



# COIS12036 *Human-Computer Interaction*

## Term 1 - 2020

Profile information current as at 20/06/2021 11:38 pm

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 - 2020

- 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: 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 Unit Evaluation

**Feedback**

Students provided positive comments about assessment feedback and about the analytical thinking involved in the unit.

**Recommendation**

Continue as is and adopt this approach as part of the teaching team's best practice.

#### Feedback from Unit Evaluation

**Feedback**

Discussion forum is under-utilised.

**Recommendation**

Weekly items such as 'points to ponder' will be posted to encourage students to discuss specific topics.

## 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					

### Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes								
	1	2	3	4	5	6	7	8	9
1 - Practical and Written Assessment - 20%	•		•	•		•			
2 - Practical and Written Assessment - 35%	•	•	•	•		•			
3 - Practical and Written Assessment - 45%	•	•	•	•		•			

## Textbooks and Resources

### Textbooks

COIS12036

#### Prescribed

##### **Interaction design**5th edn (2019)

Authors: Preece, J, Sharp, H & Rogers, Y  
John Wiley & Sons Australia  
West Sussex , England , England  
ISBN 9781119547259  
Binding: Paperback  
COIS12036

#### Prescribed

##### **Principles of web design**6th edn revised (2014)

Authors: Sklar, J  
Cengage Course Technology  
Florence , KY , USA  
ISBN 9781285852645  
Binding: Paperback

#### Additional Textbook Information

Copies can be purchased at the CQUni Bookshop here: <http://bookshop.cqu.edu.au> (search on the Unit code)

[View textbooks at the CQUniversity Bookshop](#)

### 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

**Andrew Chiou** Unit Coordinator  
[a.chiou@cqu.edu.au](mailto:a.chiou@cqu.edu.au)

## Schedule

### Week 1 - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"><li>• <b>WHAT IS INTERACTION DESIGN?</b></li><li>• <b>COGNITIVE ASPECTS</b></li><li>• <b>HTML5 - Part 1</b></li></ul>	Preece et al (5th ed.): Chap 1 & Chap 4	

### Week 2 - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
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- **CONCEPTUALIZING INTERACTION**
- **HTML5 - Part 2**

Preece et al (5th ed.): Chap 3

#### Week 3 - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
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- **INTRODUCING EVALUATION**
- **CSS3 - Part 1**

Preece et al (5th ed.): Chap 14

#### Week 4 - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
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- **THE PROCESS OF INTERACTION DESIGN**
- **CSS3 - Part 2**

Preece et al (5th ed.): Chap 2

**Written Review** Due: Week 4 Friday (3 Apr 2020) 11:45 pm AEST

#### Week 5 - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
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- **DISCOVERING REQUIREMENTS**
- **CSS3 - Part 3**

Preece et al (5th ed.): Chap 11

#### Vacation Week - 13 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
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#### Week 6 - 20 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
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- **DESIGN, PROTOTYPING, AND CONSTRUCTION**
- **CSS3 - Part 4**

Preece et al (5th ed.): Chap 12

#### Week 7 - 27 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
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- **INTERFACES**
- **DATA GATHERING**
- **CSS3 - Part 5**

Preece et al (5th ed.): Chap 7 & Chap 8

**Project A** Due: Week 7 Friday (1 May 2020) 11:45 pm AEST

#### Week 8 - 04 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
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- **DATA ANALYSIS, INTERPRETATION, AND PRESENTATION**
- **CSS3 - Part 6**

Preece et al (5th ed.): Chap 9

#### Week 9 - 11 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
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- **EMOTIONAL INTERACTION**
- **CSS3 - Part 7**

Preece et al (5th ed.): Chap 6

#### Week 10 - 18 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
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- **SOCIAL INTERACTION**
- **CSS3 - Part 8**

Preece et al (5th ed.): Chap 5

#### Week 11 - 25 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
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- **INTERACTION DESIGN IN PRACTICE**
- **Web Design Topics - Part 1**

Preece et al (5th ed.): Chap 13

#### Week 12 - 01 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
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- **EVALUATION STUDIES: FROM CONTROLLED TO NATURAL SETTINGS**
- **Web Design Topics - Part 2**

Preece et al (5th ed.): Chap 15

**Project B** Due: Week 12 Friday (5 Jun 2020) 11:45 pm AEST

### Review/Exam Week - 08 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
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### Exam Week - 15 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
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## Assessment Tasks

### 1 Written Review

#### Assessment Type

Practical and Written Assessment

#### Task Description

##### Synopsis

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

Upon the completion of this task, you are to provide a formal report documenting your critical evaluation of the nominated website. 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 4 Friday (3 Apr 2020) 11:45 pm AEST

#### Return Date to Students

Marked assignments will be returned approximately 2 weeks after 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. Obtain user feedback from the tests.
- Submit a report documenting the prototype, design process, initial user feedback and recommendations on how to improve the design.

#### Project B

- Based on the user test feedback and recommendations from 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 practice and adhere closely to HCI principles during the *process* of designing and developing the interactive user interfaces. As the prototyping requirements suggests, 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 are not required in this unit.

### Assessment Due Date

Week 7 Friday (1 May 2020) 11:45 pm AEST

### 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 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**

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

**Assessment Due Date**

Week 12 Friday (5 Jun 2020) 11:45 pm AEST

**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.

### 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

### 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.