



COURSE OUTLINE: CSD228 - MOBILE APPLICATIONS

Prepared: Joshua McColeman

Approved: Corey Meunier, Chair, Technology and Skilled Trades

Course Code: Title	CSD228: MOBILE APPLICATIONS
Program Number: Name	2095: COMPUTER PROGRAMMING
Department:	COMPUTER STUDIES
Academic Year:	2022-2023
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:	2095 - COMPUTER PROGRAMMING
Please refer to program web page for a complete listing of program outcomes where applicable.	<p>VLO 1 Identify, analyze, develop, implement, verify and document the requirements for a computing environment.</p> <p>VLO 2 Contribute to the diagnostics, troubleshooting, documenting and monitoring of technical problems using appropriate methodologies and tools.</p> <p>VLO 6 Select and apply strategies for personal and professional development to enhance work performance.</p> <p>VLO 7 Apply project management principles and tools when working on projects within a computing environment.</p> <p>VLO 9 Support the analysis and definition of software system specifications based on functional and non-functional requirements.</p> <p>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.</p> <p>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.</p> <p>VLO 12 Model, design, implement, and maintain basic data storage solutions.</p> <p>VLO 13 Contribute to the integration of network communications into software solutions by adhering to protocol standards.</p>
Essential Employability	



Skills (EES) addressed in this course:	<p>EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>EES 4 Apply a systematic approach to solve problems.</p> <p>EES 5 Use a variety of thinking skills to anticipate and solve problems.</p> <p>EES 6 Locate, select, organize, and document information using appropriate technology and information systems.</p> <p>EES 10 Manage the use of time and other resources to complete projects.</p> <p>EES 11 Take responsibility for ones own actions, decisions, and consequences.</p>										
Course Evaluation:	<p>Passing Grade: 50%, D</p> <p>A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.</p>										
Other Course Evaluation & Assessment Requirements:	<p>To successfully pass this course, the student must receive passing grades for both the Test portion of the class AND the Laboratory portion.</p> <p>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</p> <p>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.</p>										
Books and Required Resources:	<p>Reference documentation will be referred to for technologies used in this class</p>										
Course Outcomes and Learning Objectives:	<table border="1"> <thead> <tr> <th data-bbox="508 1098 800 1133">Course Outcome 1</th> <th data-bbox="808 1098 1427 1133">Learning Objectives for Course Outcome 1</th> </tr> </thead> <tbody> <tr> <td data-bbox="508 1142 800 1272">1. Describe the history of mobile application development and current industry development environments.</td> <td data-bbox="808 1142 1427 1272">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.</td> </tr> <tr> <th data-bbox="508 1281 800 1307">Course Outcome 2</th> <th data-bbox="808 1281 1427 1307">Learning Objectives for Course Outcome 2</th> </tr> <tr> <td data-bbox="508 1315 800 1420">2. Create, install, and run app projects and user interfaces</td> <td data-bbox="808 1315 1427 1420">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.</td> </tr> <tr> <th data-bbox="508 1428 800 1454">Course Outcome 3</th> <th data-bbox="808 1428 1427 1454">Learning Objectives for Course Outcome 3</th> </tr> </tbody> </table>	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.	Course Outcome 3	Learning Objectives for Course Outcome 3
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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	6%
Lab 3	6%
Lab 4	6%
Lab 5	6%
Quiz 1	2%
Quiz 2	2%
Quiz 3	2%
Quiz 4	2%
Quiz 5	2%
Test 1	30%
Test 2	30%

Date: June 2, 2022

Addendum: Please refer to the course outline addendum on the Learning Management System for further information.