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.aufile:// 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).

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.aufile:// ad.uws.edu.au/dfshare/HomesK-W$/30042629/Downloads/ Statement_of_Service%20(1).PDF)

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)

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
1H session

HUMN 4002	Researcher Development 2: Proposing and Justifying Research	10
	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

Research Quarter 3 & 4 sessions

Please note INFO 9002 is a year-long subject studied in Research Quarters, 20cp per Quarter		40
INFO 9002	Higher Degree Research Thesis - Information Technology	
	Credit Points	**70**

Year 3
Research Quarter 1 & 2 sessions

Please note INFO 9002 is a year-long subject studied in Research Quarters, 20cp per Quarter		40
INFO 9002	Higher Degree Research Thesis - Information Technology	
	Credit Points	**40**
	Total Credit Points	**200**

Full-time mid-year intake

Course	Title	Credit Points
Year 1		
Spring 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
	Credit Points	**40**
1H session		
HUMN 4001	Researcher Development 1: Reading ,Writing, and the Business of Research	10
	Credit Points	**10**
Autumn session		
INFO 7003	Advanced Topics in User System Interaction	10
INFS 7003	Advanced Topics in ICT	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

Research Quarter 1 & 2 sessions

Please note INFO 9002 is a year-long subject studied in Research Quarters, 20cp per Quarter		40
INFO 9002	Higher Degree Research Thesis - Information Technology	
	Credit Points	**70**

Year 3
Research Quarter 3 & 4 sessions

Please note INFO 9002 is a year-long subject studied in Research Quarters, 20cp per Quarter		40
INFO 9002	Higher Degree Research Thesis - Information Technology	
	Credit Points	**40**
	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 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 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 Understanding	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 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

List 3 - Multidisciplinary Subjects

Subject	Title	Credit Points
BUSM 7018	Contemporary People Management	10
ECON 7001	Economics	10
ACCT 7015	Financial Reports 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

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

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
	Credit Points	**40**
2H session		
HUMN 4001	Researcher Development 1: Reading ,Writing, and the Business of Research	10
	Credit Points	**10**
Spring session		
INFO 6001	IT Project Management	10
INFO 7015	Applied Cybersecurity	10
Select one Alternate Subject		10
	Credit Points	**30**
Year 2		
1H session		
HUMN 4002	Researcher Development 2: Proposing and Justifying Research	10
	Credit Points	**10**
Autumn session		
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		
INFO 9002	Higher Degree Research Thesis - Information Technology	40
Please note INFO 9002 is a year-long subject		
	Credit Points	**40**
Year 3		
1H session		
INFO 9002	Higher Degree Research Thesis - Information Technology	40
Please note INFO 9002 is a year-long subject		
	Credit Points	**40**
	Total Credit Points	**200**

Mid-year intake

Course	Title	Credit Points
Year 1		
Spring 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
	Credit Points	**40**
1H session		
HUMN 4001	Researcher Development 1: Reading ,Writing, and the Business of Research	10
	Credit Points	**10**
Autumn session		
INFO 7003	Advanced Topics in User System Interaction	10
INFS 7003	Advanced Topics in ICT	10

Select one Alternate Subject		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
INFO 7015	Applied Cybersecurity	10
	Credit Points	**30**
1H session		
INFO 9002	Higher Degree Research Thesis - Information Technology	40
Please note INFO 9002 is a year-long subject		
	Credit Points	**40**
Year 3		
2H session		
INFO 9002	Higher Degree Research Thesis - Information Technology	40
Please note INFO 9002 is a year-long subject		
	Credit Points	**40**
	Total Credit Points	**200**

COMP 7016	Visualisation	10
INFO 7013	Web Engineering	10
INFS 7009	Web Technologies	10
COMP 7017	Wireless Networking	10
INFO 7016	Postgraduate Project A	10
INFO 7017	Postgraduate Project B	10
HUMN 4003	Writing Beyond the Academy: Knowledge Translation and Public Audience Communication	10
HUMN 4001	Researcher Development 1: Reading ,Writing, and the Business of Research	10

Alternate 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
INFO 7002	Advanced Topics in Artificial Intelligence	10
INFO 7014	Advanced Topics in Cybersecurity	10
COMP 7002	Advanced Topics in Networking	10
COMP 7019	Applied Machine Learning	10
COMP 7020	Artificial Intelligence Ethics and Organisations	10
INFO 7018	Cloud Systems Development	10
INFS 7004	Content Management Systems and Web Analytics	10
COMP 7006	Data Science	10
COMP 7007	Information Security Management	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 Understanding	10
COMP 7012	Network Management	10
COMP 7023	Predictive Analytics	10
COMP 7024	Programming for Data Science	10
MATH 7017	Probabilistic Graphical Models	10
NATS 7057	Research Preparation in Post Graduate Studies	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