HUDSON VALLEY COMMUNITY COLLEGE
TROY, NEW YORK

COURSE OUTLINE

COURSE TITLE: Mobile Computing Technologies

COURSE SUBJECT AND NUMBER: CISS 229

DEPARTMENT: Computing and Information Sciences

CREDIT HOURS: 3

CONTACT HOURS: _3__ Lecture

SEMESTER COURSE IS OFFERED: Fall, Spring

OFFERED DISTANCE LEARNING: No

PREREQUISITES (list): Yes

CISS 100 Fundamentals of Information Processing
AND
CISS 110 Programming & Logic I
AND
CISS 220 Web Design and WWW programming
OR permission of CIS Department Chair

COREQUISITES (list): No

PRE OR COREQUISITES (list): No

TEXT(S):

Title: Programming With Mobile Applications
Author: Thomas J. Duffy
ISBN-13: 978-1-133-62813-2
Publisher: Cengage
URL: http://www.cengagebrain.com/shop/isbn/9781133628132

Beginning Mobile Application Development in the Cloud
By Richard Rodgers, Wrox Publishing
ISBN-13: 978-1-118-03469-9
Hard Copy or DRM-free ebook available from the publisher
http://www.wrox.com/WileyCDA/WroxTitle/Beginning-Mobile-Application-Development-in-the-Cloud.productCd-1118034694.html
****This book is also currently available via the HVCC library website as an ebook****

LAB FEES: No

FINAL EXAM/FINAL PROJECT: YES, Final Exam (or Final Project)

ORIGINAL SUBMISSION DATE: 4/12/10

CURRICULUM COMMITTEE APPROVED REVISION DATE:

PREPARED BY: Andrew Hurd

COURSE DESCRIPTION:

This course will discuss the theory and practices of programming mobile devices for modern technologies. The students will have the opportunity to program as well as test application programming for current smart phones and other 3g and 4g devices. This class is meant to be a hands-on class in mobile computing application programming. Platforms will include but are not limited to the iPhone OS and Google Android OS architectures.

ACTIVITIES AND ASSIGNMENTS:

Coursework will consist of lectures, lab activities and projects, homework, tests, and quizzes. Students will be assigned laboratory problems using mobile devices.

GRADE COMPUTATION: (In general terms as defined by college policy. Specifics, including Z grade, will be defined on the instructor's syllabus).

Laboratory assignments, projects, in-class assignments, homework, quizzes/tests:	75%
Final Exam:	25%

ADA COMPLIANCE: In compliance with the Americans with Disabilities Act of 1990 and with Section 504 of the Rehabilitation Act, Hudson Valley Community College is committed to ensuring educational access and accommodations for all its registered students, in order to fully participate in programs and course activities or to meet course requirements. Hudson Valley Community College's students with documented disabilities and medical conditions are encouraged to access these services by registering with the Center for Access and Assistive Technology to discuss their particular needs for accommodations. For information or an appointment contact the Center for Access and Assistive Technology, located in room 130 of the Siek Campus Center or call 518-629-7154/TDD: 518-629-7596 .

STUDENT BEHAVIORAL OBJECTIVES:
Upon completion of this course, through the use of assignments, projects and assessments the student will be able to:

- identify current mobile technologies
- create applications that execute on current mobile technologies
- discuss and explain current problems with mobile technology programming
- discuss and explain the differences between multiple Mobile Technolgy API's

SEMESTER OUTLINE:

First Eight weeks:

Modules:

1: Introduction to iPhone App Development

2: iPhone App Store and App Business Issues

3: Welcome App Dive-Into® Xcode, Cocoa and Interface Builder

4: Tip Calculator App Introducing Objective - C Programming

5: Favorite Twitter® Searches App Collections and Cocoa GUI Programming

6: Flag Quiz Game App Controllers and the Utility Application Template

7: Spot-On Game App Using UIView and Detecting Touches

8: Cannon Game App Animation with NSTimer and Handling Drag Events

9: Painter App Using Controls with a UIView

10: Address Book App Tables and UINavigationController

11: Route Tracker App Map Kit and Core Location (GPS and Compass)

12: Slideshow App Photos and iPod Library Access

13: Enhanced Slideshow App Serialization Data with NSCoder and Playing Video

14: Voice Recorder App Audio Recording and Playback

15: Enhanced Address Book App Managing and Transferring Persistent Data

16: Twitter® Discount Airfares App Internet Enabled Applications

Second Eight weeks:

Modules:

1: Introducing Android

2: Your Android Development Environment

3: Writing Your First Android Application

4: Understanding the Anatomy of an Android

5: Managing Application Resources

6: Exploring User Interface Screen Elements

7: Designing Android User Interfaces with Layouts

8: Drawing and Working with Animation in Android

9: Using Android Data and Storage APIs

10: Using Android Networking APIs

11: Using Location-Based Services (LBS:APIs

12: Using Android Multimedia APIs

13: Using Android Telephony APIs

14: Using Android 3D Graphics with OpenGL ES

15: Using Android's Optional Hardware APIs

16: Working with Notifications

17: Working with Services

18: The Mobile Software Development Process

19: Developing and Testing Bulletproof Android

20: Selling Your Android Application

Benefits for Veterans:

https://www.hvcc.edu/veterans/

Considered as the programming language of the future, Swift is the latest programming language to make their way into the Apple ecosystem and it is majorly because of its popularity in writing the code for Appleâ€™s latest APIs, Cocoa and Cocoa Touch.Â The language has the potential to be applied in creation of server applications, web services, to games to mobile apps to name a few. C# is supported by Unity3D which makes it one of the best languages when it comes to a game app. C# is versatile in the uses it has found for itself in industries other than mobile app development including business and productivity tools, enterprise, utilities, education & reference, games etc. I know java and c# ,i want to learn programming mobile application, but I am confuse between two options: 1. programming with java 2. programming with Xamarin and c#. of course I know with Xamarin I can programming application for android,IOS and windows phone ,but java is just for android application. do you hava any idea about this?!! java c# android ios xamarin.Â Using Xamarin you can program apps for iOS, Android and Windows phone under a single platform using solely C#, as opposed to using a separate language and tool for each. Xamarin is great to learn if you want to deploy on all platforms, but if you're a beginner on mobile development I suggest starting with Java programming and taking it from there. share|improve this answer. answered Mar 30 '15 at 6:22.