

Digital Mission Engineering

- ➔ Learn to think and communicate at mission level, with hands-on experience modelling national security missions across air, land, sea, space and cyber domains.

INDUSTRY PARTNERS:



Who this course is for

Our Digital Mission Engineering course is best suited for:

- **Early to mid-career engineers and analysts** transitioning from platform or domain-specific roles into mission-level work across national security, aerospace and advanced engineering environments.
- **Professionals** looking to grow into mission and capability roles across national security, aerospace and advanced engineering environments.



Key details

Time commitment:

100% online, 6 weeks, approximately 8-10 hours per week.

Course price:

\$3,950 GST inc.

Prerequisites/level of study:

There are no prerequisites.

Method of study:

Online study, including interactive videos, assignments, prescheduled webinars, and a 1:1 online session with mentors and industry experts.

Enrolment:

You can enrol online. The whole process takes only a few minutes. Express your interest [here](#)

Why study Digital Mission Engineering

When you're working at the component or platform level, it's easy to lose sight of the mission itself. How the pieces connect. How a change in one domain creates a ripple across others.

Digital Mission Engineering (DME) is the discipline that brings that kind of thinking into focus. Rather than relying on experience and instinct alone, DME gives engineers a structured way to define mission scenarios, run simulations, evaluate trade-offs and stress-test assumptions before they become problems. It's how modern national security organisations move from gut feel to evidence-based decision-making at the mission level.

This course, designed with LEAP Australia, introduces DME as a working practice. Over six weeks you'll develop the skills to model complex multi-domain missions, apply industry simulation tools, and communicate your analysis in ways that actually land with operational decision-makers. It's hands-on, it's grounded in real national security contexts, and it's structured for professionals who are learning alongside a full-time role.



By the end of this course, you'll be able to:

- Explain the purpose, principles, and relevance of Digital Mission Engineering
- Develop and represent mission scenarios across domains
- Apply mission focused modeling and analysis
- Evaluate uncertainty, adaptability, and model fidelity
- Communicate mission analysis outcomes for decision support

Australian organisations will spend almost AU\$6.2 billion on information security and risk management in 2025, **up 14.4% from the year before.**

(GARTNER, 2025)

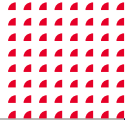
Jobs requiring at least one green skill grew by 22.4% between 2022 and 2023, **while the share of green talent grew by only 12.3%.**

(WORLD ECONOMIC FORUM, 2024)



Why study with RMIT Online

RMIT Online is for students who want real world training from industry professionals. We call this the RMIT Online edge. Get ready to sharpen those skills.



Digital credential

The cutting-edge skills you'll learn are rigorously assessed and recognised by both a leading university and key employers in the field of study through a digital credential.

Connect with industry

Our courses are designed with high profile partners to ensure you're job ready, learning practical skills that align with industry best practice.

Real world skills

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

100% flexible skills

The freedom of online learning means you can study whenever you want, wherever you want, in a manner that suits your work and lifestyle.

Collaborative online experience

Never feel like you're studying alone and feel supported with our team of expert industry mentors, SMEs, and the learner success team.

What you'll learn

Learn how to model and analyse complex national security missions across multiple domains. You'll develop the capability to design mission scenarios, apply simulation tools, evaluate trade-offs and uncertainty, and communicate insights to support operational decision-making.

MODULE 1:

Introduction to DME

- Understand DME concepts and national security mission contexts
- Explore mission types across domains including air, land, sea and space
- Define mission objectives and context

Milestone: Define mission context.

MODULE 4:

Simulation and tools (STK)

- Apply simulation tools to mission scenarios
- Model communications and multi-domain interactions
- Analyse mission performance using simulation

Milestone: Define modelling scope and assumptions.

MODULE 2:

Core DME concepts and mission design

- Identify mission elements including platforms, sensors and effectors
- Apply core modelling concepts and frameworks
- Develop a concept of operations

Milestone: Identify mission system elements.

MODULE 5:

Mission analysis and decision-making

- Evaluate trade-offs, risks and mission effectiveness
- Select appropriate model scale and fidelity
- Justify modelling approach for decision support

Milestone: Define and justify modelling approach.

MODULE 3:

Modelling mission systems and environment

- Model platforms, sensors and operational environments
- Analyse uncertainty, risks and mission impacts
- Explore interactions across mission components

Milestone: Identify risks, uncertainties and assumptions.

MODULE 6:

Mission analysis and communication

- Develop and apply a mission-level model
- Analyse mission effectiveness and operational trade-offs
- Communicate insights and recommendations

Final project: Submit a mission analysis report demonstrating applied DME capability across a defined national security mission scenario.

Who's supporting you

Just because it's online, doesn't mean you're on your own. RMIT Online's support network includes 1:1 feedback from our industry mentors, real-world insights, and study support from our learner success team. Our industry partners have helped shaped and build this course to ensure the content is up to date and best practice.



Babcock is a global defence and aviation company delivering complex support solutions across multiple countries, enhancing critical capabilities and safeguarding national security. We are driven by a shared purpose to create a safe and secure world, together.



LEAP's team of computer-aided engineering experts specialise in digital engineering software from Ansys and PTC, used by leading companies worldwide - from startups to household names - in diverse industries ranging from aerospace, energy, biomedical & more.

The Security & Resilience Hub brings together academic expertise, industry capability, government partners and communities to advance solutions for a safer, more secure and resilient Australia.

Aligned with Australia's National Science and Research Priority 5, "Building a secure and resilient nation", the Hub drives collaboration across national and digital security, sustainable and resilient infrastructure, and disaster management.

Through applied research, research translation, strategic partnerships and tailored education programs, the Hub supports the development of practical solutions that protect society, strengthen infrastructure, and build disaster-resilient communities and future-ready workforces.



**Learner success team,
RMIT Online**

Our learner 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.

How online learning works

This is a basic breakdown of how your course works. You can always find more information at online.rmit.edu.au



Before the course starts

Before we get cracking, you'll need access to a computer with broadband connection running Windows, macOS, or Linux, with at least an Intel Core i5 processor, 16GB of RAM, and 8GB of free disk space. We'll help you install any software you might need, but in the meantime, download Slack and Zoom, and make sure your webcam and speakers are working.

During the course

A lot of your RMIT Online Future Skills course will consist of video snippets. You can watch these whenever you like. There are also regular interactive webinars, online forums to chat with your peers and a scheduled 1:1 session with your industry mentor.

We'll set up Slack channels so you can connect with your classmates and grow your professional network. You can also reach out to your Course Manager if you ever need help.

Tools

- Video lectures
- 1:1 mentor session
- Webinars
- Slack channels and forums

Enrolment

You can enrol online. The whole process takes only a few minutes.

Enrol now →

For more information about the course, head to our [FAQ](#) page.

If you have any questions about payment and enrolment, please get in touch via our [contact form](#) or talk to our team directly **1300 145 032**