COIT20273 *Software Design and Development Project*
Term 2 - 2024

Profile information current as at 22/05/2024 10:25 am

All details in this unit profile for COIT20273 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

In this integrative capstone project, you are required to synthesise and demonstrate your technical and generic skills developed across the units studied previously. This unit will help you to consolidate your competence with a relevant set of software engineering concepts, practices, and tools. To achieve this, you will work in small teams with a designated customer to identify an authentic problem, document and present the design process, and the results from a developed software solution to the identified problem. In addition to the documented application, your team will also identify and produce the project management, quality assurance, and cyber security components required to ensure that the project is delivered within specified project outcome parameters. You will also evaluate and discuss your contribution to the teamwork and the overall team performance.

Details

Career Level: *Postgraduate*
Unit Level: *Level 9*
Credit Points: *12*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.25*

Pre-requisites or Co-requisites

Pre-requisites: PPMP20007 Project Management Concepts COIT20246 Networking and Cyber Security COIT20257 Distributed Systems: Principles and Development COIT20258 Software Engineering COIT20259 Enterprise Computing Architecture
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 2 - 2024

- Brisbane
- Melbourne
- Online
- Rockhampton
- Sydney

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 12-credit Postgraduate unit at CQUniversity requires an overall time commitment of an average of 25 hours of study per week, making a total of 300 hours for the unit.

Class Timetable

Regional Campuses

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

Metropolitan Campuses

Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

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 Unit Evaluation Data

Feedback

The response rate for the evaluation survey was below the expected level.

Recommendation

Educate students about the importance of unit evaluation and encourage them to complete the survey.

Unit Learning Outcomes

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

1. Apply a systems engineering process in the context of enterprise application development, including requirement analysis, application software design, algorithm design, coding and debugging, software testing, and software project management, informed by research into best practice
2. Demonstrate professional standards of software development, including technical skills, documentation, software quality assurance, cyber security best practices, risk mitigation strategies, ethics and professional responsibility
3. Plan and manage the software development project, particularly the scheduling of time and resources and the generation of supporting documentation
4. Work collaboratively as part of a productive team
5. Communicate effectively by using written and oral presentation, understanding the needs of various stakeholders
6. Critically review individual and team performance, along with identifying areas for improvement.

The Australian Computer Society (ACS), the professional association for Australia's ICT sector, 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 8 (the SFIA code is included):

- Requirements definition and management (REQM)
- Programming/software development (PROG)
- Software design (SWDN)
- Database design (DBDS)
- Data modelling and design (DTAN)
- Systems integration and build (SINT)
- Configuration management (CFMG)
- Testing (TEST)
- Research (RSCH)
- User experience evaluation (USEV)
- Application support (ASUP)
- System installation and removal (HSIN)
- Systems and software life cycle engineering (SLEN)
- Information security (SCTY)

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	5	6
1 - Written Assessment - 15%			●			
2 - Written Assessment - 10%			●	●		
3 - Written Assessment - 25%	●	●			●	
4 - Project (applied) - 40%	●	●		●		●
5 - Presentation - 10%					●	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
1 - Knowledge	○	○			○	
2 - Communication	○		○	○	○	○
3 - Cognitive, technical and creative skills	○	○				
4 - Research	○					
5 - Self-management	○	○	○	○		
6 - Ethical and Professional Responsibility				○		○
7 - Leadership				○		○
8 - Aboriginal and Torres Strait Islander Cultures						

Textbooks and Resources

Information for Textbooks and Resources has not been released yet.
This information will be available on Monday 17 June 2024

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.