THE UNIVERSITY OF WINNIPEG

APPLIED COMPUTER SCIENCE

Course Number: ACS-1805-050, ACS-1805L-070, ACS-1805L-071
Course Name: **Introduction to Programming**

Instructor Information
Instructor: Prof. James Deng
Office: 3D17
E-mail: jdeng@uwinnipeg.ca
Office Hours: Tuesday: 10:00 - 11:00, Thursday: 15:45 - 16:45. Other time by email
appointment only. Room: 3D17
Class Time: Thursday: 18:00 – 21:00   Room No.: 3D01
Lab Time: Friday: 8:30-9:45 for 1805L-070 and Friday: 9:45.- 11:00 for 1805L-071
Course Web Page: http://courses.acs.uwinnipeg.ca/1805-050

Important Dates
1. **First Class**: September 6, 2018
2. **First Lab**: September 7, 2018
3. **Mid-term Reading Week:** October 7-13, 2018 (no classes)
4. **Last Class**: November 29, 2018
5. **Midterm Test**: October 18, 2018 in class
6. **Final Withdrawal Date w/o academic penalty**: November 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.)
7. **Final Exam**: 18:00-21:00 December 13, 2018. Location: TBD

Course Objectives/Learning Outcomes
This course introduces fundamental programming concepts using App Inventor. Students learn to develop and test programs that can run on Android phones and tablets. The framework we use for this is the App Inventor visual programming environment. The App Inventor framework runs on Windows, Macintosh, and Linux computers and includes an emulator for an Android phone (and so an actual Android phone or tablet is not needed). Topics include Android app architecture, software engineering principles, variables, functions, decision structures, iteration, lists, procedures, databases, user interface, events, and sensors.

Evaluation Criteria
1. Labs (10%) - Based on the best 10 out of 11 labs. All labs are equally weighted. Labs are completed during the Friday lab periods. Labs will involve App Inventor programming. Late labs will not be accepted. Assignments are equally weighted. All questions must be answered using a word processor. The details of submission procedure will be stated in each lab. Students are expected to fully understand the course materials covered before the lab. Students are responsible for maintaining backups of their work. Students are responsible to review their labs before submission to make sure the correct files are attached to the email. **All labs are to be completed individually.**

2. Assignments (12%) - Three assignments will be given to the students. Late assignments will not be accepted. Assignments are equally weighted. All questions must be answered using a word processor. The details of submission procedure will be stated in each 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 attached to the email. **All assignments are to be completed individually.**
3. Midterm Test: (28 %) - The midterm test is during class time。
4. Final Exam (50 %) - The final exam covers all material discussed in the course. Photo ID at exam is required. No electronic devices (e.g. cell/smart phone, laptop, scientific calculators, translators, etc.) are permitted during midterm and final exams. Midterm and final exams are closed-book. Unless a medical certificate is provided, no accommodation is made for missed test or final exam.

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	70 - 74%	F	below 50%
A	85 - 90%	C+	65 - 69%		
A-	80 - 84%	C	60 - 64%		
B+	75 - 79%	D	50 - 59%		

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.

The email sent to the instructor **must include your full name and student # in your email, as well as and COURSE # (WITH THE SECTION #, like ACS-1805-050) in the subject line of your email**. 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 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 2018-19 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 .

Required Text

App Inventor: Create your own Android Apps, David Wolber, Hal Abelson, Ellen Spertus, Liz Looney, ISBN 13: 978-1-4919-0684-7.

Students are also responsible for the contents covered during the class that are out of the text book.

The course web page is: http://www.acs.uwinnipeg.ca/1805.

Prerequisite Information

(This information can be found in the UW Undergraduate Academic Calendar)
None.

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 http://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf and the UW academic misconduct policy available at http://pace.uwinnipegcourses.ca/sites/default/files/pdfs/publications/Academic%20Misconduct%20Policy.pdf

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

Additional Course Related Information

1. 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.

2. 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) to ensure timely receipt of correspondence from the university and/or their course instructors.

3. Please note that withdrawing before the VW date does not necessarily result in a fee refund (November 12 is VW date for classes that begin in September and end in December).

4. No make-up classes scheduled,

5. No classes:
   October 7-13, 2018 Mid-term reading week
   November 11, 2018 Remembrance Day

6. *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.

7. *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)
1 Hello purr
2 Paint pot
14 App architecture
16 Programming your app's memory
3 Mole mash
5 Ladybug chase
17 Creating animated apps
18 Programming decisions
23 Sensors
4 No texting while driving
6 Map tour
7 Where's my car?
8 Presidents quiz
19 Programming lists
9 Xylophone
10 Make quiz and take quiz
11 Broadcast hub
20 Repeating blocks: iteration
22 Working with databases
21 Defining procedures: reusing blocks
15 Engineering and debugging an app
13 Amazon at the bookstore