 18, 2020 – Victoria Day – No Classes
  - July 1, 2020 – Canada Day – No Classes