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Title: Designing Software Apps
Status: Definitive
Code: **4176CSD** (125568)
Version Start Date: 01-08-2021

Owning School/Faculty: Engineering
Teaching School/Faculty: Engineering

Team	Leader
Magomed Muradov	Y

Academic Level: FHEQ4 **Credit Value:** 20 **Total Delivered Hours:** 66
Total Learning Hours: 200 **Private Study:** 134

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	22
Practical	44

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	ASS 1	2,500 word report	70	
Technology	ASS 2	2,000 word lab report	30	

Aims

This module aims to provide a thorough understanding of the principles of programme design.

This module goes on to introduce the fundamental principles of how to design apps that are functional, effective and attractive. Mobile devices and smartphones have become the de facto vehicle for apps. The module will also explore the design of

apps within the Android environment. The module will develop students' practical programming capability to build mobile based applications and generate effective user and technical documentation.

Learning Outcomes

After completing the module the student should be able to:

- 1 Create programming language constructs to demonstrate application and control of smart systems and devices.
- 2 Apply appropriate software to design and create mobile applications.
- 3 Write effective and comprehensive design and end-user documentation.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Report	1	2	3
Lab	1	2	3

Outline Syllabus

Programming basics and fundamentals.

Structured software development and programme design techniques.

Evaluation of existing mobile applications

Application of UX (user Experience) and UI (user interfacing) for mobile app design

Use of App Inventor and Android Studio software

Integration of mobile apps with plug-ins, web services, and external devices

Learning Activities

A series of structured lectures and practical tasks will provide a varied range of learning activities.

Notes

The module provides the student with a practical software-based design problem.