In Progress

Please note that this Unit Profile is still in progress. The content below is subject to change.

COIT20257 *Distributed Systems: Principles and Development*

Term 3 - 2024

Profile information current as at 11/05/2024 03:18 pm

All details in this unit profile for COIT20257 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

Distributed Systems: Principles and Development you will learn basic principles of distributed systems including architecture, design, and algorithms and how to use these principles in the development of distributed applications. You will explore the significant distributed system characteristics of scalability, heterogeneity, security, and failure handling in addition to the fundamentals of networking, inter-process communication, remote invocation, and operating system support. You will examine different approaches to supporting distributed applications including distributed objects, web services, and peer-to-peer solutions. You will learn about distributed file systems, naming, and data-related aspects of distributed transactions, and data replication. Algorithms associated to timing, and coordination and agreement will also be studied. You will also analyse the areas of mobile and ubiquitous computing and the social impact arising from the ubiquity of distributed systems. You will consolidate the key theoretical material through the computer lab tutorial sessions and development of software applications.

Details

Career Level: *Postgraduate*
Unit Level: *Level 9*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Prerequisite unit: COIT20256 Data structures and AlgorithmsAnti-Requisite unit: COIT23005 Distributed Systems
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 3 - 2024

- Brisbane
- Melbourne
- Online
- 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

Information for Class and Assessment Overview has not been released yet.
This information will be available on Monday 9 September 2024

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 UC self reflection and teaching team feedback

Feedback
Students need a comprehensive and complex case study to synthesise the concepts, models and architecture that are covered by the unit.

Recommendation
Combine Transactions and Distributed Transactions to a single week. Then a week space can leave to introduce social computing networks by a comprehensive and complex distributed case study (e.g. secured chat systems).

Feedback from UC self reflection and teaching team feedback

Feedback
Lack or not enough depth in advanced Java programming.

Recommendation
Introduce or strengthen Java interfaces, object serialization and streaming, Java generics and multithreading to handle distributed interaction and modelling.

Feedback from UC self reflection and teaching team feedback

Feedback
Involving more students for unit evaluation.

Recommendation
1. In Week 1 and 6 Lectures: clearly explain to students why teaching evaluations are important to the improvement of the unit and helps instructors enhance their teaching methods. 2. In Week 10 Lecture and Tutorial: encourage class discussions about the importance of feedback and improvements. Lead discussions on the topic and involve students in brainstorming ways to enhance the unit.

Unit Learning Outcomes

Information for Unit Learning Outcomes has not been released yet.
This information will be available on Monday 9 September 2024

Alignment of Learning Outcomes, Assessment and Graduate Attributes

Information for Alignment of Learning Outcomes, Assessment and Graduate Attributes has not been released yet.
This information will be available on Monday 9 September 2024

Textbooks and Resources

Information for Textbooks and Resources has not been released yet.
This information will be available on Monday 14 October 2024

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.
This unit profile has not yet been finalised.