Columbus State
COMMUNITY COLLEGE

Mobile App Degrees Programs and Courses

Strengthening Mobile Application Resources and Technician Training (SMARTT)

Principal Investigators: Jon Lundquist and Peter Carswell

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Mobile App Design AAS – Program of Study and Sequence of Courses

Mobile App Development AAS

New Courses Developed Under the Grant

Columbus State Community College

2 Year Plan of Study

Art, Media & Design

MOBILE APP DESIGN

COLUMBUS STATE
COMMUNITY COLLEGE

CAREER AND TECHNICAL PROGRAMS

Name _____

Student #_____

Date Entered_____

Advisor_____

FIRST SEMESTER	G/T/B	CR	
IMM 1101- Mobile App Design I	T	3	
IMM 1210- Mobile Inter /Usability	T	3	
COLS 1100- Freshman Seminar	B	1	
CSCI 1103- Intro to Program Logic	B	3	
CSCI 1150- Networking Term.	B	1	
ENGL 1100- Composition I	G	3	
		14	

SECOND SEMESTER	G/T/B	CR	
DDG 1525 - Storyboarding	B	3	
CSCI 1145 - HTML	B	3	
IMM 1110- Mobile App Design II	T	3	
MATH 1104 - Math for Business	G	3	
CSCI 1320 - Database Fund.	B	3	
		15	

SUMMER SEMESTER	G/T/B	CR	
NAT XXXX Natural Sciences	G	3	
HUM XXXX Humanities	G	3	
		6	

THIRD SEMESTER	G/T/B	CR	
IMM 1140- CSS	T	3	
CSCI 2447- JavaScript Fundamentals	B	3	
IMM 2010- Mobile User Interface	T	3	
SBS XXXX	G	3	
IMM 2110 Project Manage Assets	T	3	
		15	

FOURTH SEMESTER	G/T/B	CR	
IMM 2372- Adobe PhoneGap	T	3	
IMM 2210- Mobile Analytics	T	3	
IMM 2710 - Interactive Portfolio	T	3	
IMM 2999 Mobile Capstone	T	3	
		12	

GRADUATION REQUIREMENTS	
G = General Education	
B = Basic Education	
T = Technical Education	
Total General Ed.	15
Total Basic	17
Total Non-Technical	32
Total Tech. Ed.	30
TOTAL CREDITS	62

IMM - Mobile App Design   Knowledge and Skills learned - Courses

Design Principles
(IMM 1101)   (IMM 1110)

UX/UI
(IMM 1210)   (IMM 2010)

Storyboarding
(DDG 1525)

Prog. Logic
(CSCI 1103)

Database
(CSCI 1320)

Java Prog. I
(CSCI 2467)

Proj. Manage
(IMM 2110)

Front End Programming
(CSCI 1145)   (IMM 1140)   (CSCI 2447)

HTML 5   CSS   JAVASCRIPT

Hybrid App. Dev
(IMM 2372)

Analytics
(IMM 2210)

Portfolio
(IMM 2710)

Capstone
(IMM 2999) (CSCI 2999)
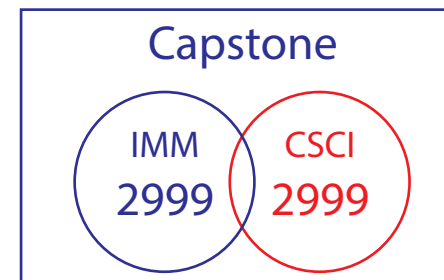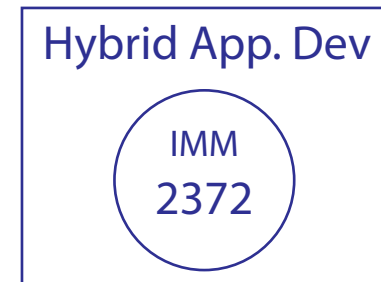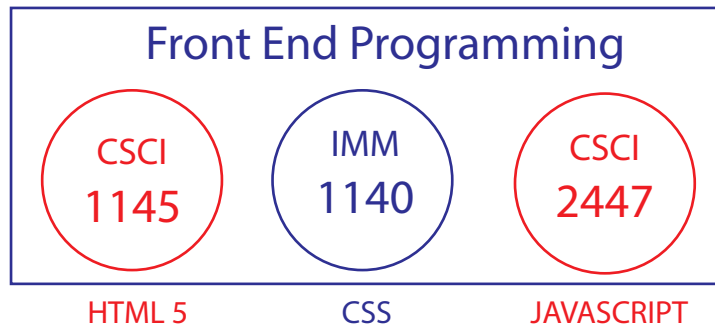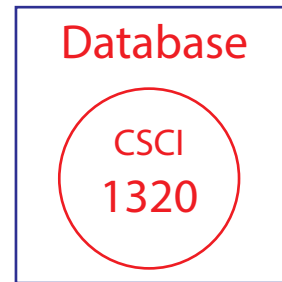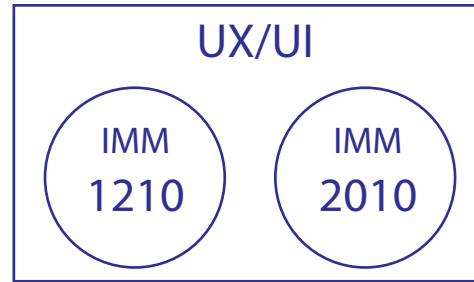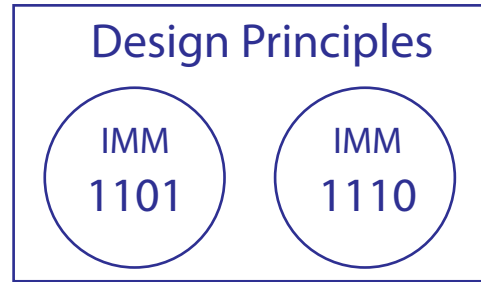
Columbus State Community College

2 Year Plan of Study
Computer Science
MOBILE APP DEVELOPMENT

COLUMBUS STATE
COMMUNITY COLLEGE

CAREER AND TECHNICAL PROGRAMS

Name _____
Student #_____
Date Entered_____
Advisor_____

FIRST SEMESTER	G/T/B	CR	
CSCI1101 Computer Concepts & Applications	T	3	
CSCI 1103 Intro to Prog Logic	T	3	
MATH 1111 Discrete Mathematics for Computing	G	3	
ENGL 1100 Composition I	G	3	
COLS 1100 First Year Experience Seminar	B	1	
		13	

SECOND SEMESTER	G/T/B	CR	
ITST 1101 Ind. Applications and Software	B	2	
IMM 1101 Mobile App Design I	B	3	
CSCI 1275 Bus Analysis & Agile	T	3	
SBS XXXX SBS (select from list)	G	3	
CSCI 1145 HTML	T	3	
		14	

SUMMER SEMESTER	G/T/B	CR	
NAT XXXX Natural Sciences	G	3	
HUM XXXX Humanities	G	3	
IMM 1210 Mobile Inter /Usability	B	3	
		9	

THIRD SEMESTER	G/T/B	CR	
CSCI 1660 Prog Fund for Android	T	3	
CSCI 2660 Android Mobile Apps Dev	T	3	
CSCI 2447 Javascript	T	3	
CSCI 2221 Agile Soft Dev and Testing	T	3	
IMM 2210 - Mobile Analytics	B	3	
		15	

FOURTH SEMESTER	G/T/B	CR	
CSCI 1650 Prog Fund for iOS	T	3	
CSCI 2650 iOS Mobile Apps Dev	T	3	
CSCI 2999 Mobile Capstone	T	3	
IMM 2372 Hybrid App Development	B	3	
		12	

GRADUATION REQUIREMENTS

G = General Education
B = Basic Education
T = Technical Education

Total General Ed.		15
Total Basic		15
Total Non-Technical		30
Total Tech. Ed.		33
TOTAL CREDITS		63

New Courses Developed Under the SMARTT Grant

Mobile App Design

IMM 1101: Mobile App Design I

The Mobile App Design I Course is designed to teach students basic levels of graphics creation through the use of software programs used by design, animation, and interactive media companies worldwide. The course emphasizes vector graphic design from a mobile web-specific point of view and provides students with a thorough understanding of the basic techniques and tools used for designing compelling interfaces for mobile applications.

IMM 1110: Mobile App Design II

The Mobile Media Design II Course teaches students advanced levels of graphics creation through the use of software programs used by design, animation, and interactive media companies worldwide. The course emphasizes raster graphic design from a mobile web-specific point of view and expands the knowledge of digital color models and interface composition to create a more visual compelling aesthetic optimized for handheld delivery.

IMM 1210: Mobile Interface Design

The Mobile User Interface Design Course teaches students the concepts and strategies needed to create usable interfaces optimized for handheld devices. In this course, students examine the foundation of creating logical, intuitive, and clear interfaces. The course examines interaction principles, experiential, and gestural design patterns relating from usability, visualization, and functionality constructs associated with human factors that drive touch screen interfaces.

IMM 2010: Mobile User Experience Design

The Mobile User Experience Design Course focuses on the overall experience and satisfaction rating users have while interacting with a product or computer based system. As users interact with these systems via a collection of combined interfaces, the process for accomplishing a task or achieving a goal is created. In this course, students learn to approach each problem by identifying its parts and then break up those parts into a collection of smaller tasks. Through closer examination of each task, students leverage their understanding of usability and interaction design. The results improve users' experiences by increasing the efficiency and productivity of handheld devices.

IMM 2110: Mobile Project Management

The Mobile Project Management course teaches students with the development, management, and assessment of mobile app and web projects. The course provides an opportunity for

students to apply analysis skills, create strategic plans, and foster professional workflow practices. As a mobile designer, understanding the Product Life Cycle (PLC) is critical in getting your mobile product out on time and on budget. The goal of this course ensures all mobile team members are on the same page, is great for collaboration and saves money and time.

IMM 2210: Mobile Analytics

Understanding the actions customers take while using mobile applications is essential for developing a communication strategy. By analyzing traffic data for mobile applications, students gain rich insights into marketing effectiveness. Students appreciate the differences between poor metrics, such as "page views" and good metrics such as "liking", "sharing", "watching" and "purchasing". Applications are written and modified to target audiences more successfully.

Mobile App Development:

CSCI 1650: Programming Fundamentals for iOS

CSCI 1650 uses the Swift programming language as the tool for learning the fundamental programming principles of application development for the iOS platform. The course covers basic data types, functions, and the implementation of classes, generic classes, inheritance, polymorphism, protocols, exception handling, and use of collections.

CSCI 1660: Programming Fundamentals for Android

CSCI 1660 uses the Java programming language as the tool for learning the fundamental programming principles of application development for the Android platform. The course covers implementation of classes, abstract classes, inheritance, polymorphism, interfaces, exception handling, and use of collections and consumption of network services.

CSCI 2650: iOS Mobile Apps Development

CSCI 2650 uses the Swift programming language to develop applications for the iOS mobile operating system, in a project-oriented, team-based learning environment. Students utilize Xcode to develop universal applications, which include multiple UI controls, interactive maps, and access data from RESTful web services. Students design mobile applications, which comply with the iOS application architecture pattern and the iOS Human Interface Guidelines. Testing of the applications is performed on the Xcode simulator and a mobile device. Students also learn the workflow to distribute applications to Apple App Store.

CSCI 2660: Android Mobile Apps Development

CSCI 2660 uses the Java programming language to develop applications for the Android mobile operating system, in a project-oriented, team-based learning environment. Students utilize the Android Studio IDE to develop universal applications, which include multiple UI controls, interactive maps, and access data from RESTful web services. Students design mobile applications that comply with the Android application architecture pattern and the Android material design guidelines. Testing of the applications is performed on the Android Emulator and a mobile device. Students also learn the workflow to distribute applications to the Google Play app store.

Capstone:

IMM 2999 / CSCI 2999

Utilizing a high-end mobile device lab as the setting, both Mobile App Design degree seeking students as well as Mobile App Developers from the Computer Science area will engage in group project based learning that involves external businesses and the completion of a mobile app.