COURSE OUTLINE: CSD228 - MOBILE APPLICATIONS

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Course Code: Title	CSD228: MOBILE APPLICATIONS
Program Number: Name	2095: COMPUTER PROGRAMMING
Department:	COMPUTER STUDIES
Academic Year:	2024-2025
Course Description:	Mobile devices are the most widely used computing devices today. Students in this course are introduced to mobile application development concepts and tools. Topics include current industry development environments, user interfaces, mobile programming, data storage, debugging and deployment. Students apply concepts and write applications for mobile devices using a mobile app development environment.
Total Credits:	4
Hours/Week:	4
Total Hours:	56
Prerequisites:	CSD213, CSD214
Corequisites:	There are no co-requisites for this course.
Vocational Learning Outcomes (VLO's) addressed in this course: **Please refer to program web page for a complete listing of program outcomes where applicable.**	**2095 - COMPUTER PROGRAMMING** VLO 1 Identify, analyze, develop, implement, verify and document the requirements for a computing environment. VLO 2 Contribute to the diagnostics, troubleshooting, documenting and monitoring of technical problems using appropriate methodologies and tools. VLO 6 Select and apply strategies for personal and professional development to enhance work performance. VLO 7 Apply project management principles and tools when working on projects within a computing environment. VLO 9 Support the analysis and definition of software system specifications based on functional and non-functional requirements. VLO 10 Contribute to the development, documentation, implementation, maintenance and testing of software systems by using industry standard software development methodologies based on defined specifications and existing technologies/frameworks. VLO 11 Apply one or more programming paradigms such as, object-oriented, structured or functional programming, and design principles, as well as documented requirements, to the software development process. VLO 12 Model, design, implement, and maintain basic data storage solutions. VLO 13 Contribute to the integration of network communications into software solutions by adhering to protocol standards.
Essential Employability	

Skills (EES) addressed in this course:	EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication. EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 6 Locate, select, organize, and document information using appropriate technology and information systems. EES 10 Manage the use of time and other resources to complete projects. EES 11 Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	Passing Grade: 50%, D A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.
Other Course Evaluation & Assessment Requirements:	Students are expected to be present to write all tests in class, unless otherwise specified. If a student is unable to write a test due to illness or a legitimate emergency, that student must contact the professor prior to class and provide reasoning. Should the student fail to contact the professor, the student shall receive a grade of zero on the test. If a student is not present 10 minutes after the test begins, the student will be considered absent and will not be given the privilege of writing the test. Students exhibiting academic dishonesty during a test will receive an automatic zero. Please refer to the College Academic Dishonesty Policy for further information. In order to qualify to write a missed test, the student shall have: a.) attended at least 75% of the classes to-date. b.) provide the professor an acceptable explanation for his/her absence. c.) be granted permission by the professor. NOTE: The missed test that has met the above criteria will be an end-of-semester test. Labs / assignments are due on the due date indicated by the professor. Notice by the professor will be written on the labs / assignments and verbally announced in advance, during class. Labs and assignments that are deemed late will have a 10% reduction per academic day to a maximum of 5 academic days at 50% (excluding weekends and holidays). Example: 1 day late - 10% reduction, 2 days late, 20%, up to 50%. After 5 academic days, no late assignments and labs will be accepted. If you are going to miss a lab / assignment deadline due to circumstances beyond your control and seek an extension of time beyond the due date, you must contact your professor in advance of the deadline with a legitimate reason that is acceptable. It is the responsibility of the student who has missed a class to contact the professor immediately to obtain the lab / assignment. Students are responsible for doing their own work. Labs / assignments that are handed in and are deemed identical or near identical in content may constitute academic dishonesty and result in a zero grade. Students are expected to be present to write in-classroom quizzes. There are no make-up options for missed in-class quizzes. Students have the right to learn in an environment that is distraction-free, therefore, everyone is expected to arrive on-time in class. Should lectures become distracted due to students walking in late, the professor may deny entry until the 1st break period, which can be up to 50 minutes

after class starts or until that component of the lecture is complete.

Grade
Definition Grade Point Equivalent
A+ 90 - 100% 4.00
A 80 - 89%
B 70 - 79% 3.00
C 60 - 69% 2.00
D 50 - 59% 1.00
F (Fail) 49% and below 0.00

CR (Credit) Credit for diploma requirements has been awarded.
S Satisfactory achievement in field /clinical placement or non-graded subject area.
U Unsatisfactory achievement in field/clinical placement or non-graded subject area.
X A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.
NR Grade not reported to Registrar`s office.
W Student has withdrawn from the course without academic penalty.

Books and Required Resources:

Reference documentation will be referred to for technologies used in this class

Course Outcomes and Learning Objectives:

Course Outcome 1	**Learning Objectives for Course Outcome 1**
1. Describe the history of mobile application development and current industry development environments.	1.1 Review the history of app development. 1.2 Define various current industry development environments. 1.3 Use an app development IDE to build, test and debug mobile apps.
Course Outcome 2	**Learning Objectives for Course Outcome 2**
2. Create, install, and run app projects and user interfaces	2.1 Create and run a simple app. 2.2 Describe layouts and the screen/view hierarchy. 2.3 Develop graphical user interfaces. 2.4 Use the device emulator/simulator. 2.5 Employ CI/CD tools to test and deploy an application
Course Outcome 3	**Learning Objectives for Course Outcome 3**
3. Create and enhance responsive and interactive user interfaces.	3.1 Describe the screen lifecycle. 3.2 Respond to rotation and application states. 3.3 Implement listeners for UI events. 3.4 Explore common UI widgets.
Course Outcome 4	**Learning Objectives for Course Outcome 4**
4. Perform data persistence and storage.	4.1 Persist data temporarily. 4.2 Use SQLite to implement data storage. 4.3 Describe the application sandbox and how application files are stored. 4.4 Save files to the device.

Evaluation Process and Grading System:

Evaluation Type	**Evaluation Weight**
Lab 1	6%

Lab 2	11%
Lab 3	11%
Lab 4	11%
Lab 5	11%
Quizzes	10%
Test 1	20%
Test 2	20%

Date:	June 16, 2024
Addendum:	Please refer to the course outline addendum on the Learning Management System for further information.