

# MASTER OF ARTIFICIAL INTELLIGENCE

**Effective from:** 2022

**Approved Abbreviation:** MArtifIntel

**Western Sydney University Program Code:** 3765

**AQF Level:** 9

**CRICOS Code:** 0101783

This program applies to students who commenced in 2022 or later.

Students should follow the program structure for the session start date relevant to the year they commenced.

Commencement 2020 - 3765.1 Master of Artificial Intelligence (<https://handbook.westernsydney.edu.au/hbook/course.aspx?course=3765.1>)

The Master of Artificial Intelligence provides students with a broad range of Artificial Intelligence (AI) topics ranging from foundations to state-of-the-art technologies and applications. Students will learn how AI is driving digital disruption, how to work in this dynamic and fast evolving field, and how it is changing every facet of life and society. This course focuses on the most important and up to date AI topics and trends including but not limited to: intelligent agents, machine learning, knowledge representation and reasoning, natural language understanding and processing, AI ethics and governance as well as relevant specialisation areas in computing and data sciences.

## Early Exits

Students may exit this program on completion of 40 credit points with a 3767 Graduate Certificate in Artificial Intelligence (exit only) (<https://hbook.westernsydney.edu.au/programs/graduate-certificate-artificial-intelligence-exit-only/>) or on completion of 80 credit points with a 3766 Graduate Diploma in Artificial Intelligence (exit only) (<https://hbook.westernsydney.edu.au/programs/graduate-diploma-artificial-intelligence-exit-only/>)

## Study Mode

Two years full-time or four years part-time.

## Program Advice

Professor Yan Zhang ([Yan.Zhang@westernsydney.edu.au](mailto:Yan.Zhang@westernsydney.edu.au))

Prospective students should visit the following websites for general enquiries about this program.

Enquire about this program (<https://enquiry.westernsydney.edu.au/courseenquiry/>) | Local Admission (<https://www.westernsydney.edu.au/future/>) | International Admission (<https://www.westernsydney.edu.au/international/home/apply/admissions/>) |

## Location

Campus	Attendance	Mode	Advice
Parramatta Campus - Victoria Road	Full Time	Internal	See above
Parramatta Campus - Victoria Road	Part Time	Internal	See above

## Accreditation

Accreditation of the Master of Artificial Intelligence will be sought from the Australian Computer Society in 2022 to coincide with the

completion of the degree by the first cohort of graduates. The program is designed to meet the guidelines of the Australian Computer Society.

## Work Integrated Learning

Western Sydney University seeks to enhance student learning experiences by enabling students to engage in the culture, expectations and practices of their profession or discipline. This program includes a placement or other community-based unpaid practical experience.

There is a mandatory work component required for completion of this program. Please contact the Program Advisor listed above for information.

International students should also refer to the link below for more information and a link to the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS).

Work Integrated Learning (WIL) for international students ([https://www.westernsydney.edu.au/currentstudents/current\\_students/services\\_and\\_facilities/international\\_student\\_support/working\\_in\\_australia/work\\_integrated\\_learning/](https://www.westernsydney.edu.au/currentstudents/current_students/services_and_facilities/international_student_support/working_in_australia/work_integrated_learning/))

## Admission

Minimum admission requirements to this course are:

- Undergraduate degree in Information Technology, Information Systems or Computer Science or equivalent. Degrees in other disciplines containing at least 8 units in Information Technology or other relevant disciplines such as data science, engineering, communications technology, may also be eligible.
- Undergraduate degree in any discipline AND at least one year full time equivalent work experience in Information Technology, Information Systems or Computer Science or other relevant work experience OR
- Graduate Certificate in Information Technology Information Systems or Computer Science or equivalent OR
- Graduate Diploma in any discipline AND at least two years full time equivalent in Information Technology, Information Systems or Computer Science or other relevant work experience

## Additional Information

Applications from Australian and New Zealand citizens and holders of permanent resident visas may be made via the Universities Admissions Centre (UAC) or directly through the Western Portal. Use the links below to apply via UAC or Western Sydney University. Applications made directly to Western Sydney do not have an application fee.

<http://www.uac.edu.au/>  
<https://westernsydney.uac.edu.au/ws/>

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to the University should also use the information provided on the UAC website.

<http://www.uac.edu.au/>

All other International applicants must apply directly to the University via the International Office.

International students applying to the University through the International Office can find details of minimum English proficiency requirements and acceptable proof on their website.

International Office (<http://www.westernsydney.edu.au/international/>)

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and Western Sydney University.

## Program Structure

Students must complete twelve 10 credit point core subjects (total of 120 credit points).

Subject	Title	Credit Points
INFO 7002	Advanced Topics in Artificial Intelligence	10
INFO 7015	Applied Cybersecurity	10
COMP 7019	Applied Machine Learning	10
COMP 7020	Artificial Intelligence Ethics and Organisations	10
COMP 7003	Big Data	10
COMP 7007	Information Security Management	10
COMP 7021	Knowledge Representation and Reasoning	10
COMP 7022	Natural Language Understanding	10
COMP 7013	Network Technologies	10
INFO 7016	Postgraduate Project A	10
INFO 7017	Postgraduate Project B	10
COMP 7016	Visualisation	10

### Additional Requirement

Subject	Title	Credit Points
INFO 7004	ICT Practicum	0

Students must also choose between a program-specific testamur major, or complete 40 credit points of subjects selected from any major for a generic award (total 40 credit points).

Cybersecurity, Testamur Major (<https://hbook.westernsydney.edu.au/majors-minors/cybersecurity-pg-testamur-major/>)

Data Analytics, Testamur Major (<https://hbook.westernsydney.edu.au/majors-minors/data-analytics-pg-testamur-major/>)

Digital Futures, Testamur Major (<https://hbook.westernsydney.edu.au/majors-minors/digital-futures-pg-testamur-major/>)

Networking, Testamur Major (<https://hbook.westernsydney.edu.au/majors-minors/networking-pg-testamur-major/>)

Web and Mobile Computing, Testamur Major (<https://hbook.westernsydney.edu.au/majors-minors/web-mobile-computing-pg-testamur-major/>)

## Recommended Sequence

Qualification for this award requires the successful completion of 160 credit points which include the subjects listed in the recommended sequence below.

### Autumn Intake

Course	Title	Credit Points
<b>Year 1</b>		
<b>Autumn session</b>		
COMP 7016	Visualisation	10
COMP 7022	Natural Language Understanding	10
COMP 7019	Applied Machine Learning	10
COMP 7003	Big Data	10

At this point, students can exit with a Graduate Certificate in Artificial Intelligence

		Credit Points	40
<b>Spring session</b>			
COMP 7013	Network Technologies	10	
INFO 7002	Advanced Topics in Artificial Intelligence	10	
COMP 7020	Artificial Intelligence Ethics and Organisations	10	
Select one subject from your Major or one Alternate subject from any specialisation for a generic award.		10	

At this point, students can exit with a Graduate Diploma in Artificial Intelligence

		Credit Points	40
<b>Year 2</b>			
<b>Autumn session</b>			
COMP 7007	Information Security Management	10	
INFO 7016	Postgraduate Project A	10	
Select two subjects from your Major or two Alternate subjects from any specialisation for a generic award.		20	

		Credit Points	40
<b>Spring session</b>			
COMP 7021	Knowledge Representation and Reasoning	10	
INFO 7015	Applied Cybersecurity	10	
INFO 7017	Postgraduate Project B	10	
Select one subject from your Major or one Alternate subject from any specialisation for a generic award.		10	

		Credit Points	40
		<b>Total Credit Points</b>	<b>160</b>

### Additional Requirement

Subject	Title	Credit Points
INFO 7004	ICT Practicum	0

## Spring Intake

Course	Title	Credit Points
<b>Year 1</b>		
<b>Spring session</b>		
COMP 7013	Network Technologies	10
INFO 7002	Advanced Topics in Artificial Intelligence	10
COMP 7020	Artificial Intelligence Ethics and Organisations	10

Select one subject from your Major or one Alternate subject from any specialisation for a generic award.

At this point, students can exit with a Graduate Diploma in Artificial Intelligence

		Credit Points	40
<b>Autumn session</b>			
COMP 7016	Visualisation	10	
COMP 7022	Natural Language Understanding	10	
COMP 7019	Applied Machine Learning	10	
COMP 7003	Big Data	10	
At this point, students can exit with a Graduate Certificate in Artificial Intelligence			
		<b>Credit Points</b>	<b>40</b>

**Year 2****Spring session**

COMP 7021	Knowledge Representation and Reasoning	10
INFO 7015	Applied Cybersecurity	10
INFO 7016	Postgraduate Project A	10
Select one subject from your Major or one Alternate subject from any specialisation for a generic award.		10

<b>Credit Points</b>	<b>40</b>
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**Autumn session**

COMP 7007	Information Security Management	10
INFO 7017	Postgraduate Project B	10
Select two subjects from your Major or two Alternate subjects from any specialisation for a generic award.		20

<b>Credit Points</b>	<b>40</b>
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<b>Total Credit Points</b>	<b>160</b>
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**Additional Requirement**

Subject	Title	Credit Points
INFO 7004	ICT Practicum	0

**Alternate Subjects for Generic Award**

Subject	Title	Credit Points
INFO 7014	Advanced Topics in Cybersecurity	10
COMP 7002	Advanced Topics in Networking	10
INFO 7003	Advanced Topics in User System Interaction	10
COMP 7004	Cloud Computing	10
INFO 7018	Cloud Systems Development	10
HUMN 7012	Cyber Justice (PG)	10
COMP 7006	Data Science	10
COMM 7003	Foundations of Media Arts Production (PG)	10
CULT 7004	Global Digital Futures	10
COMP 7008	Internet of Things	10
COMP 7009	Mobile Computing	10
COMM 7009	Mobile Media	10
COMP 7011	Multimedia Communication Systems	10
COMP 7024	Programming for Data Science	10
COMM 7011	Researching Convergent Media	10
COMP 7025	Social Media Intelligence	10
INFS 7006	Software Testing and Automation	10
INFS 7008	Systems and Network Security	10
MATH 7016	The Nature of Data	10
COMP 7017	Wireless Networking	10
INFO 7013	Web Engineering	10

**Equivalent Subjects**

The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.

MATH 7011 Predictive Analytics, replaced by COMP 7023 Predictive Analytics

**Specialisations**

Cybersecurity, Testamur Major (<https://hbook.westernsydney.edu.au/majors-minors/cybersecurity-pg-testamur-major/>)

Data Analytics, Testamur Major (<https://hbook.westernsydney.edu.au/majors-minors/data-analytics-pg-testamur-major/>)

Digital Futures, Testamur Major (<https://hbook.westernsydney.edu.au/majors-minors/digital-futures-pg-testamur-major/>)

Networking, Testamur Major (<https://hbook.westernsydney.edu.au/majors-minors/networking-pg-testamur-major/>)

Web and Mobile Computing, Testamur Major (<https://hbook.westernsydney.edu.au/majors-minors/web-mobile-computing-pg-testamur-major/>)

**Exit Awards**

Students may exit with the 3766 - Graduate Diploma in Artificial Intelligence (80 credit points) or 3767 - Graduate Certificate in Artificial Intelligence (40 credit points) on completion of the relevant subjects as specified in the program structure. Please refer to the links below for details.

Graduate Diploma in Artificial Intelligence (<https://hbook.westernsydney.edu.au/programs/graduate-diploma-artificial-intelligence-exit-only/>)

Graduate Certificate in Artificial Intelligence (<https://hbook.westernsydney.edu.au/programs/graduate-certificate-artificial-intelligence-exit-only/>)

**Replaced Subjects**

The subjects listed below count towards completion of this program for students who passed these subjects in 2020 or earlier.

**Core subjects**

ENGR 7014 Master Project 1, no longer offered as part of this program  
ENGR 7015 Master Project 2, no longer offered as part of this program