Course Code	**CTIS 480**
Course Name	**iOS Application Development**
Course Credit	**4 (4 hrs. lecture in the lab)**
Instructor	**Dr. Seyid Amjad Ali (Section 1)** Office: C222A, Tel: x5335 Office Hours: Tuesday 10:40-11:30, Thursday 13:40-14:30 e-mail: syedali@bilkent.edu.tr
Textbook and Tools	https://docs.swift.org/swift-book/index.html https://swift.org/ https://developer.apple.com/xcode/ A remote Mac rental service for PC, Mobile and old Mac users http://www.macincloud.com/
Assessments	Attendance & Participation: 3% Assignments: 15% Quizzes: 12% Midterm Exam: 25% Project: 15% Final Exam: 30%

Course Objectives:

A programming course for iOS enabled devices. Covered topics include overview of iOS, App store, creating developer account, using Xcode, understanding iOS frameworks, understanding Model View Controller (MVC) and Model View ViewModel (MVVM) architectures, learning Swift by using Playground, using Storyboard, using different view controllers, view controller lifecycle, understanding views, outlets, outlet collection and actions, writing basic applications and testing them, alerts, timers, gestures, graphics and multimedia programming, data persistence, data parsing, core data, realm database, push notifications, Core ML and ARKit.

Attendance Policy:

Attendance is compulsory in this course. Students are expected to attend at least 75% of all the lectures.

Makeup Policy:

Midterm or Final exam makeup may ONLY be given to students with a Bilkent University Health Center approved medical report. A failing student who will fail to show up either to take the final exam and/or to take the makeup exam will get a FX grade.

Minimum Requirements to Qualify for the Final Exam

A student who will fail to collect a total of 20/100 points from the weighted average of the midterm exam, assignments, quizzes AND attend less than 75% of all the lectures will get FZ grade i.e., he/she will not be permitted to take the final exam. Those students who are working in a company need to attend at least 60% of all the lectures if they provide an official job letter from their company to the instructor during the first 3 weeks of the semester.

Grading Scale:

The following grading scale will be used in this course. Passing grades range from A to D; F or FX is a fail.

```
<48    F/FX
48-54  D
54-58  D+
58-62  C-
62-66  C
66-70  C+
70-74  B-
74-78  B
78-82  B+
82-86  A-
>86    A
```

Changes:

The information contained in this course syllabus is subject to change. Students will be informed about any changes either in the class and/or by e-mail and/or publishing at Moodle page. It is the responsibility of the student to regularly check the course Moodle page and his/her Bilkent e-mail account to learn about any course related updates.

COURSE OUTLINE

Week	Topics
1 Sept. 24 - Sept. 28	Introduction to the Course
	Introduction to iOS
	Using Xcode and Understanding iOS Frameworks
	App Store and Business Related Issues
2 Oct. 1 - Oct. 5	Using Storyboard
	Using Auto Layout
	Using Segue
	Using Unwind/Exit Segue
3 Oct. 8 - Oct. 12	Learning Swift using Playground
	Writing Basic Applications
	Understanding View Controller Lifecycle
	Understanding Views, Outlets, Outlet Collection and Actions
4 Oct. 15 - Oct. 19	Using Tags
	Using plist
	Using StackView
	Writing Simple Applications to Learn the Use of Different UIView's
	Setting the iOS Application Icon
	Testing Application on a Device
5 Oct. 22 - Oct. 26	Using Alerts, Timers, Gestures
	Data Persistence
	Creating Simple Game
	Using Sound
	Using NavigationController
6 Oct. 30 - Nov. 2	Understanding Model-View-Controller(MVC) Architecture
	Understanding Model-View-ViewModel(MVVM) Architecture

7 Nov. 5 - Nov. 9	Using Static and Dynamic TableView Creating Custom TableView Model View Controller based TableView Using Delegate Using Codable Protocol
8 Nov. 12 - Nov. 16	Using CollectionView Model View Controller based CollectionView
9 Nov. 19 - Nov. 23	Using CocoaPods dependency manager Using Carthage to add frameworks Manual installing by cloning the GitHub repository JSON Parsing
10 Nov. 26- Nov. 30	RSS Feeds (XML Parsing) Using WebKit Using SearchController
11 Dec. 3- Dec. 7	Push Notifications Grand Central Dispatch (GCD)
12 Dec. 10 - Dec. 14	Using Core Data Using Realm Database
13 Dec. 17 - Dec. 21	Using Pop Up View Using TabViewController Using PageViewController Using SplitViewController
14 Dec. 24 - Dec. 28	Graphics Programming Core ML and ARKit
FINAL EXAMS	