

# uCertify

## Course Outline

### iOS 17 Programming for Beginners



30 Oct 2025

1. Pre-Assessment
2. Exercises, Quizzes, Flashcards & Glossary  
Number of Questions
3. Expert Instructor-Led Training
4. ADA Compliant & JAWS Compatible Platform
5. State of the Art Educator Tools
6. Award Winning Learning Platform (LMS)
7. Chapter & Lessons  
Syllabus  
Chapter 1: Preface  
Chapter 2: Exploring Xcode  
Chapter 3: Simple Values and Types  
Chapter 4: Conditionals and Optionals  
Chapter 5: Range Operators and Loops  
Chapter 6: Collection Types  
Chapter 7: Functions and Closures  
Chapter 8: Classes, Structures, and Enumerations  
Chapter 9: Protocols, Extensions, and Error Handling  
Chapter 10: Swift Concurrency  
Chapter 11: Setting Up the User Interface  
Chapter 12: Building Your User Interface  
Chapter 13: Finishing Up Your User Interface  
Chapter 14: Modifying App Screens  
Chapter 15: Getting Started with MVC and Table Views  
Chapter 16: Getting Data into Table Views  
Chapter 17: Passing Data between View Controllers  
Chapter 18: Getting Started with Core Location and MapKit  
Chapter 19: Getting Started with JSON Files

Chapter 20: Getting Started with Custom Views

Chapter 21: Getting Started with the Camera and Photo Library

Chapter 22: Getting Started with Search

Chapter 23: Getting Started with Collection Views

Chapter 24: Getting Started with SwiftData

Chapter 25: Getting Started with SwiftUI

Chapter 26: Getting Started with Widgets

Chapter 27: Getting Started with visionOS

Chapter 28: Testing and Submitting Your App to the App Store

Videos and How To

## 8. Practice Test

Here's what you get

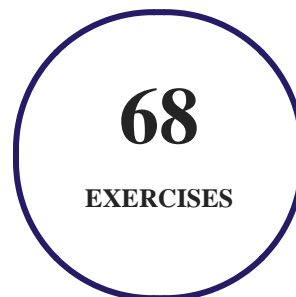
Features

## 1. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

## 2. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.



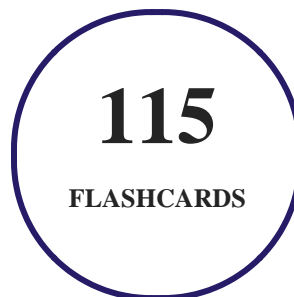
### 3. Quiz

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.



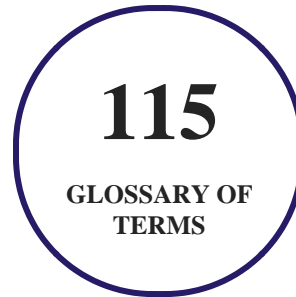
### 4. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.



### 5. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



## 6. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

## 7. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

## 8. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

## 9. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**

1. Best Postsecondary Learning Solution

- **2015**

1. Best Education Solution
2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution

6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

## 10. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

# Syllabus

## Chapter 1: Preface

- Who this course is for
- What this course covers
- To get the most out of this course
- Conventions used

## Chapter 2: Exploring Xcode

- Technical requirements
- Downloading and installing Xcode from the App Store
- Exploring the Xcode user interface
- Running your app in Simulator
- Running your app on an iOS device
- Summary

## Chapter 3: Simple Values and Types

- Technical requirements
- Introducing Swift playgrounds

- Exploring data types
- Exploring constants and variables
- Understanding type inference and type safety
- Exploring operators
- Using the print() statement
- Summary

## Chapter 4: Conditionals and Optionals

- Technical requirements
- Introducing conditionals
- Introducing optionals and optional binding
- Summary

## Chapter 5: Range Operators and Loops

- Technical requirements
- Exploring range operators
- Exploring loops
- Summary

## Chapter 6: Collection Types

- Technical requirements
- Exploring arrays
- Exploring dictionaries
- Exploring sets
- Summary

## Chapter 7: Functions and Closures

- Technical requirements
- Exploring functions
- Exploring closures
- Summary

## Chapter 8: Classes, Structures, and Enumerations

- Technical requirements
- Understanding classes
- Understanding structures
- Understanding enumerations

- Summary

## Chapter 9: Protocols, Extensions, and Error Handling

- Technical requirements
- Exploring protocols
- Exploring extensions
- Exploring error handling
- Summary

## Chapter 10: Swift Concurrency

- Technical requirements
- Understanding Swift concurrency
- Examining an app without concurrency
- Updating the app using async/await
- Improving efficiency using async-let
- Summary

## Chapter 11: Setting Up the User Interface

- Technical requirements

- Learning useful terms in iOS development
- A tour of the JRNL app
- Modifying your Xcode project
- Setting up a tab bar controller scene
- Summary

## Chapter 12: Building Your User Interface

- Technical requirements
- Adding a table view to the Journal List screen
- Connecting storyboard elements to the view controller
- Configuring data source methods for the table view
- Presenting a view modally
- Summary

## Chapter 13: Finishing Up Your User Interface

- Technical requirements
- Implementing the Journal Entry Detail screen
- Implementing the Map screen
- Summary

## Chapter 14: Modifying App Screens

- Technical requirements
- Modifying the Journal List screen
- Modifying the Add New Journal Entry screen
- Modifying the Journal Entry Detail screen
- Summary

## Chapter 15: Getting Started with MVC and Table Views

- Technical requirements
- Understanding the Model-View-Controller design pattern
- Understanding table views
- Revisiting the Journal List screen
- Summary

## Chapter 16: Getting Data into Table Views

- Technical requirements
- Understanding model objects
- Creating a class to represent a journal entry

- Creating sample data
- Displaying data in a table view
- Summary

## Chapter 17: Passing Data between View Controllers

- Technical requirements
- Passing data from the Add New Journal Entry screen to the Journal List screen
- Removing rows from a table view
- Exploring text field and text view delegate methods
- Passing data from the Journal List screen to the Journal Entry Detail screen
- Summary

## Chapter 18: Getting Started with Core Location and MapKit

- Technical requirements
- Getting your device location using the Core Location framework
- Updating the JournalEntry class to conform to the MKAnnotation protocol
- Displaying annotation views on the Map screen
- Displaying a map snapshot on the Journal Entry Detail screen

- Summary

## Chapter 19: Getting Started with JSON Files

- Technical requirements
- Creating a singleton
- Modifying the `JournalEntry` class to be JSON-compatible
- Loading and saving JSON data
- Summary

## Chapter 20: Getting Started with Custom Views

- Technical requirements
- Creating a custom `UIStackView` subclass
- Adding your custom view to the Add New Journal Entry screen
- Adding your custom view to the Journal Entry Detail screen
- Summary

## Chapter 21: Getting Started with the Camera and Photo Library

- Technical requirements
- Creating a new `UIImagePickerController` instance

- Implementing UIImagePickerControllerDelegate methods
- Getting permission to use the camera or photo library
- Summary

## Chapter 22: Getting Started with Search

- Technical requirements
- Implementing a search bar for the Journal List screen
- Modifying table view data source methods
- Modifying the prepare(for:sender:) method
- Modifying the method to remove journal entries
- Summary

## Chapter 23: Getting Started with Collection Views

- Technical requirements
- Understanding collection views
- Modifying the Journal List screen to use a collection view
- Dynamically modifying collection view cell size using size classes
- Testing your app on different devices
- Summary

## Chapter 24: Getting Started with SwiftData

- Technical requirements
- Introducing SwiftData
- Modifying the JournalEntry class
- Implementing SwiftData components
- Modifying the JournalListViewController class
- Summary

## Chapter 25: Getting Started with SwiftUI

- Technical requirements
- Creating a SwiftUI Xcode project
- Creating the Journal List screen
- Adding model objects and configuring navigation
- Using MapKit for SwiftUI
- Completing the Journal Entry Detail screen
- Summary

## Chapter 26: Getting Started with Widgets

- Technical requirements
- Introducing widgets
- Adding a widget target to your app
- Providing timeline entries to your widget
- Customizing your widget's view
- Adding a widget to your Home and Lock screens
- Summary

## Chapter 27: Getting Started with visionOS

- Technical requirements
- Introducing visionOS
- Adding a visionOS target to your project
- Improving your app's appearance in visionOS
- Adding 3D objects to your app
- Summary

## Chapter 28: Testing and Submitting Your App to the App Store

- Technical requirements

- Getting an Apple Developer account
- Exploring your Apple Developer account
- Submitting your app to the App Store
- Testing your app
- Summary

## Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

**53**

VIDEOS

**02:04**

HOURS

## 11. Practice Test

**Here's what you get**

**Features**

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

### Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

You can't stay away! Get

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