

# Course Outline

**Title:** MOBILE COMPUTING PLATFORMS AND DEVELOPMENT FUNDAMENTALS

**Code:** ITECH1300

**Faculty / Portfolio:** Faculty of Science

## Program Level:

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

**Pre-requisites:** Nil

**Co-requisites:** Nil

**Exclusions:** Nil

**Progress Units:** 15

**ASCED Code:** 029999

## Learning Outcomes:

### Knowledge:

- K1.** describe the basic architectures and operating systems of various mobile platforms
- K2.** describe the life cycle of a mobile app as pertaining to the various mobile platforms
- K3.** account for the differences between mobile and desktop programming

### Skills:

- S1.** develop mobile apps using visual programming environments

### Application of knowledge and skills:

- A1.** design, develop, test and debug mobile apps from a given textual program specification

## Values and Graduate Attributes:

### Values:

- V1.** demonstrate a professional approach to mobile programming
- V2.** develop problem-solving skills leading to self-reliance

### Graduate Attributes:

| Attribute | Brief Description | Focus |
|-----------|-------------------|-------|
|-----------|-------------------|-------|

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## ITECH1300 MOBILE COMPUTING PLATFORMS AND DEVELOPMENT FUNDAMENTALS

|                       |  |        |
|-----------------------|--|--------|
| Continuous Learning   | In a blended learning approach facilitated by the use of visual programming environments students will build a foundation in mobile programming concepts that they will build upon in future courses | Medium |
| Self Reliance         | Students will participate in a self-directed and collaborative learning environment to develop their theoretical and technical expertise in the field of software development                        | Medium |
| Engaged Citizenship   | Students will produce programming solutions that conform to industry standards   | Medium |
| Social Responsibility | Students will use visual programming environments to gain an initial understanding of mobile programming techniques  | Low    |

### Content:

Topics may include:

- basics of hardware architecture for mobile computing
- basics of operating systems for mobile computing
- fundamentals of mobile programming concepts
- The lifecycle of a mobile app
- differences between desktop and mobile programming
- mobile programming for various platforms, such as iOS, Android and Windows Phone / RT

### Assessment:

| Learning Outcomes Assessed | Assessment Task                                   | Assessment Type      | Weighting |
|----------------------------|---|----------------------|-----------|
| K1, K2 , K3, S1, A1        | Individual and/or group problem solving exercises | Projects/Assignments | 40-50%    |
| K1, K2 , K3, S1, A1        | Review and Skills Practice                        | Tests/Examinations   | 50-60%    |

### Adopted Reference Style:

APA

### Presentation of Academic Work:

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