

Course Outline

Title: MOBILE DEVICE PROGRAMMING

Code: ITECH3229

Faculty / Portfolio: Faculty of Science

Program Level:

	AQF Level of Program					
	5	6	7	8	9	10
Level						
Introductory						
Intermediate			✓			
Advanced						

Pre-requisites: (ITECH2100)

Co-requisites: Nil

Exclusions: Nil

Progress Units: 15

ASCED Code: 020103

Learning Outcomes:

Knowledge:

- K1.** Describe and explain common components of a mobile device operating system and API.
- K2.** Explain how development for mobile devices differs from web or PC based development.
- K3.** Describe common mobile device development paradigms such as model/view/controller.
- K4.** Compare performance and resource management issues involved in mobile development to standard PC application development

Skills:

- S1.** Construct mobile device applications using features of a mobile SDK.
- S2.** Apply touch interface elements in mobile applications.
- S3.** Draw and animate features of a mobile application.
- S4.** Record and read back data to and from flat files and databases.

Application of knowledge and skills:

- A1.** Create mobile applications which meet the provided project's design goals.
- A2.** Incorporate various libraries and functionality into mobile applications.

Values and Graduate Attributes:

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Values:

- V1. Recognise the importance and influence of mobile devices to modern society.
- V2. Recognise the legal and ethical issues that underpin responsible application development.

Graduate Attributes:

Attribute	Brief Description	Focus
Continuous Learning	Students will learn how to construct mobile applications to specification, but must be willing to put in additional time and effort to master and fully understand and utilise the techniques covered.	Medium
Self Reliance	Students must rely on their own skills and knowledge to construct mobile applications, but are assisted if stuck or having difficulty.	Low
Engaged Citizenship	Engaged citizenship is not a strong focus of this course on mobile application development.	Low
Social Responsibility	Social responsibility is discussed with regard to data privacy and the need for encryption of personal data on mobile platforms.	Medium

Content:

Topics may include:

- Mobile device operating systems.
- Mobile device development kits and programming languages.
- Layout and navigation of applications.
- Event handling.
- Persisting data through files and databases.
- Touchscreens and multi touch interfaces.
- Simple graphics and animation.
- Audio.

Assessment:

Students should attend laboratory classes and complete laboratory worksheets. Students should participate in lectures and computer laboratory classes and maintain a notebook with notes and exercises. The assessment for the subject will include at least one practical assignment and a final examination will test the understanding of the concepts studied in this course.

Learning Outcomes Assessed	Assessment Task	Assessment Type	Weighting
K1, K2, K3, K4	Attend lectures, read and summarise theoretical aspects of the course	Examination(s)	50 - 60%
S1, S2, S3, S4, A1, A2	Assignments based on the creation of mobile applications.	Assignment(s)	40 - 50%

Adopted Reference Style:

APA

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Presentation of Academic Work:

<https://federation.edu.au/students/assistance-support-and-services/academic-support/general-guide-for-the-presentation-of-academic-work>