

# TEPC11 : iOS Certified Associate Developer (ICAD) (อบรมเชิงปฏิบัติการพร้อมสอบประกาศนียบัตรในระดับสากล)

#### Description:

NEW Program Certified by iTrain Asia Pte Ltd

หลักสตรออนไลน์ 5 วัน ที่จะช่วยไกด์ให้คุณได้เข้าใจและสามารถ Develop iPhone Application ตั้งแต่เริ่ม Design, Dev, Test จนถึงขั้นตอนการนำ Application ขึ้น App Store

เมื่อผู้เรียนได้ผ่านการเรียน และทดสอบความรู้และความสามารถตามกำหนดเกณฑ์ของหลักสูตร จะได้รับ E-Certificate และ Digital Badge ในระดับสากล

Training Date: 4-8 December 2023 fee: 34000 ฿ (ราคายังไม่รวม Vat 7%) Days & Duration: 5 Day(s) | 30 Hour(s)

Time: 09:00:00 - 16:00:00

Venue: Online by Zoom

Instructor: Language: English

Type: Online

Category: Professional Certification Program

#### Objectives:

#### Course Overview:

This 5-day course will guide students through the entire process of developing an iPhone application from designing to developing, testing and releasing iPhone and iPad applications. The goal is to get you past the initial learning curve to help you to understand the way iPhone and iPad applications work and how they are built.

NOTE: Mac machines are NOT provided Online training. Participants need to use their own Mac and they need to install the latest iOS SDK and xCode in their computers prior to the training.

#### Target Group:

#### Prerequisites:

All participants should have basic competency in at least one object-oriented programming language (such as C++/C#/Java, Javascript).

Participants are also required to register as an Apple iOS Developer (Free) at: https://developer.apple.com/

## Who Should Attend:

This workshop is intended for Programmers and Designers with programming abilities who are interested in developing applications for iPhone and iPad supporting popular iOS applications.

## **Exam Format:**

The ICAD Certification Exam duration is 2 hours, consisting of 50 Multiple Choice Questions, with a Passing Score of 70%. You will receive a professional ICAD Certification upon passing the exam.

### Benefits:

## **Learning Outcomes:**

Upon completion of this course, you will be able to:

- Explore the basic of iOS device capabilities and limitations.
- Illustrate the iOS development Process.
- Leverage some of the networking and multi-threading capabilities that exist in iOS
- Utilize the Swift programming language including properties, conditionals, instance variables, classes, strings, arrays, loops, methods and enums.
- Employ basic Debugging and trouble shooting.
- Explore and use UI Elements and Auto Layout.
- Experience working in teams on iOS related projects.
- Explain the process of creating a universal app that will run on both iPhone and iPad devices.
- Detail the process required to publish and submit an iOS application.
- Design, develop, create and present a signification final iOS business application project.

## Course Outline:

#### Day 1: Fundamentals

## Getting started with xCode

- Introduction & getting started
- Register to the Apple Developer Program
- Getting other iOS Simulator

- Interface
- ToolBar
- Navigation Area
- Editor Area
- Utility Area
- Testing application in your device

#### Swift 3 Language

- Introduction
- Files
- Coding practice
- Basic Variables & Swift Data Type
- Operation
- Optional and Optional Binding
- Class Declaration
- OPP in Swift
- Methods calling
- Basic Design Pattern
- MVC Diagram
- Target-Action
- Protocol & Delegate
- Selectors
- Protocol

### Overview of iOS 10 & iOS 11

- iOS Architecture
- iOS10 SDK Features
- iOS11 SDK Features
- Using NSFoundation and UIKit
- App Designing Process
- Latest UI/UX Design trend
- Introduction to Prototyping tool
- App Design Case study
- Debugging Tools Instruments

#### Creating a Single View Application

- Understanding different templates in xCode
- Programming UI Elements UIButton, UITextField, UISwitch, UISlider
- Using Assets management in xCode
- Multiple Screen Development with Size Class and Autolayout

## Day 2: Creating Interfaces

## Mobile app Development Lifecycle

- Understanding Different App Development Lifecycle
- Product Roadmap and versioning
- UI/UX Trend
- Design Principle in Mobile application
- Application Prototyping

### Create View

- UINavigationBar Controller
- Nested navigation Controller
- UITabBarController
- Multi Views

## Storyboard & Segue

- Introduction
- Views
- Dynamic & Static Table
- Collection View

• Creating Custom Cells

#### Multi Views

- Segue Elements
- Passing Data diagram
- Passing Data
- Sample passing data code

## **Debugging Application**

- Using breakpoint
- Using print function
- Understanding commonmistake by developer

## Day 3: Creating Data

## PList (Local) Property List

- Introduction
- Retrieving data
- Plist to Table App using NSUserDefault
- App settings
- NSUserDefaults
- + Introduction
- + Store Data code
- + Retrieve data code

#### JSON (Remote)

- Introduction
- Frameworks
- Step-by-Step

## Core Data (Local)

- Overview
- ullet Introduction
- Core Data vs SQLite
- Step-by-Step

## Remote Data

- Introduction
- NSAppTransport Security
- Integrate with Remote API and Web service
- Parsing JSON Data

## Day 4: Devices Features

### Core Location

- Overview
- Accuracy
- Basic Setup
- Reverse Geocoding

## Map using MapKit Framework

- Overview
- Placing point
- Annotation Details
- Step-by-Step

#### Creating Camera Functionality

- Overview
- Code
- Check Camera Availability
- Getting Image from Photo Library
- Check support video

## **Gestures Adding**

- Overview
- UI Tap Gesture Recognizer

Motion gestures

#### Social Framework

- Adding Facebook to your App
- Adding Twitter to your App

## Mini Project

- User flow documentation
- Analyzing Technical requirement
- Mobile application (End product)

## Day 5 Multimedia, Localization and Beyond the Basic

#### UIWeb View

• Display live dynamic web pages

#### Making Multimedia Audio & Video

- Movie Formats
- Audio Formats
- Frameworks
- Overview

### App Localization Internationalize Your App

- Why Localization?
- What can be localized?
- NSLocalizedstring
- App name how?
- Changing Language
- Common Potfalls

## Coding Best Practices:

- Test driven development: Unit testing and automation testing
- Working in team: Code style
- Code documentation using HeaderDoc
- Best practice of implementing Security in application

#### Beyond The Basics:

- Dependency Management with Cocopods
- Using third party library
- Understanding BaaS

#### App Submission Process:

- Checklist
- App Review Guidelines
- Human Interface Guidelines
- Considerations before uploading
- Managing Alpha and Beta Testing with Testflight
- App submission
- Acquisition strategy: Introduction to App Store Optimization
- Flow

## Payment Condition :

## Payment can be made by:

- 1. Cash or Credit Card or Bank Cheque payable to "สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ" (a post-dated cheque is not accepted) on the first day of the service or within the last day of the service.
- 2. Account transfer and send the proof of the payment (the deposit slip) to email ttd@swpark.or.th
  - ธนาคารกรุงเทพ สาขาอุทยานวิทยาศาสตร์

Saving Account Number: 080-0-00001-0

Account Name: สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ

• ธนาคารกรุงไทย สาขาตลาดไท

Saving Account Number: 152-1-32668-1

Account Name: สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ



## Notes:

- Withholding tax (3%) is exempt.
- Should you need to withdraw, you must send the notice of the withdrawal in writing no later than 7 working days before the commencement date. The cancellation less than 7 days will be subject to a fine of 40% of the fee.
- Software Park Thailand reserves the rights to cancel courses due to unforeseen circumstances.

## Contact Person:

For more information, contact our course coordinator on:

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You are encouraged to use the course schedule as a guide to plan your training.

The schedule is accessible at <a href="https://www.swpark.or.th">www.swpark.or.th</a> for more information.