



COMP3130

Mobile Application Development

Session 1, Special circumstances 2021

School of Computing

Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	3
<u>General Assessment Information</u>	3
<u>Assessment Tasks</u>	3
<u>Delivery and Resources</u>	6
<u>Unit Schedule</u>	7
<u>Policies and Procedures</u>	8
<u>Changes from Previous Offering</u>	10

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Notice

As part of [Phase 3 of our return to campus plan](#), most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face activities for your unit, please go to [timetable viewer](#). To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

General Information

Unit convenor and teaching staff

Convenor

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Lecturer

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Tutor

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Tutor

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Credit points

10

Prerequisites

COMP229 or COMP2000 or COMP249 or COMP2110

Corequisites

Co-badged status

Unit description

This unit covers the design and development of mobile applications from a technical and user experience perspective. The underlying environments made available by mobile devices will be reviewed and the relative merits of different implementation technologies will be evaluated. The relationship between mobile applications and the web will be discussed as well as the requirements for providing an effective user-experience for offline and intermittently connected devices. The unit will also cover the design of the user experience for mobile applications and develop students' ability to critically evaluate the usability of a mobile design.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

ULO1: Implement a transactional mobile application as an interface to a web service.

ULO2: Critically evaluate mobile implementation platforms and technologies relative to the needs of a project.

ULO3: Apply a knowledge of mobile application technology to the design of an effective user experience.

ULO4: Explain the security and privacy issues inherent in web-based mobile applications.

ULO5: Evaluate a mobile application with respect to usability and accessibility.

ULO6: Describe the options for deployment and monetisation of mobile applications.

General Assessment Information

If you receive [special consideration](#) for the final exam, a supplementary exam will be scheduled in the interval between the regular exam period and the start of the next session. By making a special consideration application for the final exam you are declaring yourself available for a resit during the supplementary examination period and will not be eligible for a second special consideration approval based on pre-existing commitments. Please ensure you are familiar with the [policy](#) prior to submitting an application. You can check the supplementary exam information page on FSE101 in iLearn (bit.ly/FSESupp) for dates, and approved applicants will receive an individual notification one week prior to the exam with the exact date and time of their supplementary examination.

Late Submission

No extensions will be granted without an approved application for Special Consideration. There will be a deduction of 10% of the total available marks made from the total awarded mark for each 24 hour period or part thereof that the submission is late. For example, 25 hours late in submission for an assignment worth 10 marks – 20% penalty or 2 marks deducted from the total. No submission will be accepted after solutions have been posted.

Assessment Tasks

Name	Weighting	Hurdle	Due
Quizzes	20%	No	Weeks 5 and 8
Mobile Application Development	40%	No	Study Break Week-2 and Week-10
Peer Review of the Major Work	10%	No	Week 8
Mobile Security Challenges	10%	No	Week 12

Name	Weighting	Hurdle	Due
<u>User Experience Report</u>	20%	No	Week 14

Quizzes

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 10 hours

Due: **Weeks 5 and 8**

Weighting: **20%**

Quizzes to assess students individual strengths, weaknesses, knowledge and skills to develop a baseline of what students know about the topic.

On successful completion you will be able to:

- Implement a transactional mobile application as an interface to a web service.
- Critically evaluate mobile implementation platforms and technologies relative to the needs of a project.
- Apply a knowledge of mobile application technology to the design of an effective user experience.
- Explain the security and privacy issues inherent in web-based mobile applications.
- Evaluate a mobile application with respect to usability and accessibility.
- Describe the options for deployment and monetisation of mobile applications.

Mobile Application Development

Assessment Type ¹: Project

Indicative Time on Task ²: 30 hours

Due: **Study Break Week-2 and Week-10**

Weighting: **40%**

Major Work project to assess students' skills on design, implementation, testing and deployment for a Mobile Application.

On successful completion you will be able to:

- Implement a transactional mobile application as an interface to a web service.
- Apply a knowledge of mobile application technology to the design of an effective user

experience.

- Describe the options for deployment and monetisation of mobile applications.

Peer Review of the Major Work

Assessment Type ¹: Qualitative analysis task

Indicative Time on Task ²: 15 hours

Due: **Week 8**

Weighting: **10%**

Peer Review of the Major Project to be able to assess students' ability to critically evaluate the application based on the given case study

On successful completion you will be able to:

- Critically evaluate mobile implementation platforms and technologies relative to the needs of a project.

Mobile Security Challenges

Assessment Type ¹: Presentation

Indicative Time on Task ²: 10 hours

Due: **Week 12**

Weighting: **10%**

A group presentation to assess students' ability to clearly assess, understand and communicate the security challenges in a mobile application environment

On successful completion you will be able to:

- Explain the security and privacy issues inherent in web-based mobile applications.

User Experience Report

Assessment Type ¹: Report

Indicative Time on Task ²: 15 hours

Due: **Week 14**

Weighting: **20%**

This assessment is to assess students' ability to create a user experience questionnaire and write a report based on its feedback

On successful completion you will be able to:

- Critically evaluate mobile implementation platforms and technologies relative to the needs of a project.
 - Evaluate a mobile application with respect to usability and accessibility.
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¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

CLASSES

COMP3130 is taught via lectures and SGTAs (Small Group Teaching Activities)/ Practical Classes

Lectures:

- Lectures are used to introduce new material (mostly in video format), provide motivation and context for your study, guide you in what is important to learn and explain more difficult concepts.
- There are 2 hours of lectures per week.

SGTAs/ Practical Classes:

- **Note:** Practical classes commence in **Week-1**
- These small group classes which allow you to interact with your peers and with a tutor who has a sound knowledge of the subject. This also gives you a chance to practice your technology skills. The content of these classes may overlap or sometimes be ahead of the lecture content.
- You will need to enrol and attend the class that you've enrolled in.
- If your class falls on a public holiday, you are expected to attend & participate in another class as a makeup class to catch-up over the content for that lesson
- For details of days, times and rooms consult the [timetables webpage](#).

RECOMMENDED TEXTS AND/OR MATERIALS

Textbook

There are no required textbooks for this unit. However, every week you will be provided with resources to obtain a solid understanding of the concept

UNIT WEBPAGE AND RESOURCES TO ASSIST YOUR LEARNING

Websites

The web page for this unit can be found at: [here](#)

echo360

Digital recordings of lectures are available and will be accessible through echo360 found on your [iLearn](#) home page

Discussion Boards

The unit makes use of discussion boards hosted within [iLearn](#). Please post questions of general interest there (for example, about assessment tasks), they are monitored by the unit staff but students may also provide answers.

Feedback

You have many opportunities to seek and to receive feedback. During live lectures/consultation, you are encouraged to ask the lecturer questions to clarify anything you might not be sure of. You may also arrange to meet with your tutor or the lecturer or attend the consultation hours of any tutor. Each week, you will be given activities and problems to solve in workshops. It is important that you keep up with these problems every week.

Each week you should:

- Attend lectures, ask questions, practice tasks
- Attend your SGTA/practical and seek feedback from your tutor on your work
- Read/Watch assigned reading material (ideally before the lecture), add to your notes and prepare questions for your lecturer or tutor
- Start working on any assignments immediately after they have been released.

Technology

React Native with Expo, Android Studio, LucidCharts

Unit Schedule

In the table below, for each week, the lecturer, the topics to be covered and the textbook references are given.

Week	Lecturer	Topic
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1	Ramakrishnan	Introduction to the unit and React Native
2	Ramakrishnan	Application Design and Development
3	Ramakrishnan	Application Design and Development
4	Ramakrishnan	Application Design and Development
5	Ramakrishnan	Application Design and Development
6	Ramakrishnan	Application Design and Development
7	Roberts	Testing and Deployment
8	Roberts	Testing and Deployment + User Experience (UX)
9	Roberts	User Experience (UX)
10	Roberts	Security
11	Roberts	Security
12	Roberts	
13	Ramakrishnan & Roberts	Overview of the unit

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies \(https://students.mq.edu.au/support/study/policies\)](https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au) and use the [search tool](#).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- [Getting help with your assignment](#)
- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Changes from Previous Offering

This is the first offering for this unit.