



## COURSE OUTLINE

# ICT311 Mobile App Development

**Course Coordinator:** Jayan Kurian (jkurian@usc.edu.au) **School:** School of Science, Technology and Engineering

2021 | Semester 2

USC Sunshine Coast

ON CAMPUS

Most of your course is on campus but you may be able to do some components of this course online.

Online

ONLINE

You can do this course without coming onto campus.

*Please go to the USC website for up to date information on the teaching sessions and campuses where this course is usually offered.*

## 1. What is this course about?

### 1.1. Description

There are more mobile devices on the planet than people. Mobile app development helps to unleash the full power of mobile devices, and push their usage into every corner of modern society. This course introduces students to important concepts and aspects in mobile application development on Java based Android phones, including UI design, data persistence, multimedia support, sensor management, multithreading, debug and test, and application publishing. Although the course is centred on Android, general principles of mobile app development discussed here can also be applied to other contexts.

### 1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
<b>ON CAMPUS</b>			
<b>Tutorial/Workshop 1</b> – In-class tutorial	2hrs	Week 2	11 times
<b>Online</b> – Pre-recorded concept videos and associated activity	1hr	Week 1	12 times
<b>ONLINE 1</b>			
<b>Tutorial/Workshop 1</b> – Interactive zoom tutorial	2hrs	Week 2	11 times
<b>Online</b> – Pre-recorded concept videos and associated activity	1hr	Week 1	12 times

### 1.3. Course Topics

- 1 Course Overview
- 2 First Android App
- 3 Activity lifecycle
- 4 UI Fragment & Layout
- 5 UI Recycler View
- 6 Dialogs and Toolbar
- 7 Storage
- 8 Intents
- 9 Locations and Maps
- 10 Multiple Threading
- 11 Services, Notifications, and Broadcasts.
- 12 Assignment review
- 13 Course Summary

## 2. What level is this course?

300 Level (Graduate)

Demonstrating coherence and breadth or depth of knowledge and skills. Independent application of knowledge and skills in unfamiliar contexts. Meeting professional requirements and AQF descriptors for the degree. May require pre-requisites where discipline specific introductory or developing knowledge or skills is necessary. Normally undertaken in the third or fourth full-time study year of an undergraduate program.

## 3. What is the unit value of this course?

12 units

## 4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES	GRADUATE QUALITIES MAPPING	PROFESSIONAL STANDARD MAPPING
On successful completion of this course, you should be able to...	Completing these tasks successfully will contribute to you becoming...	Association to Advance Collegiate Schools of Business
1 Assess different techniques in mobile app development.	Knowledgeable	PC3 - Creative and Critical Thinking
2 Design the UI and databases for mobile apps regarding a given case description.	Creative and critical thinker	PC3 - Creative and Critical Thinking
3 Develop mobile apps with the best industry practice for given requirements.	Creative and critical thinker Empowered	PC6 - Career-ready

## 5. Am I eligible to enrol in this course?

Refer to the [USC Glossary of terms](#) for definitions of “pre-requisites, co-requisites and anti-requisites”.

### 5.1. Pre-requisites

ICT221 or SGD213

### 5.2. Co-requisites

Not applicable

### 5.3. Anti-requisites

CSC202

### 5.4. Specific assumed prior knowledge and skills (where applicable)

Not applicable

## 6. How am I going to be assessed?

### 6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

### 6.2. Details of early feedback on progress

The first few weeks of computer workshops will include practical Android programming tasks that give instant feedback.

### 6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Artefact - Technical and Scientific	Individual	15%	4 weeks	Week 4	Online Assignment Submission with plagiarism check
All	2	Artefact - Technical and Scientific, and Written Piece	Individual	35%	2 hours	Week 8	Online Assignment Submission with plagiarism check
All	3	Artefact - Technical and Scientific, and Written Piece	Individual	50%	5 weeks	Week 13	Online Assignment Submission with plagiarism check

#### All - Assessment Task 1: Android coding

<b>GOAL:</b>	To demonstrate your knowledge of working with mobile application development principles.		
<b>PRODUCT:</b>	Artefact - Technical and Scientific		
<b>FORMAT:</b>	This is an individual assessment. You need to develop an app following the instructions and textbook.		
<b>CRITERIA:</b>	<b>No.</b>		<b>Learning Outcome assessed</b>
	1	Demonstrate knowledge of working with mobile application development principles.	3

#### All - Assessment Task 2: Mid-semester test

<b>GOAL:</b>	To demonstrate your knowledge of mobile application development.		
<b>PRODUCT:</b>	Artefact - Technical and Scientific, and Written Piece		
<b>FORMAT:</b>	This is an individual assessment. Answer a set of questions about big data analysis theory and practice.		
<b>CRITERIA:</b>	<b>No.</b>		<b>Learning Outcome assessed</b>
	1	Assessment of various techniques in mobile app development.	1

#### All - Assessment Task 3: Mobile app development

<b>GOAL:</b>	To develop a mobile application and advance your application creation skill set.		
<b>PRODUCT:</b>	Artefact - Technical and Scientific, and Written Piece		
<b>FORMAT:</b>	This is an individual assessment. You will be given a case study and will develop a mobile application to suit the case study's functionality needs. An individual project incorporating the design, documentation and programming of Android code		

CRITERIA:	No.	Learning Outcome assessed	
	1	Correct design of databases for the app	2
	2	Appropriate design of UI for the app	2
	3	Development of the app to support all required functionalities	1
	4	Comprehensive and accurate explanation to the implementation and output	3

## 7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Directed study hours may vary by location. Student workload is calculated at 12.5 learning hours per one unit.

## 8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Blackboard site– Please log in as soon as possible.

### 8.1. Prescribed text(s) or course reader

Please note that you need to have regular access to the resource(s) listed below. Resources may be required or recommended.

REQUIRED?	AUTHOR	YEAR	TITLE	PUBLISHER
Required	Bill Phillips,Chris Stewart and Kristin Marsicano	2017	Android Programming: The Big Nerd Ranch Guide	Big Nerd Ranch

### 8.2. Specific requirements

Not applicable

## 9. How are risks managed in this course?

Health and safety risks for this course have been assessed as low. It is your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the [online induction training for students](#), and following the instructions of the University staff.

## 10. What administrative information is relevant to this course?

### 10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Blackboard, are electronically checked through SafeAssign. This software allows for text comparisons to be made between your submitted assessment item and all other work that SafeAssign has access to.

### 10.2. Assessment: Additional Requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

The final mark is in the percentage range 47% to 49.4%

The course is graded using the Standard Grading scale

You have not failed an assessment task in the course due to academic misconduct

### 10.3. Assessment: Submission penalties

Late submission of assessment tasks may be penalised at the following maximum rate:

- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task's identified value) for the third day - 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task. Weekdays and weekends are included in the calculation of days late. To request an extension you must contact your course coordinator to negotiate an outcome.

### 10.4. Study help

For help with course-specific advice, for example what information to include in your assessment, you should first contact your tutor, then your course coordinator, if needed.

If you require additional assistance, the Learning Advisers are trained professionals who are ready to help you develop a wide range of academic skills. Visit the [Learning Advisers](#) web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or [studentcentral@usc.edu.au](mailto:studentcentral@usc.edu.au).

### 10.5. Wellbeing Services

Student Wellbeing provide free and confidential counselling on a wide range of personal, academic, social and psychological matters, to foster positive mental health and wellbeing for your academic success.

To book a confidential appointment go to [Student Hub](#), email [studentwellbeing@usc.edu.au](mailto:studentwellbeing@usc.edu.au) or call 07 5430 1226.

### 10.6. AccessAbility Services

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, learning disorder mental health issue, , injury or illness, or you are a primary carer for someone with a disability or who is considered frail and aged, [AccessAbility Services](#) can provide access to appropriate reasonable adjustments and practical advice about the support and facilities available to you throughout the University.

To book a confidential appointment go to [Student Hub](#), email [AccessAbility@usc.edu.au](mailto:AccessAbility@usc.edu.au) or call 07 5430 2890.

### 10.7. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Administration of Central Examinations
- Deferred Examinations
- Student Academic Misconduct
- Students with a Disability

Visit the USC website: <http://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

### 10.8. General Enquiries

#### In person:

- **USC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **USC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **USC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **USC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **USC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **USC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

**Tel:** +61 7 5430 2890

**Email:** [studentcentral@usc.edu.au](mailto:studentcentral@usc.edu.au)