

Unit Outline

COMP2008 Mobile Application Development

Semester 2, 2021

Unit study package code:	COMP2008
Mode of study:	Internal
Tuition pattern summary:	<p>Note: For any specific variations to this tuition pattern and for precise information refer to the Learning Activities section.</p> <p>Lecture: 1 x 2 Hours Weekly Computer Laboratory: 1 x 2 Hours Weekly</p> <p>This unit does not have a fieldwork component.</p>
Credit Value:	25.0
Pre-requisite units:	<p>COMP1001 (v.0) Object Oriented Program Design or any previous version OR COMP1007 (v.0) Programming Design and Implementation or any previous version AND COMP1002 (v.0) Data Structures and Algorithms or any previous version</p>
Co-requisite units:	Nil
Anti-requisite units:	Nil
Result type:	Grade/Mark
Approved incidental fees:	Information about approved incidental fees can be obtained from our website. Visit fees.curtin.edu.au/incidental_fees.cfm for details.
Unit coordinator:	<p>Title: Dr Name: Sajib Mistry Phone: 08 9266 1640 Email: Sajib.mistry@curtin.edu.au Location: Building: 314 - Room: 435</p>
Teaching Staff:	<p>Name: Pang Po Ken Phone: TBA Email: ppoken@curtin.edu.my Location: Building: TBA - Room: TBA</p>
Administrative contact:	<p>Name: Caroline Lim Phone: 60 85 630100 Email: foes.admin@curtin.edu.my Location: Building: Building: Skylark 3. SK3 - Room: 402</p>
Learning Management System:	Blackboard (lms.curtin.edu.au)

Acknowledgement of Country

We respectfully acknowledge the Indigenous Elders, custodians, their descendants and kin of this land past and present. The [Centre for Aboriginal Studies](#) aspires to contribute to positive social change for Indigenous Australians through higher education and research.

Syllabus

Software development principles and practices applied to the design, implementation and testing of mobile applications. Topics include: mobile user interface design, structural design based on standard mobile development frameworks and APIs, integration with online services, evaluation of security and power consumption issues, and testing practices.








Introduction

Welcome to Mobile Application Development (MAD).







Unit Learning Outcomes

All graduates of Curtin University achieve a set of six Graduate Capabilities during their course of study. These inform an employer that, through your studies, you have acquired discipline knowledge and a range of other skills and capabilities which employers would value in a professional setting. Each unit in your course addresses the Graduate Capabilities through a clearly identified set of learning outcomes. They form a vital part in the process referred to as assurance of learning. The learning outcomes notify you of what you are expected to know, understand or be able to do in order to be successful in this unit. Each assessment for this unit is carefully designed to test your knowledge of one or more of the unit learning outcomes. On successfully completing all of the assessments you will have achieved all of these learning outcomes.

Your course has been designed so that on graduating you will have achieved all of Curtin's Graduate Capabilities through the assurance of learning processes in each unit.

On successful completion of this unit students can:		Graduate Capabilities addressed
1	Comprehend and articulate mobile platform architectures and capabilities	 
2	Design, implement and test mobile applications	 
3	Identify and implement solutions to security, usability and energy-consumption issues in mobile application	 
4	Integrate mobile applications with online services	

Curtin's Graduate Capabilities

	Apply discipline knowledge, principles and concepts		Innovative, creative and entrepreneurial		Effective communicators with digital competency
	Globally engaged and responsive		Culturally competent to engage respectfully with local First Peoples and other diverse cultures		Industry connected and career capable

Find out more about Curtin's Graduate Capabilities at the Curtin Learning and Teaching website: clt.curtin.edu.au

Learning Activities

This unit will be taught principally face to face in large collaborative sessions.

We will use FLIPPED classroom method. Every week before the actual lecture/collaborative sessions, the recorded online lectures video and materials will be made available to the students.

You will be expected to watch those lectures (or lecture videos as appropriate) and read through the materials.

In the face-to-face collaborative class, we will discuss the lecture contents, perform live demonstrations and solve problems in groups.

Our tutorials will be face to face as well where you can discuss your concepts or issues with the tutors. You will be expected to complete the worksheet exercises as a part of continuous evaluation.

Learning Resources

Recommended texts

You do not have to purchase the following textbooks but you may like to refer to them.

- Phillips, Stewart and Marsicano, "Android Programming: The Big Nerd Ranch Guide", 3rd edition, 2017, Big Nerd Ranch LLC.
 (ISBN/ISSN: 978-0134706054)

Online resources

- Online Android developer guides
[\(https://developer.android.com/guide/\)](https://developer.android.com/guide/)

Assessment

Assignment 1 30%

Assessment policy exemptions

- There are no exemptions to the assessment policy

Assignment 2 30%

Assessment schedule

	Take-Home Examination	Value 40%	Date Due	Unit Learning Outcome(s) Assessed	Late Assessments Accepted?*	Assessment Extensions Considered?*
1	Practical Work	20%	Week: Various Day: TBA Time: TBA	1,2,3,4	Yes	Yes
2	Mobile Application Assignment 1	40%	Week: 8 Day: Thursday 16 September Time: 23:59	1,2	Yes	Yes
3	Mobile Application Assignment 2	40%	Week: Study Week Day: Monday 25 October Time: 23:59	2,3,4	Yes	Yes

*Please refer to the Late Assessment and the Assessment Extension sections below for specific details and conditions.

Detailed information on assessment tasks

1. You must submit your answers to the practical worksheets, via Blackboard. Details of the deadlines, and the scope of the submission requirements, will be announced via Blackboard/email. You may be advised that, for a given worksheet, you only need to submit a subset of the work. However, unless so advised, you

should submit answers for the whole worksheet.

You will receive a mark for each worksheet, and these marks will add up to your overall practical work mark. There will face to face demo sessions.

Note: The unit coordinator may require you to provide an oral justification of, or to answer questions about, any piece of written work submitted in this unit. Your response(s) may be referred to as evidence in an Academic Misconduct inquiry. In addition, your assignment submission may be analysed by Turnitin and/or other systems to detect plagiarism and/or collusion.

2. The first assignment will involve the design and implementation of a mobile application, and will specifically focus on concepts relating to mobile UIs and app structure.
3. The second assignment will also involve the design and implementation of an app, focusing on the use of local and remote data, app interaction, and possibly web development.

Pass requirements

To pass the unit, you must achieve a Final Mark of 50% or greater, AND the Assignment 2 mark of 40% or greater.

Assessment Moderation

Fair assessment through moderation

Moderation describes a quality assurance process to ensure that assessments are appropriate to the learning outcomes, and that students work is evaluated consistently by assessors. Minimum standards for the moderation of assessments are described in the Assessment and Student Progression Manual, available from policies.curtin.edu.au/findapolicy/

Pre-marking moderation

Pre-marking moderation will be conducted in accordance with University policy.

Intra-marking / Post-marking moderation

Intra-marking / post-marking moderation will be conducted in accordance with University policy.

Late assessment

Where the submission of a late assessment is permitted, late penalties will be consistently applied in this unit.

Where a late assessment **is** permitted for an assessment item or the entirety of the unit (refer to the Assessment Schedule table in this Unit Outline) and the student does not have an approved assessment extension:

1. For assessment items submitted within the first 24 hours after the due date/time, students will be penalised by a deduction of 5% of the total marks allocated for the assessment task;
2. For each additional 24 hour period commenced an additional penalty of 10% of the total marks allocated for the assessment item will be deducted; and
3. Assessment items submitted more than 168 hours late (7 calendar days) will receive a mark of zero.

Where late assessment **is NOT** permitted for an assessment item or the entirety of the unit (refer to the Assessment Schedule table in this Unit Outline) and the student does not have an approved assessment extension:

1. All assessment items submitted after the due date/time will receive a mark of zero.

Assessment extension

Where an application for an assessment extension **is** permitted for an assessment item(s) within this unit (refer to the Assessment Schedule table in this Unit Outline):

1. A student who is unable to complete an assessment item by/on the due date/time as a result of exceptional circumstances beyond the student's control, may apply for an assessment extension on the Assessment Extension Application Form as prescribed by the Academic Registrar. The form is available on the Forms page at <https://students.curtin.edu.au/essentials/forms-documents/forms/> and also within the student's OASIS (My Studies tab – Quick Forms) account.
2. The student will be expected to submit their application for an Assessment Extension with supporting documentation [via the online form](#).
3. Timely submission of this information supports the assessment process. For applications that are declined, delayed submission may have significant ramifications on the possible marks awarded.
4. An application may be accepted up to five working days after the due date/time of the assessment item where the student is able to provide a verifiable explanation as to why they were not able to submit the application prior to the assessment due date/time

Where an application for an assessment extension **is NOT** permitted for an assessment item(s) within this unit (refer to the Assessment Schedule table in this Unit Outline):

1. All assessment items submitted after the due date/time will be subject to late penalties or receive a mark of zero depending on the unit permitting late assessment submissions.

Deferred assessments

If your results show that you have been granted a deferred assessment you should immediately check OASIS for details.

Deferred examinations/tests will be held from 08/12/2021 to 17/12/2021 . Notification to students will be made after the Board of Examiners' meeting via the Official Communications Channel (OCC) in OASIS.

Further assessment

Further assessments, if granted by the Board of Examiners, will be held between 08/12/2021 and 17/12/2021 . Notification to students will be made after the Board of Examiners meeting via the Official Communications Channel in OASIS.

It is the responsibility of the student to be available to complete the requirements of a further assessment. If your results show that you have been granted a further assessment you should immediately check OASIS for details.

Reasonable adjustments for students with disabilities/health circumstances likely to impact on studies

A [Curtin Access Plan](#) (CAP) is a document that outlines the type and level of support required by a student with a disability or health condition to have equitable access to their studies at Curtin. Carers for people with disability may also be eligible for support. This support can include alternative exam or test arrangements, study materials in accessible formats, access to Curtin's facilities and services or other support as discussed with an advisor from [AccessAbility Services](#).

Documentation is required from your treating Health Professional to confirm your health circumstances or carer responsibilities.

If you think you may be eligible for a CAP, please contact AccessAbility Services. If you already have a CAP please provide it to the Unit Coordinator in week 1 of each study period.

Referencing style

The referencing style for this unit is Chicago 17th B.

More information can be found on this style from the Library web site:

<https://libguides.library.curtin.edu.au/uniskills/referencing/chicago17>.

Privacy

As part of a learning or assessment activity, or class participation, your image or voice may be recorded or transmitted by equipment and systems operated by Curtin University. Transmission may be to other venues on campus or to others both in Australia and overseas.

Your image or voice may also be recorded by students on personal equipment for individual or group study or assessment purposes. Such recordings may not be reproduced or uploaded to a publicly accessible web environment. If you wish to make such recordings for study purposes as a courtesy you should always seek the permission of those who are impacted by the recording.

Recording of classes or course materials may not be exchanged or distributed for commercial purposes, for compensation, or for any other purpose other than personal study for the enrolled students in the unit. Breach of this may subject a student to disciplinary action under Statute No 10 – Student Disciplinary Statute.

If you wish to discuss this please talk to your Unit Coordinator.

Copyright

The course material for this unit is provided to you for your own research and study only. It is subject to copyright. It is a copyright infringement to make this material available on third party websites.

Academic Integrity (including plagiarism and cheating)

Academic Integrity

Curtin's [Student Charter](#), [Academic Integrity Program \(AIP\)](#), and core [Values](#) guide expectations regarding student behaviour and responsibilities. Information on these topics can be found on the [Student Essentials Website](#) or the Academic Integrity tab in Blackboard.

Academic Integrity Warnings

An Academic Integrity Warning may be issued to a New-to-Curtin student if they have inadequately acknowledged sources or collaborated inappropriately. [The Management of Academic Integrity Warnings for New to Curtin Students Procedures](#) provide further information and explain who is considered to be New-to-Curtin.

Academic Misconduct

Students with an academic breach that do not meet the New-to-Curtin criteria will be managed through the misconduct process. [Academic Misconduct](#) means conduct by a student that is dishonest or unfair in connection with any academic work. This includes all types of plagiarism, cheating, collusion, falsification or fabrication of data or other content, and Academic Misconduct Other, such as falsifying medical certificates for extension. More details can be found on the [Student Essentials Website](#) or on the [Academic Integrity Website](#).

Staff members are required to report suspected misconduct and an inquiry may take place. If misconduct is determined it will result in penalties, which may include a warning, a reduced or nil grade, a requirement to repeat the assessment, an annulled grade (ANN) or termination from the course. Some penalties may impact on future enrolment.

Academic work under inquiry will not be graded until the process has concluded. If your work is the subject of an inquiry you will be notified by email and Official Communication with an opportunity to respond. Appropriate support will be provided. For more information refer to [Statute No.10 Student Discipline and Academic Misconduct Rules](#).

Information and Communications Technology (ICT) Expectations

Curtin students are expected to have reliable internet access in order to connect to OASIS email and learning systems such as Blackboard and Library Services.

You may also require a computer or mobile device for preparing and submitting your work.

You will need to have access to a PC capable of running a recent version of Android Studio. See the system requirements for Android Studio here: <https://developer.android.com/studio/>. Note that, depending on the exact circumstances, there may be limited access to Curtin lab PCs capable of running the necessary software for this unit.

It is *not* necessary to have access to a physical Android device, provided your PC is capable of running the Android Emulator (part of Android Studio). However, if you do possess an Android device, you *may* be able to use it to test your apps.

For general ICT assistance, in the first instance please contact OASIS Student Support:

oasisapps.curtin.edu.au/help/general/support.cfm

For specific assistance with any of the items listed below, please contact The Learning Centre:

life.curtin.edu.au/learning-support/learning_centre.htm

- Using Blackboard, the I Drive and Back-Up files
- Introduction to PowerPoint, Word and Excel

Additional information

Enrolment

It is your responsibility to ensure that your enrolment is correct - you can check your enrolment through the eStudent option on OASIS, where you can also print an Enrolment Advice.

Student Rights and Responsibilities

It is the responsibility of every student to be aware of all relevant legislation, policies and procedures relating to their rights and responsibilities as a student. These include:

- the Student Charter
- Values and Signature Behaviours
- the University's policy and statements on plagiarism and academic integrity
- copyright principles and responsibilities
- the University's policies on appropriate use of software and computer facilities

Information on all of the above is available through the University's "Student Rights and Responsibilities" website at: students.curtin.edu.au/rights.

Student Equity


There are a number of factors that might disadvantage some students from participating in their studies or assessments to the best of their ability, under standard conditions. These factors may include a disability or medical condition (e.g. mental illness, chronic illness, physical or sensory disability, learning disability), significant caring responsibilities, pregnancy, religious practices, living in a remote location, or another reason. If you believe you may be unfairly disadvantaged on these or other grounds please contact the appropriate service below. It is important to note that the staff of the University may not be able to meet your needs if they are not informed of your individual circumstances, so please get in touch with the appropriate service if you require assistance.

To discuss your needs in relation to:

- Disability or medical conditions, contact AccessAbility Services: <https://students.curtin.edu.au/personal-support/disability/>
- Elite athletes, contact Elite Athlete Coordinator: <https://stadium.curtin.edu.au/sport/academy/elite-athlete-program/>
- All other grounds, contact the Student Wellbeing Advisory Service: <https://students.curtin.edu.au/personal-support/counselling-guidance/wellbeing/>

Recent unit changes

Students are encouraged to provide unit feedback through **eVALUate**, Curtin's online student feedback system. For more information about **eVALUate**, please refer to evaluate.curtin.edu.au/info/.

 <p>Give feedback on the My Studies tab and you could win prizes</p>	To view previous student feedback about this unit, search for the Unit Summary Report at https://evaluate.curtin.edu.au/student/unit_search.cfm . See https://evaluate.curtin.edu.au/info/dates.cfm to find out when you can eVALUate this unit.
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Recent changes to this unit include:

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Program calendar

Calendar Week	Teaching Week	Begin Date	Lecture	Practical	Assessment
1	1	26 Jul	1. Introduction		
2	2	2 Aug	2. Adaptive UIs and Activities	1. Introduction	
3	3	9 Aug	3. UI Structure	2. Adaptive UIs and Activities (1)	
4	4	16 Aug	4.Catch-Up	3. Adaptive UIs and Activities (2)	
5	5	23 Aug	5. Local Data (1)	4. Lists and Fragments (1)	
6	6	30 Aug	6.. Local Data (2)	5. Lists and Fragments (2)	
7	—	23 Aug	Tuition Free Week		
8	7	7 Sep	5. App Interaction	6. Local Data (1)	Assignment 1 Due
9	8	14 Sep	6. Remote Data	7. Local Data (2) and Assignment 1 Demo	
10	9	21 Sep	7. Assignment 1 Solution Discussion	8. App Interaction (1) and. Assignment 1 Demo	
11	10	5 Oct	8. Web Development (1)	9. App Interaction (2)	
12	11	12 Oct	9. Web Development (2)	10. Web Development (1)	
13	12	19 Oct	10. Web Development (3)	11. Web Development (2)	
14	13	26 Oct	Catch-Up	12. Web Development (3)	
15	14	2 Nov	Catch-Up	Catch-Up	Assignment 2 Due
16	—	9 Nov	Study Week and Assignment 2 Demo		
17	—	16 Nov	Examinations		
17	—	23 Nov	Examinations		