



# Graduate Diploma in Data Science

**Program Code:** 5646

**Faculty:** Science

**Study Level:** Postgraduate

**Delivery Mode:** Fully online

**Academic Calendar:** Hexamester

**Award Type:** Graduate Diploma

**Units of Credit:** 48

**Campus:** N/A - Online

**Typical Duration:** 1.4 Years F/T

**Intake Period:** 6 annually; Jan, Mar, May, Jul, Sept & Oct (not all courses will be offered at every intake)

**Minimum Units of Credit:** 48

The Graduate Diploma in Data Science will give you the foundational data science skills that the industry demands, plus crucial decision-making techniques and the essentials of good data storytelling. You'll learn these core skills in courses such as Principles of Programming, Foundations of Data Science, Statistical Inference and Database Systems.

Study for the Graduate Diploma is fully online and features seven core courses and one elective which can be completed in 16 months. UNSW's online learning environment has been designed to seamlessly fit into your busy schedule and you'll be able to access course resources on any device, at any time.

This program also gives you a pathway to study the Master of Data Science.

## Learning outcomes

### **PLO 1.**

Demonstrate advanced and integrated knowledge of statistics, computer science, applied mathematics, and business strategies, and examine their applications in data science.

### **PLO 2.**

Prepare, analyse, interpret and present data to inform business decision making.

### **PLO 3.**

Collaborate effectively in disciplinary and interdisciplinary teams as a team player and possibly a team leader.

### **PLO 4.**

Demonstrate cultural, professional and ethical competence to become a responsible Data Scientist and a global citizen.

**PLO 5.**

Apply enquiry-based learning, including, analysis and critical thinking, reflection and problem solving, to become a lifelong learner and an innovative and self-directed professional.

**PLO 6.**

Communicate effectively in written and oral formats to engage specialist and non-specialist audiences.

**Graduate capabilities**

For more information on Graduate Capabilities, please click on this [link](#).

**Program structure**

Students must complete 48 UOC as a standalone program.

**Core 1 Courses**

Students must take 24 UOC of the following courses.

Course code	Course	UOC
ZZEN9021	Principles of Programming	6
ZZSC9001	Foundations of Data Science	6
ZZSC5905	Statistical Inference of Data Scientists	6
One of the following:		
ZZEN9311	Database Systems	6
ZZBU5611	Strategic Decision Making	6

**Core 2 Courses**

Students must take 12 UOC of the following courses.

Course code	Course	UOC
ZZSC5806	Regression Analysis for Data Scientists	6
ZZSC5836	Data Mining and Machine Learning	6

**Core 2 Electives**

Students must take 12 UOC of the following courses.

Course code	Course	UOC
ZZBU5611	Strategic Decision Making*	6
ZZBU6505	Data and Ethics	6
ZZBU6507	Data Visualisation and Communication	6
ZZEN9311	Database Systems*	6
ZZEN9313	Big Data Management	6
ZZSC5855	Multivariate Analysis for Data Scientists	6
ZZBU6510	Decision Making in Analytics	6

ZZEN9444	Neural Networks, Deep Learning	6
ZZSC5960	Bayesian Inference and Computation for Data Scientists	6

\*Can be selected if you have not already taken as a Core 1 Course

### **Enrolment Disclaimer**

Unless advised otherwise by your program authority, you should follow the rules for the handbook for the year you commenced your program. You are also responsible for ensuring you enrol in courses according to your program requirements. myUNSW enrolment checks that you have met enrolment requirements such as pre-requisites for individual courses but not that a course will count towards your program requirements.

## **Admission requirements**

### **Entry Requirements**

A completed Graduate Certificate in Data Science with a WAM of 65 or higher, may be considered.

OR

Have completed an undergraduate degree in Data Science or cognate discipline (e.g., Computer Science, Economics, Mathematics, Statistics)

AND

have sufficient Data Science background as indicated by an average of 65 or above across three Level III courses in Mathematics and/or Statistics and/or Computer Science and/or Econometrics.

OR

Have completed a degree in a non-cognate discipline AND have sufficient Data Science background as indicated by at least five years of experience in a data science or data analytics role.

### **Progression Requirements**

For more information on university policy on progression requirements please visit [Academic Progression](#).

## **Pathways**

Students can then articulate into the Master of Data Science (8646) if they achieve a WAM of at least 65 in the Graduate Diploma in Data Science (5646).

## **Additional information**

### **Further Information**

Please note that these requirements may be subject to change. Students are advised to follow requirements according to the year they commenced.

[Timetables](#)

## Contact

Contact UNSW Online's Student Enrolment Advisors

E: [future-student@studyonline.unsw.edu.au](mailto:future-student@studyonline.unsw.edu.au)

Ph: 1300 974 990

W: <https://studyonline.unsw.edu.au/contact>

## Program fees

At UNSW fees are generally charged at course level and therefore dependent upon individual enrolment and other factors such as student's residency status. For generic information on fees and additional expenses of UNSW programs, click on one of the following:

[Domestic Students](#)

[International Students](#)