

MASTER OF INFORMATION AND COMMUNICATIONS TECHNOLOGY (RESEARCH) (8112)

Western Sydney University Program Code: 8112

AQF Level: 9

CRICOS Code: 092789G

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

The Master of Information and Communications Technology (Research) program exposes students to advanced topics and research in ICT. This program is comprised of a coursework component that is followed by a yearlong full-time-equivalent supervised research training subject. Students will graduate from this program with research skills appropriate to the ICT discipline, by engaging in research projects within the university or in collaboration with an external organisation, and have an option to pursue a pathway to Higher Degree Research studies.

Study Mode

Two and a half years full-time.

Location

Campus	Attendance	Mode	Advice
Parramatta Campus	Full time	Internal	

Accreditation

The Master of Information and Communications Technology (Research) is accredited at Professional Level by the Australian Computer Society

Admission 2018 - 2022

To be eligible for admission, you must have successfully completed

- A Bachelor degree, Bachelor Honours degree or a Masters degree in any discipline.

To be eligible for up to 40 credit points of advanced standing, you must have successfully completed

- An undergraduate degree in Information and Communication Technologies (ICT), Computing or Information Systems; or
- An undergraduate degree in any discipline and a Graduate Certificate or Graduate Diploma in Information and Communication Technologies (ICT).

Advanced standing from foundation units are subject to approval by the relevant Director of Academic Programs (DAP).

Applicants seeking admission on the basis of work experience MUST support their application with a Statement of Service for all work experience listed on the application.

Statement of Service ([https://hbook.westernsydney.edu.au/file//ad.uws.edu.au/dfshare/HomesK-W\\$/30042629/Downloads/Statement_of_Service%20\(1\).PDF](https://hbook.westernsydney.edu.au/file//ad.uws.edu.au/dfshare/HomesK-W$/30042629/Downloads/Statement_of_Service%20(1).PDF))

Admission 2023

To be eligible for admission, you must have successfully completed

- A Bachelor degree, Bachelor Honours degree or a Master degree in any discipline;
- Achievement of a threshold Admission Average Mark (AAM) equal to or above the minimum of 65;
- Applicants who do not meet the AAM equal to or above the minimum of 65 will be considered in exceptional circumstances, and applicants whose most recent qualification is 5+ years old shall provide additional evidence of relevant work experience or professional training, or evidence of seniority and standing in an area of endeavour and provide written support from the potential supervisor. Examples of evidence may include; work as a research assistant or laboratory technician, the writing of policy, consultancy involving the writing of reports, production of creative output, and publication of peer reviewed journal articles. Applications will be reviewed and approved by the relevant Director and the Dean of the School of Computer, Data and Mathematical Sciences.

To be eligible for up to 40 credit points of advanced standing, you must have successfully completed

- An undergraduate degree in Information and Communication Technologies (ICT), Computing or Information Systems; or
- An undergraduate degree in any discipline and a Graduate Certificate or Graduate Diploma in Information and Communication Technologies (ICT).

Advanced standing from foundation units are subject to approval by the relevant Director of Academic Programs (DAP).

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How to apply

Please use the link below for details on the application process.

Application Process - Master of Information and Communications Technology (Research) (<https://www.westernsydney.edu.au/future/study/how-to-apply/higher-degree-research-candidates/How-to-apply-for-the-Master-of-Information-and-Communications-Technology.html>)

Sequence Current

This sequence applies to students who commenced in 2023 or later. If you commenced prior to 2023 please refer to the Sequence 2018 - 2022 tab for details.

Qualification for this award requires the successful completion of 200 credit points as per the recommended sequence below.

Start-year intake

Course	Title	Credit Points
Year 1		
Autumn session		
INFS 7007	Systems Analysis and Database Management Systems	10
COMP 7015	Programming Proficiency	10
ENGR 7017	Professional Practice and Communication	10

COMP 7013	Network Technologies	10	Select one Alternate Subject	10
	Credit Points	40	Credit Points	30
2H session			Year 2	
HUMN 4001	Researcher Development 1: Reading ,Writing, and the Business of Research	10	HUMN 4002	Researcher Development 2: Proposing and Justifying Research
	Credit Points	10		Credit Points
Spring session			Spring session	
INFO 6001	IT Project Management	10	INFO 7005	IT Project Management
INFO 7015	Applied Cybersecurity	10	COMP 7003	Big Data
Select one Alternate Subject		10	INFO 7015	Applied Cybersecurity
	Credit Points	30		Credit Points
Year 2			1H session	
1H session			INFO 9002	Higher Degree Research Thesis - Information Technology
HUMN 4002	Researcher Development 2: Proposing and Justifying Research	10	Please note INFO 9002 is a year-long subject	
	Credit Points	10		Credit Points
Autumn session				40
COMP 7003	Big Data	10		
INFS 7003	Advanced Topics in ICT	10		
INFO 7003	Advanced Topics in User System Interaction	10		
	Credit Points	30		
2H session			1H session	
INFO 9002	Higher Degree Research Thesis - Information Technology	40	INFO 9002	Higher Degree Research Thesis - Information Technology
Please note INFO 9002 is a year-long subject			Please note INFO 9002 is a year-long subject	
	Credit Points	40		Credit Points
				40
			Total Credit Points	200
Mid-year intake			Alternate Subjects	
Course	Title	Credit Points	Subject	Title
Year 1				Credit Points
Spring session				
INFS 7007	Systems Analysis and Database Management Systems	10	COMP 7018	Advanced Cloud Computing
COMP 7015	Programming Proficiency	10	PUBH 7001	Advanced Health Classifications and Coding
ENGR 7017	Professional Practice and Communication	10	INFS 7001	Advanced Healthcare Data Environments
COMP 7013	Network Technologies	10	INFS 7002	Advanced Healthcare Software and Systems
	Credit Points	40	INFO 7001	Advanced Machine Learning
			INFO 7002	Advanced Topics in Artificial Intelligence
			INFO 7014	Advanced Topics in Cybersecurity
1H session			COMP 7002	Advanced Topics in Networking
HUMN 4001	Researcher Development 1: Reading ,Writing, and the Business of Research	10	COMP 7019	Applied Machine Learning
	Credit Points	10	COMP 7020	Artificial Intelligence Ethics and Organisations
Autumn session			INFO 7018	Cloud Systems Development
INFO 7003	Advanced Topics in User System Interaction	10	INFS 7004	Content Management Systems and Web Analytics
INFS 7003	Advanced Topics in ICT	10	COMP 7006	Data Science

INFS 7006	Software Testing and Automation	10	Year 3	
INFS 7008	Systems and Network Security	10	Research Quarter 1 & 2 sessions	
MATH 7016	The Nature of Data	10	Please note INFO 9002 is a year-long subject studied in	40
COMP 7016	Visualisation	10	Research Quarters, 20cp per Quarter	
INFO 7013	Web Engineering	10	INFO 9002	Higher Degree Research Thesis - Information Technology
INFS 7009	Web Technologies	10		
COMP 7017	Wireless Networking	10		
INFO 7016	Postgraduate Project A	10	Credit Points	40
INFO 7017	Postgraduate Project B	10		
HUMN 4003	Writing Beyond the Academy: Knowledge Translation and Public Audience Communication	10	Total Credit Points	200
HUMN 4001	Researcher Development 1: Reading ,Writing, and the Business of Research	10		

Recommended Sequence 2018 - 2022

If you commenced in 2023 or later please refer to the Sequence 2023 tab for details.

Qualification for this award requires the successful completion of 200 credit points as per the recommended sequence below.

Full-time start-year intake

Course	Title	Credit Points		
Year 1				
Autumn session				
INFS 7007	Systems Analysis and Database Management Systems	10		
COMP 7015	Programming Proficiency	10		
INFO 7003	Advanced Topics in User System Interaction	10		
ENGR 7017	Professional Practice and Communication	10		
	Credit Points	40		
2H session				
HUMN 4001	Researcher Development 1: Reading ,Writing, and the Business of Research	10		
	Credit Points	10		
Spring session				
COMP 7013	Network Technologies	10		
INFO 7005	IT Project Management	10		
Select one Alternate subject from List 1, List 2 or List 3		10		
	Credit Points	30		
Year 2				
2H session				
HUMN 4002	Researcher Development 2: Proposing and Justifying Research	10		
	Credit Points	10		
Spring session				
INFO 7005	IT Project Management	10		
COMP 7003	Big Data	10		
Select one Alternate subject from List 1, List 2 or List 3		10		
	Credit Points	30		
Research Quarter 1 & 2 sessions				
Please note INFO 9002 is a year-long subject studied in Research Quarters, 20cp per Quarter				
			INFO 9002	Higher Degree Research Thesis - Information Technology
				Credit Points
HUMN 4002	Researcher Development 2: Proposing and Justifying Research	10		70
	Credit Points	10		
Autumn session				
COMP 7003	Big Data	10		
INFS 7003	Advanced Topics in ICT	10		
Select one Alternate subject from List 1, List 2 or List 3		10		
	Credit Points	30		
Research Quarter 3 & 4 sessions				
Please note INFO 9002 is a year-long subject studied in Research Quarters, 20cp per Quarter				
			INFO 9002	Higher Degree Research Thesis - Information Technology
				Credit Points
INFO 9002	Higher Degree Research Thesis - Information Technology	40		40
	Credit Points	70		
				Total Credit Points
				200

List 1 - Foundation Subjects

Subject	Title	Credit Points
INFO 7003	Advanced Topics in User System Interaction	10
INFS 7004	Content Management Systems and Web Analytics	10
INFO 7005	IT Project Management	10
COMP 7013	Network Technologies	10
COMP 7015	Programming Proficiency	10
INFS 7007	Systems Analysis and Database Management Systems	10
INFS 7008	Systems and Network Security	10
INFS 7009	Web Technologies	10

List 3 - Multidisciplinary Subjects

Subject	Title	Credit Points
BUSM 7018	Contemporary People Management	10
ECON 7001	Economics	10
ACCT 7015	Information for Decision Making	10
BUSM 7040	Governance, Ethics and Social Entrepreneurship	10
BEHV 7036	Research Internship and Engagement	10
BUSM 7086	Strategic Business Management	10
BUSM 7094	The Contemporary Business Environment	10
BUSM 7099	Understanding Contemporary Organisations	10
HUMN 4003	Writing Beyond the Academy: Knowledge Translation and Public Audience Communication	10

List 2 - Specialised Subjects

Subject	Title	Credit Points
COMP 7018	Advanced Cloud Computing	10
PUBH 7001	Advanced Health Classifications and Coding	10
INFS 7001	Advanced Healthcare Data Environments	10
INFS 7002	Advanced Healthcare Software and Systems	10
INFO 7001	Advanced Machine Learning	10
MECH 7004	Advanced Mobile Robotics	10
MECH 7005	Advanced Robotics	10
INFO 7002	Advanced Topics in Artificial Intelligence	10
INFS 7003	Advanced Topics in ICT	10
COMP 7002	Advanced Topics in Networking	10
COMP 7019	Applied Machine Learning	10
COMP 7020	Artificial Intelligence Ethics and Organisations	10
COMP 7003	Big Data	10
COMP 7004	Cloud Computing	10
INFO 7018	Cloud Systems Development	10
COMP 7006	Data Science	10
COMP 7028	Hands-on Quantum Computing	10
COMP 7008	Internet of Things	10
COMP 7021	Knowledge Representation and Reasoning	10
COMP 7009	Mobile Computing	10
COMP 7011	Multimedia Communication Systems	10
COMP 7022	Natural Language Processing	10
COMP 7012	Network Management	10
MATH 7011	Predictive Analytics	10
MATH 7017	Probabilistic Graphical Models	10
MATH 7012	Programming for Data Science	10
MATH 7014	Social Media Intelligence	10
INFS 7006	Software Testing and Automation	10
MATH 7016	The Nature of Data	10
COMP 7016	Visualisation	10
INFO 7013	Web Engineering	10
COMP 7017	Wireless Networking	10

Replaced Subjects

The core subjects listed below count towards completion of this program for students who passed these subjects in 2019 or earlier.

HUMN 4009 Research Design 1: Theories of Enquiry

HUMN 4010 Research Design 2: Practices of Research

Replaced Subjects

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

MATH 7007 Genomic Data Science

INFO 7008 Software Architectures