COIT20248 *Information Systems Analysis and Design*
Term 1 - 2023

All details in this unit profile for COIT20248 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
Information systems analysis and design is a complex, challenging, and stimulating organisational process, that a team of business and systems professionals use to develop and maintain computer-based information systems. In this unit, you will learn the importance of responding to and anticipating problems through the innovative use of systems development process. You will learn how understanding user-centered design and task-centered design are fundamental to good systems design. In order to understand these concepts, you will study how to determine user-requirements and convert user requirements to system design. You will demonstrate this understanding by designing web-interfaces of given case studies and practical examples. You will study different phases of the systems development life cycle, which includes developing a system proposal, determining user requirements, designing a system, and applying key principles to the implementation of a system. You will also explore the organisational context and the iterative nature of systems analysis and design.

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

Pre-requisites or Co-requisites
Anti-requisites: COIS20025 Systems Development Overview. Students who have studied COIS20025 in the past cannot take COIT20248.
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 - 2023
- 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 6-credit Postgraduate 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. **Project (applied)**
Weighting: 30%
2. **Project (applied)**
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 Feedback

Feedback

Some students found the open-ended nature of the assignments challenging.

Recommendation

The nature of the open-ended descriptions of assignment requirements must be clearly communicated to the students in the assignment description to avoid possible confusion.

Feedback from Unit Coordinator

Feedback

Most of the content is based on one textbook, so students that do not connect with the textbook approach can find the content difficult.

Recommendation

Introduce more diverse content resources, for example, industry use cases.

Unit Learning Outcomes

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

1. Develop requirements, specifications and provide academic and practical arguments to defend the solutions by employing core principles of information system analysis and design
2. Develop prototypes for computer-based information systems demonstrating initiative and problem-solving judgement to meet client briefs
3. Employ effective interpersonal and professional skills to collaborate with and influence team members to achieve a negotiated team outcome while maintaining responsibility and accountability for their own learning and work
4. Analyse and evaluate to critically reflect on the alternative methodologies used in developing business information systems
5. Critically analyse and evaluate different modelling techniques for developing business information systems.

Australian Computer Society (ACS) recognises the Skills Framework for the Information Age (SFIA). SFIA is in use in over 100 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 at
https://www.acs.org.au/professionalrecognition/mysfia-b2c.html
This unit contributes to the following workplace skills as defined by SFIA. The SFIA code is included:

- Information Analytics (INAN)
- Systems Design (DESN)
- User Experience Design (HCEV)
- IT Strategy and Planning (ITSP)
- Systems Design (DESN)
- Business Modelling (BSMO)

Alignment of Learning Outcomes, Assessment and Graduate Attributes

Legend: — 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
1 - Project (applied) - 30%	●				●
2 - Project (applied) - 30%		●	●	●	
3 - Project (applied) - 40%	●			●	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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

Textbooks
COIT20248

Prescribed

Essentials of Systems Analysis and Design (Global Edition)
Edition: 6th (2015)
Authors: J.S. Valacich, J.F. George, J.A. Hoffer
Pearson
Boston , USA
ISBN: 1-292-07661-5
Binding: Paperback

Additional Textbook Information
Textbooks can be accessed online at the CQUniversity Library website. If you prefer your own copy, you can purchase either paper or eBook versions at the CQUni Bookshop here: http://bookshop.cqu.edu.au (search on the Unit code)

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- MS Office
- MS Project
- MS Visio

Referencing Style

All submissions for this unit must use the referencing style: Harvard (author-date)
For further information, see the Assessment Tasks.

Teaching Contacts

Meena Jha Unit Coordinator
m.jha@cqu.edu.au

Schedule

Week 1 - 06 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Systems Development Environment & Methodologies; Sources of Software	Chapter 1, 2 & Appendix B (Prescribed Textbook)	

Week 2 - 13 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Managing the Information Systems Project; Systems Planning & Selection	Chapters 3 & 4 (Prescribed Textbook)	

Week 3 - 20 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Determining System Requirements; Use Case Modeling	Chapter 5 (Prescribed Textbook)	

Week 4 - 27 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Structuring System Requirements: Process Modeling	Chapter 6 (Prescribed Textbook)	

Week 5 - 03 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
Object-Oriented Analysis & Design	Appendix A (Prescribed Textbook)	

Vacation Week - 10 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 17 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
Designing the Human Interface	Chapter 8 (Prescribed Textbook)	**Systems Analysis & Project Planning** Due: Week 6 Monday (17 Apr 2023) 11:45 pm AEST

Week 7 - 24 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
Systems Implementation & Operations	Chapter 10 (Prescribed Textbook)	

Week 8 - 01 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
Software Testing	Learning resources will be provided to students. Textbook chapter Not applicable	

Week 9 - 08 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
B2C Website Implementation	Learning resources will be provided to students. Textbook chapter Not applicable Recommended Reading: P.-L. Poon & A.H.L. Lau, The PRESENT B2C Implementation Framework, *Communications of the ACM*, 49(2), 2006, pp. 96-103.	

Week 10 - 15 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
Software Quality Frameworks/Schemes	Learning resources will be provided to students. Textbook chapter Not applicable.	**Systems Design** Due: Week 10 Monday (15 May 2023) 11:45 pm AEST

Week 11 - 22 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
ERP Software Selection & Procurement	Learning resources will be provided to students. Textbook chapter Not applicable Recommended Reading: P.-L. Poon & Y.T. Yu, Investigating ERP Systems Procurement Practice: Hong Kong & Australian Experiences, *Information & Software Technology*, 52(10), 2010, pp. 1011-1022.	

Week 12 - 29 May 2023

Module/Topic	Chapter	Events and Submissions/Topic

| Revision | All the book chapters & journal articles previously covered | **Software Testing & Installation**
Due: Week 12 Friday (2 June 2023)
11:45 pm AEST |

Review/Exam Week - 05 Jun 2023

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 12 Jun 2023

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

Unit Coordinator: Dr. Meena Jha
Room 2.09, Level 2; 400 Kent Street; Sydney NSW 2000
P +61 2 9324 5776 | X 55776 | E m.jha@cqu.edu.au

Assessment Tasks

1 Systems Analysis & Project Planning

Assessment Type
Project (applied)

Task Description
Assignment 1 is an *individual* assessment. You will plan & manage a project as well as analyze and select the most appropriate systems development methodology based on the project on hand. You will produce a report that discusses the project based on your understanding and analysis. The case study will be provided to you on Moodle in Week 1 or 2. This assignment will assess the unit knowledge gained between Weeks 1 & 4 about different facets of systems development.

Assessment Due Date
Week 6 Monday (17 Apr 2023) 11:45 pm AEST
Late submissions are subject to the university's late submission penalty policies

Return Date to Students
Week 8 Monday (1 May 2023)
Marking & feedback of Assignment 1 will be returned to you via Moodle

Weighting
30%

Assessment Criteria
The assessment criteria will cover the contents & the presentation/format of the submission. You will be assessed based on your knowledge & understanding about how to: (a) analyze the business and project environment, (b) analyze and choose the most appropriate systems development methodology, & (c) perform project planning & management. In addition, all the different parts of the assessment should be written in a professional & coherent manner. A detailed marking template will be made available when the assignment is released via Moodle.

Referencing Style

- [Harvard (author-date)](#)

Submission
Online

Submission Instructions
Assignment 1 is an individual assignment. Please submit it online via Moodle.

Learning Outcomes Assessed

- Develop requirements, specifications and provide academic and practical arguments to defend the solutions by employing core principles of information system analysis and design
- Critically analyse and evaluate different modelling techniques for developing business information systems.

2 Systems Design

Assessment Type
Project (applied)

Task Description
Assignment 2 is a **group** assignment. Your unit knowledge gained about how to model the systems requirements in both the object-oriented & traditional approaches will be assessed in this assignment. Your group needs to submit a design of a web-based system. Your design should include various elements such as critical use cases & data flow diagrams. Your submission should also include a "prototype" of website design. A detailed marking template will be made available when the assignment is released via Moodle.

Assessment Due Date
Week 10 Monday (15 May 2023) 11:45 pm AEST
Late submissions are subject to the university's late submission penalty policies

Return Date to Students
Week 12 Friday (2 June 2023)
Marking & feedback of Assignment will be returned to you via Moodle

Weighting
30%

Assessment Criteria
For the report, the assessment criteria will cover the contents & presentation/format of the submission. In addition, all the different parts of the assessment should be written in a professional & coherent manner. Your technical diagrams will be assessed to see whether they follow the correct notation/format. A detailed marking template will be made available when the assignment is released via Moodle.

Referencing Style

- Harvard (author-date)

Submission
Online Group

Submission Instructions
This a a group assignment. All files should be submitted online via Moodle.

Learning Outcomes Assessed

- Develop prototypes for computer-based information systems demonstrating initiative and problem-solving judgement to meet client briefs
- Employ effective interpersonal and professional skills to collaborate with and influence team members to achieve a negotiated team outcome while maintaining responsibility and accountability for their own learning and work
- Analyse and evaluate to critically reflect on the alternative methodologies used in developing business information systems

3 Software Testing & Installation

Assessment Type
Project (applied)

Task Description
Assignment 3 is an individual assessment. You will design how to test a software system & perform a systematic system installation process. Overall, this assessment tests your knowledge & understanding on how to deliver an effective & high-quality system to end users. In this assignment, you will be assessed on your understanding of the relevant concepts and ability to apply these concepts to real-life development projects. A detailed marking template will be made available when the assignment is released via Moodle.

Assessment Due Date
Week 12 Friday (2 June 2023) 11:45 pm AEST
Late submissions are subject to the university's late submission penalty policies

Return Date to Students

Marks will be released to students on the certification date as this is the final assessment

Weighting
40%

Assessment Criteria
The assessment criteria will cover the contents & the presentation/format of the submission. In addition, all the different parts of the assessment should be written in a professional & coherent manner.

Referencing Style

- [Harvard (author-date)](#)

Submission
Online

Submission Instructions
Assignment 3 is an individual assessment. Please submit it online via Moodle.

Learning Outcomes Assessed

- Develop requirements, specifications and provide academic and practical arguments to defend the solutions by employing core principles of information system analysis and design
- Analyse and evaluate to critically reflect on the alternative methodologies used in developing business information systems

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