

COMP 7004 CLOUD COMPUTING

Credit Points 10

Legacy Code 301042

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 Cloud computing has become a driving force for information technology over the past several years, and it is moving towards a future in which we won't rely on local computers, but on centralised facilities operated by third-party compute and storage utilities. Governments, research institutes, and industry leaders are rushing to adopt Cloud Computing to solve their ever-increasing computing and storage problems arising in the Internet Age. This subject offers "Academy Cloud Foundations" (ACF) curriculum as part of Amazon Web Services (AWS) Academy. Students will develop knowledge and skills in the areas of virtualization technologies, cloud architecture, AWS core services and their pricing, security, architecture, and support.

School Computer, Data & Math Sciences

Discipline Computer Science, Not Elsewhere Classified.

Student Contribution Band HECS Band 2 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Postgraduate Coursework Level 7 subject

Restrictions

Students must be enrolled in a postgraduate program.

Assumed Knowledge

Basic knowledge of networking and computer systems.

Learning Outcomes

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

1. Characterise fundamental architecture of Cloud computing
2. Analyse the basic service models in Cloud systems
3. Characterise different virtualisation technologies for Cloud computing
4. Examine compute, storage, network and database services in Cloud systems
5. Evaluate Cloud security and well-architected design principle in systems

Subject Content

1. Parallel and Distributed Computing
2. Virtualisation Technologies
3. Cloud Economics
4. Cloud Computing Services
5. Cloud Security
6. Cloud Architecting
7. Cloud Support Services

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.

| Type | Length | Percent | Threshold | Individual/ Group Task |
|------------|-----------------------------|---------|-----------|---------------------------|
| Report | 10 pages | 30 | N | Individual |
| Practical | 15 minute each for 10 weeks | 30 | N | Individual |
| Quiz | 10 minutes per quiz | S/U | Y | Individual |
| Final Exam | 2 hours | 40 | N | Individual |

Prescribed Texts

- Hwang, K. (2012). Distributed and cloud computing: from parallel processing to the Internet of things. Watham, MA: Morgan Kaufmann.

Teaching Periods

Autumn (2024)

Melbourne

On-site

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP7004_24-AUT_MB_1#subjects)

Parramatta - Victoria Rd

On-site

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