INFO 7018 CLOUD SYSTEMS DEVELOPMENT

Credit Points 10

Legacy Code 301386

Coordinator Rodrigo Neves Calheiros (https://directory.westernsydney.edu.au/search/name/Rodrigo Neves Calheiros/)

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

Discipline Information Technology, Not Elsewhere Classified.

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
Quiz	10 minutes (per Quiz)	S/U	Y	Individual
Practical	10 sessions (3% each)	30	N	Individual
Report, Practical, Viva-voce	Report: 5000 words per group (3-4 students per group, 15%); Project demonstration: 15min, 15%	30	N	Group
Report	2500 words	25	N	Individual
Viva Voce	5 minutes	15	N	Individual

Teaching Periods

Spring

Parramatta - Victoria Rd

Day

Subject Contact Rodrigo Neves Calheiros (https://directory.westernsydney.edu.au/search/name/Rodrigo Neves Calheiros/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=INFO7018_22-SPR_PS_D#subjects)