COIT12207 *Internet Applications*
Term 2 - 2018

Profile information current as at 19/05/2022 10:15 pm

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 - 2018

- Brisbane
- Cairns
- Distance
- Melbourne
- 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 Unit evaluation.

Feedback

Hands-on projects teach more about 'how' but not 'why'. More explanation on 'why' is preferred.

Recommendation

Provide theoretical concepts resources to support hands-on project-based learning.

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

— 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	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 Developmentt
Edition: 5th edn (2016)
Authors: Welling, L & Thomson, L
Pearson
Upper Saddle River , NJ , USA
ISBN: 9780321833891
Binding: Paperback

Additional Textbook Information
No compulsory textbook is required for this unit. The above reference book can be purchased if you wish from the CQUniversity Bookshop here

View textbooks at the CQUniversity Bookshop

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

Schedule

Week 1 - 09 Jul 2018

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

Week 2 - 16 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic

Styling contents
• Navigation menu and footer
• Responsive tables
• Forms

Week 3 - 23 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Grid System • Image thumbnails and grid system • Page with comment threads • Embed videos		

Week 4 - 30 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Advanced JavaScript Components • Carousel • Modal dialog • Accordions • Dropdown, Tooltip, Popover, Alerts • Work on assignment 1		

Week 5 - 06 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Web applications with PHP • Install and Configure XAMPP • Create and run a basic PHP document • Functions and Exception handling		**Assignment 1** Due: Week 5 Friday (10 Aug 2018) 5:00 pm AEST

Vacation Week - 13 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 20 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Work with MySQL database • Work with arrays • Create users and database in MySQL • PHP project that queries and searches the database		

Week 7 - 27 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Work with MySQL database (cont.) • Dynamically populate combo box • Display a list of records in PHP • Add/Edit/Delete a record		

Week 8 - 03 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Security and authentication • Secure the site against vulnerabilities • Add authentication to a PHP site		

Week 9 - 10 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Advanced topics • Add session controls • Work on assignment 2		**Assignment 2** Due: Week 9 Friday (14 Sept 2018) 5:00 pm AEST

Week 10 - 17 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic

JAVA Web applications
• Install and configure NetBeans
• Create a JSF project

Week 11 - 24 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Working with Beans • Create a Managed Bean • Link a Managed Bean in your project		

Week 12 - 01 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic
Facelets Templates • Create a Facelets Template • Create a Template Client File • Work on Assignment 3		**Assignment 3** Due: Week 12 Friday (5 Oct 2018) 5:00 pm AEST

Review/Exam Week - 08 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 15 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Assignment 1

Assessment Type
Practical and Written Assessment

Task Description
In this assignment, you are asked to design and build a website for a small business using Bootstrap. The website will display product list and product details. The website will provide a search bar to allow the customer to search for the items. The customer should be able to select the product and to add the selected items onto the shopping cart. Assignment details can be found from the unit website.

Assessment Due Date
Week 5 Friday (10 Aug 2018) 5:00 pm AEST
Submit assignment via Assessment block on Moodle

Return Date to Students
Week 7 Friday (31 Aug 2018)
Assignment 1 results released

Weighting
30%

Assessment Criteria
Assignment will be assessed by the following criteria:

- Page structure (10%)
- Library reference (10%)
- Bootstrap elements (40%)
- Site components (22%)
- Responsiveness (14%)
- CSS style (4%)

This assignment is worth 30% of the overall unit marks.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
See assignment specification on unit website

Learning Outcomes Assessed

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

Graduate Attributes

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

2 Assignment 2

Assessment Type
Practical and Written Assessment

Task Description
This assignment asks you to develop a web application for a local not-for-profit pet rescue organisation. The application should allow the business owner to show a list of pets available for adoption. The application should also allow the owner to add, edit and delete the pets. The application should secure the system information by providing authentication to the authorized user. PHP and MySQL technologies will be used in the development. The detailed specifications are available in the unit website which can be accessed through Student Portal.

Assessment Due Date
Week 9 Friday (14 Sept 2018) 5:00 pm AEST
Submit assignment via Assessment block on Moodle

Return Date to Students
Week 11 Friday (28 Sept 2018)
Assignment 2 results released

Weighting
40%

Assessment Criteria
The assignment criteria:

- Authentication and Session Control 15%
- Query and display data 15%
- Update records in the database 15%
- Delete data from the database 15%
- Add data to the database 10%
- Secure code 10%
- Code reuse 10%
- Presentation 5%
- Screenshots show site functioning 5%

More details are available in the assignment specification. This assignment is worth 40% of the overall unit marks.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
See assignment specification

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.

Graduate Attributes

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

3 Assignment 3

Assessment Type
Practical and Written Assessment

Task Description
The first task for this assignment is to develop an online BMI (Body Mass Index) calculator using Java Server Faces (JSF) and the techniques. Secondly, you are asked to write a reflection report (500-1000 words) for the Internet application technologies learnt in this unit. The detailed specifications are available in the unit website which can be accessed through Student Portal.

Assessment Due Date
Week 12 Friday (5 Oct 2018) 5:00 pm AEST
Submit assignment via Assessment block on Moodle

Return Date to Students

Certificate day

Weighting
30%

Assessment Criteria
Assignment will be assessed based on the following criteria:

- Index page 25%
- Response page 25%
- Managed Bean 30%
- Reflection report 20%

The detailed specifications are available on the unit website which can be accessed via Student Portal. This assignment is worth 30% of the overall unit marks.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
See assignment specification

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.

Graduate Attributes

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

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