

IDENTIFICATION

Course code : ESI-SPI-CI-IN4-S7-UE3-EC1
ECTS : 1

DURATION

Lectures :	4
Tutorial classes :	10
Labs :	10
Total :	24

Project :
Personnal work :

ASSESSMENT

At least two continuous assessments, practical work sessions, and a project.

TEACHING MATERIALS

Slides, guided work sheets, and practical work sheets.

LANGUAGE

English

CONTACT

Understanding and developing applications in current mobile application ecosystems (iOS and Android), and mastering one of them for designing mobile services for the general public and businesses.

Modifié le : 14 juillet 2026

UE : UE7-DEV

COURSE : Mobile Programming

SCOPE OF THE COURSE

OBJECTIVES

COMPETENCE AND SKILLS

- Understanding multiplatform and multi-environment development
- Integrating technical constraints and system environments
- Applying integration engineering
- Producing comprehensive documentation

PROGRAM

This module aims to acquire knowledge, understanding, and use of essential techniques for developing applications for mobile devices such as smartphones and tablets. The typical content is listed below. It will be adapted as much as possible to technological evolutions :

- Introduction to the development approach and the economic model for mobile application distribution. Study of target devices, the specificities of mobility contexts, and their interaction modes.
- Learning the supporting programming language. Mastery of design tools (IDE, graphical interface editor, simulator, and documentation service).
- Study of software architecture principles underlying the supported libraries (foundation framework, MVC model, interface API, principles of communication/file/multimedia managers, etc.).
- Introduction to advanced features : geolocation, accelerometer, multipoint touch interaction, push notifications, etc.
- Practice in deploying applications, signing applications, and validating submission on a digital distribution platform.

BIBLIOGRAPHY

REQUIREMENTS

Development modules from previous semesters.