COURSE OUTLINE: MAP0103 - ANDROID DEVELOPMENT

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Course Code: Title	MAP0103: ANDROID DEVELOPMENT/ANDROID STUDIO CICE
Program Number: Name	1120: COMMUNITY INTEGRATN
Department:	C.I.C.E.
Semesters/Terms:	20F
Course Description:	In this course, CICE students, with the assistance of a Learning Specialist, will develop apps for mobile devices on the Android operating system. The course begins with the fundamentals of programming using Java. Later the student will move on to Android development using Android Studio. Weekly lab activities are used to reinforce student learning.
Total Credits:	5
Hours/Week:	5
Total Hours:	75
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
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 3 Execute mathematical operations accurately. EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 7 Analyze, evaluate, and apply relevant information from a variety of sources. 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:	The student must pass both the lab and test portions of the course. Attendance: Sault College is committed to student success. There is a direct correlation between academic performance and class attendance, therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session. Absences due to medical or other unavoidable circumstances should be discussed with the instructor. Students are required to be in class on time and attendance will be taken within the first five minutes of class.

In response to public health requirements pertaining to the COVID19 pandemic, course delivery and assessment traditionally delivered in-class, may occur remotely either in whole or in part in the 2020-2021 academic year.

Absentee reports will be discussed with each student during regular meetings with Faculty Advisors.

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:

Android Programming (The Big Nerd Ranch Guide) by Bill Phillips, Chris Stewart, Kristin Marsicano, Brian Gardner
Publisher: Pearson Edition: 4
ISBN: 9780135245125

Course Outcomes and Learning Objectives:

Upon successful completion of this course, the CICE student, with the assistance of a Learning Specialist will acquire varying levels of skill development relevant to the following learning outcomes:

Course Outcome 1	**Learning Objectives for Course Outcome 1**
Introduction to Android development, Android Studio and the user interface.	1.1 Understand the history of Android development and what is required to build Android apps. 1.2 Use Android Studio, Android virtual devices, and physical devices to build and test Android apps. 1.3 Explore the structure of Android apps using the Model-View-Controller (MVC) paradigm.
Course Outcome 2	**Learning Objectives for Course Outcome 2**
Introduction to Java, Java programming and Java in Android development.	2.1 Understand this history of Java and Java syntax. 2.2 Write classes using inheritance and polymorphism. 2.3 Use data types, conditional statements, loops and string interpolation. 2.4 Work with arrays, lists, maps and sets. 2.5 Analyze and improve code quality. 2.6 Understand how Java is used in Android app development.
Course Outcome 3	**Learning Objectives for Course Outcome 3**
Working with activities, UI widgets and UI events.	3.1 Understand the activity lifecycle. 3.2 Describe how to use multiple activities. 3.3 Respond to rotation and application states. 3.4 Implement listeners for UI events. 3.5 Explore common UI widgets.

Course Outcome 4	Learning Objectives for Course Outcome 4
Implementing layouts and constraints.	4.1 Understand different layouts and how to use the constraint layout. 4.2 Explore graphical tools for designing and creating layouts. 4.3 Understand XML layout files and the conversion to view objects. 4.4 Build accessible Android user interfaces.
Course Outcome 5	**Learning Objectives for Course Outcome 5**
The intent and various functions intents provide.	5.1 Explore common types of intents. 5.2 Use intents to pass data between activities. 5.3 Understand intent extras. 5.4 Use implicit intents to open other applications and activities and access the central contact database. 5.5 Describe what broadcast intents are and their purpose.
Course Outcome 6	**Learning Objectives for Course Outcome 6**
Interacting with the user, the user experience and debugging.	6.1 Understand how to design for user input. 6.2 Describe various out-of-the-box user input controls and building custom controls. 6.3 Explore best practices for user interaction. 6.4 Apply various methods of debugging.

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	20%
Test 2	20%
Test 3	20%

CICE Modifications:

Preparation and Participation

1. A Learning Specialist will attend class with the student(s) to assist with inclusion in the class and to take notes.
2. Students will receive support in and outside of the classroom (i.e. tutoring, assistance with homework and assignments, preparation for exams, tests and quizzes.)
3. Study notes will be geared to test content and style which will match with modified learning

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outcomes.
4. Although the Learning Specialist may not attend all classes with the student(s), support will always be available. When the Learning Specialist does attend classes he/she will remain as inconspicuous as possible.

A. Further modifications may be required as needed as the semester progresses based on individual student(s) abilities and must be discussed with and agreed upon by the instructor.

B. Tests may be modified in the following ways:

1. Tests, which require essay answers, may be modified to short answers.
2. Short answer questions may be changed to multiple choice or the question may be simplified so the answer will reflect a basic understanding.
3. Tests, which use fill in the blank format, may be modified to include a few choices for each question, or a list of choices for all questions. This will allow the student to match or use visual clues.
4. Tests in the T/F or multiple choice format may be modified by rewording or clarifying statements into layman's or simplified terms. Multiple choice questions may have a reduced number of choices.

C. Tests will be written in CICE office with assistance from a Learning Specialist.

The Learning Specialist may:

1. Read the test question to the student.
2. Paraphrase the test question without revealing any key words or definitions.
3. Transcribe the student's verbal answer.
4. Test length may be reduced and time allowed to complete test may be increased.

D. Assignments may be modified in the following ways:

1. Assignments may be modified by reducing the amount of information required while maintaining general concepts.
2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

The Learning Specialist may:

1. Use a question/answer format instead of essay/research format
2. Propose a reduction in the number of references required for an assignment
3. Assist with groups to ensure that student comprehends his/her role within the group
4. Require an extension on due dates due to the fact that some students may require additional time to process information
5. Formally summarize articles and assigned readings to isolate main points for the student
6. Use questioning techniques and paraphrasing to assist in student comprehension of an assignment

E. Evaluation:

Is reflective of modified learning outcomes.

NOTE: Due to the possibility of documented medical issues, CICE students may require

	alternate methods of evaluation to be able to acquire and demonstrate the modified learning outcomes
Date:	September 10, 2020
Addendum:	Please refer to the course outline addendum on the Learning Management System for further information.