

COMBAT SYSTEMS ENGINEERING MICRO-CREDENTIALS

Building sovereign and resilient combat systems engineering capability to support defence industry programs at speed.

Australia's defence industry is scaling faster than its engineering workforce. Accelerating acquisition timelines, rising sovereign capability obligations and the technical complexity of next-generation combat systems are placing acute pressure on organisations where workforce capability depth may not yet match program demands.

The Combat Systems Engineering (CSE) micro-credentials were developed for this environment. They deliver structured, knowledge-based learning that organisations can deploy now, aligned to the programs they're already delivering.

A WORKFORCE CAPABILITY SOLUTION FOR INTEGRATION-FOCUSSED DEFENCE PROGRAMS

The CSE micro-credentials are industry-validated, applied credentials that build workforce capability across integration-focused defence programs.

Unlike generic systems engineering training or informal on-the-job learning, CSE provides structured capability development aligned to real-time combat systems delivery contexts.

Designed for organisations accountable for delivery performance, CSE strengthens applied systems engineering capability where system-of-systems integration, technical complexity and delivery risk directly impact delivery outcomes.



UNDERSTAND OPERATIONAL PRESSURES IN INTEGRATION-CENTRIC PROGRAMS

Engineering leaders in defence environments face ongoing pressure to deliver complex systems with confidence and speed.

Common challenges include:

- managing integration complexity across programs
- scaling capability beyond individual expertise
- maintaining delivery certainty under schedule pressure
- building sovereign engineering depth across teams.

In combat systems environments, workforce capability directly influences delivery performance.

STRENGTHEN WORKFORCE CAPABILITY IN YOUR ORGANISATION

The CSE micro-credentials build applied combat system engineering capability within teams operating in complex defence environments.

Co-designed and co-delivered with Adelaide University and UNSW,

together with our industry partners, CSE aligns structured development to real-time combat systems delivery contexts. CSE strengthens consistent, scalable and applied capability across integration-centric systems.

RAPID, ASSURED WORKFORCE CAPABILITY

Structured combat systems engineering capability uplift across teams.

Reduced reliance on informal learning and individual experience.

REDUCED INTEGRATION RISK

Stronger mission-level thinking and clearer system boundaries.

Earlier identification of integration risk and more predictable program outcomes.

WORKFORCE DEPTH AND RESILIENCE

Capability developed across cohorts rather than key individuals.

Improved continuity, succession planning and sovereign engineering depth.

BUILD CAPABILITY WHERE IT DELIVERS IMPACT

The CSE program is delivered as a suite of six modular micro-credentials. Engineers can enrol in individual courses to address specific capability gaps, or organisations can combine as a complete suite to address broader workforce development needs.

Micro-credentials can be completed:

- individually to address defined capability gaps
- in combination to support role progression
- as a full suite to build comprehensive combat systems engineering capability across teams.

Each micro-credential combines structured online learning with a focused in-person workshop. Engineers apply learning through real-world defence case studies and practical integration scenarios, building capability directly relevant to complex combat system environments.

The delivery model is designed to fit around work demands:

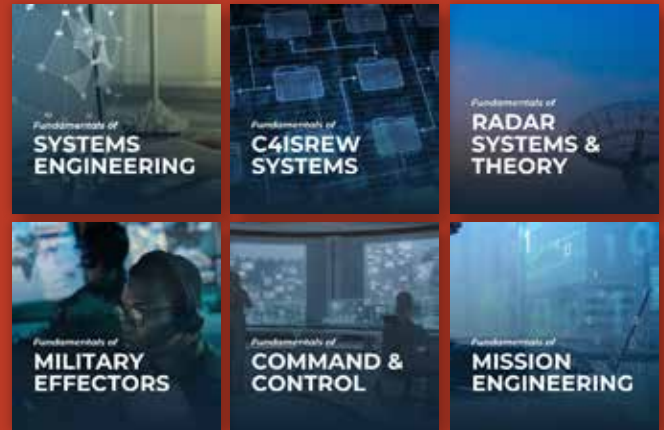
- each micro-credential runs over six weeks and comprises 50 hours of structured learning
- included in the 50 hours, in-person workshops are delivered over three consecutive business days, with locations tailored to the specific geographic needs of each cohort
- bespoke cohorts can be scheduled to align with internal milestones and workforce availability.

The 50-hour structure is calibrated to university credit frameworks, enabling pathways into formal postgraduate programs where applicable.

This model supports knowledge retention and immediate, work-integrated application on active defence programs.

FOCUS ON CORE COMBAT SYSTEM DOMAINS

The six micro-credentials span core combat system domains, each delivering standalone capability uplift aligned to real-world defence program needs.



Unlike generic systems engineering courses, the Combat Systems Engineering suite is grounded in the technical domains that characterise modern combat systems engineering practice. Taken together, they provide a structured education pathway for workforce development across mission-level and integrated systems domains, with participants building practical capability they can immediately put into practice.

TAILORED SPECIFICALLY FOR DEFENCE DELIVERY ENVIRONMENTS

Suitable for:

- Systems Engineers
- Integration Engineers
- Engineering Managers
- Program and Delivery Managers
- Workforce Capability Leaders

“As a company supporting Defence research, we are recognised for bringing expert domain knowledge into our engineering work. This micro-credential further strengthens that capability by deepening our understanding of operational C2 systems and their application in real-world Defence contexts. The knowledge our engineers gained enhances the relevance and impact of the systems they help design and develop. They found the course well-structured, insightful, and appropriately challenging, while also providing valuable opportunities to engage with senior active and former ADF personnel, as well as peers across the Defence industry. We highly recommend this training to any organisation working in the Defence sector, particularly those involved with Command and Control concepts and systems.”

Themie Gouthas
CTO, Swordfish Computing

“Revisiting foundational knowledge later in your professional career delivers huge value. It helps individuals revisit important topics, refresh key knowledge and re-energises their approach to problem-solving.”

Senior Systems Engineer

ENROL NOW OR PLAN AHEAD

Courses are running now. Participants can enrol directly into scheduled micro-credentials or our subject matter experts can collaborate with organisations to develop tailored cohort delivery across courses.

Get in touch to find out about upcoming sessions, discuss workforce capability needs or explore partnership options.

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For more information visit:
dtb.solutions/cse