



# COIT12207 *Internet Applications*

## Term 2 - 2021

Profile information current as at 27/09/2024 10:09 am

All details in this unit profile for COIT12207 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

Internet applications are interactive services that are used to perform tasks over the Internet. This unit introduces you to emerging Internet technologies and skills. You will learn how to build dynamic mobile-friendly websites using modern frameworks. You will use a commonly used set of open source technologies to develop database-driven Internet applications. You will also learn how to secure your applications using authentication.

#### 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 COIT11237, COIT11222 and COIS12036 or Prerequisite COIT12167, COIT11222 and COIS12036 Anti-requisite: COIT13224

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 - 2021

- 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: 30%

#### 2. **Practical and Written Assessment**

Weighting: 40%

#### 3. **Practical and Written Assessment**

Weighting: 30%

### 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 Students evaluation

**Feedback**

More links for further learning is expected.

**Recommendation**

Provide links to related resources (e.g. JavaScript, PHP) for further learning.

#### Feedback from Students evaluation

**Feedback**

Assignment criteria may be more clearer and concise.

**Recommendation**

Review and improve assignment criteria.

## Unit Learning Outcomes

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

1. Describe and explore the main features of Internet applications
2. Install and use modern development frameworks
3. Implement mobile-friendly dynamic websites using modern frameworks
4. Utilise enterprise-level database connections via an application server
5. Apply authentication techniques to secure Internet applications
6. Implement and test Internet applications using a set of open source technologies.

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:

- Programming/Software Development (PROG)
- Database Design (DESN)
- Information Security (SCTY)
- Testing (TEST)
- User Experience Design (HCEV)
- System integration (SINT)
- Application support (ASUP)
- Information Content Publishing (ICPM)

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
1 - Practical and Written Assessment - 30%	•		•			
2 - Practical and Written Assessment - 40%		•		•	•	•
3 - Practical and Written Assessment - 30%	•	•		•		•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
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 - 30%	•	•	•	•		•		•		
2 - Practical and Written Assessment - 40%	•	•	•	•		•		•		
3 - Practical and Written Assessment - 30%	•	•	•	•		•	•	•		

## Textbooks and Resources

### Textbooks

COIT12207

#### Supplementary

##### PHP and MySQL Web Development

Edition: 5th edn (2016)

Authors: Welling, L & Thomson, L

Pearson

Upper Saddle River , NJ , USA

ISBN: 9780321833891

Binding: Paperback

#### Additional Textbook Information

The eBook can be purchased from <https://www.pearson.com.au/9780133038637>

If you prefer to study with a paper text, you can purchase one 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)
- Bootstrap
- Java EE and NetBeans IDE
- Notepad++
- Sublime text editor
- XAMPP and PHP

## Referencing Style

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

For further information, see the Assessment Tasks.

## Teaching Contacts

**Lily Li** Unit Coordinator

[l.li@cqu.edu.au](mailto:l.li@cqu.edu.au)

## Schedule

### Week 1 - 12 Jul 2021

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Bootstrap		
• Bootstrap web project		
• Webpage with Bootstrap styles		
• Overview Bootstrap styles		

### Week 2 - 19 Jul 2021

Module/Topic	Chapter	Events and Submissions/Topic
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Styling contents

- Create a navigation menu and a footer
- Create responsive tables
- Create a 'Contact Us' form
- Introduction to jQuery

### Week 3 - 26 Jul 2021

Module/Topic	Chapter	Events and Submissions/Topic
Grid System		
<ul style="list-style-type: none"><li>• Cards and the Grid System</li><li>• Create a product details page with comment threads</li><li>• Embed a video</li></ul>		

### Week 4 - 02 Aug 2021

Module/Topic	Chapter	Events and Submissions/Topic
JavaScript Components		
<ul style="list-style-type: none"><li>• Create a carousel</li><li>• Create a modal dialog</li><li>• Wrap contents in cards and accordions</li><li>• Project wrap up</li><li>• Work on your assignment 1</li></ul>		

### Week 5 - 09 Aug 2021

Module/Topic	Chapter	Events and Submissions/Topic
Web applications with PHP		
<ul style="list-style-type: none"><li>• Install and configure XAMPP</li><li>• Create and run a basic PHP document</li><li>• Create a PHP document which utilises functions and implements exception handling</li></ul>		Complete and submit Assignment 1  <b>Assignment 1</b> Due: Week 5 Friday (13 Aug 2021) 11:59 pm AEST

### Vacation Week - 16 Aug 2021

Module/Topic	Chapter	Events and Submissions/Topic
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### Week 6 - 23 Aug 2021

Module/Topic	Chapter	Events and Submissions/Topic
Work with MySQL database		
<ul style="list-style-type: none"><li>• Work with arrays</li><li>• Create users and database in MySQL</li><li>• Create a PHP project that queries and searches a database</li></ul>		

### Week 7 - 30 Aug 2021

Module/Topic	Chapter	Events and Submissions/Topic
Work with MySQL database (cont.)		
<ul style="list-style-type: none"><li>• Dynamically populate a combo box</li><li>• Display a list of records in PHP</li><li>• Add/Edit/Delete a record in PHP</li></ul>		

### Week 8 - 06 Sep 2021

Module/Topic	Chapter	Events and Submissions/Topic
Security and authentication		
<ul style="list-style-type: none"><li>• Given a vulnerable site, identify some vulnerabilities and secure the site against them</li><li>• Add authentication to a PHP site</li></ul>		

### Week 9 - 13 Sep 2021

Module/Topic	Chapter	Events and Submissions/Topic
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- Advanced topics
- Add session control to your site from last week
  - Work on your assignment 2

Complete and submit Assignment 2

**Assignment 2** Due: Week 9 Friday (17 Sept 2021) 11:59 pm AEST

### Week 10 - 20 Sep 2021

Module/Topic	Chapter	Events and Submissions/Topic
JAVA Web applications		
<ul style="list-style-type: none"> <li>• Install and configure NetBeans</li> <li>• Create a JSF project</li> </ul>		

### Week 11 - 27 Sep 2021

Module/Topic	Chapter	Events and Submissions/Topic
Working with Beans		
<ul style="list-style-type: none"> <li>• Create a Managed Bean for your project</li> <li>• Link a Managed Bean in your project</li> </ul>		

### Week 12 - 04 Oct 2021

Module/Topic	Chapter	Events and Submissions/Topic
Facelets Templates		Complete and submit Assignment 3
<ul style="list-style-type: none"> <li>• Create a Facelets Template</li> <li>• Create a Template Client File</li> <li>• Work on your assignment 3</li> </ul>		<b>Assignment 3</b> Due: Week 12 Friday (8 Oct 2021) 11:59 pm AEST

### Review/Exam Week - 11 Oct 2021

Module/Topic	Chapter	Events and Submissions/Topic

### Exam Week - 18 Oct 2021

Module/Topic	Chapter	Events and Submissions/Topic

## Term Specific Information

Unit Coordinator: Lily Li  
 Phone: +61 7 4923 2267  
 Email: l.li@cqu.edu.au

## Assessment Tasks

### 1 Assignment 1

#### Assessment Type

Practical and Written Assessment

#### Task Description

In this assignment, you are required to design and build a website for a small business using Bootstrap/jQuery. The online business will display product list and product details for advertisement and for sale. The website will provide a search bar to allow people to search for the items. The website should allow people to register their interests in particular products. Assignment details can be found from the unit website.

#### Assessment Due Date

Week 5 Friday (13 Aug 2021) 11:59 pm AEST

Submit assignment via Assessment block on Moodle

#### Return Date to Students

Week 7 Friday (3 Sept 2021)

Assignment 1 results released

**Weighting**

30%

**Minimum mark or grade**

40%

**Assessment Criteria**

Assignment will be assessed by the following criteria:

- Page structure (18%)
- Library reference (10%)
- Bootstrap elements (20%)
- jQuery (20%)
- Site Pages (17%)
- Responsiveness (10%)
- CSS style (5%)

This assignment is worth 30% of the overall unit marks. You need to achieve at least 40% of the assignment marks to pass the assignment.

**Referencing Style**

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

**Submission**

Online

**Submission Instructions**

See assignment specification on unit website

**Graduate Attributes**

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

**Learning Outcomes Assessed**

- Describe and explore the main features of Internet applications
- Implement mobile-friendly dynamic websites using modern frameworks

## 2 Assignment 2

**Assessment Type**

Practical and Written Assessment

**Task Description**

This assignment asks you to develop a web application for a local small business. The application should allow the business owner to show a list of jobs. The application should also allow the owner to add, edit and delete the jobs. The application should secure the system information by providing authentication to the authorised user. PHP and MySQL technologies will be used in the development. The detailed specifications are available on the unit website.

**Assessment Due Date**

Week 9 Friday (17 Sept 2021) 11:59 pm AEST

Submit assignment via Assessment block on Moodle

**Return Date to Students**

Week 11 Friday (1 Oct 2021)

Assignment 2 results released

**Weighting**

40%

**Minimum mark or grade**

40%



## Assessment Criteria

The assignment criteria:

- Authentication and Session Control 20%
- Query and display data 25%
- Update records in the database 10%
- Delete data from the database 10%
- Add records to the database 10%
- Secure code 10%
- Presentation 15%

More details are available in the assignment specification.

This assignment is worth 40% of the overall unit marks. You need to achieve at least 40% of the assignment marks to pass the assignment.

## Referencing Style

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

## Submission

Online

## Submission Instructions

See assignment specification

## Graduate Attributes

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

## Learning Outcomes Assessed

- Install and use modern development frameworks
- Utilise enterprise-level database connections via an application server
- Apply authentication techniques to secure Internet applications
- Implement and test Internet applications using a set of open source technologies.

# 3 Assignment 3

## Assessment Type

Practical and Written Assessment

## Task Description

This assignment consists of two Parts.

In Part 1, you are asked to create a simple BMI calculator web application. Java Web Technologies should be used for this application.

In Part 2, you are required to write a 1500-word (approx.) reflection report. Base on the technologies learnt from this unit, you are required to produce a report on the following topics:

1. Introduction
2. What have you learnt from COIT12207 Internet Applications?
3. What difficulties have you experienced in the study? Describe how you dealt with the difficulties.
4. What do you think of project-based learning?
5. What are your views of application development and technologies in the next few years?
6. Conclusion
7. References

The detailed specifications are available on the unit website.

## Assessment Due Date

Week 12 Friday (8 Oct 2021) 11:59 pm AEST

Submit assignment via Assessment block on Moodle

## Return Date to Students

Certificate day

**Weighting**

30%

**Minimum mark or grade**

40%

**Assessment Criteria**

Assignment will be assessed based on the following criteria:

1. Index page 20%
2. Response page 20%
3. Managed Bean 20%
4. Reflection report 40%

This assignment is worth 30% of the overall unit marks. You need to achieve at least 40% of the assignment marks to pass the assignment.

**Referencing Style**

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

**Submission**

Online

**Submission Instructions**

See assignment specification

**Graduate Attributes**

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

**Learning Outcomes Assessed**

- Describe and explore the main features of Internet applications
- Install and use modern development frameworks
- Utilise enterprise-level database connections via an application server
- Implement and test Internet applications using a set of open source technologies.

## 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