



COURSE OUTLINE: MAP201 - IOS DEVELOPMENT

Prepared: Joshua McColeman

Approved: Corey Meunier, Chair, Technology and Skilled Trades

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| Course Code: Title | MAP201: PROGRAMMING: HANDS-ON IOS DEVELOPMENT |
| Program Number: Name | 2191: MOBILE APPS DESIGN |
| Department: | COMPUTER STUDIES |
| Semesters/Terms: | 21W |
| Course Description: | In this course, students will continue their study of mobile development for the iOS platform. The focus will be a student-driven, deeper dive into the study of various APIs such as location, data management, networking and internet, wearable technology, and game development. |
| 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. |
| Vocational Learning Outcomes (VLO's) addressed in this course: | 2191 - MOBILE APPS DESIGN |
| Please refer to program web page for a complete listing of program outcomes where applicable. | VLO 1 Evaluate business and design requirements to select, formulate and implement mobile solutions. |
| | VLO 3 Develop application and user interfaces for various mobile platforms that leverage evolving mobile device capabilities. |
| | VLO 6 Design, develop and publish device-specific mobile applications using mobile solution technology to meet stakeholder requirements. |
| | VLO 7 Evaluate and implement new features for current IOS, Android and other platforms to meet client needs. |
| Essential Employability Skills (EES) addressed in this course: | EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. |
| | 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 8 Show respect for the diverse opinions, values, belief systems, and contributions of others. |
| | EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals. |
| | 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 |

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.



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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.

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:

| Course Outcome 1 | Learning Objectives for Course Outcome 1 |
|---------------------------------------|--|
| Working with mobile device hardware. | 1.1 Describe how APIs and frameworks provide additional app functionality. 1.2 Understand how to access the camera of a mobile device. 1.3 Write applications to retrieve and store data from hardware devices. |
| Course Outcome 2 | Learning Objectives for Course Outcome 2 |
| Data persistence and the file system. | 2.1 Understand the various ways to persist data. 2.2 Discover how CoreData can assist with data management. 2.3 Practice collecting and storing data. 2.4 Implement data mechanisms to manage application states. |
| Course Outcome 3 | Learning Objectives for Course Outcome 3 |

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| | Web services. | 3.1 Describe what a web service is and how they work. 3.2 Implement the necessary components to consume data from a web service. 3.3 Understand what JSON is and how to parse it for use in a mobile app. 3.4 Explore multi-threading and networking in iOS. |
| | Course Outcome 4 | Learning Objectives for Course Outcome 4 |
| | Advanced user interfaces. | 4.1 Explore collection views. 4.2 Build a custom collection view cell. 4.3 Understand lazy loading. 4.4 Implement a menu controller. 4.5 Describe animation control. 4.6 Implement animations within a user interface. |
| | Course Outcome 5 | Learning Objectives for Course Outcome 5 |
| | Touch events and gestures. | 5.1 Understand how to leverage touch events and gestures. 5.2 Implement gesture recognizers. 5.3 Describe the UIResponder. |

Evaluation Process and Grading System:

| Evaluation Type | Evaluation Weight |
|-----------------|-------------------|
| Lab 1 | 8% |
| Lab 2 | 8% |
| Lab 3 | 8% |
| Lab 4 | 8% |
| Lab 5 | 8% |
| Test 1 | 25% |
| Test 2 | 35% |

Date: October 1, 2020

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

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