COURSE OUTLINE: MAP0102 - APPLE DEVELOPMENT

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Course Code: Title	MAP0102: APPLE DEVICE DEVELOPMENT - 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 iOS platform. Apple`s new Swift programming language and the Xcode development environment will be used. The focus of this course in programming is the development of user-interfaces and program logic for the iOS operating system.
Total Credits:	4
Hours/Week:	4
Total Hours:	60
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:

iOS Programming (The Big Nerd Ranch Guide) by Christian Keur, Aaron Hillegass
Publisher: Pearson Edition: 7
ISBN: 9780135264027

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 iOS development, Xcode and Interface Builder.	1.1 Understand the history of iOS development and what is required to build iOS apps. 1.2 Use Xcode, the iOS simulator, and physical devices to build and test iOS apps. 1.3 Understand the structure of iOS apps including the Model-View-Controller paradigm. 1.4 Build accessible iOS user interfaces.
Course Outcome 2	**Learning Objectives for Course Outcome 2**
Introduction to Swift, Swift programming and Swift in iOS development.	2.1 Understand Swift syntax. 2.2 Write structures, enumerations, and classes. 2.3 Use data types, conditional statements, loops and string interpolation. 2.4 Work with arrays and dictionaries. 2.5 Discover advanced Swift topics (mutability, immutability, optionals, selectors, subclassing). 2.6 Analyze and improve code quality.
Course Outcome 3	**Learning Objectives for Course Outcome 3**
Views, the view hierarchy, view controllers and layouts	3.1 Understand the view architecture. 3.2 Use view controllers to create and manage views. 3.3 Explain the auto layout system. 3.4 Use constraints to drive visual changes across different

	device sizes. 3.5 Demonstrate views and view management programmatically.
Course Outcome 4	**Learning Objectives for Course Outcome 4**
Interacting with the user, the user experience and delegation.	4.1 Understand how to design for user input. 4.2 Use delegation to respond to text changes. 4.3 Explore various input mechanisms to improve the user experience.
Course Outcome 5	**Learning Objectives for Course Outcome 5**
Debugging and testing using the simulator and physical devices.	5.1 Explore debugging tools provided by Xcode. 5.2 Discover the debugger console. 5.3 Apply various methods of debugging. 5.4 Experiment with debugging using the Xcode simulator. 5.5 Experiment with debugging using a physical device.
Course Outcome 6	**Learning Objectives for Course Outcome 6**
Navigation, tab bar controllers and the table view controller.	6.1 Describe how navigation controllers manage a controller hierarchy. 6.2 Discover how to use segues to manage controller relationships. 6.3 Implement a tab bar controller as a primary navigation mechanism. 6.4 Experiment with stack views, table views, and table view controllers.

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.

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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 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.