COIS12036 *Human-Computer Interaction*
Term 2 - 2023

Profile information current as at 04/05/2024 05:47 am

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 2 - 2023

- Brisbane
- Cairns
- 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 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: 20%
2. **Practical and Written Assessment**
Weighting: 35%
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 and Teaching Evaluation

Feedback
Foster more student interaction.

Recommendation
Explore the use of interactive learning tools, such as coding simulators or web development sandboxes, which can encourage collaborative and engaging learning experiences among students.

Feedback from Student Unit and Teaching Evaluation

Feedback
Web design could material could start earlier.

Recommendation
Consider introducing HTML by Week 4 and shifting the current Week 4 materials, which focus on Usability Testing, to the last week. This change could facilitate an earlier start on the final assessment.

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

— 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 - 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.

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

Chetanpal Singh Unit Coordinator
c.singh2@cqu.edu.au

Schedule

Week 1 - 10 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
• **Week 1 | Introduction Into HCI**	Online reading list and resource	

Week 2 - 17 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
• **Week 2 | Usability Heuristics**	Online reading list and resource	

Week 3 - 24 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
• **Week 3 | Interaction Design and Personas**	Online reading list and resource	

Week 4 - 31 Jul 2023

Module/Topic	Chapter	Events and Submissions/Topic
• **Week 4 | Design, Prototyping & Construction**	Online reading list and resource	

Week 5 - 07 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
• **Week 5 | Evaluating Interface Designs**	Online reading list and resource	**Assessment 1** Due: Week 5 Friday (11 Aug 2023) 11:59 pm AEST

Vacation Week - 14 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 21 Aug 2023

Module/Topic	Chapter	Events and Submissions/Topic
• **Week 6- HTML Introduction**	Online reading list and resource	
Week 7 - 28 Aug 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
• **Week 7- Getitng started with CSS**	Online reading list and resource	
Week 8 - 04 Sep 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
• **Week 8- Styling navigation with CSS**	Online reading list and resource	**Project A** Due: Week 8 Friday (8 Sept 2023) 11:59 pm AEST
Week 9 - 11 Sep 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
• **Week 9- Advanced CSS and responsive Design**	Online reading list and resource	
Week 10 - 18 Sep 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
• **Week 10- Media Query**	Online reading list and resource	
Week 11 - 25 Sep 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
• **Week 11 - JavaScript and Web forms**	Online reading list and resource	
Week 12 - 02 Oct 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
• **Week 12- Javascript 2**		**Project B** Due: Week 12 Friday (6 Oct 2023) 11:59 pm AEST
Review/Exam Week - 09 Oct 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Exam Week - 16 Oct 2023		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

Term Specific Information

Unit Coordinator: Chetanpal Singh
Melbourne Campus- Email: c.singh2@cqu.edu.au

Assessment Tasks

1 Assessment 1

Assessment Type
Practical and Written Assessment

Task Description

Synopsis

The objective of this assessment is to assess students' comprehension of the concepts and skills taught in

the HCI Tutorials from Weeks 2 to 5. Students should combine all their tutorial answers from Weeks 2 to 5 into a single well-structured and formatted document and submit it by the due date of week 5.

Due date: Week 5, 11th of August Friday 11:59 PM (just before midnight) - Refer to Moodle for the exact date.
Objective: To assess students' comprehension of the concepts and skills taught in the HCI Tutorials from Weeks 2 to 5.
Submission: Online via Moodle
Format: Submit either your Portfolium page link OR a single document consolidating your tutorial answers from Weeks 2 to 5.
Length: Not predetermined - Refer to In-class tutorial questions for length requirements, if applicable.

Submission Requirements:

1. If you are using Portfolium, copy and paste your Portfolium page link into a Word document. Include your name in the document and submit it to the assessment link on Moodle. If you are not using Portfolium, follow these steps:

A. Combine all your tutorial answers from Weeks 2 to 5 into a single well-structured and formatted document (e.g., Word doc).
B. Save the document in either Microsoft Word or PDF format.
C. Use the following format for the file name: "Last Name_First Name_Student ID".

1. All submissions must be original and free from plagiarism. Instances of plagiarism will lead to disciplinary action. If external sources or AI assistance were utilized, proper referencing must be included.
2. Ensure that your name and student ID are clearly displayed at the top of the document.

Note: Submit the tutorials from Weeks 2 to 5 as a single, consolidated document by the assessment due date, rather than submitting them individually on a weekly basis or as separate files.

Marking Criteria	Marks
Completeness of the document, including all tutorials from week 2 to 5	40
Quality of content, including accuracy and presentation	40
Effective use of references where appropriate	10
Relevance of the design and/or implementation of solutions	5
Document or report presentation	5

Assessment Due Date
Week 5 Friday (11 Aug 2023) 11:59 pm AEST
Online via Moodle

Return Date to Students
Week 7 Friday (1 Sept 2023)
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

2 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 8 Friday (8 Sept 2023) 11:59 pm AEST
Online via Moodle

Return Date to Students
Week 10 Friday (22 Sept 2023)
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

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 12 Friday (6 Oct 2023) 11:59 pm AEST
Online via Moodle

Return Date to Students
Exam Week Friday (20 Oct 2023)
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