UNIVERSITY OF CANBERRA

Master of Data Science (ITM001.2)

Please note these are the 2026 details for this course

Domestic students

Selection rank	
Delivery mode	On campus
Location	Bruce, Canberra
Duration	2.0 years
Faculty	Faculty of Science and Technology
Discipline	Academic Program Area - Technology
UAC code	880261
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	2.0 years
Faculty	Faculty of Science and Technology
Discipline	Academic Program Area - Technology
CRICOS code	099433A
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

Be at the cutting edge of the digital world

Master your big-picture thinking and connect your digital understanding with data analysis, interpretation and management of complex data sets on a micro and macro level.

Large-scale data analysis and modelling underpin a vast range of industries, including healthcare, sports, business, scientific discovery, and government policy. With a Master of Data Science, you'll cement your place in one of the world's most in-demand professions and gain the skills to become a leader within the field through a unique combination of interdisciplinary coursework, research methodology, and comprehensive industry-based training.

Become a specialist within the field with the option to specialise in Sports Analytics, Business Intelligence, Artificial Intelligence & Computational Modelling.

Study a Master of Data Science at UC and you will:

- Master your knowledge and skill to read and interpret Big Data
- Become proficient in using state-of-the-art industry tools
- Critically analyse databases and offer innovative solutions
- Expand your practice by working on real-world issues
- Learn and apply professional ethics, teamwork, critical analysis, communication and management skills

- Build strong industry networks
- Earn an industry-recognised and respected qualification
- Be in demand

Work Integrated Learning (WIL)

WIL is a key component of the Master of Data Science course delivery as it offers students the opportunity to apply their learnings into industry-based practice (both real and/or in-situ) and build their professional networks.

To ensure our students have access to the right people and places, UC works hard to foster close industry connections and regularly engages with industry partners who possess both the skills and experience to provide specialised knowledge and training opportunities.

All course content is reviewed annually by our Course Advisory Group which is made up of a panel of highly qualified and respected industry experts

Career opportunities

Due to the exponential rise of digital data produced daily around the world, graduates of the UC Master of Data Science course can expect to find themselves in high demand in any one of the following positions.

- Data scientist
- Data engineer
- Data analyst
- Business analyst
- Statistician
- Software developer
- Data warehouse operator and manager
- Computer network analyst
- Consultant

Admission requirements

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

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
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

Master of Data Science (ITM001) | 48 credit points

Expand All | Collapse All

Required - Must pass 36 credit points as follows

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

Regression Modelling G (6557) | 3 credit points — Level G

Systems Project and Quality Management G (6678) | 3 credit points — Level G

Pattern Recognition and Machine Learning PG (11512) | 3 credit points — Level P

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

Programming for Data Science G (11521) | 3 credit points — Level G

Technology Capstone Research Project PG (11522) | 6 credit points — Level P

AR/VR for Data Analysis and Communication PG (11524) | 3 credit points — Level P

ICT and Engineering Research Methodology PG (12090) | 3 credit points — Level P

Restricted Choice - 12 credit points as follows

Award Options - Must select 1 of the following

Business Intelligence specialisation - Must pass 12 credit points as follows

Econometrics G (6551) | 3 credit points — Level G

Business Intelligence Systems PG (6680) | 3 credit points — Level P

Database Systems PG (6681) | 3 credit points — Level P

Data Analytics and Business Intelligence PG (8697) | 3 credit points — Level P

AI & Computational Modelling specialisation - Must pass 12 credit points as follows

Artificial Intelligence Techniques PG (6685) | 3 credit points — Level P

Soft Computing PG (7197) | 3 credit points — Level P

Computer Vision and Image Analysis PG (8890) | 3 credit points — Level P

Data Science Technology and Systems PG (11523) | 3 credit points — Level P

- Awards: To have a specialisation on his or her testamur, a student must complete all units listed in that specialisation. Otherwise, students can choose and mix the units as they prefer.

No Specialisation - Must pass 12 credit points from the following

Econometrics G (6551) | 3 credit points — Level G

Business Intelligence Systems PG (6680) | 3 credit points — Level P

Database Systems PG (6681) | 3 credit points — Level P

Artificial Intelligence Techniques PG (6685) | 3 credit points — Level P

Soft Computing PG (7197) | 3 credit points — Level P

Data Analytics and Business Intelligence PG (8697) | 3 credit points — Level P

Computer Vision and Image Analysis PG (8890) | 3 credit points — Level P

Data Science Technology and Systems PG (11523) | 3 credit points — Level P

Science and Technology Internship A PG (12231) | 3 credit points — Level P

Science and Technology Internship B PG (12232) | 3 credit points — Level P

Advances in Science, Technology, and Engineering PG (12233) | 3 credit points — Level P

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

Standard Full Time, Semester 1 Commencing

Year 1

Semester 1

Data Capture and Preparations G (11520)

ICT and Engineering Research Methodology PG (12090)

Introduction to Data Science G (11516)

Introduction to Statistics G (6554)

Semester 2

AR/VR for Data Analysis and Communication PG (11524)

Pattern Recognition and Machine Learning PG (11512)

Programming for Data Science G (11521)

Systems Project and Quality Management G (6678)

Year 2

Semester 1

Exploratory Data Analysis and Visualisation G (11517)

Regression Modelling G (6557)

Two restricted choice electives

Semester 2

Technology Capstone Research Project PG (11522)

Two restricted choice electives

Standard Part Time, Semester 1 Commencing

Year 1

Semester 1

Introduction to Data Science G (11516)

Introduction to Statistics G (6554)

Semester 2

Exploratory Data Analysis and Visualisation G (11517)

Regression Modelling G (6557)

Year 2

Semester 1

ICT and Engineering Research Methodology PG (12090)

Systems Project and Quality Management G (6678)

Semester 2

Data Capture and Preparations G (11520)

One restricted choice elective

Year 3

Semester 1

AR/VR for Data Analysis and Communication PG (11524)

Pattern Recognition and Machine Learning PG (11512)

Semester 2

Two restricted choice electives

Year 4

Semester 1

Programming for Data Science G (11521)

One restricted choice elective

Semester 2

Technology Capstone Research Project PG (11522)

Course information

Course duration

Standard 2 years full time or part-time equivalent. Maximum 6 years from date of enrolment to date of course completion.

Learning outcomes

Learning outcomes	Related graduate attributes
Critically analyse, interpret, and synthesise data from diverse sources to investigate complex problems and provide creative solutions that enhance and support organisational and strategic goals;	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; communicate effectively in diverse cultural and social settings; 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; adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas; evaluate and adopt new technology. UC graduates are able to demonstrate Aboriginal and Torres Strait Islander ways of knowing, being and doing: Communicate and engage with Indigenous Australians in ethical and culturally respectful ways.
Demonstrate advanced skills to professionally communicate complex theoretical and technical data science concepts, information, and ideas to a variety of audiences using appropriate media;	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: Adopt an informed and balanced approach across professional and international boundaries; understand issues in their profession from the perspective of other cultures; communicate effectively in diverse cultural and social settings; 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; adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas; evaluate and adopt new technology.

Develop advanced knowledge of data science principles, theory, concepts, and tools across the spectrum from data collection to analysis, modelling, interpretation, prediction, and communication;	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; communicate effectively in diverse cultural and social settings; 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; adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas; evaluate and adopt new technology.
Design, implement and evaluate professional best practice approaches in data-driven 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.

Design, execute and critically evaluate a substantive research project that demonstrates an advanced and integrated understanding of collecting, processing, analysing and extracting meaning from complex data to investigate contemporary, real-world 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; communicate effectively in diverse cultural and social settings; 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; adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas. UC graduates are able to demonstrate Aboriginal and Torres Strait Islander ways of knowing, being and doing: Communicate and engage with Indigenous Australians in ethical and culturally respectful ways.

Awards

Award	Official abbreviation
Master of Data Science	MDS
Master of Data Science in Business Intelligence	MDS BusIntelligence
Master of Data Science in AI and Computational Modelling	MDS AICompModelling

Alternative exits

ITC102 Graduate Certificate in Data Science

ITG001 Graduate Diploma in Data Science

Enquiries

Student category	Contact details

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
Prospective Domestic Students	Email study@canberra.edu.au or Phone 1800 UNI CAN (1800 864 226)

Download your course guide

Scholarships

Find the scholarship that's the right fit for you

Explore Scholarships

University of Canberra, Bruce ACT 2617 Australia

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ABN 81 633 873 422

CRICOS 00212K

TEQSA Provider ID: PRV12003 (Australian University)

UC acknowledges the Ngunnawal people, traditional custodians of the lands where Bruce campus is situated. We wish to acknowledge and respect their continuing culture and the contribution they make to the life of Canberra and the region. We also acknowledge all other First Nations Peoples on whose lands we gather.