Master of Applied Science (Information Security and Assurance)

The Master of Information Security and Assurance will give you the skills needed in an increasingly networked world, where the security of information is essential to the success of organisations.

This program aims to equip you with the mathematical, technical and business tools to secure an organisation’s information systems.

Information security and assurance forms a vital part of organisational responsibilities. In today’s networked world it is more relevant than ever. From the latest internet worm to identity theft, the danger is no more than a mouse click away.

You will learn about ethical hacking, the Advanced Encryption Standard, RSA, elliptic curve cryptography, smartcards, biometrics and information systems risk management.

There are opportunities for internships in the information security industry in the program.

Learning and teaching
The program is offered through a flexible combination of lectures, tutorials and computer laboratory classes.

State-of-the-art information security software and work simulated exercises used in the program will provide you with hands-on experience.

Industry connections
RMIT University is committed to providing you with an education that strongly links formal learning with professional practice.

In this program you will be doing specific courses that focus on work integrated learning (WIL). You will be assessed on professional work in a workplace setting (real or simulated) and receive feedback from those involved in your industry. These courses will involve liaising with industry to define/create the problem, analysing and creating a report, and presenting and receiving feedback from industry partners.

Internships
Students in the Master of Applied Science (Information Security and Assurance) have internship opportunities with companies such as ANZ, Bunnings and Victoria Police.

Career outlook
Graduates will fill many roles in the information security industry, ranging from penetration testers and IT risk analysts to security managers and forensic analysts, and from security auditors to network security engineers.

Program structure
The Master consists of 192 credit points. This incorporates the Graduate Diploma (96 credit points).

You will develop skills to be able to apply a range of mathematical, analytical, business, algorithmic and computational techniques; model and critically evaluate a range of information security systems and processes (hardware or software based or hybrid) that operate on a diverse range of media (optical, wireless, wired); and use a variety of protocols (EFTPOS, INTERNET, CCITT) in business or personal communications, keeping in mind the importance of ethical values in this service-oriented field.

Courses are aimed at a holistic approach to information security, and are paired with insights from industry experts. The curriculum covers many topics, including risk management and cryptosystems, biometrics and ethical hacking. The two-semester project in second year allows you to gain in-depth knowledge and expertise in an information security topic of your choice.

Stage A
Complete the following core courses:
- Case Studies in Information Security
- Introduction to Information Security
- Discrete Mathematics
- Web Servers and Web Technology.

Stage B
Complete the following core courses:
- Coding for Reliable Communications
- Information Systems Risk Management.

And one course from:
- Information Theory for Secure Communications
- Practical Security
- Smartcard Cryptosystems
- Algebra for Information Security.

www.rmit.edu.au/programs/mc159
Program structure (continued)

And one course from:
- Data Communication and Net-Centric Computing
- Computer and Internet Forensics
- Algebra for Information Security
- Information Theory for Secure Communications
- Smartcard Cryptosystems
- Digital Risk Management and Information Security
- Digital Strategy
- Practical Security
- Database Concepts
- Analysis of Large Data Sets
- Game Theory and its Applications
- Introduction to Statistical Computing
- Mathematical Modelling and Decision Analysis
- Cloud Security
- Secure Electronic Commerce
- Governance and Change in Digital Business
- Digital Innovation
- Business Intelligence.

Stage C

Complete the following core courses
- Cryptography and Security
- Industry Awareness Project.

And one course from:
- Information Theory for Secure Communications
- Practical Security
- Smartcard Cryptosystems
- Algebra for Information Security.

And one course from:
- Data Communication and Net-Centric Computing
- Computer and Internet Forensics
- Algebra for Information Security
- Information Theory for Secure Communications
- Smartcard Cryptosystems
- Digital Risk Management and Information Security
- Digital Strategy
- Practical Security
- Database Concepts
- Analysis of Large Data Sets
- Game Theory and its Applications
- Introduction to Statistical Computing
- Mathematical Modelling and Decision Analysis
- Cloud Security
- Secure Electronic Commerce
- Governance and Change in Digital Business
- Digital Innovation
- Business Intelligence.

Stage D

Complete the following core courses:
- Advanced Topics in Cryptography
- Industry Linkage Project.

How to apply

Direct to RMIT University: rmit.edu.au/programs/apply/direct

Application dates Semester 1, 2017
- Timely applications close 10 November 2016

Semester 2, 2017
- Timely applications close 31 May 2017

Late applications will continue to be accepted after this date if places are still available.

Fees

2017 indicative fees
The annual tuition fee for full-fee places in 2017 is AUS$22,080 per annum.

This program is approved for income support. You may be eligible for a student income support payment from the Commonwealth Government. If you are enrolled in an eligible program you will also need to satisfy all other student payment eligibility requirements. You can contact Centrelink or the Department of Human Services for further information about student income support entitlements, your eligibility and how to apply.

This program is offered on a full-fee paying basis only. If you are offered a place, you will need to pay the full tuition cost of your program. However, eligible students (such as Australian citizens or holders of an Australian permanent humanitarian visa) may apply to defer payment of some or all of their tuition fees via the Commonwealth Government’s FEE-HELP loan scheme.

Fees shown above apply to 2017 only and are based on an annual full-time study load of 96 credit points unless otherwise noted. A proportionate fee applies for more or less than the full-time study load. Tuition fees are adjusted on an annual basis and these fees should only be used as a guide.

For more information and to learn how to calculate your exact tuition fees see: rmit.edu.au/programs/fees/postgraduate

Entry requirements

- An Australian bachelor degree with a minimum GPA of 2.0 out of 4.0 with award title including computer, IT, software, electrical, electronics, communications, mathematics, physics or equivalent; or
- An Australian bachelor degree with a GPA between 1.5 and 2.0 out of 4.0 in a scientific/engineering/technical field with evidence of at least three years’ work experience in the field of IT/information security or equivalent.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

This information is designed for Australian and New Zealand citizens and permanent residents of Australia.

Disclaimer: Every effort has been made to ensure the information contained in this publication is accurate and current at the date of printing.

For the most up-to-date information, please refer to the RMIT University website before lodging your application. Visit www.rmit.edu.au

RMIT University CRICOS Provider Code: 00122A

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