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👨‍👨‍👧‍👧 “Please remember me and my family in your prayers.” 🌸

📚 Bachelor of Science in Computer Science

🎓 University of the People

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Computer Science

CS 4405 Mobile Applications

UNIVERSITY OF THE PEOPLE
The Education Revolution

CS4405: Mobile Applications

Syllabus

Prerequisites: CS 2205: Web Programming 1

Course Description: The course explores concepts and issues surrounding development of mobile applications. It covers various mobile computing platforms, development environments, and design of mobile applications. Students will use current technology to develop mobile apps.

Required Textbook and Materials: UoPeople courses use open educational resources (OER) and other materials specifically donated to the University with free permissions for educational use. Therefore, students are not required to purchase any textbooks or sign up for any websites that have a cost associated with them. The main required textbooks for this course are listed below, and can be readily accessed using the provided links. There may be additional required/recommended readings, supplemental materials, or other resources and websites necessary for lessons; these will be provided for you in the course's General Information and Forums area, and throughout the term via the weekly course Unit areas and the Learning Guides.

- Murphy, M.L. (2011). *The busy coder's guide to android development (v. 3.6)*. CommonsWare. Available at http://my.uopeople.edu/mod/resource/view.php?id=68225

- Most units in the course have additional required reading assignments and many have optional reading assignments. These resources and means to access them will be provided within the unit that they are used in.

Software Requirements/Installation: At the University of the People we strive to provide solutions that minimize the technology requirements of the student. As such this course is designed to enable the student to complete all assignments using the www.programmr.com service. This service provides an online Integrated Development Environment (IDE) for developing both Native Android and iOS applications. Although this course will introduce concepts and topics that span the universe of mobile computing, the development projects and activities will all focus on development for the Android device using the Android SDK. Students with personal computers that have sufficient capabilities may opt to use Eclipse with the Android SDK as their development environment, however, you should be aware that we will be leveraging the simulation capabilities of the Programr.com site as a way to test and evaluate both our own projects and the projects of our peers because this site will provide single URL access to Android applications and will simulate an Android device.

An option that is available to students with mobile devices that use the Android operating system is the AIDE app which is available in the Google Play app store. This app provides an android development environment ON Android devices.

The Programmr.com service DOES REQUIRE that your computer have and support Java Applets.

Learning Objectives and Outcomes:

By the end of this course students will be able to:

1. Describe current mobile environments.
2. Contrast native mobile development with mobile web frameworks.
3. Demonstrate ability to create Android apps
4. Define Android development components.
5. Create Android app with Widgets.
6. Define Java methods and properties.

Course Schedule and Topics: This course will cover the following topics in eight learning sessions, with one Unit per week. The Final Exam will take place during Week/Unit 9 (UoPeople time).

Week 1: Unit 1 - Mobile Platforms and Mobile Interface Design

Week 2: Unit 2 - Introduction to Android Development

Week 3: Unit 3 - Introduction to Mobile Web on Android

Week 4: Unit 4 - Introduction to Java Programming Language

Week 5: Unit 5 - Exploring Java Programming Language

Week 6: Unit 6 - Building Android Applications

Week 7: Unit 7 - Exploring the Building Blocks of Android Applications

Week 8: Unit 8 - Exploring the Building Blocks of Android Applications II

Week 9: Unit 9 - Course Review and Final Exam

Learning Guide: The following is an outline of how this course will be conducted, with suggested best practices for students**.**

Unit 1: Mobile Platforms and Mobile Interface Design

- Read the Learning Guide and Reading Assignments
- Participate in the Discussion Assignment (post, comment, and rate in the Discussion Forum)
- Complete and submit the Programming Assignment
- Make entries to the Learning Journal
- Take the Self-Quiz

Unit 2: Introduction to Android Development

- Peer assess Unit 1 Programming Assignment
- Read the Learning Guide and Reading Assignments
- Participate in the Discussion Assignment (post, comment, and rate in the Discussion Forum)
- Complete and submit the Programming Assignment
- Make entries to the Learning Journal
- Take the Self-Quiz

Unit 3: Introduction to Mobile Web on Android

- Peer assess Unit 2 Programming Assignment
- Read the Learning Guide and Reading Assignments
- Participate in the Discussion Assignment (post, comment, and rate in the Discussion Forum)
- Make entries to the Learning Journal
- Take the Self-Quiz
- Take the Graded Quiz

Unit 4: Introduction to Java Programming Language

- Read the Learning Guide and Reading Assignments
- Participate in the Discussion Assignment (post, comment, and rate in the Discussion Forum)
- Complete and submit the Learning Activity
- Make entries to the Learning Journal
- Take the Self-Quiz

Unit 5: Exploring Java Programming Language

- Read the Learning Guide and Reading Assignments
- Participate in the Discussion Assignment (post, comment, and rate in the Discussion Forum)
- Complete and submit the Learning Activity
- Make entries to the Learning Journal
- Take the Self-Quiz

Unit 6: Building Android Applications

- Read the Learning Guide and Reading Assignments
- Participate in the Discussion Assignment (post, comment, and rate in the Discussion Forum)
- Complete and submit the Programming Assignment
- Complete and submit the Learning Activity
- Make entries to the Learning Journal
- Take the Self-Quiz
- Take the Graded Quiz

Unit 7: Exploring the Building Blocks of Android Applications

- Peer assess Unit 6 Programming Assignment
- Read the Learning Guide and Reading Assignments
- Participate in the Discussion Assignment (post, comment, and rate in the Discussion Forum)
- Complete and submit the Learning Activity
- Make entries to the Learning Journal
- Take the Self-Quiz

Unit 8: Exploring the Building Blocks of Android Applications II

- Peer assess Unit 7 Prgramming Assignment
- Read the Learning Guide and Reading Assignments
- Participate in the Discussion Assignment (post, comment, and rate in the Discussion Forum)
- Complete and submit the Learning Activity
- Make entries to the Learning Journal
- Take the Self-Quiz
- Read the Unit 9 Learning Guide carefully for instructions on the Final Exam
- Take the Review Quiz

Unit 9: Course Review and Final Exam

- Read the Learning Guide and take the Review Quiz, if you haven't already done so
- Prepare for, take, and submit the Final Exam
- The Final Exam will take place during the Thursday and Sunday of Week/Unit 9 (UoPeople time); exact dates, times, and other details will be provided accordingly by your instructor

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Course Requirements:

Programming Assignments & Assessment Forms

Some units in this course require that you complete a Written Assignment. You are required to submit your assignments by the indicated deadlines and, in addition, to peer assess three (3) of your classmates' assignments according to the instructions found in the Assessment Form, which is provided to you during the following week. During this peer assessment period, you are expected to provide details in the feedback section of the Assessment Form, indicating why you awarded the grade that you did to your peer. Failure to submit Written Assignments and/or Assessment Forms may result in failure of the course.

Learning Activities

Some units in this course require that you complete a Learning Activity. While these are not graded assignments, they provide important hands-on experience, which builds and deepens your understanding of the material. Completion of the Learning Activity assignments helps you to apply the material, analyze it, and create bridges in knowledge and experience.

Discussion Assignments & Response Posts/Ratings

Some units in this course require that you complete a Discussion Assignment. You are required to develop and post a substantive response to the Discussion Assignment in the Discussion Forum. A substantive response is one that fully answers the question that has been posed by the instructor. In addition, you must extend the discussion by responding to at least three (3) of your peers' postings in the Discussion Forum and by rating their posts. Instructions for proper posting and rating are provided inside the Discussion Forum for each week. Discussion Forums are only active for each current and relevant learning week, so it is not possible to contribute to the forum once the learning week has come to an end. Failure to participate in the Discussion Assignment by posting in the Discussion Forum and responding to peers as required may result in failure of the course.

Learning Journal

Your instructor may choose to assign specific topics and/or relevant questions as a weekly Learning Journal entry for you to complete, but you are still encouraged to also use it to document your activities, record questions/problems you may have encountered, reflect on the learning process, and draft answers for other course assignments. The Learning Journal must be updated on a weekly basis, because its entries will be assessed by your instructor directly as a part of your final grade. The Learning Journal will only be seen by your instructor.

Quizzes

This course will contain three types of quizzes – the Self-Quiz, the Graded Quiz, and the Review Quiz. These quizzes may contain multiple choice, true/false, or short answer questions. The results of the Self-Quiz will not count towards your final grade. However, it is highly recommended that you complete the Self-Quiz to ensure that you have adequately understood the course materials. Along with the Reading Assignments, the results of the Self-Quiz should be used as part of an iterative learning process, to thoroughly cover and test your understanding of course material. You should use the results of your Self-Quiz as a guide to go back and review relevant sections of the Reading Assignments. Likewise, the Review Quiz will not count towards your final grade, but should also be used to assist you in a comprehensive review and full understanding of all course material, in preparation for your Final Exam. Lastly, the results of the Graded Quiz will count towards your final grade.

Final Exam

The Final Exam will take place during the Thursday and Sunday of Week/Unit 9, following the completion of eight units of work. The format of the Final Exam is similar to that of the quizzes, and may contain a combination of different question types. You will have one attempt to take the exam, and it will be graded electronically. Specific instructions on how to prepare for and take the Final Exam will be provided during Week 8 (located inside the Unit 9 Learning Guide). Final Exams must be taken without the use of course learning materials (both those inside and outside the course). If particular materials are allowed for use during the exam, these will be noted in the exam's instructions.

Course Forum

The Course Forum is the place to raise issues and questions relating to the course. It is regularly monitored by the instructors, and is a good place to meet fellow students taking the same course. While it is not required to participate in the Course Forum, it is highly recommended.

Course Policies:

Grading Components and Weights

Each graded component of the course will contribute some percentage to the final grading scale, as indicated here:

Discussion Assignments	10%
Programming Assignments	10%
Learning Journals	10%
Two Graded Quizzes	40%
Final Exam	30%
TOTAL	**100%**

Grading Scale

This course will follow the standard 100-point grading scale defined by the University of the People, as indicated here:

Letter Grade	Grade Scale	Grade Points
A+	98-100	4.00
A	93-97	4.00

A-	90-92	3.67
B+	88-89	3.33
B	83-87	3.00
B-	80-82	2.67
C+	78-79	2.33
C	73-77	2.00
C-	70-72	1.67
D+	68-69	1.33
D	63-67	1.00
D-	60-62	0.67
F	Under 60	0.00

Grade Appeal

If you believe that the final grade you received for a course is erroneous, unjust, or unfair, please contact your course instructor. This must be done within seven days of the posted final grade. For more information on this topic, please review the Grade Appeal Procedure in the University Catalog.

Participation

Non-participation is characterized by lack of any assignment submissions, inadequate contributions to the Discussion Forums, and/or lack of peer feedback to Discussion/Written Assignments. Also, please note the following important points about course participation:

- Assignments must be submitted on or before the specified deadline. A course timeline is provided in the course schedule, and the instructor will specify deadlines for each assignment.
- Any student showing non-participation for two weeks (consecutive or non-consecutive) is likely to automatically fail the course.
- Occasionally there may be a legitimate reason for submitting an assignment late. Most of the time, late assignments will not be accepted and there will be no make-up assignments.
- All students are obligated to inform their instructor in advance of any known absences which may result in their non-participation.

Academic Honesty and Integrity

When you submit any work that requires research and writing, it is essential to cite and reference all source material. Failure to properly acknowledge your sources is known as “plagiarism” – which is effectively passing off an individual’s words or ideas as your own. University of the People adheres to a strict policy of academic honesty and integrity. Failure to comply with these guidelines may result in sanctions by the University, including dismissal from the University or course failure. For more information on this topic, please review the Academic Integrity Policy in the University Catalog.

Unless otherwise stated, any materials cited in this course should be referenced using the style guidelines established by the American Psychological Association (APA). The APA format is widely used in colleges and universities across the world and is one of several style and citation formats required for publication in professional and academic journals. Refer to the **UoPeople APA Tutorials in the LRC** for help with APA citations.

Code of Conduct

University of the People expects that students conduct themselves in a respectful, collaborative, and honest manner at all times. Harassment, threatening behavior, or deliberate embarrassment of others will not be permitted. Any conduct that interferes with the quality of the educational experience is not allowed and may result in disciplinary action, such as course failure, probation, suspension, or dismissal. For more information on this topic, please review the Code of Conduct Policy in the University Catalog.