**Course Title: Mobile Application
Development**
Catalog Number: CSCI 230
Credit Hours: 3
Total Contact Hours: 45

Instructor: Valerie Green
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http://vgreen.youcanbook.me

Course Description

This project-oriented course examines the principles of mobile application design and development. Students will learn application development on the Android or iOS platform. Topics will include memory management; user interface design; user interface building; input methods; data handling; network techniques and URL loading. Projects will be deployed in real-world applications. Course work will include project conception, design, implementation, and pilot testing of mobile phone software applications.

Prerequisite: Successful completion of CSCI 160: Introduction to Object-Oriented Design and Programming

Course Objectives:

Upon successful completion of this course, the student will be able to:

- Describe those aspects of mobile programming that make it unique from programming for other
  platforms
- Critique mobile applications on their design pros and cons
- Use rapid prototyping techniques to design and develop sophisticated mobile interfaces
- Program mobile applications that use basic and advanced phone features
- Deploy applications to an Internet marketplace for distribution.

Text & Supporting Materials:

Required:

Murach's Android Programming
Author: Joel Murach
Edition: 2nd (the 1st edition uses the Eclipse environment, and the 2nd shows the Android Studio environment)
Publisher: Mike Murach & Associates, Inc.
ISBN: 9781890774714

Recommended:

If you enjoy this class and want to go further with Android, I recommend the following book as a

next step:

Android Programming: The Big Nerd Ranch Guide
Authors: Bill Phillips, Brian Hardy
Publisher: Big Nerd Ranch Guides
ISBN: 978-0-321-80433-4

An Android device of some kind, for testing, with a USB cable. For most apps, you will be able to test your app using one of the Android Studio or GenyMotion emulators. However, the emulators are SLOW. There will be a Nexus 7 tablet to use in class, as well as some phones. Check on Amazon or eBay for an old Samsung Galaxy phone; they can be configured to work without a phone plan. Best Buy also sells cheap unlocked phones with no plan that can be used for app testing. Or: check with your "early adopter" friends to see if they have an old phone you can use.

You should bring something to take notes with, and to record your questions as you study the text. Feel free to bring a laptop to class if you would rather work on that.

It is strongly recommended that you have a USB drive to store backup copies of all assignments.

Learning Outcomes

This course seeks to develop the following core abilities:

Global Awareness / Diversity

- Identify resources and strategies needed to problem solve and/or achieve goals inclusive of diverse perspectives and experiences.
- Demonstrate the ability to work collaboratively with people from diverse backgrounds in pursuit of a common objective or goal utilizing interpersonal skills that are essential to team building, conflict resolution and cross-cultural communication.

Critical Thinking

- A student can interpret information logically by selecting and organizing relevant facts and opinions and identifying the relationships among them.
- A student can analyze an issue or problem by separating it into its component parts and investigating the relationship of the parts to the whole.
- A studentcan synthesize information by combining ideas from multiple sources to come to an independent conclusion.
- A student can evaluate information by making informed judgments as to whether the information is accurate, reliable or useful.
- A student can apply theory to practice.

Communications

- Demonstrate a command of the English language
- Identify and extract relevant data from written and oral presentations

Quantitative Methods

- Recognize problems that can be solved with quantitative methods
- Identify the quantitative components of a problem
- Select and appropriate mathematical method to solve a problem
- Demonstrate accurate computational and/or algebraic skills to solve a problem

- Estimate the reasonableness of answers to problems

Course Requirements

You will complete 4 projects. All projects can be completed as specified with the given materials, OR can be completed as similar projects designed by the student. If you wish to complete your own, similar project, please refer to the Scoring Guide at the bottom of each project's instructions page to make sure your project meets the guidelines. As part of the Final Project (Project #4), you will make an initial presentation including your project wireframe as well as a draft of the layout of your Activity screens. During our last class meeting, you will make a final presentation of your app to the class.

Projects	70%
Final Group Project	20%
Final Project Presentations (2)	10%

Grading Scale

93 - 100	A
90 - 92.99	A-
87 - 89.99	B+
83 - 86.99	B
80 - 82.99	B-
77 - 79.99	C+
73 - 76.99	C
70 - 72.99	C-
67 - 69.99	D+
63 - 66.99	D
0 - 62.99	F

End-of-Course Evaluation

In order to gain access to final course grades, students must complete evaluations for each course attended at SMCC. Evaluations are submitted online and can be accessed through the student portal site. Students can access the course evaluation report beginning two weeks before the end of classes. The deadline for submission of evaluations occurs 24 hours after the last day of classes each semester. Instructors will announce when the online course evaluation is available.

Academic Dishonesty

Plagiarism and cheating are serious offenses and may be punished by failure on exam, paper or project; failure in course; and or expulsion from the University. Plagiarism will be reported as a violation of the Student Code of Conduct. For more information refer to the "Academic Dishonesty" policy in the University Undergraduate Catalog.

Attendance & Missed/Late Work Policy

You are required, as stated in the college handbook, to attend all classes. Excused absences must be documented with doctor's notes or other official form of notification. Three consecutive unexcused absences will result in a reporting of your "Last Date of Attendance" which will show up as an AF (automatic failure).

Late assignments may be accepted at the discretion of the instructor. If accepted, a scoring penalty may be incurred.

ADA Syllabus Statement

Southern Maine Community College does not discriminate in its education and employment programs on the basis of age, race, color, gender, sexual orientation, national origin, disability, or religion. The College complies with Title VI of the Civil Rights Act of 1964, Title IX Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) of 1990.

Inquiries regarding Title VI and Title IX may be made to the Affirmative Action Officer. Telephone (207) 741-5798

If you have a disabling condition and wish to request accommodations in order to have reasonable access to programs and services offered by SMCC, you must register with the ADA Services Coordinator: Telephone (207) 741-5629, TTY (207) 741-5667

SMCC Pay-for-Print Policy

Students can print 150 pages per semester free of charge. If you print over 150 pages, you will be charged 10 cents per page to your student billing account for tuition and fees. Leftover pages from each semester will not be rolled over to the following semester. The College's pay-for-print system monitors printing on all public printers (i.e. those in general access labs, library printers, the Academic Achievement Center, Noisy Lounge and technology labs). Each time you log-in to the system, the print station displays the remaining print quota. Once the printing quota has been exceeded, users will be charged $ 0.10 per page or $.05 per side if the printer prints on both sides on their student accounts on a monthly basis. Color printouts will be charged at 11 page units. This means each color printout will count as 11 pages toward the quota and will cost $1.10.

Add-Drop Policy

Students who drop a course during the one-week "add/drop" period in the fall and spring semesters and the first three days of summer sessions receive a 100% refund of the tuition and associated fees for that course. Please note any course that meets for less than the traditional semester length, i.e., 15 weeks, has a pro-rated add/drop period. There is no refund for non-attendance.

Withdrawal Policy

A student may withdraw from a course only during the semester in which s/he is registered for that course. The withdrawal period is the second through twelfth week of the fall and spring semesters and the second through ninth week of twelve-week summer courses. This period is pro-rated for shorter-length courses. To withdraw from a course, a student must complete and submit the appropriate course withdrawal form, available at the Enrollment Service Center (no phone calls, please). The designation "W" will appear on the transcript after a student has officially withdrawn. A course withdrawal is an uncompleted course and may adversely affect financial aid eligibility. Failure to attend or ceasing to attend class does not constitute withdrawal from the course. There is no refund associated with a withdrawal.

Plagiarism Statement

Adherence to ethical academic standards is obligatory. Cheating is a serious offense, whether it consists of taking credit for work done by another person or doing work for which another person will receive credit. Taking and using the ideas or writings of another person without clearly and

fully crediting the source is plagiarism and violates the academic code as well as the Student Code of Conduct. If it is suspected that a student in any course in which s/he is enrolled has knowingly committed such a violation, the faculty member should refer the matter to the College's Disciplinary Officer and appropriate action will be taken under the Student Code of Conduct. Sanctions may include suspension from the course and a failing grade in the course. Students have the right to appeal these actions to the Disciplinary Committee under the terms outlined in the Student Code of Conduct.