RYERSON UNIVERSITY
STUDENT LEARNING CENTRE
INTRODUCTION TO APP DEVELOPMENT

Instructor:
Dr. Alireza Sadeghian **Email:** asadeghi@ryerson.ca

Workshop Coordinator:
Arjun Gupta **Email:** gupta@ryerson.ca

Location: **Launch Zone**
3rd floor of 341 Yonge Street

Start/End Date: **July 6 – July 28, 2015**
Time: **Monday 6-9 pm**
Tuesday 6-9 pm

Workshop Format: **2+1 (Lecture+Lab)**
Note that this is a non-credit workshop

Teaching Assistants:
Megan Antoniazzi **Email**: megan.antoniazzi@ryerson.ca
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Reference Reading: Not Required
App Inventor 2, Second Edition, David Wolber, Hal Abelson, Ellen Spertus, Liz Looney.
ISBN-13: 978-1491906842

Workshop Description:
This workshop is an introduction to programming for non-computer science majors. Students will learn how to program using a visual programming environment to create mobile applications for Android. Topics include: basic programming concepts (conditionals, events, variables, loops, procedures), using device sensors and components (camera, accelerometer, gyroscope, GPS, audio, internet connectivity), designing and implementing apps (user interfaces, texting apps, writing files, drawing apps, creating interactive games). Students will develop different apps at the end of each lecture using MIT App Inventor 2. Concepts learned in this workshop are directly transferable to text based programming.

Workshop Objective:

By the end of the workshop, students will be familiarized with core programming concepts and will be able to develop android applications using app inventor.

Exercises:

- Quizzes during each lecture
- Creative Final Project

Workshop Calendar:

Schedule	Concepts	App type
Day 1 (July 6)	Event Handlers, Conditionals	Audio
Day 2 (July 7)	Variables, Timers	Drawing, Animation
Day 3 (July 13)	Lists, Storing Data	Location Tracking
Day 4 (July 14)	User List Navigation, Callbacks	Camera
Day 5 (July 20)	Procedures	Interactive Game
Day 6 (July 21)	Data input/output	Gyroscope
Day 7 (July 27)	Internet Connectivity	Twitter/Web APIs
Day 8 (July 28)	Creative Project	

Required Material:

- **Laptop and Charger —** Students are required to bring their own laptop with up-to-date Operating System and Browser. For more detailed requirements, visit this webpage: http://appinventor.mit.edu/explore/content/system-requirements.html

  Please note that AppInventor does not support Microsoft Internet Explorer. Windows users should use Chrome or Firefox. AppInventor supports both Mac and PC.

  Please note that Android devices are *not required* as an emulator environment will be used to test the apps. Please also note that some of the lessons require physical sensors and may be done by demonstration only for emulator users.

- **Optional Snacks and Water —** Since all workshops will be held in the evenings, it is highly recommended that students bring a water bottle and some food.

About:

The "Challenge Accepted" series was conceived by Dr. Alireza Sadeghian, Chair of the Computer Science Department at Ryerson University, as a way to spread digital literacy to a broader non-technical audience. In July 2015, the first pilot of "Challenge Accepted" will be presented at Ryerson University by the Launch Zone and the Brookfield Institute for Innovation and Entrepreneurship.