CPSC 110-08: Computing with Mobile Phones

Course Syllabus Spring 2015

Catalog Description

App Inventor for Android is a new open source programming language for Android smart phones. App Inventor is a visual language that enables novice programmers to create powerful mobile applications that interact with the web and with other phones. In this course, students will learn how to access the world of mobile services and applications as creators, not just consumers. They will learn to create entertaining and socially useful apps that can be shared with friends and family. In addition to learning to program and how to become better problem solvers, students will also explore the exciting world of computer science from the perspective of mobile computing and its increasingly important effect on society.

Pre/Post Course Student Surveys

This course is based on a curricular framework that is being developed by the College Board, with support from the National Science Foundation, in its effort to create a new Advanced Placement (AP) course in computer science. The goal of the project is to develop a new first course in computing that will broaden participation in computing among women and underrepresented minority.

We will be following the curriculum outlined by the College Board. To help us assess the course's effectiveness, students will be asked to complete pre- and post-course questionnaires that ask questions about their backgrounds and their experience with and attitudes toward computer sciences.

Meetings

MWF 10-10:50 AM

Section 110-01: Room 136, Math, Computing and Engineering Center (MCEC)

Section 110-02: Room 124, MCEC

Staff

Instructor CPSC 110-01: Ralph Morelli

MCEC 147 860-297-2220

email: ralph dot morelli at trincoll dot edu

Office hours: TBA

Instructor CPSC 110-02: Pauline Lake

MCEC 167 860-297-5313

email: pauline dot lake at trincoll dot edu

Office hours: Mondays: 9-10:00AM and 3-4:00PM; Tuesdays: 3-4:00PM; Fridays: 9-10:00am; or

by appointment.

TA CPSC 110-01: Tony O'Rourke

email: Tony dot ORourke at trincoll dot edu

TA Hours: Tuesdays: 7-8:00PM

TA CPSC 110-02: Claudia Trafton '16 email: claudia dot trafton at trincoll dot edu

TA Hours: Thursdays: 9-10:00PM

Textbooks

 App Inventor 2: Create Your Own Android Apps. David Wolber, Hal Abelson, Ellen Spertus, and Liz Looney O'Reilly Media, Inc., 2014 (~ \$28 new on Amazon) Pre-publication Draft.

 Blown to Bits: Your Life, Liberty, and Happiness After the Digital Explosion. Hal Abelson, Ken Ledeen, Harry Lewis. Addison-Wesley, 2010 (~ \$18 on Amazon or available via PDF Download).

Lab Materials



Each student will be loaned an unlocked Android Tablet. The tablets cost around \$150, which is the amount you will be charged if the device is lost or damaged or incomplete. You may also use your own Android device, if you prefer.

Course Policies

Attendance

Attendance is required and we will take attendance at each class. Unexcused (in advance) absences will affect your participation grade.

Reading Assignments and Homeworks

There will be regular (almost daily) reading and out-of-class homework assignments. The <u>course schedule</u> lists the required reading and pre-class and post-class homework assignments. Short, written answers to the study questions must be posted on your portfolios **before** coming to class. These will be graded on 3 points scale -- 2 (complete and correct), 1 (incomplete or incorrect), or 0 (not done).

Portfolios

In this course you'll document everything you do on your **portfolios**. That is, you will post everything -- answers to reading questions, write-ups of hands-on tutorials, written responses to assigned articles, documentation of creative projects -- on your personal portfolio page. The portfolios will promote sharing -- you can learn from each other -- and will constitute a full record of what you've done in the course that you can refer back to during and after the course and share with your friends and family. Portfolios will be graded periodically during the semester.

App Inventor Projects

There will be three (3) creative projects in which you will work in pairs to create a mobile app that you propose (pitch), design, and implement.

Quizzes and Exams

There will 4-5 announced quizzes and a midterm exam given during the semester. There will be a comprehensive final exam.

Oral and Video Presentations

There will be approximately three (3) oral and/or videotaped presentations of your creative projects during the semester. If time permits, these will be given in class. Although it may be necessary to some of these presentations in one or two evening sessions during the semester.

Late Work

The deadlines posted for assignments -- reading and homework assignments, creative projects -- are **strict deadlines**--once the date passes no credit will be given for work posted after the due date.

Grade Determination

Homework and Reading Assignments -- 10%
Participation Grade -- 10%
Quizzes -- 20%
Exams -- 25%
Creative projects -- 35%

Academic Accommodations

Students with Academic Accommodations- Trinity College complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. If you have a documented disability

and require academic accommodations, please present your accommodations letter during my office hours within the first two weeks of the semester. If you do not have a letter but have a disability requiring academic accommodations, or if you have questions about applying for academic accommodations, please contact Lori Clapis, Coordinator of Accommodation Resources, at 860-297-4025 or at Lori.Clapis@trincoll.edu.

Acknowledgements

Thanks to <u>Dave Wolber</u>, Professor of Computer Science, University of San Francisco, who has been teaching App Inventor to his students since 2009, for his guidance and for sharing his textbook and course materials.