



**Information  
Technology  
Institute**

**PROFESSIONAL TRAINING PROGRAM**

**2021/2022**

**NATIVE MOBILE  
APPLICATIONS DEVELOPMENT  
Track Overview**

**People Develop Countries...**

**We Develop People**

# Native Mobile Applications Development



## DESCRIPTION

ITI-(Native Mobile Applications Development) Specialization - is a product based program that will empower you to learn how to build quality native mobile applications for Android or iOS. This track graduates world class Android/iOS Developers who are capable of designing and implementing applications that follows the best practices and guidelines of Google Play Store and App Store.



## WHO MAY APPLY

All University Graduates



## TRACK DURATION

1326 Hours about 9 months (learning and project ).



## DELIVERY APPROACH

Blended between Self-paced, Synchronous Learning and Guided Practices with a Project Based Focused Journey.

## BEFORE YOU APPLY

Candidates will have to complete the following prerequisite courses to join our program:

- OOP Fundamentals (Must)
- Programming Skills (Must)
- Logical Thinking (Must)
- Problem Solving (Must)
- Android Dev. & iOS Dev. (Plus)

Recommended Resources for preparation:

- [Object-Oriented Data Structures in C++](#) (Coursera)
- [Object oriented fundamentals](#) (Tutorialspoint)
- [Java and Android Fundamentals](#) (Mahara Tech) (Plus)
- [iOS Applications Development using Objective-C](#) (Mahara Tech) (Plus)
- [iOS Applications Development using Swift](#) (Mahara

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## GRADUATE PROFILES

- Native Android Developer
- Native iOS Developer



## REQUIRED TOOLS

JDK 1.8  
NetBeans  
Android Studio  
Apple Environment  
Flutter Environment



## TRACK PRACTICES

Candidates may work together in the following Suggested Projects:

- Trip Planner App
- Weather Forecast App
- News App
- Movies App
- Sports App
- m-Commerce App

# Native Mobile Applications Development



## OVERALL LEARNING JOURNEY OUTLINE

### Fundamental Courses

- Operating Systems Fundamentals
- Computer Network Fundamentals
- Database Fundamentals
- Introduction to Object Oriented Programming Concept
- Data Structure and Algorithm

### Native Android Applications Development

- Developing Applications using Java Programming
- Developing Applications for Android Platform
- Developing Applications for Android using Kotlin
- Introduction to Android Applications Security
- Android Applications Unit Testing
- Design Patterns for Android
- Rx Java for Android
- Material Design

### Native iOS Applications Development

- Objective C
- Developing Applications for iOS
- Developing Applications for iOS using Swift
- iOS Applications Unit Testing
- Design Patterns for iOS
- Rx Swift for iOS

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## Cross-Platform Applications Development

### OVERALL LEARNING JOURNEY OUTLINE

#### Development

- Introduction to Flutter Development

#### Software Design and

#### Project Management

#### Essentials

- Introduction to Software Engineering
- Object-Oriented Analysis & Design using UML
- Agile Software Development Methodologies
- Java Design Principles and Patterns
- Introduction to Testing and automated unit test
- Versioning Control Systems
- Project Configuration Management

#### Web & Backend Apps

#### Interoperability

- XML Fundamentals
- API for XML Processing using Java
- Introduction to Web technologies
- Introduction to Developing Dynamic Web Applications using Servlets and JSP
- Java API for Restful Web Service

#### UI Design

- Mobile User Interface Concepts (UI)

#### Soft Skills Courses

- Best Practices For Remote Working (Workshop)
- Communication Essentials for Professionals
- High Impact Presentations
- Job Seeking Skills
- Professional Demeanor (Workshop)
- Progressive Teamwork (Workshop)

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## OTHER USEFUL INFORMATION

During the journey, trainees will be exposed to different activities:

- Lectures/Labs to gain the knowledge from qualified and certified trainers and professionals.
- Projects to apply the knowledge and to build experience and work collaboratively with a team and to build a portfolio of proofed experience.
- Workshops / Competitions and test the readiness and competence.
- Presentations to have the ability to pitch an idea
- Building professional profiles on GitHub, Hacker Rank and Stack Over Flow ... etc to have professional exposure.
- Getting accredited certifications from the technology providers like Google and Apple to proof meeting the standards and competence.