



COIS12036 *Human-Computer Interaction*

Term 1 - 2023

Profile information current as at 16/10/2024 08:06 am

All details in this unit profile for COIS12036 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

This unit shows the importance of designing easy-to-use Web-based applications. Topics include the underlying theories of human-computer interaction, design principles, guidelines, evaluation, and social and individual impact. Practical hands-on include the design, development and testing of a Web-based application using contemporary software development tools.

Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Prerequisite: COIT11222 Programming Fundamentals

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
- 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 and Written Assessment**

Weighting: 35%

2. **Practical and Written Assessment**

Weighting: 20%

3. **Practical and Written Assessment**

Weighting: 45%

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 Unit Teaching Evaluation

Feedback

The HCI-focused unit requires strong HTML and CSS skills. The demanding expectations make it challenging for some students.

Recommendation

Update the unit to streamline and simplify the content, ensuring a better balance between HCI principles and HTML/CSS design.

Feedback from Student Unit Teaching Evaluation

Feedback

The unit lacks synergy between its components. Lectures delve into Interface Design and User Experience Design, while tutorials covers HTML and CSS without a clear connection.

Recommendation

Improve the connection between the lectures and tutorials to ensure a cohesive and manageable learning experience.

Unit Learning Outcomes

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

1. Describe the relationship between human computer interaction and interaction design
2. Demonstrate the main principles of interactive design through critical evaluation of an appropriate interactive Web-based application.
3. Demonstrate how human-computer interaction design and development methods are employed during the development of human-computer interaction prototypes and end user testing.
4. Apply the knowledge of human-computer interaction design and development methods in the construction of a small interactive Web-based application.
5. Demonstrate the knowledge and skill sets required in using appropriate software tools in the development of interactive Web-based application.

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:

- User experience analysis (UNAN)
- User experience evaluation (USEV)
- Information content publishing (ICPM)
- Program ming/software development (PROG)
- Testing (TEST)

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Practical and Written Assessment - 20%	•	•			
2 - Practical and Written Assessment - 35%			•	•	•
3 - Practical and Written Assessment - 45%			•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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 and Written Assessment - 20%	•		•	•		•				
2 - Practical and Written Assessment - 35%	•	•	•	•		•				
3 - Practical and Written Assessment - 45%	•	•	•	•		•				

Textbooks and Resources

Textbooks

There are no required textbooks.

Additional Textbook Information

Textbooks can be accessed online at the CQUniversity Library website. If you prefer your own copy, you can purchase one at the CQUni Bookshop here: <http://bookshop.cqu.edu.au>

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Notepad or Notepad ++
- Website browser: FireFox, IE, Chrome

Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

Teaching Contacts

Mahmoud El Khodr Unit Coordinator
m.elkhodr@cqu.edu.au

Schedule

Week 1 - 06 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
• What's the Big Picture	Online reading list and resource	

Week 2 - 13 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
• A Fusion of Skills	Online reading list and resource	

Week 3 - 20 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
• Design Process for Digital Products	Online reading list and resource	

Week 4 - 27 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
• Usability Heuristics	Online reading list and resource	

Week 5 - 03 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
• The Process of Interaction Design	Online reading list and resource	

Vacation Week - 10 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 17 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
• Design, Prototyping, and Construction	Online reading list and resource	Project A Due: Week 6 Friday (21 Apr 2023) 11:59 pm AEST

Week 7 - 24 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
• The Process of Human-Centred Interactive Systems	Online reading list and resource	

Week 8 - 01 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
• Experience Design	Online reading list and resource	Written Review Due: Week 8 Friday (5 May 2023) 11:59 pm AEST

Week 9 - 08 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
• Evaluating Interface Designs	Online reading list and resource	

Week 10 - 15 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
• Summary of HCI Principles	Online reading list and resource	

Week 11 - 22 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
• Review and Preparation of Final Assessment	Online reading list and resource	Project B Due: Week 11 Friday (26 May 2023) 11:59 pm AEST

Week 12 - 29 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
• Revision		

Review/Exam Week - 05 Jun 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Exam Week - 12 Jun 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Term Specific Information

Unit Coordinator:
Dr Mahmoud Elkhodr
Sydney Campus- Email: m.elkhodr@cqu.edu.au

Assessment Tasks

1 Project A

Assessment Type

Practical and Written Assessment

Task Description

Synopsis

The overall task is divided into two phases. The following description should be read as a whole for both Project A and Project B.

Design and develop a website incorporating elements of human-computer interaction principles. The end result is to

demonstrate the viability and user acceptance of the specific user interface employed by the website.

Project A

- Carry out user and task analysis to gather user and system requirements.
- Based on the initial findings and the technical specification, develop a preliminary design (i.e. low-fidelity 'paper' prototype) of the specified user interface.
- The prototype will be used to test your initial design concepts and ideas.
- Submit a report documenting the prototype, design process, initial user feedback and recommendations on how to improve the design.

Project B

- Based on the low-fidelity prototype developed in the previous phase (Project A), develop a high-fidelity prototype as a proof-of-concept.
- Evaluate the prototype and carry out a user test.
- Submit a report documenting the prototype, design and development process, user test and any further work required.

Note that these are not programming projects in themselves. The primary purpose of both projects is to ensure that students adopt best practices and adhere closely to HCI principles during the *process* of designing and developing interactive user interfaces. As the prototyping requirements suggest, a fully functional system is *not* expected from either Project A and Project B. Inevitably, some limited functionality (such as dummy output) is expected in order to demonstrate the capability of the system. Knowledge of database backends is not required in this unit.

Assessment Due Date

Week 6 Friday (21 Apr 2023) 11:59 pm AEST

Online via Moodle

Return Date to Students

Marked assignments will be returned approximately 2 weeks after submission deadline.

Weighting

35%

Minimum mark or grade

Students must submit this assignment to pass the unit.

Assessment Criteria

1. Overview and description of the project
2. User and task analysis
 - a. Alternative user tasks have been considered
3. Design and system requirements
 - a. Alternative designs have been considered
4. User testing and feedback
 - a. Adhere to HCI principles
 - b. Main features of the initial design and intended purpose
5. Low fidelity prototype
6. Presentation (professionally presented, grammar and spelling clear)

Referencing Style

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

Submission

Online

Submission Instructions

Detailed instructions are available from the Moodle unit website.

Learning Outcomes Assessed

- Demonstrate how human-computer interaction design and development methods are employed during the development of human-computer interaction prototypes and end user testing.
- Apply the knowledge of human-computer interaction design and development methods in the construction of a small interactive Web-based application.
- Demonstrate the knowledge and skill sets required in using appropriate software tools in the development of

interactive Web-based application.

Graduate Attributes

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

2 Written Review

Assessment Type

Practical and Written Assessment

Task Description

Synopsis

Your task is to undertake an in-depth evaluation of a website. The website will be provided in the Assignment Specification in Week 1.

Upon the completion of this task, you are to provide a formal report documenting your critical evaluation of the website given. The report should draw particular attention to the interactive aspects and user interface design of the website. Support your critique with appropriate design and evaluation principle.

Complete details of the assignment will be available and downloadable from the Course website in Week 1.

Assessment Due Date

Week 8 Friday (5 May 2023) 11:59 pm AEST

Online via Moodle

Return Date to Students

Marked assignments will be returned approximately 2 weeks after the submission deadline.

Weighting

20%

Minimum mark or grade

Students must submit this assignment to pass the unit.

Assessment Criteria

Assessment Criteria

The following criteria will be used to assess the quality of your report:

Criteria

Review and Evaluation:

- Overview and description.
- Identify and elaborate main features.
- Identify the positive and negative aspects.
- Reviews and comments from two other participants.
- Recommendation on improvements to be made, or otherwise.
- Demonstrates that in-depth evaluation have been undertaken.

Relevance to Principles of HCI:

- Arguments and assertions are sound.
- Arguments and assertions are supported by HCI principles.
- Arguments are developed consistently and logically.
- Demonstrates understanding of the HCI subject matter and applying this competently to the review.

Presentation:

- Report professionally presented.
- Grammar and spelling.
- Written style and expression.
- Citation and references.
- Overall presentation.
- Within minimum and maximum word limit.

Referencing Style

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

Submission

Online

Submission Instructions

Detailed instructions are available from the Moodle unit website.

Learning Outcomes Assessed

- Describe the relationship between human computer interaction and interaction design
- Demonstrate the main principles of interactive design through critical evaluation of an appropriate interactive Web-based application.

Graduate Attributes

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

3 Project B

Assessment Type

Practical and Written Assessment

Task Description

Project B is a continuation of Project A. Please see the task description for Project A for details.

Assessment Due Date

Week 11 Friday (26 May 2023) 11:59 pm AEST

Online via Moodle

Return Date to Students

Marked assignments will be returned after exam certification date.

Weighting

45%

Minimum mark or grade

Students must submit this assignment to pass the unit.

Assessment Criteria

1. Overview and description of project
2. User test
 - a. Walkthrough scenario
 - b. Results for performance of the webpage
 - c. Results for the test user performance
3. Features
 - a. Evidence of features working as described
 - b. Innovative
4. Recommendations
5. High fidelity prototype
 - a. Interface adheres to HCI principles
 - b. Webpage functionality demonstrated
 - c. Final usability and expert review of website
6. Presentation (professionally presented, grammar and spelling clear)

Referencing Style

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

Submission

Online

Submission Instructions

Detailed instructions are available from the Moodle unit website.

Learning Outcomes Assessed

- Demonstrate how human-computer interaction design and development methods are employed during the development of human-computer interaction prototypes and end user testing.
- Apply the knowledge of human-computer interaction design and development methods in the construction of a small interactive Web-based application.
- Demonstrate the knowledge and skill sets required in using appropriate software tools in the development of interactive Web-based application.

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