UNIVERSITY OF CANBERRA

Graduate Certificate in Data Science (ITC102.1)

Please note these are the 2024 details for this course

Domestic students

Selection rank	
Delivery mode	On campus
	Online
Location	Bruce, Canberra
Duration	0.5 years
Faculty	Faculty of Science and Technology
Discipline	Academic Program Area - Technology
UAC code	
English language requirements	An IELTS Academic score of 6.5 overall, with no band score below 6.0 (or equivalent).

View IELTS equivalences

International students

Academic entry requirements	To study at UC, you'll need to meet our academic entry requirements and any admission requirements specific to your course. Please read your course admission requirements below. To find out whether you meet UC's academic entry requirements, visit our academic entry requirements page.

View UC's academic entry requirements

Delivery mode	On campus
Location	Bruce, Canberra
Duration	0.5 years
Faculty	Faculty of Science and Technology
Discipline	Academic Program Area - Technology
CRICOS code	114088F
English language requirements	An IELTS Academic score of 6.5 overall, with no band score below 6.0 (or equivalent). View IELTS equivalences

About this course

Remain relevant in a data-driven world

UC's new, 100% online Graduate Certificate of Data Science is your ticket to remaining relevant in today's data-driven world. Over the course of the certificate, you'll gain a solid understanding of data science fundamentals including statistics, data analysis, data preparation and data visualisation.

Taught by expert academics, you'll develop your capacity to address complex issues with data-based solutions. You'll be trained to consider both the ethical and technological implications of data reporting and apply your knowledge to real-world examples.

No matter your industry, you'll gain foundational data science skills that can be applied across a diverse range of industries and roles. From health and education to social media and sales, understanding data can unlock insights and patterns that can improve your work.

This certificate offers an immersive, 100% online learning experience, giving you the convenience to manage your study, work and life commitments. Study options include full-time, which can be completed in as little as four months, or part-time study which can be completed in just eight months.

Further your studies

Thinking about upgrading your qualifications? The Graduate Certificate of Data Science can serve as a foundation for further study, with credit applied to UC's Master of Data Science or other postgraduate Technology qualifications.

Study a Graduate Certificate of Data Science and you will:

- Learn to identify trends and anomalies within complex data sets.
- Understand, analyse and communicate data insights.
- Explore data analysis, graphical interpretation and modelling techniques.
- Develop a problem-solving mindset and address complex issues with data-based solutions.
- Apply data-driven solutions to real-world situations.
- Gain transferable skills relevant to a wide range of industries.
- Consider the ethical considerations of data reporting and analysis.
- Access UC's digital resources, materials and support services.

Study your way

Enjoy the freedom of choice: select the online study mode for self-paced learning and optimal study-work-life balance, or on-campus study mode for face-to-face classes.

Career outcomes

- Data Scientist
- Data Engineer
- Data Analyst
- Statistician

Progress your career with a Graduate Certificate in Data Science

Discover how you can study data science online by downloading your free course brochure.

Download your free course brochure

Professional accreditation

None.

Admission requirements

Applicants must have an Australian Bachelor degree in any field or equivalent.

You can use professional experience and prior learning to enter into a postgraduate qualification at UC through our Professional Pathway Entry program. If you have significant work experience or hold industry-recognised qualifications, this program could be your route to bypass undergraduate study and accelerate your career. Explore Professional Pathway Entry https://www.canberra.edu.au/future-students/get-into-uc/admissions-programs/professional-pathway-entry

The following Defence members are eligible for direct entry into this course through the Veteran Tertiary Support Program - Postgraduate Course Entry:

- Commissioned Officer (any rank),

- Chaplain or Maritime Spiritual Wellbeing Officer,

- Senior Non-Commissioned Defence Force Members (E-6 or higher),

- Defence Force Members - Other Ranks (E-2 to E-5) with three or more years' experience.

Additional admission requirements

International students can only commence their studies in Semester 1 and must study On Campus.

Domestic students can commence their studies in Semester 1 or Semester 2, with the option to study either On Campus or Online.
NOTE: Domestic students commencing in Semester 2 may be required to study some online units in their first semester, even if enrolled as On Campus students.

Assumed knowledge

Year 12 mathematics and functional knowledge of using computer systems.

Periods course is open for new admissions

Year	Location	Teaching period	Teaching start date	Domestic	International
2025	Bruce, Canberra	Semester 1	03 February 2025	✓	✓
2025	Bruce, Canberra	Semester 2	28 July 2025	✓	
2026	Bruce, Canberra	Semester 1	16 February 2026	✓	✓
2026	Bruce, Canberra	Semester 2	10 August 2026	✓	
2027	Bruce, Canberra	Semester 1	15 February 2027	✓	✓
2027	Bruce, Canberra	Semester 2	09 August 2027	✓	

Credit arrangements

There are currently no formal credit transfer arrangements for entry to this course. Any previous study or work experience will only be considered as part of the application process in accordance with current course rules and university policy.

Course requirements

Graduate Certificate in Data Science (ITC102) | 12 credit points

Required - Must pass 12 credit points as follows

Introduction to Statistics G (6554) | 3 credit points — Level G

Introduction to Data Science G (11516) | 3 credit points — Level G

Exploratory Data Analysis and Visualisation G (11517) | 3 credit points — Level G

Data Capture and Preparations G (11520) | 3 credit points — Level G

In addition to course requirements, in order to successfully complete your course you must meet the inherent requirements. Please refer to the inherent requirements statement applicable to your course

Typical study pattern
UC - Canberra, Bruce

On Campus Mode

Standard Full Time, Semester 1 Commencing

Year 1

Semester 1

Data Capture and Preparations G (11520)

Exploratory Data Analysis and Visualisation G (11517)

Introduction to Data Science G (11516)

Introduction to Statistics G (6554)

Standard Full Time, Semester 2 Commencing

Year 1

Semester 2

Data Capture and Preparations G (11520)

Exploratory Data Analysis and Visualisation G (11517)

Introduction to Data Science G (11516)

Introduction to Statistics G (6554)

Standard Part Time, Semester 1 Commencing

Year 1

Semester 1

Data Capture and Preparations G (11520)

Introduction to Data Science G (11516)

Semester 2

Exploratory Data Analysis and Visualisation G (11517)

Introduction to Statistics G (6554)

Standard Part Time, Semester 2 Commencing

Year 1

Semester 2

Introduction to Data Science G (11516)

Introduction to Statistics G (6554)

Year 2

Semester 1

Data Capture and Preparations G (11520)

Exploratory Data Analysis and Visualisation G (11517)

Online Mode

Standard Full Time, Semester 1 Commencing

Year 1

Semester 1

Data Capture and Preparations G (11520)

Exploratory Data Analysis and Visualisation G (11517)

Introduction to Data Science G (11516)

Introduction to Statistics G (6554)

Standard Full Time, Semester 2 Commencing

Year 1

Semester 2

Data Capture and Preparations G (11520)

Exploratory Data Analysis and Visualisation G (11517)

Introduction to Data Science G (11516)

Introduction to Statistics G (6554)

Standard Part Time, Semester 1 Commencing

Year 1

Semester 1

Data Capture and Preparations G (11520)

Introduction to Data Science G (11516)

Semester 2

Exploratory Data Analysis and Visualisation G (11517)

Introduction to Statistics G (6554)

Standard Part Time, Semester 2 Commencing

Year 1

Semester 2

Introduction to Data Science G (11516)

Introduction to Statistics G (6554)

Year 2

Semester 1

Data Capture and Preparations G (11520)

Exploratory Data Analysis and Visualisation G (11517)

Course information

Course duration

Standard 0.5 years full time or part-time equivalent. Maximum 3 years from date of enrolment to date of course completion.

Learning outcomes

Learning outcomes	Related graduate attributes
Communicate theoretical and technical data science concepts, information, and ideas to a variety of audiences using appropriate media.	UC graduates are professional: Communicate effectively; use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems; display initiative and drive, and use their organisational skills to plan and manage their workload; take pride in their professional and personal integrity.

UC graduates are global citizens: Adopt an informed and balanced approach across professional and international boundaries; understand issues in their profession from the perspective of other cultures; make creative use of technology in their learning and professional lives.

UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; evaluate and adopt new technology. |
| Develop specialised knowledge of data science principles, concepts, and tools. | UC graduates are professional: Employ up-to-date and relevant knowledge and skills; communicate effectively; use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems; work collaboratively as part of a team, negotiate, and resolve conflict; display initiative and drive, and use their organisational skills to plan and manage their workload; take pride in their professional and personal integrity.

UC graduates are global citizens: Think globally about issues in their profession; adopt an informed and balanced approach across professional and international boundaries; understand issues in their profession from the perspective of other cultures; make creative use of technology in their learning and professional lives.

UC graduates are lifelong learners: Evaluate and adopt new technology. |
| Critically analyse and interpret mathematical and statistical data and other data science information to investigate and solve complex problems. | UC graduates are professional: Employ up-to-date and relevant knowledge and skills; communicate effectively; use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems; work collaboratively as part of a team, negotiate, and resolve conflict; display initiative and drive, and use their organisational |

skills to plan and manage their workload; take pride in their professional and personal integrity.

UC graduates are global citizens: Think globally about issues in their profession; adopt an informed and balanced approach across professional and international boundaries; understand issues in their profession from the perspective of other cultures; make creative use of technology in their learning and professional lives; behave ethically and sustainably in their professional and personal lives.

UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; evaluate and adopt new technology.

Evaluate and apply common programming, modelling, data management, data visualisation, and data mining tools as appropriate to the data, task and/or environment.	UC graduates are professional: Employ up-to-date and relevant knowledge and skills; use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems; work collaboratively as part of a team, negotiate, and resolve conflict; display initiative and drive, and use their organisational skills to plan and manage their workload; take pride in their professional and personal integrity. UC graduates are global citizens: Think globally about issues in their profession; adopt an informed and balanced approach across professional and international boundaries; understand issues in their profession from the perspective of other cultures; make creative use of technology in their learning and professional lives; behave ethically and sustainably in their professional and personal lives. UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; evaluate and adopt new technology.

Awards

Award	Official abbreviation
Graduate Certificate in Data Science	GradCert DataSc

Honours

None.

Enquiries

Student category	Contact details
Prospective Domestic Students	Email study@canberra.edu.au or Phone 1800 UNI CAN (1800 864 226)
Current and Commencing Students	In person, Student Centre Building 1 or Email Student.Centre@canberra.edu.au
Prospective International Students	Email international@canberra.edu.au or Phone +61 2 6201 5342

Download your course guide

Scholarships

Find the scholarship that's the right fit for you

Explore Scholarships