

**RYERSON UNIVERSITY  
STUDENT LEARNING CENTRE  
INTRODUCTION TO APP DEVELOPMENT**

**Instructor:**

Dr. Alireza Sadeghian

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**Workshop coordinator:**

Arjun Gupta

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**Location:**

**Launch Zone**

**3<sup>rd</sup> floor of 341 Yonge Street**

**Start/End Date:**

**August 4 – August 31, 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

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**Workshop Text:**

Not Required

**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.

**Evaluation:**

- Challenges during each lecture
- Creative Final Project

**Workshop Calendar:**

Schedule	Concepts	App type
Day 1 (August 4)	Event Handlers, Properties, Functions	Text To Speech
Day 2 (August 10)	Drawing, Variables	Game
Day 3 (August 11)	Conditionals and Lists	Music Player
Day 4 (August 17)	Loops and Timers	Drawing App
Day 5 (August 18)	Advanced Functions	Interactive Game
Day 6 (August 24)	Data input/output	To-do List
Day 7 (August 25)	Internet Connectivity	Web APIs
Day 8 (August 31)	Creative Project	

**What To Bring:**

- **Required — 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 App Inventor does not support Microsoft Internet Explorer. Windows users should use Chrome or Firefox.

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

- **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 Ryerson Computer Science Department, as a way to spread digital literacy to a broader non-technical audience. In July 2015, the second pilot of this will be presented by the Launch Zone and the Brookfield Institute for Innovation and Entrepreneurship at Ryerson University.