

# INFO 7018 CLOUD SYSTEMS DEVELOPMENT

**Credit Points** 10

**Coordinator** Rodrigo Neves Calheiros ([https://directory.westernsydney.edu.au/search/name/Rodrigo Neves Calheiros/](https://directory.westernsydney.edu.au/search/name/Rodrigo%20Neves%20Calheiros/))

**Description** The majority of backend systems supporting modern mobile applications as well as commercial applications are built to run on the cloud. This requires a shift of design where reliability, scalability, performance, and security are key considerations in every stage of the software development process. This unit incorporates the AWS Academy Cloud Developing curriculum, to support learning in the areas of designing, developing, deploying, and monitoring applications for the cloud. Through the completion of an applied project, students will implement the techniques they have learned to enable communication and coordination between services, options for data persistence in the cloud, and optimization of applications for, potentially, millions of users.

**School** Computer, Data & Math Sciences

**Student Contribution Band** HECS Band 2 10cp

**Level** Postgraduate Coursework Level 7 subject

**Equivalent Subjects** INFO 7008 Modern Software Architectures

## Restrictions

Students must be enrolled in a postgraduate program.

## Assumed Knowledge

Student must know how to write Objected-Oriented code. Students must have familiarity with cloud computing and networking concepts.

## Learning Outcomes

On successful completion of this subject, students should be able to:

1. Evaluate cloud systems and services, as well as design approaches for cloud applications.
2. Analyse relevant monitoring systems to solve production issues.
3. Critically review system requirement determining appropriate cloud-based applications, approaches and services.
4. Design a complete cloud-based application using cloud technologies.
5. Implement cloud APIs and web-based applications and services using a range of technologies.

## Subject Content

1. Cloud application design and architecture
2. Data persistence in the cloud
3. Strategies for application optimisation
4. Cloud application deployment and monitoring
5. Cloud application communication and coordination
6. Cloud application security

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are

regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/Group Task
Applied Project	5,000 words (per group) plus 15 minutes demonstration	30	N	Group
Participation	6 marked sessions (5% each)	30	N	Individual
Quiz	1 hour	40	Y	Individual
Quizzes	10 minutes (per Quiz)	S/U	Y	Individual

Teaching Periods

## 2022 Semester 2 Parramatta - Victoria Rd

### Day

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View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=INFO7018\\_22-SPR\\_PS\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=INFO7018_22-SPR_PS_D#subjects))