COIT12207 *Internet Applications*
Term 2 - 2024

Profile information current as at 18/06/2024 12:16 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. In this unit, you will learn how to develop dynamic mobile-friendly web applications using emerging technologies. Client-side and server-side scripting languages are introduced. You will use a commonly used set of open source technologies to develop database-driven internet applications. Web application architectures and the related frameworks are covered. You will also learn how to secure your applications using a number of security strategies such as authentication and session control.

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 COIS12036Anti-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 - 2024

- 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: 30%
2. **Practical and Written Assessment**
Weighting: 30%
3. **Practical and Written Assessment**
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 2022 Annual Unit Enhancement Review (carry on)

Feedback
Increase materials in JavaScript topic.

Recommendation
Add hands-on projects on JavaScript in Weeks 2 and 3.

Unit Learning Outcomes

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

1. Describe and explore Web application architectures and client-server communication methods
2. Investigate, evaluate and use modern development tools and frameworks
3. Develop mobile-friendly websites to support social innovation
4. Apply authentication and other security techniques to secure Internet applications
5. Develop and test database-driven Internet applications using a set of open source technologies.

The Australian Computer Society (ACS) recognises the Skills Framework for the Information Age (SFIA). SFIA is adopted by organisations, governments and individuals in many 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.
This unit contributes to the following workplace skills as defined by SFIA 7 (the SFIA code is included)

- Software Design (SWDN)
- Programming/Software Development (PROG)
- System Integration and Build (SINT)
- Data Modelling and Design (DTAN)
- User Experience Design (HCEV)
- Content Authoring (INCA)
- Content Publishing (ICPM)
- Information Security (SCTY)
- 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 - 30%	●		●		
2 - Practical and Written Assessment - 30%		●	●	●	●
3 - Practical and Written Assessment - 40%	●	●		●	●

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					

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
If you have issues accessing the eBook at the Library, both paper and eBook can be purchased 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
- 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

Schedule

Week 1 - 08 Jul 2024		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Introduction to Internet Applications • Web application architecture • Front-end and back-end programming • HTML5 web form & form validation • Social innovation topic identification	Online resources	Complete hands-on projects Identify a social innovation topic for Assignment 1
Week 2 - 15 Jul 2024		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

| JavaScript fundamentals
• JavaScript objects, classes and functions
• JavaScript HTML DOM
• Get values from a form
• Design a questionnaire for the social innovation topic identified | Online resources | Complete hands-on projects
Work on Assignment 1 |

Week 3 - 22 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Bootstrap - frond end framework • Bootstrap web project • Webpage with Bootstrap styles • Overview Bootstrap styles	Online resources	Work on Assignment 1 and submit at the end of week Complete hands-on projects **Assignment 1** Due: Week 3 Friday (26 July 2024) 11:59 pm AEST

Week 4 - 29 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Styling contents • Create a navigation menu and a footer • Create responsive tables • Create a 'Contact Us' form • Introduction to jQuery	Online resources	Complete hands-on projects Read Assignment 2 requirements

Week 5 - 05 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Grid System • Cards and the Grid System • Create a product details page with collapsible buttons • Embed a video	Online resources	Complete hands-on projects Work on Assignment 2

Vacation Week - 12 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 19 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
More JavaScript Components • Create a carousel • Create a modal dialog • Create tooltips • Project wrap up	Online resources	Complete hands-on projects Work on Assignment 2

Week 7 - 26 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Server-side Scripting • Install and Configure XAMPP • Create and run a basic PHP document • Work with PHP functions		Work on Assignment 2 and submit at the end of week Complete hands-on projects **Assignment 2** Due: Week 7 Friday (30 Aug 2024) 11:59 pm AEST

Week 8 - 02 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic

PHP programming
• PHP form handling
• PHP advanced
• PHP OOP

Online resources

Complete hands-on projects
Read Assignment 3 requirements

Week 9 - 09 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Work with MySQL database • Work with arrays • Create users and database in MySQL • Create a PHP project that queries and searches a database	Online resources	Complete hands-on projects Work on Assignment 3

Week 10 - 16 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Work with MySQL database (cont.) • Dynamically populate a combo box • Display a list of records in PHP • Add/Edit/Delete a record in PHP	Online resources	Complete hands-on projects Work on Assignment 3

Week 11 - 23 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Security and authentication • Given a vulnerable site, identify some vulnerabilities and secure the site against them • Add authentication to a PHP site	Online resources	Complete hands-on projects Work on Assignment 3

Week 12 - 30 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
Advanced topics • Add session control to your site	Online resources	Complete hands-on projects Work on Assignment 3

Review/Exam Week - 07 Oct 2024

Module/Topic	Chapter	Events and Submissions/Topic
		Submit assignment 3 **Assignment 3** Due: Review/Exam Week Friday (11 Oct 2024) 11:59 pm AEST

Exam Week - 14 Oct 2024

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

Unit Coordinator: Dr. Lily D Li
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Assessment Tasks

1 Assignment 1

Assessment Type
Practical and Written Assessment

Task Description
In this assignment, you are required to design and implement an online survey form for a social innovation project. You are required to investigate some of the social innovation issues (such as the global pandemic, climate change, etc.), identify one social innovation topic, design survey questions and implement the online survey form using HTML5 and JavaScript technologies. The detailed requirements are provided on the unit website.
(Re-attempts are not allowed for the final submission of this assessment item.)

Assessment Due Date
Week 3 Friday (26 July 2024) 11:59 pm AEST

Return Date to Students
Week 5 Friday (9 Aug 2024)

Weighting
30%

Assessment Criteria
The assignment will be assessed by the following criteria:

- Page structure
- Library references
- Form elements and validation
- JavaScript function
- Site pages
- Responsiveness
- Custom CSS style

Detailed marking criteria are provided on the unit website.
This assignment is worth 30% of the overall unit marks.

Referencing Style

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

Submission
Online

Learning Outcomes Assessed

- Describe and explore Web application architectures and client-server communication methods
- Develop mobile-friendly websites to support social innovation

2 Assignment 2

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 Bootstrap5/jQuery. The online business will display a product list and product details for advertisement and 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. The detailed assignment requirements are provided on the unit website.
(Re-attempts are not allowed for the final submission of this assessment item.)

Assessment Due Date
Week 7 Friday (30 Aug 2024) 11:59 pm AEST

Return Date to Students
Week 9 Friday (13 Sept 2024)

Weighting
30%

Assessment Criteria
The assignment will be assessed by the following criteria:

- Page structure
- Library references
- Bootstrap elements
- jQuery

- Site Pages
- Responsiveness
- CSS style

Detailed marking criteria are provided on the unit website.
This assignment is worth 30% of the overall unit marks.

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Investigate, evaluate and use modern development tools and frameworks
- Develop mobile-friendly websites to support social innovation
- Apply authentication and other security techniques to secure Internet applications
- Develop and test database-driven Internet applications using a set of open source technologies.

3 Assignment 3

Assessment Type
Practical and Written Assessment

Task Description
This assignment contains two Parts – a web application development (Part 1) and a reflection report (Part 2), as follows.
Part 1: This part of the 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 product items. The application should also allow the owner to add, edit and delete the items. The application should secure the system information by providing authentication to the authorised user. PHP and MySQL technologies will be used in the development.
Part 2: Based on the technologies learned from this unit and additional research into other technologies, you are required to submit a reflection report on the topic of Internet application technologies,
The detailed assignment requirements are available on the unit website.
(Re-attempts are not allowed for the final submission of this assessment item)

Assessment Due Date
Review/Exam Week Friday (11 Oct 2024) 11:59 pm AEST

Return Date to Students

Assignment results will be available on certification day of Term 2.

Weighting
40%

Minimum mark or grade
40%

Assessment Criteria
The assignment criteria:

- Authentication and Session Control
- Query and display data
- Update records in the database
- Delete data from the database
- Add records to the database
- Secure code
- Presentation
- Report

Detailed marking criteria are provided on the unit website.

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

Learning Outcomes Assessed

- Describe and explore Web application architectures and client-server communication methods
- Investigate, evaluate and use modern development tools and frameworks
- Apply authentication and other security techniques to secure Internet applications
- Develop and test database-driven 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