

# Master of Information Technology and Systems

## (973AA.5)

Please note these are the 2021 details for this course

### Domestic students

Selection rank	PG
Delivery mode	On campus
Location	Bruce, Canberra
Duration	2.0 years
Faculty	Faculty of Science and Technology
Discipline	Academic Program Area - Technology
UAC code	880267

**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](#).

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[View UC's academic entry requirements](#)

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<b>Delivery mode</b>	On campus
<b>Location</b>	Bruce, Canberra
<b>Duration</b>	2.0 years
<b>Faculty</b>	Faculty of Science and Technology
<b>Discipline</b>	Academic Program Area - Technology
<b>CRICOS code</b>	064327C
<b>English language requirements</b>	An IELTS Academic score of 6.5 overall, with no band score below 6.0 (or equivalent). <a href="#">View IELTS equivalences</a>

# About this course

## Shape your career in IT with the help of UC

If you're considering a move into a career in ICT but concerned that your lack of knowledge and experience in this field will hinder your career prospects, relax - this course has everything you need to forge a successful career in IT – fast!

No matter what your background, this course has been designed around those with no formal study or employment background in IT. In this course you will get to explore the key areas of the 'Skills Framework for the Information Age' and gain a comprehensive and thorough understanding of software technology and engineering practice.

Highly flexible, this course also covers the fine details of database design and engineering management and offers a variety of delivery modes to help you balance your study with other commitments, including weekday classes during business hours and in the evenings.

As part of UC's commitment to Work Integrated Learning (WIL), you will also get the opportunity to undertake an internship within a professional organisation, which will help you gain necessary practical skills and improve your chances of securing your ideal IT job.

This course offers the chance to specialise in either Artificial Intelligence and Machine Learning, Cloud Computing, Cybersecurity, Data Science, IoT & Robotics Network Technologies and Project Management.

## Study a Master of Information Technology and Systems at UC and you will:

- gain an introduction to software technology and engineering practice
- be brought up to speed with the latest industry processes and strategies
- learn about security, support and operating a quality, professional IT practice
- be able to choose from a range of cutting edge specialisations
- study information technology and systems in the workplace
- cover key contemporary IT issues
- gain exposure to top level industry contacts
- possess the skills to confidently pursue a career in IT
- gain a globally recognised qualification.

## Work Integrated Learning (WIL)

WIL is an integral component of the UC Master of Information and Technology course as it offers students the opportunity to gain valuable hands-on experience and build professional relationships through real work, or work-like placements.

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

The UC Master of Information Technology and systems is a globally recognised and industry respected qualification that is designed to help you secure a career in any of the following areas:

- Chief Technology Officer
- Network manager
- Cybersecurity specialist
- Programmer
- Web and mobile developer
- Business and systems analyst.

## Course-specific information

Applicants need to have completed an Australian bachelor's degree in any field or equivalent, be fluent in the use of a desktop computer, and have excellent English spoken and written communication skills. No previous IT knowledge is assumed.

This course is fully accredited by the Australian Computer Society, at the Professional level.

A clear pathway of study exists between this degree, the Graduate Certificate in Information Technology and the Graduate Diploma in Information Technology

## Professional accreditation

This course has full accreditation by the professional body, the Australian Computer Society, at the Professional level.

# Admission requirements

An Australian bachelor degree in any field or equivalent.

## Assumed knowledge

Proficiency in using computers.

## Periods course is open for new admissions

This course is not open for new admissions.

## 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 Information Technology and Systems (973AA) | 48 credit points

### Restricted Choice - 27 credit points as follows

[Expand All](#) | [Collapse All](#)

#### Part A - Must pass 3 credit points from the following

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

Technology and Engineering Management PG (9784) | 3 credit points – Level P

#### Part B - Must select 1 of the following

#### No Specialisation - 24 credit points as follows

#### G Level Units - May do up to 9 credit points from the following

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

Database Design G (6672) | 3 credit points – Level G

Designing Human-Computer Interaction G (6673) | 3 credit points – Level G

Systems Analysis and Modelling G (6677) | 3 credit points – Level G

Security and Support in IT G (6689) | 3 credit points – Level G

Web Design and Programming G (6691) | 3 credit points – Level G

Discrete Mathematics G (6699) | 3 credit points – Level G

Software Systems Architecture G (8746) | 3 credit points – Level G

Systems Software G (8935) | 3 credit points — Level G

Introduction to Information Technology G (8936) | 3 credit points — Level G

Mathematical Structures G (8938) | 3 credit points — Level G

Software Technology 1 G (8995) | 3 credit points — Level G

Software Technology 2 G (9073) | 3 credit points — Level G

Introduction to Digital Forensics G (9075) | 3 credit points — Level G

Mobile Technologies G (9076) | 3 credit points — Level G

Management Information Systems G (9503) | 3 credit points — Level G

Introduction to Network Engineering G (10088) | 3 credit points — Level G

Electronics Systems G (10091) | 3 credit points — Level G

Introduction to Data Science G (11516) | 3 credit points — Level G

Exploratory Data Analysis and Visualisation G (11517) | 3 credit points — Level G

Enterprise Systems G (11518) | 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

Foundations of Robotics G (11528) | 3 credit points — Level G

Workflow and Process Management G (11529) | 3 credit points — Level G

- 1. G Level units should be chosen to satisfy prerequisite requirements of the PG Level units in the desired specialisation.
- 2. Students must not select G Level units that are similar to any they have studied in their pathway courses.
- 3. With the permission of the Program Director, G Level units may be replaced by PG Level units.

## **PG Level Units - Must do at least 15 credit points from the following**

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

Information Security PG (6682) | 3 credit points — Level P

Knowledge Management Systems PG (6688) | 3 credit points — Level P

High Speed Networks PG (6692) | 3 credit points — Level P

Client-Server Computing PG (6693) | 3 credit points — Level P

Computer and Network Security PG (6697) | 3 credit points — Level P

Business Informatics Case Studies PG (7106) | 3 credit points — Level P

Graphics Visualisation Techniques PG (7108) | 3 credit points — Level P

Information Systems Management PG (7109) | 3 credit points — Level P

Game Programming Techniques PG (7191) | 3 credit points — Level P

Social Informatics PG (7196) | 3 credit points – Level P

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

Information Sciences Internship PG (7900) | 3 credit points – Level P

Project Management PG (8427) | 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

Programming Natural User Interfaces PG (8891) | 3 credit points – Level P

Network Architecture PG (10099) | 3 credit points – Level P

Wireless Networks PG (10100) | 3 credit points – Level P

Enterprise and Cloud Computing PG (11510) | 3 credit points – Level P

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

Internet of Things PG (11513) | 3 credit points – Level P

System and Network Administration PG (11515) | 3 credit points – Level P

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

Advanced Robotics PG (11525) | 3 credit points – Level P

Advances in Information Sciences and Engineering PG (11526) | 3 credit points – Level P

Cloud Computing Architecture PG (11527) | 3 credit points – Level P

Information Sciences Internship (Extended) PG (11531) | 3 credit points – Level P

- Awards: To have a specialisation on the degree testamur, a student must complete at least 5 PG Level units from that specialisation. Only 1 specialisation can appear on the degree testamur.

- Unit Availability: In any semester, only a selection of units are on offer.

## **Cybersecurity specialisation - 24 credit points as follows**

### **Specialist Units - Must pass at least 18 credit points from the following**

Information Security PG (6682) | 3 credit points – Level P

Security and Support in IT G (6689) | 3 credit points – Level G

Computer and Network Security PG (6697) | 3 credit points – Level P

Introduction to Digital Forensics G (9075) | 3 credit points – Level G

Enterprise and Cloud Computing PG (11510) | 3 credit points – Level P

System and Network Administration PG (11515) | 3 credit points – Level P

Cloud Computing Architecture PG (11527) | 3 credit points – Level P

- Students may not have more than three G Level units for the entire specialisation.

## Restricted Choice Units - May do up to 6 credit points from the following

### G Level Units - May select from

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

Database Design G (6672) | 3 credit points – Level G

Designing Human-Computer Interaction G (6673) | 3 credit points – Level G

Systems Analysis and Modelling G (6677) | 3 credit points – Level G

Web Design and Programming G (6691) | 3 credit points – Level G

Discrete Mathematics G (6699) | 3 credit points – Level G

Software Systems Architecture G (8746) | 3 credit points – Level G

Systems Software G (8935) | 3 credit points – Level G

Introduction to Information Technology G (8936) | 3 credit points – Level G

Mathematical Structures G (8938) | 3 credit points – Level G

Software Technology 1 G (8995) | 3 credit points – Level G

Software Technology 2 G (9073) | 3 credit points – Level G

Introduction to Digital Forensics G (9075) | 3 credit points – Level G

Mobile Technologies G (9076) | 3 credit points – Level G

Management Information Systems G (9503) | 3 credit points – Level G

Introduction to Network Engineering G (10088) | 3 credit points – Level G

Electronics Systems G (10091) | 3 credit points – Level G

Introduction to Data Science G (11516) | 3 credit points – Level G

Exploratory Data Analysis and Visualisation G (11517) | 3 credit points – Level G

Enterprise Systems G (11518) | 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

Foundations of Robotics G (11528) | 3 credit points – Level G

Workflow and Process Management G (11529) | 3 credit points – Level G

- 1. G Level units should be chosen to satisfy prerequisite requirements of the PG Level units in the desired specialisation.
- 2. Students must not select G Level units that are similar to any they have studied in their pathway courses.
- 3. With the permission of the Program Director, G Level units may be replaced by PG Level units.

## **PG Level Units - May select from**

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

Knowledge Management Systems PG (6688) | 3 credit points – Level P

High Speed Networks PG (6692) | 3 credit points – Level P

Client-Server Computing PG (6693) | 3 credit points – Level P

Business Informatics Case Studies PG (7106) | 3 credit points – Level P

Graphics Visualisation Techniques PG (7108) | 3 credit points – Level P

Information Systems Management PG (7109) | 3 credit points – Level P

Game Programming Techniques PG (7191) | 3 credit points – Level P

Social Informatics PG (7196) | 3 credit points – Level P

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

Information Sciences Internship PG (7900) | 3 credit points – Level P

Project Management PG (8427) | 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

Programming Natural User Interfaces PG (8891) | 3 credit points – Level P

Network Architecture PG (10099) | 3 credit points – Level P

Wireless Networks PG (10100) | 3 credit points – Level P

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

Internet of Things PG (11513) | 3 credit points – Level P

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

Advanced Robotics PG (11525) | 3 credit points – Level P

Advances in Information Sciences and Engineering PG (11526) | 3 credit points – Level P

Information Sciences Internship (Extended) PG (11531) | 3 credit points – Level P

## **Data Science specialisation - 24 credit points as follows**

### **Specialist Units - Must do at least 18 credit points from the following**

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

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

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

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

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

- Students may not have more than three G Level units for the entire specialisation.

## **Restricted Choice Units - May do up to 6 credit points from the following**

### **G Level Units - May select from**

Database Design G (6672) | 3 credit points – Level G

Designing Human-Computer Interaction G (6673) | 3 credit points – Level G

Systems Analysis and Modelling G (6677) | 3 credit points – Level G

Security and Support in IT G (6689) | 3 credit points – Level G

Web Design and Programming G (6691) | 3 credit points – Level G

Discrete Mathematics G (6699) | 3 credit points – Level G

Software Systems Architecture G (8746) | 3 credit points – Level G

Systems Software G (8935) | 3 credit points – Level G

Introduction to Information Technology G (8936) | 3 credit points – Level G

Mathematical Structures G (8938) | 3 credit points – Level G

Software Technology 1 G (8995) | 3 credit points – Level G

Software Technology 2 G (9073) | 3 credit points – Level G

Introduction to Digital Forensics G (9075) | 3 credit points – Level G

Mobile Technologies G (9076) | 3 credit points – Level G

Management Information Systems G (9503) | 3 credit points – Level G

Introduction to Network Engineering G (10088) | 3 credit points – Level G

Electronics Systems G (10091) | 3 credit points – Level G

Enterprise Systems G (11518) | 3 credit points – Level G

Foundations of Robotics G (11528) | 3 credit points – Level G

Workflow and Process Management G (11529) | 3 credit points – Level G

- 1. G Level units should be chosen to satisfy prerequisite requirements of the PG Level units in the desired specialisation.

- 2. Students must not select G Level units that are similar to any they have studied in their pathway courses.

- 3. With the permission of the Program Director, G Level units may be replaced by PG Level

units.

## **PG Level Units - May select from**

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

Information Security PG (6682) | 3 credit points — Level P

Knowledge Management Systems PG (6688) | 3 credit points — Level P

High Speed Networks PG (6692) | 3 credit points — Level P

Client-Server Computing PG (6693) | 3 credit points — Level P

Computer and Network Security PG (6697) | 3 credit points — Level P

Business Informatics Case Studies PG (7106) | 3 credit points — Level P

Graphics Visualisation Techniques PG (7108) | 3 credit points — Level P

Information Systems Management PG (7109) | 3 credit points — Level P

Game Programming Techniques PG (7191) | 3 credit points — Level P

Social Informatics PG (7196) | 3 credit points — Level P

Information Sciences Internship PG (7900) | 3 credit points — Level P

Project Management PG (8427) | 3 credit points — Level P

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

Programming Natural User Interfaces PG (8891) | 3 credit points — Level P

Network Architecture PG (10099) | 3 credit points — Level P

Wireless Networks PG (10100) | 3 credit points — Level P

Enterprise and Cloud Computing PG (11510) | 3 credit points — Level P

Internet of Things PG (11513) | 3 credit points — Level P

System and Network Administration PG (11515) | 3 credit points — Level P

Advanced Robotics PG (11525) | 3 credit points — Level P

Advances in Information Sciences and Engineering PG (11526) | 3 credit points — Level P

Cloud Computing Architecture PG (11527) | 3 credit points — Level P

Information Sciences Internship (Extended) PG (11531) | 3 credit points — Level P

## **Network Technologies specialisation - 24 credit points as follows**

### **Specialist Units - Must pass at least 18 credit points from the following**

Security and Support in IT G (6689) | 3 credit points — Level G

Web Design and Programming G (6691) | 3 credit points — Level G

High Speed Networks PG (6692) | 3 credit points – Level P

Client-Server Computing PG (6693) | 3 credit points – Level P

Computer and Network Security PG (6697) | 3 credit points – Level P

Mobile Technologies G (9076) | 3 credit points – Level G

Introduction to Network Engineering G (10088) | 3 credit points – Level G

Network Architecture PG (10099) | 3 credit points – Level P

Wireless Networks PG (10100) | 3 credit points – Level P

- Students may not have more than three G Level units for the entire specialisation.

## **Restricted Choice Units - May do up to 6 credit points from the following**

### **G Level Units - May select from**

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

Database Design G (6672) | 3 credit points – Level G

Designing Human-Computer Interaction G (6673) | 3 credit points – Level G

Systems Analysis and Modelling G (6677) | 3 credit points – Level G

Discrete Mathematics G (6699) | 3 credit points – Level G

Software Systems Architecture G (8746) | 3 credit points – Level G

Systems Software G (8935) | 3 credit points – Level G

Introduction to Information Technology G (8936) | 3 credit points – Level G

Mathematical Structures G (8938) | 3 credit points – Level G

Software Technology 1 G (8995) | 3 credit points – Level G

Software Technology 2 G (9073) | 3 credit points – Level G

Introduction to Digital Forensics G (9075) | 3 credit points – Level G

Management Information Systems G (9503) | 3 credit points – Level G

Electronics Systems G (10091) | 3 credit points – Level G

Introduction to Data Science G (11516) | 3 credit points – Level G

Exploratory Data Analysis and Visualisation G (11517) | 3 credit points – Level G

Enterprise Systems G (11518) | 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

Foundations of Robotics G (11528) | 3 credit points – Level G

Workflow and Process Management G (11529) | 3 credit points – Level G

- 1. G Level units should be chosen to satisfy prerequisite requirements of the PG Level units in the desired specialisation.
- 2. Students must not select G Level units that are similar to any they have studied in their pathway courses.
- 3. With the permission of the Program Director, G Level units may be replaced by PG Level units.

## **PG Level Units - May select from**

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

Information Security PG (6682) | 3 credit points – Level P

Knowledge Management Systems PG (6688) | 3 credit points – Level P

Business Informatics Case Studies PG (7106) | 3 credit points – Level P

Graphics Visualisation Techniques PG (7108) | 3 credit points – Level P

Information Systems Management PG (7109) | 3 credit points – Level P

Game Programming Techniques PG (7191) | 3 credit points – Level P

Social Informatics PG (7196) | 3 credit points – Level P

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

Information Sciences Internship PG (7900) | 3 credit points – Level P

Project Management PG (8427) | 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

Programming Natural User Interfaces PG (8891) | 3 credit points – Level P

Enterprise and Cloud Computing PG (11510) | 3 credit points – Level P

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

Internet of Things PG (11513) | 3 credit points – Level P

System and Network Administration PG (11515) | 3 credit points – Level P

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

Advanced Robotics PG (11525) | 3 credit points – Level P

Advances in Information Sciences and Engineering PG (11526) | 3 credit points – Level P

Cloud Computing Architecture PG (11527) | 3 credit points – Level P

Information Sciences Internship (Extended) PG (11531) | 3 credit points – Level P

**AI & Machine Learning specialisation - 24 credit points as follows**

## **Specialist Units - Must pass at least 18 credit points from the following**

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

Designing Human-Computer Interaction G (6673) | 3 credit points – Level G

Web Design and Programming G (6691) | 3 credit points – Level G

Game Programming Techniques PG (7191) | 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

Programming Natural User Interfaces PG (8891) | 3 credit points – Level P

Mobile Technologies G (9076) | 3 credit points – Level G

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

- Students may not have more than three G Level units for the entire specialisation.

## **Restricted Choice Units - May do up to 6 credit points from the following**

### **G Level Units - May select from**

Database Design G (6672) | 3 credit points – Level G

Systems Analysis and Modelling G (6677) | 3 credit points – Level G

Security and Support in IT G (6689) | 3 credit points – Level G

Web Design and Programming G (6691) | 3 credit points – Level G

Discrete Mathematics G (6699) | 3 credit points – Level G

Software Systems Architecture G (8746) | 3 credit points – Level G

Systems Software G (8935) | 3 credit points – Level G

Introduction to Information Technology G (8936) | 3 credit points – Level G

Mathematical Structures G (8938) | 3 credit points – Level G

Software Technology 1 G (8995) | 3 credit points – Level G

Software Technology 2 G (9073) | 3 credit points – Level G

Management Information Systems G (9503) | 3 credit points – Level G

Introduction to Network Engineering G (10088) | 3 credit points – Level G

Electronics Systems G (10091) | 3 credit points – Level G

Introduction to Data Science G (11516) | 3 credit points – Level G

Exploratory Data Analysis and Visualisation G (11517) | 3 credit points – Level G

Enterprise Systems G (11518) | 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

Foundations of Robotics G (11528) | 3 credit points – Level G

Workflow and Process Management G (11529) | 3 credit points – Level G

- 1. G Level units should be chosen to satisfy prerequisite requirements of the PG Level units in the desired specialisation.
- 2. Students must not select G Level units that are similar to any they have studied in their pathway courses.
- 3. With the permission of the Program Director, G Level units may be replaced by PG Level units.

## **PG Level Units - May select from**

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

Information Security PG (6682) | 3 credit points – Level P

Knowledge Management Systems PG (6688) | 3 credit points – Level P

High Speed Networks PG (6692) | 3 credit points – Level P

Client-Server Computing PG (6693) | 3 credit points – Level P

Computer and Network Security PG (6697) | 3 credit points – Level P

Business Informatics Case Studies PG (7106) | 3 credit points – Level P

Graphics Visualisation Techniques PG (7108) | 3 credit points – Level P

Information Systems Management PG (7109) | 3 credit points – Level P

Social Informatics PG (7196) | 3 credit points – Level P

Information Sciences Internship PG (7900) | 3 credit points – Level P

Project Management PG (8427) | 3 credit points – Level P

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

Network Architecture PG (10099) | 3 credit points – Level P

Wireless Networks PG (10100) | 3 credit points – Level P

Enterprise and Cloud Computing PG (11510) | 3 credit points – Level P

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

Internet of Things PG (11513) | 3 credit points – Level P

System and Network Administration PG (11515) | 3 credit points – Level P

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

Advanced Robotics PG (11525) | 3 credit points – Level P

Advances in Information Sciences and Engineering PG (11526) | 3 credit points – Level P

Cloud Computing Architecture PG (11527) | 3 credit points – Level P

Information Sciences Internship (Extended) PG (11531) | 3 credit points – Level P

## **IoT & Robotics specialisation - 24 credit points as follows**

### **Specialist Units - Must pass at least 18 credit points from the following**

Designing Human-Computer Interaction G (6673) | 3 credit points – Level G

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

Engineering Mathematics G (10090) | 3 credit points – Level G

Enterprise and Cloud Computing PG (11510) | 3 credit points – Level P

Internet of Things PG (11513) | 3 credit points – Level P

Advanced Robotics PG (11525) | 3 credit points – Level P

Foundations of Robotics G (11528) | 3 credit points – Level G

- Students may not have more than three G Level units for the entire specialisation.

### **Restricted Choice Units - May do up to 6 credit points from the following**

#### **G Level Units - May select from**

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

Database Design G (6672) | 3 credit points – Level G

Systems Analysis and Modelling G (6677) | 3 credit points – Level G

Security and Support in IT G (6689) | 3 credit points – Level G

Web Design and Programming G (6691) | 3 credit points – Level G

Discrete Mathematics G (6699) | 3 credit points – Level G

Software Systems Architecture G (8746) | 3 credit points – Level G

Systems Software G (8935) | 3 credit points – Level G

Introduction to Information Technology G (8936) | 3 credit points – Level G

Mathematical Structures G (8938) | 3 credit points – Level G

Software Technology 1 G (8995) | 3 credit points – Level G

Software Technology 2 G (9073) | 3 credit points – Level G

Introduction to Digital Forensics G (9075) | 3 credit points – Level G

Mobile Technologies G (9076) | 3 credit points – Level G

Management Information Systems G (9503) | 3 credit points – Level G

[Introduction to Network Engineering G \(10088\) | 3 credit points – Level G](#)

[Electronics Systems G \(10091\) | 3 credit points – Level G](#)

[Introduction to Data Science G \(11516\) | 3 credit points – Level G](#)

[Exploratory Data Analysis and Visualisation G \(11517\) | 3 credit points – Level G](#)

[Enterprise Systems G \(11518\) | 3 credit points – Level G](#)

[Data Capture and Preparations G \(11520\) | 3 credit points – Level G](#)

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[Workflow and Process Management G \(11529\) | 3 credit points – Level G](#)

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- 2. Students must not select G Level units that are similar to any they have studied in their pathway courses.
- 3. With the permission of the Program Director, G Level units may be replaced by PG Level units.

## **PG Level Units - May select from**

[Business Intelligence Systems PG \(6680\) | 3 credit points – Level P](#)

[Information Security PG \(6682\) | 3 credit points – Level P](#)

[Knowledge Management Systems PG \(6688\) | 3 credit points – Level P](#)

[High Speed Networks PG \(6692\) | 3 credit points – Level P](#)

[Client-Server Computing PG \(6693\) | 3 credit points – Level P](#)

[Computer and Network Security PG \(6697\) | 3 credit points – Level P](#)

[Graphics Visualisation Techniques PG \(7108\) | 3 credit points – Level P](#)

[Information Systems Management PG \(7109\) | 3 credit points – Level P](#)

[Game Programming Techniques PG \(7191\) | 3 credit points – Level P](#)

[Social Informatics PG \(7196\) | 3 credit points – Level P](#)

[Soft Computing PG \(7197\) | 3 credit points – Level P](#)

[Information Sciences Internship PG \(7900\) | 3 credit points – Level P](#)

[Project Management PG \(8427\) | 3 credit points – Level P](#)

[Data Analytics and Business Intelligence PG \(8697\) | 3 credit points – Level P](#)

[Programming Natural User Interfaces PG \(8891\) | 3 credit points – Level P](#)

[Network Architecture PG \(10099\) | 3 credit points – Level P](#)

[Wireless Networks PG \(10100\) | 3 credit points – Level P](#)



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

System and Network Administration PG (11515) | 3 credit points — Level P

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

Advances in Information Sciences and Engineering PG (11526) | 3 credit points — Level P

Cloud Computing Architecture PG (11527) | 3 credit points — Level P

Information Sciences Internship (Extended) PG (11531) | 3 credit points — Level P

## **Cloud Computing specialisation - 24 credit points as follows**

### **Specialist Units - Must pass at least 18 credit points from the following**

Security and Support in IT G (6689) | 3 credit points — Level G

Software Systems Architecture G (8746) | 3 credit points — Level G

Law, Innovation and Technologies PG (11471) | 3 credit points — Level P

Enterprise and Cloud Computing PG (11510) | 3 credit points — Level P

Internet of Things PG (11513) | 3 credit points — Level P

Cloud Computing Architecture PG (11527) | 3 credit points — Level P

- Students may not have more than three G Level units for the entire specialisation.

### **Restricted Choice Units - May do up to 6 credit points from the following**

#### **G Level Units - May select from**

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

Database Design G (6672) | 3 credit points — Level G

Designing Human-Computer Interaction G (6673) | 3 credit points — Level G

Systems Analysis and Modelling G (6677) | 3 credit points — Level G

Discrete Mathematics G (6699) | 3 credit points — Level G

Systems Software G (8935) | 3 credit points — Level G

Introduction to Information Technology G (8936) | 3 credit points — Level G

Mathematical Structures G (8938) | 3 credit points — Level G

Software Technology 1 G (8995) | 3 credit points — Level G

Software Technology 2 G (9073) | 3 credit points — Level G

Introduction to Digital Forensics G (9075) | 3 credit points — Level G

Mobile Technologies G (9076) | 3 credit points — Level G

Management Information Systems G (9503) | 3 credit points – Level G

Introduction to Network Engineering G (10088) | 3 credit points – Level G

Electronics Systems G (10091) | 3 credit points – Level G

Introduction to Data Science G (11516) | 3 credit points – Level G

Exploratory Data Analysis and Visualisation G (11517) | 3 credit points – Level G

Enterprise Systems G (11518) | 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

Foundations of Robotics G (11528) | 3 credit points – Level G

Workflow and Process Management G (11529) | 3 credit points – Level G

- 1. G Level units should be chosen to satisfy prerequisite requirements of the PG Level units in the desired specialisation.
- 2. Students must not select G Level units that are similar to any they have studied in their pathway courses.
- 3. With the permission of the Program Director, G Level units may be replaced by PG Level units.

## **PG Level Units - May select from**

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

Information Security PG (6682) | 3 credit points – Level P

Knowledge Management Systems PG (6688) | 3 credit points – Level P

High Speed Networks PG (6692) | 3 credit points – Level P

Client-Server Computing PG (6693) | 3 credit points – Level P

Computer and Network Security PG (6697) | 3 credit points – Level P

Business Informatics Case Studies PG (7106) | 3 credit points – Level P

Graphics Visualisation Techniques PG (7108) | 3 credit points – Level P

Information Systems Management PG (7109) | 3 credit points – Level P

Game Programming Techniques PG (7191) | 3 credit points – Level P

Social Informatics PG (7196) | 3 credit points – Level P

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

Information Sciences Internship PG (7900) | 3 credit points – Level P

Project Management PG (8427) | 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

Programming Natural User Interfaces PG (8891) | 3 credit points – Level P

Network Architecture PG (10099) | 3 credit points – Level P

Wireless Networks PG (10100) | 3 credit points – Level P

System and Network Administration PG (11515) | 3 credit points – Level P

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

Advanced Robotics PG (11525) | 3 credit points – Level P

Advances in Information Sciences and Engineering PG (11526) | 3 credit points – Level P

Information Sciences Internship (Extended) PG (11531) | 3 credit points – Level P

## **Project Management specialisation - 24 credit points as follows**

### **Specialist Units - Must pass at least 18 credit points from the following**

Systems Analysis and Modelling G (6677) | 3 credit points – Level G

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

Information Security PG (6682) | 3 credit points – Level P

Business Informatics Case Studies PG (7106) | 3 credit points – Level P

Information Systems Management PG (7109) | 3 credit points – Level P

Project Management PG (8427) | 3 credit points – Level P

Enterprise Systems G (11518) | 3 credit points – Level G

Workflow and Process Management G (11529) | 3 credit points – Level G

- Students may not have more than three G Level units for the entire specialisation.

## **Restricted Choice Units - May do up to 6 credit points from the following**

### **G Level Units - May select from**

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

Database Design G (6672) | 3 credit points – Level G

Designing Human-Computer Interaction G (6673) | 3 credit points – Level G

Security and Support in IT G (6689) | 3 credit points – Level G

Web Design and Programming G (6691) | 3 credit points – Level G

Discrete Mathematics G (6699) | 3 credit points – Level G

Software Systems Architecture G (8746) | 3 credit points – Level G

Systems Software G (8935) | 3 credit points – Level G

Introduction to Information Technology G (8936) | 3 credit points – Level G

Mathematical Structures G (8938) | 3 credit points – Level G

Software Technology 1 G (8995) | 3 credit points – Level G

Software Technology 2 G (9073) | 3 credit points – Level G

Introduction to Digital Forensics G (9075) | 3 credit points – Level G

Mobile Technologies G (9076) | 3 credit points – Level G

Management Information Systems G (9503) | 3 credit points – Level G

Introduction to Network Engineering G (10088) | 3 credit points – Level G

Electronics Systems G (10091) | 3 credit points – Level G

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

Foundations of Robotics G (11528) | 3 credit points – Level G

- 1. G Level units should be chosen to satisfy prerequisite requirements of the PG Level units in the desired specialisation.

- 2. Students must not select G Level units that are similar to any they have studied in their pathway courses.

- 3. With the permission of the Program Director, G Level units may be replaced by PG Level units.

## **PG Level Units - May select from**

Knowledge Management Systems PG (6688) | 3 credit points – Level P

High Speed Networks PG (6692) | 3 credit points – Level P

Client-Server Computing PG (6693) | 3 credit points – Level P

Computer and Network Security PG (6697) | 3 credit points – Level P

Business Informatics Case Studies PG (7106) | 3 credit points – Level P

Graphics Visualisation Techniques PG (7108) | 3 credit points – Level P

Game Programming Techniques PG (7191) | 3 credit points – Level P

Social Informatics PG (7196) | 3 credit points – Level P

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

Information Sciences Internship PG (7900) | 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

Programming Natural User Interfaces PG (8891) | 3 credit points – Level P

Network Architecture PG (10099) | 3 credit points – Level P

Wireless Networks PG (10100) | 3 credit points – Level P

Enterprise and Cloud Computing PG (11510) | 3 credit points – Level P

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

Internet of Things PG (11513) | 3 credit points – Level P

System and Network Administration PG (11515) | 3 credit points – Level P

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

Advanced Robotics PG (11525) | 3 credit points – Level P

Advances in Information Sciences and Engineering PG (11526) | 3 credit points – Level P

Cloud Computing Architecture PG (11527) | 3 credit points – Level P

Information Sciences Internship (Extended) PG (11531) | 3 credit points – Level P

### Required - Must pass 21 credit points as follows

Professional Practice in IT G (6676) | 3 credit points – Level G

Inf. Sc. Research Methodology PG (6797) | 3 credit points – Level P

Information Technology for the Workplace G (8520) | 3 credit points – Level G

Contemporary IT & E Issues PG (9787) | 3 credit points – Level P

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

Technological Innovation and Entrepreneurship G (11530) | 3 credit points – Level G

- Students may seek permission from the Program Director to replace one or more Required units with other units by writing a report detailing their previous experience or study.

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**

One Restricted Choice Unit (G Level)

[Information Technology for the Workplace G \(8520\)](#)

[Professional Practice in IT G \(6676\)](#)

[Technological Innovation and Entrepreneurship G \(11530\)](#)

### **Semester 2**

[Inf. Sc. Research Methodology PG \(6797\)](#)

One Restricted Choice Unit (PG or G Level)

One Restricted Choice Unit (G Level)

[Contemporary IT & E Issues PG \(9787\)](#)

## **Year 2**

### **Semester 1**

Three Restricted Choice Units (PG Level)

Systems Project and Quality Management G (6678) OR Technology and Engineering Management PG (9784)

### **Semester 2**

Two Restricted Choice Units (PG Level)

[Technology Capstone Research Project PG \(11522\)](#)

## **Standard Full Time, Semester 1, 2020 Commencing**

## **Year 1**

### **Semester 1**

[Information Technology for the Workplace G \(8520\)](#)

[Professional Practice in IT G \(6676\)](#)

[Technological Innovation and Entrepreneurship G \(11530\)](#)

One Restricted Choice Unit (G Level)

### **Semester 2**

[Inf. Sc. Research Methodology PG \(6797\)](#)

Two Restricted Choice Units (G Level)

One Restricted Choice Unit (PG Level)

## **Year 2**

### **Semester 1**

Systems Project and Quality Management G (6678) OR Technology and Engineering Management PG (9784)

Three Restricted Choice Units (PG Level)

### **Semester 2**

One Restricted Choice Unit (PG Level)

[Contemporary IT & E Issues PG \(9787\)](#)

[Technology Capstone Research Project PG \(11522\)](#)

## **Standard Full Time, Semester 2 Commencing**

## **Year 1**

### **Semester 2**

One Restricted Choice Part B Unit (G Level)

[Inf. Sc. Research Methodology PG \(6797\)](#)

[Information Technology for the Workplace G \(8520\)](#)

[Professional Practice in IT G \(6676\)](#)

## **Year 2**

### **Semester 1**

One Restricted Choice Part B Unit (G Level)

[Technological Innovation and Entrepreneurship G \(11530\)](#)

One Restricted Choice Part B Unit (PG Level)

Systems Project and Quality Management G (6678) OR Technology and Engineering Management PG (9784)

### **Semester 2**

[Contemporary IT & E Issues PG \(9787\)](#)

Three Restricted Choice Part B Units (PG Level)

## **Year 3**

### **Semester 1**

[Technology Capstone Research Project PG \(11522\)](#)

Two Restricted Choice Part B Units (PG Level)

# Course information

## Course duration

Standard 2 years full time, or part time equivalent. Maximum - 6 years.

## Learning outcomes

Learning outcomes	Related graduate attributes
Critically analyse, interpret and synthesise complex problems, solutions, concepts or theories in information technology and systems area, to address the needs of a broad range of stakeholders, including technology specialists, managers, clients, regulators, etc.	<p>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; display initiative and drive, and use their organisational skills to plan and manage their workload; and take pride in their professional and personal integrity.</p> <p>UC graduates are global citizens: Think globally about issues in their profession; make creative use of technology in their learning and professional lives; and behave ethically and sustainably in their professional and personal lives.</p> <p>UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; and evaluate and adopt new technology.</p>

Acquire expertise in a key area of information technology and systems, with superior analytical skills and competencies in problem solving, and a sound fundamental understanding of the principles and methods of information technology.

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; and take pride in their professional and personal integrity.

UC graduates are global citizens: Think globally about issues in their profession; understand issues in their profession from the perspective of other cultures; communicate effectively in diverse cultural and social settings; and make creative use of technology in their learning and professional lives.



	<p>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; and evaluate and adopt new technology.</p>
<p>Navigate in an increasingly complex global technological innovation environment, with legal, ethical, economic and business-related challenges, in a fast-changing field; competently use professional skills and knowledge in the systematic development of complex information technologies and systems and apply their skills and knowledge in a professionally responsible manner.</p>	<p>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; and take pride in their professional and personal integrity.</p> <p>UC graduates are global citizens: Think globally about issues in their profession; and make creative use of technology in their learning and professional lives.</p> <p>UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; and evaluate and adopt new technology.</p>
<p>Develop an advanced and integrated understanding and innovation mindset, to identify and analyse complex problems within information technology and systems discipline, and design sustainable novel technology solutions to these problems at a highly skilled level.</p>	<p>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; and take pride in their professional and personal integrity.</p> <p>UC graduates are global citizens: Think globally about issues in their profession; make creative use of technology in their learning and professional lives; and behave ethically and sustainably in their professional and personal lives.</p> <p>UC graduates are lifelong learners: Be self-aware; adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas; and evaluate and adopt new technology.</p>
<p>Demonstrate deep knowledge base in information technology and systems discipline, to facilitate effective</p>	<p>UC graduates are professional: Employ up-to-date and relevant</p>

communication with those involved in the ITS industry, and acquire the computational skills necessary to solve theoretical and practical problems for further professional development and for meeting future changes in IT and Systems.	<p>knowledge and skills; communicate effectively; use creativity, critical thinking, analysis and research skills to solve theoretical and real-world problems; and work collaboratively as part of a team, negotiate, and resolve conflict.</p> <p>UC graduates are global citizens: Understand issues in their profession from the perspective of other cultures; communicate effectively in diverse cultural and social settings; and behave ethically and sustainably in their professional and personal lives.</p> <p>UC graduates are lifelong learners: Evaluate and adopt new technology.</p>
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Display excellent verbal and written communication skills that enable them to make a meaningful contribution to changing face of the ITS industry, with professional ethics and responsibility towards the IT profession and the broader community.	<p>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; and display initiative and drive, and use their organisational skills to plan and manage their workload.</p> <p>UC graduates are global citizens: Understand issues in their profession from the perspective of other cultures; and communicate effectively in diverse cultural and social settings.</p> <p>UC graduates are lifelong learners: Reflect on their own practice, updating and adapting their knowledge and skills for continual professional and academic development; be self-aware; adapt to complexity, ambiguity and change by being flexible and keen to engage with new ideas; and evaluate and adopt new technology.</p>
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## Awards

Award	Official abbreviation
Master of Information Technology and Systems	MIT&Sys
Master of Information Technology and Systems in Cybersecurity	MITS Cybersecurity
Master of Information Technology and Systems in Data Science	MITS DataSc

Master of Information Technology and Systems in Cloud Computing	MITS CloudComp
Master of Information Technology and Systems in IoT and Robotics	MITS IoT&Robotics
Master of Information Technology and Systems in AI and Machine Learning	MITS AI&MachineLrng
Master of Information Technology and Systems in Network Technologies	MITS NetworkTech
Master of Information Technology and Systems in Project Management	MITS ProjectMgt

## Alternative exits

Alternative Exits:

Graduate Certificate in Information Technology - Must have passed 12 credit points as follows: Information Technology for the Workplace G, Professional Practice in IT G, Introduction to Information Technology G and Technological Innovation and Entrepreneurship G (or other Information Technology and Systems units at G or PG Level as approved by the Program Director).

Graduate Diploma in Information Technology - Must have passed 24 credit points of Information Technology and Systems units at G or PG Level including, Information Technology for the Workplace G, Professional Practice in IT G, Introduction to Information Technology G and Technological Innovation and Entrepreneurship G, with at least 3 credit points at PG Level.

Combined vertical degree:

The Master of Information Technology and Systems may be combined with any Bachelor course (excluding Bachelor of Information Technology, Bachelor of Software Engineering and Bachelor of Business Informatics) that allows at least 24 credit points of Open Electives in the structure. This combined vertical degree may be completed with 96 credit points instead of the usual 120 (72 for the Bachelor and 48 for the Master).

To be eligible, students must meet the entry requirements for BOTH courses.

## Enquiries

Student category	Contact details
Prospective Domestic Students	Email <a href="mailto:study@canberra.edu.au">study@canberra.edu.au</a> or Phone 1800 UNI CAN (1800 864 226)
Prospective International Students	Email <a href="mailto:international@canberra.edu.au">international@canberra.edu.au</a> or Phone +61 2 6201 5342

Current and Commencing Students

In person, Student Centre Building 1 or Email [Student.Centre@canberra.edu.au](mailto:Student.Centre@canberra.edu.au)

## Download your course guide



# Scholarships

Find the scholarship that's the right fit for you

[Explore Scholarships](#)

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UC acknowledges the Ngunnawal people, traditional custodians of the lands where Bruce campus is situated. We wish to acknowledge

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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.