RMIT Online

Graduate Certificate in Cyber Security

→ Step into the future of cyber security with our Graduate Certificate. Develop expert knowledge and practical skills in security measures and risk management, while positioning yourself for leadership roles and advanced study opportunities.

INDUSTRY PARTNER: paloalto NETWORKS

Who this program is for

Our Graduate Certificate in Cyber Security will equip students with an overview of cyber security risks and issues across various service settings. You'll also be introduced to the technical skills and experience required to transition into a career within cyber security.

Ideal students for this graduate certificate will come from, but are not limited to the following areas:

- Law
- Marketing
- Finance
- Business
- Healthcare
- IT
- Science
- Engineering

DURATION:
9 months full time, 12 months part time. Expect 10–12 hours study per week, per course, with each term comprising of 10 weeks.

PRICE:
$4,080 per course, program total $16,320*

* Plus a capped Student Services and Amenities Fee (SSAF) based on your credit point enrolment load. FEE-HELP and other financial support may be available. Fees typically increase each year and may change without notice. Total fees are estimates and should only be used as a guide.

PREREQUISITES / LEVEL OF STUDY:
- An Australian Bachelor's degree or equivalent in any discipline, or 5 years' full-time work experience in a related industry setting. Applicants will need to submit a CV.

ENROLMENT:
Scheduled intakes are in January, April, July, and September.

Choosing the right course for you

	FUTURE SKILLS SHORT COURSE (6 WEEKS)	POSTGRADUATE (9-12 MONTHS)	POSTGRADUATE (9-12 MONTHS)
	Cyber Security Risk and Strategy	Graduate Certificate in Cyber Security	Graduate Certificate in Cyber Security Governance and Risk Management
Objective	Providing a foundation in cyber security, learn how to formulate a cyber strategy for organisations to respond to incidents efficiently, limit damages caused, and recover information from any attacks experienced.	You'll be equipped with fundamental knowledge and practical skills in Cyber Security, ensuring industry relevance and ethical standards while providing a pathway to advanced studies and career advancement in the field.	Further develop business skills in information security fundamentals, governance, risk, and legislative requirements, and developing organisational strategies for cyber management.
Who this course is for	• Mid-senior managers looking to gain skills to implement a cyber strategy into their organisation • Consultants, IT professionals and entrepreneurs, who want to instill cyber practices into their teams or businesses	Ideal for students looking to gain technical skills and gain experience in order to transition into a career within Cyber Security. Those jobs could be, but aren't limited to: Cyber Security Advisor, Incident Responder, Penetration Tester.	• Early to mid-career business professionals looking to transition into the industry who interface with cyber teams or cyber risks • Early to mid-career governance, risk, and compliance professionals looking to take advantage of growth in the cyber security industry
What you'll learn	• Understand the fundamentals of cyber security risk • Comprehend why cyber security is important • Apply a cyber security risk mitigation strategy to your organisation • Communicate cyber security strategy to team members and organisational wide stakeholder engagement • Understand the commercial impacts of cyber security risk	• Demonstrate specialised knowledge and understanding of scientific theories, principles, concepts, and practices in Cyber Security • Communicate individual and/or team-based solutions for cyber security problems • Demonstrate professional integrity, ethical conduct, sustainable and culturally inclusive standards in designing and implementing Cyber Security solutions	• Develop and advise on cyber and information security risk and governance strategies • Design and evaluate governance and compliance frameworks to protect business and information assets • Manage teams, processes, and projects to deliver on risk, governance and security outcomes • Understand and apply relevant cyber security regulatory and compliance obligations • Critically evaluate cyber security solutions and frameworks appropriate to organisational needs • Effectively communicate cyber security risks, impacts and solutions to foster cyber aware culture within organisations • Knowledge of business drivers for the use of cyber security practices, standards and frameworks

Why study Cyber Security?

According to the Australian Cyber Security Centre (ACSC), it's estimated that cyber security incidents cost Australian businesses $29 billion each year. Cyber security is the practice of protecting systems, networks, and programs from digital or cyber attacks. These attacks generally focus on accessing, changing, or destroying sensitive individual or business information, in order to extort money or interrupt business procedures for personal gain.

This program equips you with essential skills and knowledge in areas such as computer security, encryption standards, authentication mechanisms, and risk management, ensuring you are up-to-date with the latest industry standards and technologies. With a curriculum that integrates industry best practices, emerging technologies, and real-world case studies, you'll gain practical experience and be well-prepared for today's Cyber Security challenges.

The courses in this certificate are also part of the Master of Cyber Security program at RMIT University, providing a seamless path to advanced studies if you choose to continue.

Program outcomes:

- Demonstrate specialised knowledge and understanding of scientific theories, principles, concepts, and practices in Cyber Security.
- Communicate individual and/or team-based solutions for cyber security problems.
- Demonstrate professional integrity, ethical conduct, sustainable and culturally inclusive standards in designing and implementing Cyber Security solutions.

1.8 million Australia user accounts have been leaked in data breaches throughout the first three months of 2024. This represents a 388% increase over the previous quarter.

(CYBER DAILY 2024)

74% of Australian business leaders plan to increase their cyber budget in the year ahead compared to 60% in 2023.

(PWC, 2024)

Australia needs an extra 5000 cybersecurity workers each year to avoid a massive shortfall by 2030.

(AUSTRALIAN FINANCIAL REVIEW, 2024)

Why study with RMIT Online?

Flexible online learning

The freedom of learning online means you can study, whenever and wherever you want.

Real world skills

Our project-based assessments mean you'll roll up your sleeves and create a project for real a world business scenario, allowing you to see the immediate impact of your learning within your organisation.

Full-time support

Our expert team of support advisors along with academic tutors and course coordinators are the best at what they do and are here to support you every step of the way.

Industry connected

We combine the forces of a leading technology university with high profile industry partners to ensure you're job ready, learning practical skills that align with industry best practice.

Propel your career

Online postgraduate programs receive the same qualification as on-campus – without putting your life on hold.

Future-focused

With up to the minute content, RMIT Online courses are shaped by future of work needs, ensuring that you acquire the latest industry relevant skills for today's in-demand jobs.

The online learning experience:

Never feel like you're studying alone with our online learning student support, here to help you every step of the way. Troubleshoot any problems easily, from enrolment till your day of graduation. With a fully online learning experience, flexibly study around your work or life commitments with our personalised student experience tools, designed to keep you on track and set up for success.

Online facilitator

You'll study in a small cohort of around 35 students under the expert guidance of an Online Facilitator who has industry experience and academic qualifications in your field of study. This gives you opportunities to ask questions, get feedback, engage with peers, and connect to how things work in industry.

Student support

Our Student success team will be there to help you from the moment you join us, through onboarding webinars, phone calls, online resources, study coaching, and more. Rest assured that you'll get the support you need, when you need it.

Onboarding for success

You'll get access to an onboarding module that prepares you for online study journey. This onboarding module will have helpful study tips, academic skills, insights, and information about key tools and services available to you. By completing this module, you'll be set up for success in your studies.

Personal learning profile

All our students are encouraged to engage with our personal learning profile tool, which has been informed by the latest educational research. Understanding your personal learning profile will give you insights into your strengths and opportunities you have on your learning journey.

Active learning

Each course is designed using our best practice learning design approaches for active learning. Active learning, such as games, case studies, scenarios, and interactive content, benefits your study because you apply new knowledge, practice new skills, and are better prepared for your assessments. Students in active learning courses are shown to be more successful.

Progress insights

Each course provides you with a visual indicator to show your progress through the course. Seeing your progress helps you plan, manage, and navigate your study time and learning activities for your own study success.

Career Services

Enjoy invitations to our masterclasses and on the couches, as well as mentorship program career workshops and 1-1 career advice.

English language requirements

You must meet the University's minimum English language requirements to be eligible for a place in this program.

If you are a local student, refer to the English requirements for postgraduate coursework programs.

If you are an international student, refer to the English requirements and equivalency information. The program requires a minimum overall score of 6.5 with no band less than 6.0 in IELTS (Academic).

Australian student visas

RMIT Online's Graduate Certificate in Cyber Security does not meet Australian student visa requirements. For an Australian student visa, you must have an on-campus place in a program of study, such as our Master of Cyber Security.

For more details on RMIT's on-campus programs visit rmit.edu.au.

Entrance requirements

You must have successfully completed an Australian Bachelor's degree or equivalent overseas qualification from a recognised tertiary institution. You may also be considered for the graduate certificate if you have undertaken a minimum of five years professional experience.

Experience or skills may include working in innovation and start-ups, creative practice, community engagement, strategic and service design, human resources, business analysis, management consultancy, process analysis or other similar roles.

To have your professional experience considered, you must include in your application a CV and a statement that details your experience.

Select 'Plan code: GC036O' in the application system for this course.

Credit pathways

At RMIT Online, we're committed to supporting your lifelong learning journey. Our flexible learning pathways can be tailored to align with your individual educational goals. Some of our short courses, when taken in certain combinations, are eligible for credit in the Graduate Certificate in Cyber Security.

For a full list of the short course elective bundles and eligibility, please refer here. To be eligible for a credit transfer, you will also need to meet this program's entry requirements. The course must be a current credential or completed within the last 10 years. Individual short courses are not recognised under the Australian Qualifications Framework (AQF).

Upon successful completion of the Graduate Certificate in Cyber Security (GC036) you will be eligible to continue your studies in the following programs:

- Master of Cyber Security (MC159) (on campus)
- RMIT Online's Master of Business Administration (MBA) (MC199) with 48 credit points (4 courses) worth of credit.

Program overview

Our Graduate Certificate in Cyber Security will equip you with a deep understanding of scientific theories and practices in the field, empowering you to develop and communicate effective solutions to cyber security challenges. The program emphasises professional integrity and ethical conduct, ensuring that you are capable of designing and implementing sustainable, inclusive cyber security strategies.

Year One

Complete the following two (2) courses:

01 Introduction to Cyber Security

02 Programming Fundamentals

And select and complete two (2) courses only from the following list:

03 Data Communication and Net-Centric Computing

04 Practical Data Science with Python

05 Digital Risk Management and Information Security

06 Ethical Hacking and Security Testing*

** Students must complete both core courses before enrolling in the 'Ethical Hacking and Security Testing' elective course.*

CORE COURSE 01

Introduction to Cyber Security

(INTE2665)

Course overview

Cybercrime universally causes harm to individuals, SMEs, primes, critical infrastructure systems, and governments. As we live in the Internet era, devices connected to the Internet can be exposed to cyber threats. Cyber assurance is vital for business continuity, security of our business processes, supply chain systems and the data systems.

Cyber security is a collection of methods used to protect the integrity of network components, applications, and data from unauthorised access, alteration, or deletion. Enterprises use both cyber security and physical security to protect against unauthorised access to data centres and other computerised systems.

In this course, you will learn about cyber security practices and technologies to safeguard digital assets. Further, you will learn cyber security concepts, security design principles, concepts of risk-based cyber security, cryptography, principals of authentication, network security, cyber threats and mitigations strategies and legal/ethical aspects.

Learning outcomes

Upon successful completion of this course, you will be able to:

- Describe cyber security hygiene concepts for risk based cyber assurance
- Explain cryptography and security protocols and their roles in securing the data communication and authenticating the users
- Identify and evaluate attack prevention and protection methods to safeguard networks, enterprise systems and cloud applications
- Describe the design of secure systems for large enterprise applications.
- Outline legal and ethical considerations for cybercrime, intellectual property, and computer ethics.

CORE COURSE 02

Programming Fundamentals

(COSC531)

Course overview

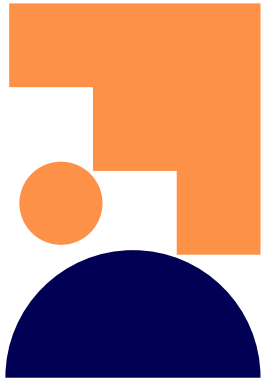
Programming skill represents a generic problem solving ability, and is considered essential for anyone involved in the development and maintenance of software systems.

This course aims to introduce you to foundational knowledge about: computer systems; their components and interactions between components; the conceptual building blocks necessary for programming; and basic computer programming skills.

Learning outcomes

Upon successful completion of this course, you will be able to:

- Analyse simple computing problems
- Devise suitable algorithmic solutions and code these algorithmic solutions in a computer programming language
- Develop maintainable and reusable solutions using the object-oriented paradigm.



ELECTIVE COURSE 03

Data Communication and Net-Centric Computing

(COSC2061)

Course overview

This course aims to provide a broad introduction to the fundamentals of data communication and network technology. The emphasis is on data communication from the perspective of computer scientists and information technologists. The course covers the underlying mechanisms and their characteristics that need to be considered by communicating application software.

Topics include: principles and reference models of data communication, basic operation of communication systems, protocols, error handling and applications in networked environments.

Learning outcomes

Upon successful completion of this course, you will be able to:

- Describe, explain, and communicate the basic concepts of data communication
- Demonstrate knowledge of higher-level aspects of data communications and network technology, details of the underlying mechanisms, principles, reference models, protocols, error handling, appropriate for the development of software applications in a networked environment
- Identify and explain emerging networking technologies
- Analyse communications systems that use the TCP/IP protocol suite and the abstract 7-layer OSI reference model
- Apply knowledge of data communication concepts to solve problems involving data communications
- Apply mathematical/analytic skills to basic performance evaluation, utilisation, throughput, and delay.

ELECTIVE COURSE 04

Practical Data Science with Python

(COSC2670)

Course overview

The course gives you a set of practical skills for handling data that comes in a variety of formats and sizes, such as texts, spatial and time series data. These skills cover the data analysis lifecycle from initial access and acquisition, modelling, transformation, integration, querying, application of statistical learning and data mining methods, and presentation of results. This includes data wrangling, the process of converting raw data into a more useful form that can be subsequently analysed. The course is hands-on, using Python.

Learning outcomes

Upon successful completion of this course, you will be able to:

- Use industry and evidence-based tools and approaches to transform raw data into a format suitable for a data science pipeline
- Identify scenarios where a machine learning approach may support effective data analysis
- Generate an interpretation and visualisation of data using exploratory data analysis in Python
- Construct and document an experimental methodology for analysis of data
- Select appropriate models, and apply simple machine learning tools and feature selection strategy for a defined data science problem
- Apply professional standards to allow reproducibility of analysis.

ELECTIVE COURSE 05

Digital Risk Management and Information Security

(INTE1002)

Course overview

Programming skill represents a generic problem solving ability, and is considered essential for anyone involved in the development and maintenance of software systems.

This course aims to introduce you to foundational knowledge about: computer systems; their components and interactions between components; the conceptual building blocks necessary for programming; and basic computer programming skills.

Learning outcomes

Upon successful completion of this course, you will be able to:

- Analyse simple computing problems
- Devise suitable algorithmic solutions and code these algorithmic solutions in a computer programming language
- Develop maintainable and reusable solutions using the object oriented paradigm.

ELECTIVE COURSE 06

Ethical Hacking and Security Testing

(INTE580)

Course overview

The main objective of this course is for you to acquire the tools and techniques necessary to perform practical security testing in various areas. You are provided with a range of practical exercises and tasks to reinforce your skills including: monitoring the Internet traffic, testing of secure applications, identification of vulnerabilities in networked and mobile/wireless applications.

In addition, you will learn input validation techniques to minimise security risks, man-in-the-middle attack techniques to be able to build more secure networked applications, practical secure software testing techniques to be able to test applications for security bugs.

Learning outcomes

Upon successful completion of this course, you will be able to:

- Investigate methods that are appropriate for the realisation security testing in software, web, network and systems
- Investigate and model the possible vulnerabilities and threats for a given application system
- Design, implement test procedures and perform post-testing evaluation
- Research, analyse and evaluate security related scenarios.

** Students must complete both core courses before enrolling in the 'Ethical Hacking and Security Testing' elective course.*

Who’s supporting you

RMIT Online works with leading experts at the forefront of their fields, multiplying the force of industry with a world-leading university. By studying with RMIT Online, you can be sure you will be levelling up your skills and qualifications through work-connected, relevant learning.

Palo Alto Networks is a global cybersecurity company enabling teams and businesses to prevent cyberattacks with an automated approach that delivers consistent security across cloud, networks, and mobile devices.

Professor Iqbal Gondal FIEAust, GAICD, OELP (Oxford)
Program Manager, RMIT

Prof. Iqbal Gondal is an Associate Dean for Cloud, Systems and Security (CSS) at RMIT University, and the Program Manager of the Graduate Certificate in Cyber Security. With over 25 years experience across industry and academia in both Singapore and Australia, Gondal is passionate about translation research in cybersecurity, malware analysis, threat intelligence, blockchain, remote condition monitoring, mobile and sensor networks areas.

Student success team,
RMIT Online

Our student success team are here to help you with 1:1 coaching, tips on how to successfully study online, and any questions or concerns you may have.

Why study online

Being 100% online, get 24/7 on demand access to the course content, ensuring you don't have to reduce your work or compromise your lifestyle.

Become industry connected as you learn from renowned academics with extensive industry experience. Our courses are designed with industry partners to ensure what you learn is up to date and aligns with best practice.

Get hands on through structured activities and build out your project portfolio to demonstrate your knowledge and practical skills.

Get personalised support that keeps you motivated on the road to success. Your support team includes the Student Success advisors who'll give you one-on-one assistance, an Online Facilitator, and a Course Coordinator.

Graduate with a globally recognised degree.

How to get started

Enrolment in our graduate certificate is easy. Get in touch with one of our Student Enrolment Advisors today and we can get the wheels moving.

STEP 1 Chat to a Student Enrolment Advisor

Our Student Enrolment Advisors have all the information you will need to choose the best course for you. They can even coach you through the enrolment process over the phone.

You can call our Student Enrolment Advisors during business hours on 1300 145 032. They'll be able to help with any questions regarding the application process, RMIT course fees, and how online study works.

STEP 2 Send us your documents

All you have to do is fill out and submit the relevant course application forms. Your RMIT Student Enrolment Advisors can guide you through this process. It doesn't take more than a few minutes.

STEP 3 Wait to hear from us!

If there are any extra steps necessary, your Student Enrolment Advisor will let you know. Once you're enrolled, you'll also be able to access your course details via our Student Portal. For more information, visit **online.rmit.edu.au**

*__Further Information:__ Every effort has been made to ensure the information contained in this publication is accurate and current at the date of publishing. For the most up-to-date information, please refer to the RMIT Online website before lodging your application.

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