



University of
South Australia



Master of Science in

DATA SCIENCE (INTERNATIONAL)

NEW IN 2018
UNISA & UCL
JOINT
PROGRAM

Enhance your professional credentials and follow one of the anticipated careers of the 21st century

Graduate with a joint degree from the University of South Australia (UniSA) and University College London (UCL)

Study in London and Adelaide

Benefit from academic and industry expertise - UniSA is a leader in the \$88 million Data to Decisions Cooperative Research Centre

UCL received the highest percentage (96%) for quality research in Computer Science and Informatics in UK's most recent Research Excellence Framework

UNIVERSITY OF SOUTH AUSTRALIA (UNISA) AND UNIVERSITY COLLEGE LONDON (UCL) JOINT DEGREE

Study in Australia and the United Kingdom with UniSA and UCL's joint Master of Science in Data Science (International). As part of this degree you'll spend the first eight months in London, and then transition to Adelaide to complete the remainder of the program.

The partnership between UCL and UniSA combines the strengths of each institution, to deliver a program that is a unique blend of strong theoretical knowledge in statistics and computer science with a range of modern applications from social media to organisational analytics.

In addition to courses that are essential for future data scientists, the program includes a wide range of electives which allow you to pursue your interests. At UCL you will be able to choose from a range of advanced computer science topics including data mining, machine vision and deep learning. At UniSA, you will be able to develop skills in advanced analytics and data visualisation. The program culminates in an independent research project which you undertake in your final semester.

WHY STUDY DATA SCIENCE?

Enter the revolutionary area of Big Data where there is an acute shortage of data scientists. A McKinsey Global Institute report forecasts a 50 per cent gap between projected demand and supply by 2018.

Vast volumes of data are generated every day around the globe. The need to make sense of it has given rise to the concept of 'Big Data', and to a new career - 'data scientist'.

Data science brings together the best of data management and analytic methods, and the presentation of results - all in a closed loop cycle for continuous learning and improvement within the organisation.

This rapidly expanding area has applications in search and information retrieval, e-commerce, finance, health, natural language modelling and artificial intelligence.

PROGRAM SNAPSHOT

Campus.....	London & Mawson Lakes
Duration.....	2 years
Study mode.....	full-time, face-to-face
Fees.....	AUD49,500
Assumed knowledge	first year of a mathematics degree or equivalent (multivariate calculus, linear algebra, introductory statistics, probability).
	Students should also be comfortable with a high level of programming in a language such as Python.

ENTRY

Program Code.....	LMDSJ
	Apply direct to UniSA at unisa.edu.au/applyonline
	To be eligible for admission an applicant must hold:

Minimum of an upper second-class Bachelor's degree in a quantitative discipline from a recognised UK university, or one of the below qualifications in a quantitative discipline from a recognised Australian university:

4 year Bachelor with any of the following marks/classifications:

Second Class (Lower Division)

Division B

Division 2

Grade B

5/7

60%

OR

3 year Bachelor degree with any of the following marks/classifications:

First Class

High Distinction

80%

OR

A non-UK / non-Australian qualification of an equivalent standard.

Relevant disciplines will typically be in the field of mathematics or computer science.

PROGRAM STRUCTURE

FIRST YEAR

COURSES DELIVERED BY UCL IN LONDON

Term 1

Introduction to Deep Learning
Introduction to Machine Learning
Elective 1
Elective 2

Term 2

Applied Machine Learning
Data Analytics
Elective 3
Elective 4

SECOND YEAR

COURSES DELIVERED BY UNISA IN ADELAIDE

Study Period 5

Statistical Programming for Data Science
Unsupervised Methods in Analytics
Elective 5
Elective 6

Study Period 2

ITMS Masters Minor Thesis 1
ITMS Masters Minor Thesis 2



MEET RICHARD SHANAHAN UNISA GRADUATE

"For me, it was an opportunity to retrain; to learn a new discipline that encompasses amazing statistical techniques, uses some incredibly advanced technology and is obviously a discipline on the rise, it's rapidly evolving. I asked myself, 'Where can I go to get a general skill that I can apply across industries?' The answer was data science, it has let me do that."

Elective Group 1 (UCL)

Graphical Models
Machine Vision
Information Retrieval & Data Mining
Statistical Natural Language Processing
Web Economics
Advanced Deep Learning
Reinforcement Learning

Elective Group 2 (UnISA)

Research Methods
Advanced Analytic Techniques 1
Advanced Analytic Techniques 2
Data Visualisation
Unsupervised Methods in Analytics

PROGRAM OVERVIEW

The Master of Science in Data Science (International) will provide you with the knowledge and computational skills you will need to become a highly sought after analytics professional and data scientist.

The aim of this program is to produce graduates with the analytic and technical skills to effectively use Python, Hadoop, R and SAS to analyse Big Data and extract useful information to support the management and operations of an organisation.

In this program you will undertake courses across a broad range of data science topics, which will provide you with hands-on experience in data analytic techniques for real-world challenges.

Taught by leading researchers in data science, you will learn to analyse and visualise rich data sources, spot data trends and to generate data driven insights.

CAREER OPPORTUNITIES

The demand for analytic skills is supported by research from IBM in a recent report - 'The Quant Crunch: How the demand for data science skills is disrupting the job market', which predicts that by 2020, the number of jobs for all US data professionals will increase by 364,000 openings to 2,720,000.

In the UK, the Big Data and artificial intelligence boom is expected to generate 56,000 data science positions from 2016-2020[^].

While the demand for analytic skills crosses multiple industries, fields such as marketing, health care, IT, government and finance are expected to experience a particularly strong need for analytics professionals.

[^]MT - Management Today, 2016.

For more information contact

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Information correct at time of printing (June 2018)

CRICOS provider number 00121B

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