



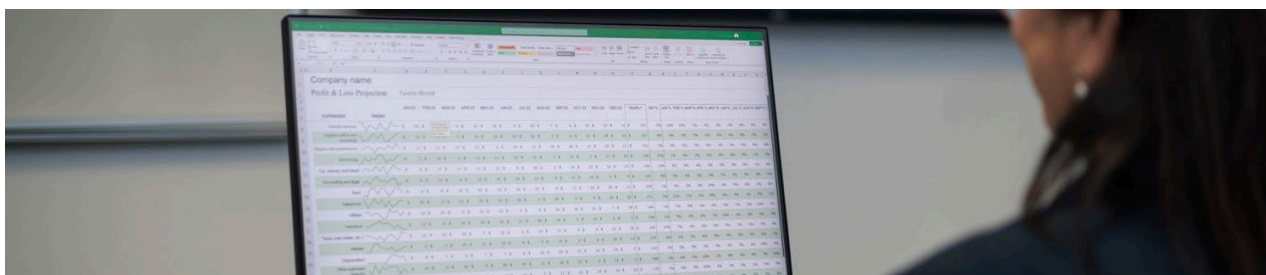
THE UNIVERSITY OF
SYDNEY

Introduction to Cloud Computing Course

*Centre for
Continuing Education*



Introduction to Cloud Computing Course



Computers in the sky! In this dynamic, interactive course, you will explore essential characteristics of cloud computing and emerging technologies supported by the cloud. The course is designed to provide a comprehensive introduction to cloud computing in a condensed format. You'll delve into cloud service models, including Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS), and Public, Private, and Hybrid deployment models. Additionally, you'll discover offerings from prominent cloud service providers like Amazon AWS, Google, IBM, Microsoft, and others.

In-class exercises and examples will ensure your learning is not just theoretical, but practical. You will be able to transform your learning into concrete cloud computing skills. Whether you're seeking general cloud computing knowledge or considering a career change, this introductory course is a great starting point.

Intended audience

Analysts, business professionals, managers, IT knowledge workers and lifelong learners looking to understand cloud computing will find this course advantageous.



Course duration

1 session, 8 hours total



Time

9am - 5pm



Format

Face-to-face
or
Online in real-time



Dates

Browse available
[course dates](#)

Prerequisites

Basic computer skills.



Upon completion

Every participant receives a University of Sydney certificate of completion.



Aims

This aim of this course is to help you understand and differentiate cloud computing topics and learn actionable techniques for leveraging such technologies. You will leave the course confident in using your newfound cloud computing skills in your professional endeavours.



Outcomes

By the end of this course, you should be able to:

- develop a comprehensive understanding of cloud computing fundamentals
- evaluate the benefits and challenges of cloud computing
- compare and contrast the three cloud service models (IaaS, PaaS, SaaS)
- use Infrastructure as a Service (IaaS) to store information in the cloud using AWS S3
- set up a virtual machine and deploy applications on a Platform as a Service (PaaS) platform
- explore the advantages of Software as a Service (SaaS) applications and engage with AWS Sagemaker
- address security concerns by learning about security measures in cloud services
- understand data protection laws and privacy issues related to cloud computing
- analyse and compare the offerings of major cloud providers.



Content

Introduction and overview

- Understanding cloud computing
- Benefits and challenges of cloud computing
- Cloud service models: IaaS, PaaS, SaaS

Infrastructure as a Service (IaaS)

- Understanding IaaS
- Virtualisation and resource pooling
- Hands-on: Setting up a virtual machine

Platform as a Service (PaaS)

- Understanding PaaS
- Application deployment in PaaS
- Hands-on: Deploying an application on a PaaS platform

Software as a Service (SaaS)

- Understanding SaaS
- SaaS applications and architecture
- Hands-on: Using a SaaS application

Cloud security and privacy

- Security concerns in cloud computing
- Data protection and privacy in the cloud
- Hands-on: Implementing security measures in cloud services

Major cloud providers

- Overview of major cloud providers
- Hands-on: Comparing the services of different cloud providers



Before the course

The course will take advantage of the Amazon Web Services (AWS*) cloud computing platform. The generous Free Tier provides all computing services used throughout the course at zero cost. A free account can be created [here](#).

*Note – some free AWS services used in this course (eg. Amazon Sagemaker) have timed free trials. Please wait until shortly before the day of the course to create the Free Tier account to ensure all software is available.

No additional specialised software will be required for the course. All necessary software will be accessible through the AWS Console via a standard web browser.



Delivery style

This course is an interactive experience that includes lectures, individual exercises and discussion.

Materials

All course materials covered in class are provided electronically.



Recommended reading

There is no prescribed text. However, participants may like to read the following texts prior to attending:

Hurwitz, J.S. and Kirsch, D. (2020) *Cloud Computing For Dummies*. 2nd edn. For Dummies. Wiley.

King, T.H., 2019. *AWS: The Ultimate Guide From Beginners To Advanced For The Amazon Web Services (2020 Edition)*. 1st ed.



Organisational training and development

This course can be delivered as a private session for groups, and tailored to meet the needs of your business. Contact us to discuss our range of organisational training solutions.

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We recognise and pay respect to the Elders and communities – past, present, and emerging – of the lands that the University of Sydney's campuses stand on. For thousands of years they have shared and exchanged knowledges across innumerable generations for the benefit of all.

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inspire leadership

For more information

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