Course Syllabus

Department: Computing Sciences

Date: 12/8/14

I. Course Prefix and Number: CSC 232

Course Name: Programming Mobile Applications

Credit Hours and Contact Hours: 3 credit hours and 3 contact hours

Catalog Description including pre- and co-requisites:
Application development on mobile and wireless devices differs from programming of “traditional” computing systems in various ways and requires trained professionals that are familiar with the unique requirements of mobile systems and their development platforms to design and develop these apps. This course provides a comprehensive project experience in the development of mobile applications on a popular software platform. Currently, the course will be taught using HTML5 so that applications can be written for a variety of mobile platforms. Introductions to hardware capabilities and limitations and the development environment will be covered. Students will practice mobile application development and execute the prototypes in a team-based and individual setting. Development activity includes the generation of design documentation, specifications, UI mockups, diagrams for execution and communications, presentations, and reports at various stages.

Pre-requisite: (CSC-222 Web Development I, OR CSC-162 Web Site Development for New Media, OR CSC-262 Web Site Development for Gaming) AND (CSC-115 Intro to Programming OR CSC-164 Introduction to Scripting for New Media)

Relationship to Academic Programs and Curriculum including SUNY Gen Ed designation if applicable: Successful completion of this course is required for one of the advisement areas in achievement of the AAS Information Technology degree.

II. Course Student Learning Outcomes:
Upon completion of the course the participant will be able to:
Work efficiently as part of a mobile applications development team
Design a mobile app from inception through the beginning development stage
Develop an app using available development software
Document and present the app (to the users) during all phases of development
Make a final presentation of the app to all users

College Learning Outcomes Addressed by the Course:
- [ ] writing
- [x] oral communications
- [ ] reading
- [x] ethics/values
- [ ] citizenship
- [x] global concerns
III. Assessment Measures (Summarize how the college and student learning outcomes will be assessed):

<table>
<thead>
<tr>
<th>List identified College Learning Outcomes(s)</th>
<th>Specific assessment measure(s)</th>
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<tbody>
<tr>
<td>Oral communications, computer literacy</td>
<td>Students will be required to complete a final project in a team. The project will assess well-written presentational material, and a proficiency in a variety of mobile apps technologies (computer literacy). A professional oral presentation of the project will be the culminating graded activity.</td>
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<td>Critical thinking</td>
<td>In-class quizzes will be given routinely to assess student critical thinking skills.</td>
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<td>Ethics/values, global concerns, information resources</td>
<td>Students will develop skills in gathering information resources, global concerns and ethics/values as they learn to create well-written professional programs with respect to universal, world-wide standards. Students will learn about the limitations of technologies and how to solve technical problems as they are encountered. In addition students will be introduced to using Web based information resources in a professional manner. These activities will assess the learning outcomes listed.</td>
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. Instructional Materials and Methods
Types of Course Materials:
A variety of on-line resources such as the W3Schools.com  [http://www.w3schools.com/](http://www.w3schools.com/)

Methods of Instruction (e.g. Lecture, Lab, Seminar ...):
Discussions, individual projects, team projects, demonstrations, student hands-on activities

V. General Outline of Topics Covered:
I. Introduction
II. HTML5 new features
III. The HTML5 developers toolbox
IV. Common tasks
   a. App startup and config
   b. Accessibility
   c. Interapp communication
V. User Interface Elements
VI. Tabs and Tables
VII. Files and Networking
VIII. Touches, Shakes, and Orientation
IX. Location and Mapping
X. Multimedia
XI. Contacts, Calendars, E-mail and SMS