Australia needs up to 161,000 new AI specialists by 2030*. Globally, this figure *skyrockets. What does this mean for you? A myriad of opportunities across manufacturing, healthcare and other sectors – and a career that can shape the future.

Tomorrow is driven by AI
AI grows more prevalent and powerful every day.
Combating world hunger. Fighting poverty. Addressing climate change. Tackling criminal activity on the dark web. Let this master’s degree empower you to make a real impact in our world.

Taught by the discipline’s greatest, you’ll dive into topics spanning deep learning, machine learning, human-computer interaction, natural language processing and modern optimisation techniques. You’ll also learn about ethical issues and best practices.

Practical experience to hone your edge
Focused on industry needs, this master’s degree gives you the chance to apply your specialist expertise to real-world challenges through advanced practice units.

Complete in-depth research under the guidance of an internationally-recognised expert (as a potential pathway to a PhD) or engage in an Industry Experience Studio Project. Either way, this hands-on training puts your knowledge into practice – so you can grow your prospects with confidence.

Data Science and AI – the difference

Career outlook

<table>
<thead>
<tr>
<th>PATHWAYS</th>
<th>EXAMPLE TASKS</th>
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</thead>
<tbody>
<tr>
<td><strong>ARTIFICIAL INTELLIGENCE</strong></td>
<td>AI engineer Machine learning engineer AI consultant Robotics engineer</td>
</tr>
<tr>
<td><strong>DATA SCIENCE</strong></td>
<td>Data analyst Data scientist Data engineer Cloud administrator Business analyst</td>
</tr>
<tr>
<td></td>
<td>Creating autonomous vehicles Building chatbots Programming drones</td>
</tr>
<tr>
<td></td>
<td>Forecasting sales Predicting electricity usage Managing web platforms</td>
</tr>
</tbody>
</table>

*Artificial Intelligence, CSIRO, 2019

We achieved the highest possible rating for Artificial Intelligence, formally recognising us as ‘well above world standard’ in the discipline. This means we’re in a prime position to drive innovation and empower the next generation of changemakers.

DEAN, PROFESSOR ANN NICHOLSON
FACULTY OF INFORMATION TECHNOLOGY
COURSE DETAILS

Location
Clayton

Course code
C6007

Duration
2 years full-time/4 years part-time (entry level 1)
1.5 years full-time/3 years part-time (entry level 2)

Enrolment
February and July each year

Alternative exits
- Graduate Diploma of Artificial Intelligence
- Graduate Certificate of Artificial Intelligence

COURSE STRUCTURE

Part A: Foundation units (24 points)
- FIT9131: Programming foundations in Java
- FIT9136: Algorithms and programming foundations in Python
- FIT9137: Introduction to computer architecture and networks
- MAT9004: Mathematical foundations for data science

Part B: Core master’s studies (48 points)
Three compulsory units (18 points):
- FIT5047: Fundamentals of artificial intelligence
- FIT5125: IT research methods
- FIT5197: Statistical data modelling

Four additional units (24 points) chosen from:
- FIT5201: Machine Learning
- FIT5202: Data processing for big data
- FIT5215: Deep learning
- FIT5216: Modelling discrete optimisation problems
- FIT5217: Natural language processing
- FIT5218: Human-centric AI
- FIT5219: Advanced learning and cognitive systems
- FIT5220: Solving discrete optimisation problems
- FIT5221: Intelligent image and video analysis
- FIT5222: Planning and automated reasoning
- FIT5225: Multi agent systems and collective behaviour
- FIT5230: Malicious AI

One elective level five unit (6 points)

Part C: Advanced practice (24 points)
Industry experience
- FIT5120 Industry experience studio project
- FIT5122 Professional practice
- One elective selected from any FIT level five units

Or

Minor thesis research (four units)

ENTRY REQUIREMENTS

Eligibility (in equivalent Australian qualification terms)

Entry level 1: Part A and B
An Australian bachelor’s degree, not necessarily in IT, with at least a 65% average, or equivalent qualification approved by the faculty.

Entry level 2: Part A only
An Australian bachelor’s degree in a cognate discipline relating to IT, or an engineering or science degree with a substantial IT component including programming and mathematics, with at least a 60% average (for 2023), or equivalent qualification approved by the faculty.

HOW TO APPLY

Domestic students
If you’re an Australian citizen or permanent resident, or a New Zealand citizen, apply at monash.edu/admissions/apply/online.

International students
If you’re an international student, apply at monash.edu/admissions/apply/online or via a Monash agent.

FURTHER INFORMATION

Domestic students
1800 MONASH (666 274)
future@monash.edu

International students
In Australia: 1800 MONASH (666 274)
Outside Australia: +61 3 9903 4788
study@monash.edu

WeChat: MonashUniAus
Youku: Monash 蒙纳士大学

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