iOS Swift Application Development 2023-2024 Catal

[ARCHIVED CATALOG]

SDEV 260 - iOS Swift Application Development

PREREQUISITES: College STEM or Calculus MATH ready and SDEV 140 - Introduction to Software Development or CSCI 101 - Computer Science I
PROGRAM: Software Development
CREDIT HOURS MIN: 3
LECTURE HOURS MIN: 2
LAB HOURS MIN: 2
DATE OF LAST REVISION: Summer 2021

This course is designed to help students build a solid foundation in programming fundamentals using Swift as the language. Students get practical experience with the tools, techniques, and concepts needed to build a basic iOS app.

MAJOR COURSE LEARNING OBJECTIVES: Upon successful completion of this course the student will be expected to:

1. Explore the interactive playground and Xcode development environment.
2. Implement media, image and audio within an Xcode project.
3. Compose Swift programs, using object-oriented concepts of abstraction, encapsulation and decomposition.
4. Identify how to work with preexisting code via an API or Application Programming Interface.
5. Implement collection types, arrays, sets, stacks, queues, and dictionaries in programs.
6. Design programs with Class and Struct in Swift and discuss how they are implemented with inheritance and polymorphism.
7. Build user interfaces within a graphic design environment to tie user interface elements into code.
8. Identify and interpret Cocoa Touch Frameworks.
9. Experiment using auto layout and stack view user interfaces when creating an iOS application.
10. Implement enumeration and switch when displaying an instance.
11. Prototype the software development design cycle.

12. Demonstrate an understanding and proper use of exception handling, secure coding, runtime safety features, and recursive functions.

13. Discuss memory allocation and deallocation in iOS and program design.

14. Design, code, edit, compile, test, and debug advanced Swift language programs.

COURSE CONTENT: Topical areas of study include -

iOS Application Development	Polymorphism
Simulator	Asset Catalog
Application Programming interface(API)	Auto Layout
Result Sidebar	Stack View
Image View	Enum
String Interpolation	View Controller
Storyboard	CGFloat
Abstraction and Decomposition	Outlet
Table View	

GRADING POLICY
A.....90-100

B.....80-89

C.....70-79

D.....60-69

F.....0-59

Course Addendum - Syllabus (Click to expand)