COIT13234 *Mobile Software Development*
Term 1 - 2021

Profile information current as at 26/04/2024 04:17 pm

All details in this unit profile for COIT13234 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview
Mobile devices have become essential for communication, social media and business applications. In this unit, you will create a range of mobile applications with features that include UI design, database, email, HTTP, remote API calls, threading and services. Through the development process, you will research opportunities for mobile application development and design a solution. On completion of this unit, you will be able to create mobile applications with consideration of market needs for the design and development of mobile applications.

Details
Career Level: *Undergraduate*
Unit Level: *Level 3*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites
Prerequisites: COIT11134, COIT11237 and COIS12036.
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 1 - 2021

- Brisbane
- Cairns
- Melbourne
- Online
- Rockhampton
- Sydney
- Townsville

Attendance Requirements
All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website
This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

Regional Campuses
Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

Metropolitan Campuses
Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Practical Assessment**
Weighting: 30%
2. **Portfolio**
Weighting: 30%
3. **Project (applied)**
Weighting: 40%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the University's Grades and Results Policy for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Student Evaluation

Feedback
Assignment specifications are too prescriptive

Recommendation
Review the assessment requirements to allow flexibility.

Feedback from Student Evaluation

Feedback
Tutorials are complicated and follow the book too rigidly

Recommendation
Reduce the complexity of the tutorial material by providing smaller and manageable programming tasks and align these with the concepts.

Feedback from Student Evaluation

Feedback
Introduce some cross-platform development

Recommendation
Include a tutorial targeting cross platform development.

Unit Learning Outcomes

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

1. Design a mobile application
2. Build and test a mobile application
3. Explore the opportunities for incorporating socially innovative features in mobile applications
4. Review social, technical and security issues in mobile application development.

The Australian Computer Society (ACS) recognises the Skills Framework for the Information Age (SFIA). SFIA is adopted by organisations, governments and individuals in many countries and provides a widely used and consistent definition of ICT skills. SFIA is increasingly being used when developing job descriptions and role profiles. ACS members can use the tool MySFIA to build a skills profile.
This unit contributes to the following workplace skills as defined by SFIA 7 (the SFIA code is included):
User experience design (HCEV)
Systems integration and build (SINT)
User Experience Evaluation (USEV)
Programming/Software Development (PROG)
Testing (TEST)

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level | • Introductory Level | • Intermediate Level | • Graduate Level | ◦ Professional Level | ◦ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Practical Assessment - 30%		•		
2 - Project (applied) - 40%	•	•	•	
3 - Portfolio - 30%	•		•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
1 - Communication	•		•	•
2 - Problem Solving	•	•	•	
3 - Critical Thinking	•	•	•	•
4 - Information Literacy	•		•	•
5 - Team Work				
6 - Information Technology Competence	•	•		
7 - Cross Cultural Competence				•
8 - Ethical practice				
9 - Social Innovation			•	
10 - Aboriginal and Torres Strait Islander Cultures				

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Practical Assessment - 30%		•	•			•				
2 - Project (applied) - 40%	•	•	•	•		•				
3 - Portfolio - 30%	•	•	•	•		•	•		•	

Textbooks and Resources

Textbooks

COIT13234

Prescribed

Android Programming: The Big Nerd Ranch Guide
4th Edition (2019)
Authors: Chris Stewart, Kristin Marsicano, Bill Phillips
Pearson
Indianapolis , Indiana , US
ISBN: 978-0135245125
Binding: Website Link

Additional Textbook Information
Can be accessed freely online here: https://learning.oreilly.com/library/view/android-programming-the/9780135257555/
If you prefer your own copy, you can purchase one at the CQUni Bookshop here:A http://bookshop.cqu.edu.au

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Android studio (latest version)
- Flutter SDK

Referencing Style

All submissions for this unit must use the referencing styles below:

- Harvard (author-date)
- American Psychological Association 7th Edition (APA 7th edition)

For further information, see the Assessment Tasks.

Teaching Contacts

Colin Lemmon Unit Coordinator
c.lemmon@cqu.edu.au

Schedule

Week 1 - 08 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Android Application Development	Chapter 1 & 2	

Week 2 - 15 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Activities	Chapter 3 & 6	

Week 3 - 22 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Fragments, Layouts and Gradle	Chapter 8	

Week 4 - 29 Mar 2021

Module/Topic	Chapter	Events and Submissions/Topic
Recycler View	Chapter 9	Portfolio Item 1 Monday 11.45pm

Week 5 - 05 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
Database	Chapter 11	

Vacation Week - 12 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
		Portfolio Item 2 Monday 11.45pm

Week 6 - 19 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
Fragment Navigation	Chapter 12	**Android Programming** Due: Week 6 Friday (23 Apr 2021) 11:45 pm AEST

Week 7 - 26 Apr 2021

Module/Topic	Chapter	Events and Submissions/Topic
Dialogs, Toolbar and Debugging	Chapter 5, 13 & 14	Portfolio Item 3 Monday 11.45pm

Week 8 - 03 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Email and Camera	Chapter 15 & 16	

Week 9 - 10 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
HTTP and Async Tasks	Chapter 24	Portfolio Item 4 Monday 11.45pm

Week 10 - 17 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Location Services and Map	Course Material	

Week 11 - 24 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Cross Platform Technologies	Course Material	**Portfolio** Due: Week 11 Monday (24 May 2021) 11:45 pm AEST

Week 12 - 31 May 2021

Module/Topic	Chapter	Events and Submissions/Topic
Deployment	Course Material	**Project** Due: Week 12 Friday (4 June 2021) 11:45 pm AEST

Review/Exam Week - 07 Jun 2021

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 14 Jun 2021

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

Contact information for Dr Colin Lemmon: Email: c.lemmon@cqu.edu.au; Office: Level 3, 42-52 Abbott Street & Shields Strreet, Cairns, Qld 4870; P +61 7 40375 5146 | X 55146.
If you have any queries, please email me and I will get back to you within one to two business days. For an individual discussion, please email to discuss a time for a meeting.

Assessment Tasks

1 Android Programming

Assessment Type
Practical Assessment

Task Description
For this assessment you will create an Android mobile application.

- The mobile application is to be created using Android Studio and Kotlin.
- The application will include a list view page and a details page.
- The project will build on this application to add additional features.

More details will be available on the Moodle site.
You should also consult the weekly lecture/tutorials on the Moodle website for help and more information on completing the assignment.

Assessment Due Date
Week 6 Friday (23 Apr 2021) 11:45 pm AEST

Return Date to Students
Week 8 Friday (7 May 2021)

Weighting
30%

Assessment Criteria
This assessment is worth 30%.
The assessment will be marked on

- List view layout
- List view functionality testing
- Details view layout
- Details view functionality testing
- Error handling
- Use of resources
- Code quality

Referencing Style

- Harvard (author-date)
- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Submission Instructions
Students will submit a single zip file containing their Android Studio project.

Learning Outcomes Assessed

- Build and test a mobile application

Graduate Attributes

- Problem Solving
- Critical Thinking
- Information Technology Competence

2 Portfolio

Assessment Type
Portfolio

Task Description
for this assessment you are to create and maintain a portfolio of mobile application topics that will cover both design and technology aspects of mobile development.
You are to submit portfolio items each fortnight for a total of 5 fortnights (5 portfolio entries). Fortnightly topics will be provided on Moodle and may include:

- Identifying a social issue and proposing a novel mobile application solution
- Developing application features
- Researching UI design features
- Client/server extension
- Review of security and development frameworks

The assessment requires the following

- Your portfolio should capture rich ideas, resources and innovative practice around mobile app development within the frame of the topics provided.
- You are to conduct research on the internet for selected topics where required.
- Portfolio entries are due fortnightly from Monday week 4 - 29/3/2021 at 11:45 pm through to Monday week 11 - 24/5/2021 11:45 pm.
- Submission requires a single Microsoft Word document to be uploaded to the portfolio for each fortnightly item.
- Each topic submission must be between 1 and 2, A4 pages single line spacing with 12 point font

Assessment Due Date
Week 11 Monday (24 May 2021) 11:45 pm AEST

Return Date to Students
Review/Exam Week Monday (7 June 2021)

Weighting
30%

Assessment Criteria
The portfolio is worth 30%.
This assessment will be marked after the final submission in week 11.

- Each topic will be marked out of 6 marks and will be graded on content, research and presentation.

More details will be available on the Moodle site.
You should also consult the weekly lecture/tutorials on the Moodle website for help and more information on completing the assignment.

Referencing Style

- Harvard (author-date)
- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Submission Instructions
Fortnightly submissions uploading a Microsoft Word document to your portfolio

Learning Outcomes Assessed

- Design a mobile application
- Explore the opportunities for incorporating socially innovative features in mobile applications
- Review social, technical and security issues in mobile application development.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Cross Cultural Competence

- Social Innovation

3 Project

Assessment Type
Project (applied)

Task Description
The project contains two sections. The first is a coding section which involves Android programming and will add additional features to the earlier Android Programming assessment. The second is a design section which will finalise the features, design and social/business case for the novel mobile application proposed in the portfolio.
1. Coding
You are assigned the task of adding additional features to the mobile application from the previous assessment using Android Studio and Kotlin.

- The application will save data to an SQLite database
- Email information to a recipient.
- Find the current location
- Show the location on a map

2. Design
In the design section you will complete the design of an application.

- Describe the final set of features
- Mockup the screens
- Present a social/business case for the proposed application.

Assessment Due Date
Week 12 Friday (4 June 2021) 11:45 pm AEST

Return Date to Students
Exam Week Friday (18 June 2021)

Weighting
40%

Assessment Criteria
This assessment is worth 40%
The coding section will be marked on

- Email
- Database
- Location services
- Map
- Code quality.

The design document will be marked on

- Design features
- Mockups
- Social/business case.

More details of will be available on the Moodle site.
You should also consult the weekly lecture/tutorials on the Moodle website for help and more information on completing the assignment.

Referencing Style

- Harvard (author-date)
- American Psychological Association 7th Edition (APA 7th edition)

Submission
Online

Learning Outcomes Assessed

- Design a mobile application
- Build and test a mobile application
- Explore the opportunities for incorporating socially innovative features in mobile applications

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the **Student Academic Integrity Policy and Procedure**. This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?
A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?
A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?
For academic advice and guidance, the Academic Learning Centre (ALC) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?

Be Honest
If your assessment task is done by someone else, it would be dishonest of you to claim it as your own

Seek Help
If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)

Produce Original Work
Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem