



Australian Government

Department of Defence

# The Australian Joint Professional Military Education Continuum





**Sponsor**

Commander, Australian Defence College

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# Foreword

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**By Commander  
Australian Defence College**

*“War is neither a science nor a craft, but rather an incredibly complex endeavour which challenges men and women to the core of their souls. It is, to put it bluntly, not only the most physically demanding of all the professions, but also the most demanding intellectually and morally. The cost of slovenly thinking at every level of war can translate into the deaths of innumerable men and women, most of whom deserve better from their leaders.”<sup>1</sup>*



The professional learning journey of Defence personnel never ends. Carl von Clausewitz describes war as having an enduring nature but a constantly changing character. So too the profession of arms reflects this duality. It is a profession that is constantly evolving as society and technology changes. And just when we might seek to achieve mastery of the profession in a contemporary context, so too must we also ensure that our military and civilian leaders can intellectually succeed in future strategic and operational environments.

While the character of war has evolved significantly over time, the enduring human nature of war means we must continue to emphasise, adapt and invest in intellectual development through a robust and future oriented professional military education system. The development of the intellectual edge is a cornerstone of military capability and the primary purpose of professional military education institutions.

The Australian Joint Professional Military Education Continuum is the official guidebook for Australia’s Joint Professional Military Education system to develop mastery in the profession of arms for all Australian Defence personnel. Part one defines the strategic end state, part two comprises the framework which supports the continuum of learning, and part three outlines the mechanisms and standards to guide implementation.

It is an enduring framework for future-proofing Australia’s intellectual edge in warfighting.

**MB RYAN, AM**  
Major General  
Commander Australian Defence College  
November 2018

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1 Murray, W., *War, Strategy and Military Effectiveness*, 2011.



# Introduction

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Mastery in the profession of arms provides a critical intellectual edge for the Australian Defence Force. The Australian Defence College advocates for war as a professional and national endeavour, achieved through a continuum of learning that produces leaders, thinkers and practitioners with an intellectual advantage in the trinity of leadership, strategy and warfighting. The Australian Defence College plays a pivotal role in building the future Australian Defence Organisation.

The Australian Defence Force must maximise all of its capabilities to adapt to a variety of environments and political conditions, and to create a relative advantage to deter or defeat a threat.

The regular force will not grow significantly within the foreseeable future as the Australian population is unlikely to generate sufficient numbers to create an advantage in mass for our armed forces. We mitigate this by operating as part of a regional or global coalition.

Further, the Australian Defence Force cannot rely on a long term capability edge, as regional military modernisation has started to diminish Australia's advantage. Therefore, the greatest opportunity to generate advantage over the adversary is through an *intellectual edge*. The development of this edge coheres the military and civilian elements of Defence into a unified force that is able to develop policy, build strategy, generate forces and execute operations to support our national security objectives.<sup>2</sup>

The Australian Joint Professional Military Education Continuum outlines the professional learning and education requirements for building the intellectual edge. It also describes how the Australian Defence College will deliver the framework through flexible training, education and learning opportunities for all Defence personnel, as well as other Commonwealth elements and agencies in the national security community.

This book is the authoritative direction for joint professional military education and training in Defence. It informs curriculum design, development, delivery, evaluation and contract management across the Australian Defence College. Compliance with the framework is mandatory for all Australian Defence College staff and subordinate learning centres.

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2 The Australian Defence Force College Strategy 2018–2023, *Building Mastery in the Profession of Arms*, Joint Capabilities Group, released July 2018.



# Australian Defence College 'ends' statement

The Australian Defence College prepares Defence people intellectually for future warfare through world leading, future focused joint professional military education and training. The college is an advocate for joint professional mastery and leads Defence in efficient and innovative approaches to learning delivery. It collaborates broadly, builds a reputation of 'best of breed' in global defence institutions, and attracts the best students as well as the very best personnel as instructors and staff.<sup>3</sup> It develops leaders who are stewards of the profession of arms and act as mentors for future generations of warfighters.



3 The Australian Defence Force College Strategy 2018–2023, *Building Mastery in the Profession of Arms*, Joint Capabilities Group, released July 2018.



# About this book

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## Who is the audience?

This book provides a mechanism to cohere single-service, Defence Australian Public Service personnel and joint learning activities within Defence to help develop professional military education. Single-services have responsibility to align their work to this framework. It provides a transparent framework for the Chief of the Defence Force, the Secretary of Defence and the senior leadership of Defence. It also serves as a communication tool to ministers and partner agencies on how we develop Defence employees in the profession of arms.

This book also complements the Professionalisation Framework<sup>4</sup> for the Defence Australian Public Service, which is focused on job and technical skilling. It serves as a vehicle to collaborate with external and internal organisations to benchmark the Australian Defence Force's performance. Through engagement with international partners, foreign militaries and institutions, the Australian Defence College will remain well informed of global joint professional military education developments to ensure that the right education and training is delivered at—and through—the Australian Defence College.

The following groups will implement the Australian Joint Professional Military Education Continuum.

**Primary:** the primary target is the Australian Defence College. All subordinate learning centres and staff employed under the command of the college must align to the continuum outlined in this book. The Australian Defence College must be a beacon of professional excellence in educating, training and researching the joint profession of arms. It plays a pivotal role in:

- building the future Australian Defence Force
- connecting enterprises that generate the national joint warfighting capability, and
- developing capacity to effectively engage with government and external agencies.

The college's highest priority is the intellectual development of the Australian Defence Organisation, and advocacy for professional excellence.<sup>5</sup>

**Secondary:** the four services<sup>6</sup> that comprise the Australian Defence Organisation form the secondary priority. The Australian Defence College will lead implementation, and support<sup>7</sup> and facilitate alignment of the four services.

**Tertiary:** the wider national security establishment, academia, foreign militaries and industry are fundamental to achieving the intellectual edge. These organisations and institutions form an important element to a suite of learning opportunities and interaction through international engagement, alumni, and regional and global participation in the profession of arms.

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4 The Professionalisation Framework covers the 20 Defence Australian Public Service job families. It provides a consistent, navigable picture for employees, supervisors and the department of the capability development requirements of its workforce. Employees are able to clearly identify both vertical and lateral career progression options to plan professional growth and development. The framework can be accessed [here](#).

5 The Australian Defence Force College Strategy 2018–2023, *Building Mastery in the Profession of Arms*, Joint Capabilities Group, released July 2018.

6 The four services are Navy, Army, Air Force and the Defence Australian Public Service.

7 Through advocacy, interaction, and education and learning technology support.

## What is the structure?

This book outlines the framework for joint education and training in Defence and is divided into three parts.

### Part I: value proposition: developing a future intellectual edge

Part I outlines the Australian Defence College's approach to developing and implementing a Joint Professional Military Education Continuum. It highlights the targeted approaches and measures that it seeks to achieve. This section of the book defines the profession of arms and how the college plans to achieve the intellectual edge by building an agile and adaptive continuum.

### Part II: the Joint Professional Military Education Continuum

Part II introduces the continuum in detail. It also defines the learning levels, Joint Officer Attributes and Behaviours, strategic learning outcomes, and professional areas for study.

### Part III: Application of the curricula

Part III outlines the processes, structures and initiatives that the Australian Defence College will undertake to implement a Joint Professional Military Education Continuum. It articulates the academic and philosophical approaches to education and training, including professional standards and processes.

The Joint Professional Military Education Continuum will guide the work of the Australian Defence College for the long term. Importantly, it will shape a curricula<sup>8</sup> that offers a range of education, training and professional development activities that can be accessed by all targeted audiences.



8 The curricula is available on the Australian Defence College intranet.



### CHAPTER ONE

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#### Strategic context

The Australian Defence Organisation advises the Australian Government on potential responses to aggression, and how to support the country’s national security objectives. The 2016 Defence White Paper<sup>9</sup> outlined the government’s plan for a more capable, agile and potent future force that has greater capacity to respond to strategic risk wherever Australia’s defence interests are engaged. More emphasis will necessarily be placed on the Joint Force, bringing together different capabilities so the Australian Defence Force can apply more force more rapidly—and more effectively—when required. The *Future Operating Environment 2035*<sup>10</sup> forecasts a highly technology enabled future joint warfighting environment. The rapid development of cyber operations, hypersonics, human-machine teaming and novel weapon systems will significantly challenge the nature of war and how we prepare our people to exploit emerging technology. Preparing to operate within environments that are complex, congested, contested and ambiguous will require great thought and foresight, and careful consideration and planning. Only an intellectually prepared Joint Force will be able to achieve the strategic objectives directed by the Australian Government and remain adaptive to evolving geopolitics, technological disruptions and demographic shifts.

Defence is an integrated workforce with military and civilian personnel working together across the spectrum of its activities. Defence also works within and across government departments to achieve its intent. All elements that comprise the Defence workforce must commit to investing in ongoing education as part of building a more capable, agile and potent future force. In particular, the White Paper identified the growing importance of joint military education to develop the future leaders of the Australian Defence Force.<sup>11</sup> The Australian Defence College remains committed to achieving this by preparing our people intellectually through world class joint professional education and training.

The Joint Professional Military Education Continuum articulated in this book is a result of extensive research and benchmarking against other systems, particularly those of our Five-Eyes partners (United Kingdom, United States of America, Canada and New Zealand) and the North Atlantic Treaty Organization. The best aspects of those systems have been adopted based on lessons learnt from their implementation.

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9 Commonwealth of Australia, *2016 Defence White Paper* (Canberra: Commonwealth of Australia 2016).  
10 Australian Defence Force, *Future Operating Environment 2035* (Canberra: Force Design Division 2016).  
11 Commonwealth of Australia, *2016 Defence White Paper* (Canberra: Commonwealth of Australia 2016).

## Building mastery in the profession of arms

A profession is defined as a disciplined group of individuals who adhere to ethical standards and who are accepted as possessing special knowledge and skills.<sup>12</sup> Professional education is derived from a widely recognised body of learning, research, education and training at a high level, and comprises members who then apply this knowledge in the pursuit of social endeavours. A code of ethics governs the activities of each profession and requires behaviour and practice beyond the personal moral obligations of an individual. They define and demand high standards in respect of services provided to the public and dealing with professional colleagues.<sup>13</sup> These codes are enforced by the profession and acknowledged and accepted by the community. Professionals are accountable to those they serve and to society.<sup>14</sup>

Members of the Australian Defence Force belong to the profession of arms, one of the four 'classical' professions in society.<sup>15</sup> This profession involves employing organised violence against those who would threaten the state, its interests and allies. It carries responsibilities that no other individual, agent or organisation within the nation can either legally or morally undertake. It has the legal capacity to kill on behalf of the state. While other elements in society may kill or injure humans as a secondary effort of their responsibilities, only the military has the legal capacity and obligation to plan for and execute the death and destruction of other humans.<sup>16</sup> It is arguably the most physically and mentally demanding of all the professions.

Clausewitz's writing on the changing character of war is indicative of the need for the profession to not only possess expertise, but to evolve that expertise over time. It demands a commitment to continuous learning and honing skills, knowledge and practice. New ideas and technologies present new ways to fight and necessitate the evolution of new organisational models which will require adaptable systems, people and policies to ensure the profession of arms remains relevant.

Australian Defence Force personnel require intellectual development throughout their career to prepare them for the demands of future conflict. Mastery in the profession of arms demands inculcating a behaviour and culture of continuous learning and intellectual curiosity. The Australian Joint Professional Military Education Continuum is the lighthouse for joint learning in the profession of arms. It leads development of the Joint Force by providing direction and guidance to the four services, and it sets the standard for education and training.

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12 Australian Council of Professions 2018, *What is a professional?* [www.professions.com.au](http://www.professions.com.au), accessed Oct 2018.

13 Australian Council of Professions, 2018, accessed Oct 2018, [www.professions.com.au](http://www.professions.com.au)

14 Evetts, J, Sociological analysis of professionalism: past, present and future, *Comparative Sociology* 10, 2011.

15 The other three are the profession of medicine, profession of divinity and profession of law.

16 Huntington, S., *The Solider and the State*, 1957.

## The intellectual edge

To deter or defeat a threat in future hyper-technical battlespaces and geopolitical environments, the Australian Defence Force must maximise all of its capabilities. It may achieve this by generating relative mass against an adversary which exploits relative capability superiority, exploiting a capability edge or outsmarting adversaries. In future operating environments where superiority through technology or mass alone is unlikely, the highest priority will be developing the flexibility and cognitive capability to allow the Australian Defence Force to adapt to alternative futures. Developing the intellectual edge incorporates not only superior decision making in operations and warfighting: it also focuses on developing personnel who are capable of adapting all available resources to visualise opportunities, orchestrate assets and synchronise the effects in time and space.

The White Paper predicts that our capability edge is likely to decline significantly with increased technological parity between state and non-state actors.<sup>17</sup> With the decline of this edge, we must logically evolve another. These conditions drive the need for investment in an intellectual edge for the Joint Force.

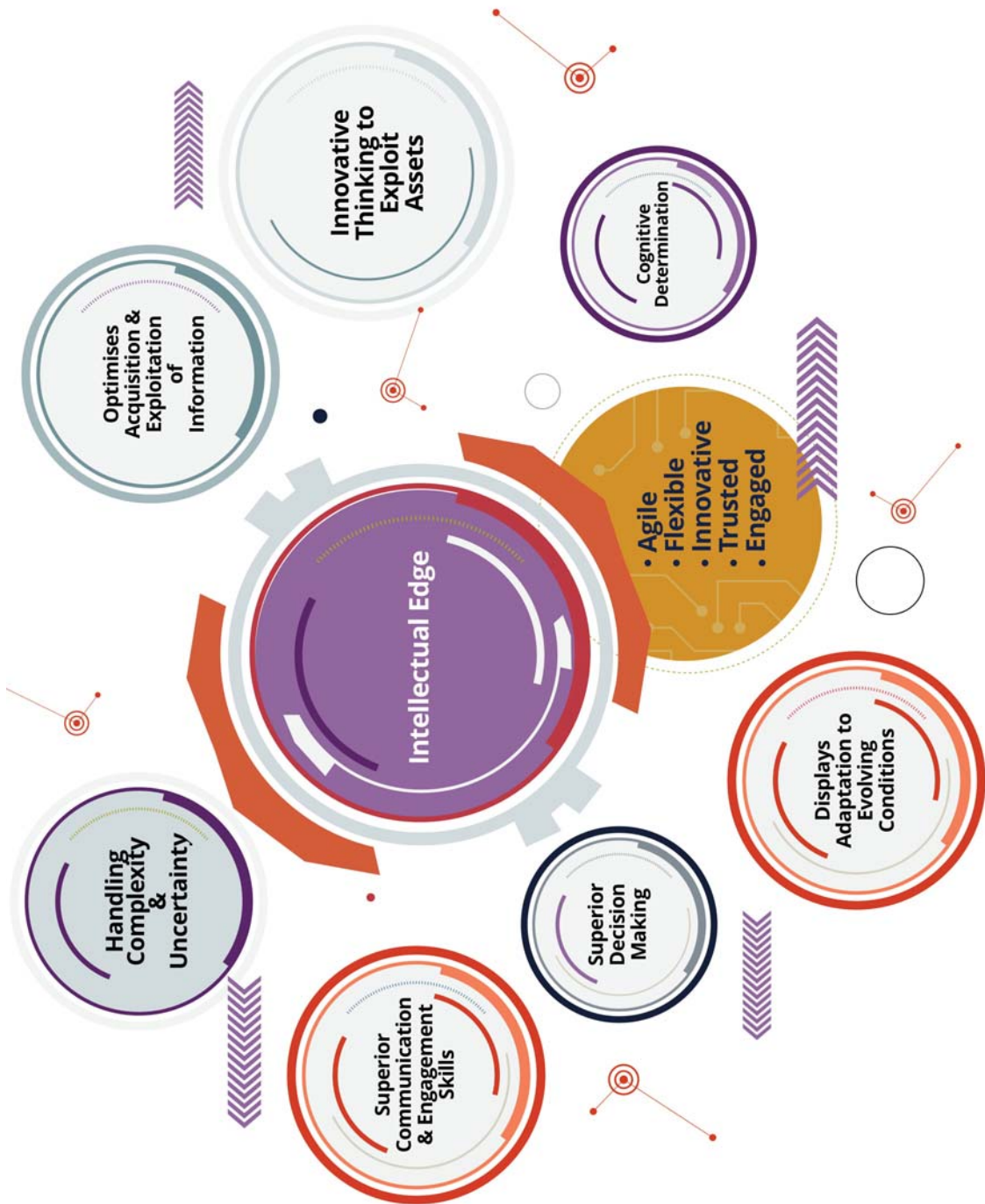
The intellectual edge is the combination of professional knowledge and skills; cognitive capacity; character and ethos; and experience and practice that enables the professional mastery of the member to achieve and sustain the military advantage. When faced with uncertainty and chaos, it will be our ability to adapt to new ways of applying a capability, adopting new organisations and seeking opportunities to defeat our enemy and defend ourselves that will determine our success in war.

The intellectual edge within the continuum links with the Joint Collective Training Continuum sponsored by Chief Joint Operations. This develops the collective professional skills and knowledge in a realistic training environment. The Joint Professional Military Education Continuum develops the whole force over time, as well as identifying and developing key strategic leaders and other specialists.

The intellectual edge is achieved by investing in professional joint education and training, encouraging innovation, building a deep network of relationships within the Joint Force and beyond, and nurturing a spirit of excellence (or mastery) in our profession of arms. The Joint Professional Military Education Continuum in this book outlines the ends, ways and means through which Defence will build and sustain the intellectual edge, and maintain an education and training system which is adaptive to Australian Government priorities.

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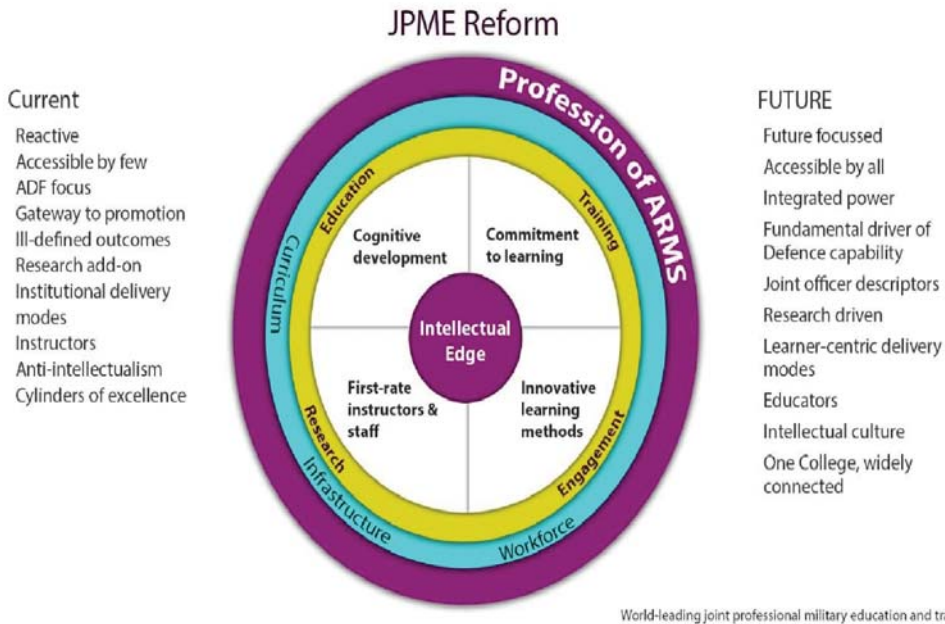
17 Commonwealth of Australia, *2016 Defence White Paper* (Canberra: Commonwealth of Australia 2016).



# CHAPTER TWO

## Joint professional military education: a commitment to change

In 2018 the Australian Defence College analysed joint education and training for Australian Defence Force officers and Defence Australian Public Service personnel. In 2019 the continuum will incorporate senior non-commissioned ranks within the same framework. The diagram below highlights the journey the college has undertaken and the outcome it seeks to implement. These concepts are further expanded in the paragraphs below.



### Transparency, oversight and accountability

The Joint Professional Military Education Continuum is a framework for the Joint Force that will result in joint leaders and staff who are fit for future conflict, can operate effectively and think strategically in the day-to-day business of Defence. The Australian Defence College will provide assurance, accountability and transparency that the right type, right amount and right timing of joint education and training occurs through a coherent and connected continuum and curricula. It will establish mechanisms for reporting overall effectiveness in the Australian Defence Force education and training system which are outlined later in this book.

### Defined outcomes

The continuum sets out defined joint educational outcomes and expected leadership attributes and behaviours—from cadet to general, and Australian Public Service personnel to senior executive.

From mid-2019 senior non-commissioned service personnel will be incorporated into the continuum. This ensures all academic activity—including that undertaken in partnership with contracted providers—meets the needs of participants in the continuum for the Australian Defence Force Academy, Australian Command and Staff College and the Centre for Defence and Strategic Studies, and any future contractual arrangements. It provides direction for all joint education and training identified within the continuum to ensure a consistent and deliberate planning approach is undertaken.

## Accessibility

The Joint Professional Military Education Continuum provides opportunities to participate in a variety of shorter, tailored learning activities. It will guide better interaction, coordination and de-confliction between single-service and joint education and training, and subsequently inform and shape investment in learning technologies and methods by the Australian Defence College. The continuum provides a framework to guide development of online and self-study options, which includes micro learning and blended online learning, particularly where the continuum indicates large temporal gaps in current joint learning opportunities, or where other priorities impact on the ability to release personnel for residential courses.

## Civilian–military integration and engagement

Alignment educational outcomes for military and civilian personnel is important to understand that the reality of war, government decision making, and achieving national security outcomes is not just a military undertaking. The Australian Defence College has committed to increasing civilian–military integration and engagement. This includes greater access to joint education and training opportunities for both Defence personnel and other agencies or similar organisations. Civilian military integration and engagement exposes our people to higher levels of civil–military issues, and ensures they understand—and can work within—the eco-system of domestic and international-oriented Australian national security matters.

## Future focused

The Centre for Defence Research sits within the Australian Defence College. Its mission is to foster research on important national and international Defence and security matters.

The centre is the ‘helm’ that steers the Joint Professional Military Education Continuum and curricula to ensure it is relevant, contemporary and prepares our people intellectually for the future. It is established in research-led education and training that supports and drives ongoing adaptation, innovation and adjustment of the continuum and curricula.

The centre:

- looks to the past to understand the interplay between structure and agency
- builds proficiencies to deal with possibilities that could be faced in the future
- enables complex interactions of human systems to be examined with the lens of the past guides the questions that need to be asked and the evidence that is required
- helps establish representation and interpretations that can be made about future states, and
- defines the qualities, experiences and knowledge sets required to be joint leaders who are capable of excelling in increasingly complex operational and strategic spheres.

These are attributes that take many years to build and to hone, through multiple stages of their careers.

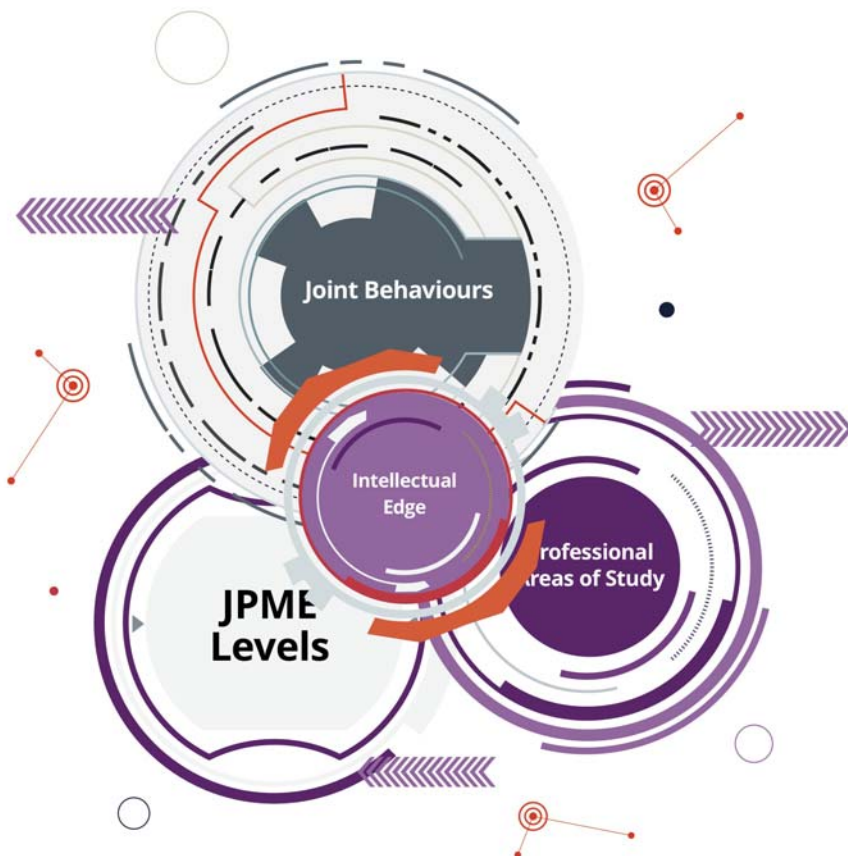


## PART II – THE JOINT PROFESSIONAL MILITARY EDUCATION CONTINUUM

### Overview

The Joint Professional Military Education Continuum comprises:

- learning levels one to five
- Joint Officer<sup>18</sup> Attributes and Behaviours
- Four Core Professional Learning Areas of Study
- Strategic Learning Outcomes, and
- curricula<sup>19</sup> (hosted online).



18 The term 'joint officer' refers to commissioned personnel, non-commissioned personnel and Australian Public Servants. It refers to personnel equally and is not rank based.

19 The curricula is a combination of the Joint Officer Attributes and Behaviours, and the Strategic Learning Outcomes that combine to develop multiple curriculum within and across a professional area of study.

## Learning levels

The five learning levels are generally aligned to career points or rank equivalence over a career for Australian Defence Force personnel and Defence Australian Public Service personnel. They are indicative learning outcomes for all personnel, regardless of employment type, service specialisation, qualification or job specific background. The joint professional officer attributes and behaviours, the four core professional learning areas of study, Strategic Learning Outcomes and the curricula all align within this structure.

## Joint Officer Attributes and Behaviours

The Joint Officer Attributes and Behaviours are defined as an outcome of each learning level. These are signposts that mark the joint officer's development over their career. They clearly articulate the functional descriptions of what the officer must be capable of at various stages of their professional journey. They also ensure there is a continuous approach to professional development with a desired outcome that inculcates a culture of continuous learning. These descriptions ensure that all learning events<sup>20</sup> and opportunities generated from the Joint Professional Military Education Continuum and Curricula build joint officers' attributes and behaviours. They are combined with the Strategic Learning Outcomes when designing and developing learning events that fit within the continuum and curricula. Each descriptor is based on the Defence Leadership Framework<sup>21</sup> which is scaled to reflect increasing scope or breath of accountability and responsibility. Descriptors also:

- include general statement of capabilities and a set of desired behaviours
- build cognitive abilities toward—but not only—critical, creative and strategic thinking, and
- include a statement on commitment to continuous learning in the profession of arms.

Following this overview, the Joint Officer Attributes and Behaviours are described in detail for each learning level.

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20 A learning event in this context refers to the variety of mechanisms and support structures by which an individual can engage in learning. These include but are not limited to courses (residential, online, distance, blended etc.), seminars and conferences, and self-guided learning (readings, articles, blogs, and self-study).

21 Australian Government, Department of Defence 2010, The Defence Leadership Framework, Growing Leaders at all Levels.



Core Professional Areas of Study	JPMET Level 1 Ab-initio training Professional Foundation	JPMET Level 2 O2-O4 Tactical Mastery	JPMET Level 3 O4-O5 APS 6 – EL1 Operational Art	JPMET Level 4 O5-O6 EL1 – EL 2 Nascent Strategist	JPMET Level 5 O7-O10 SES 1 + National Security Leadership
	TACTICAL		OPERATIONAL	ENTERPRISE	STRATEGIC
<ul style="list-style-type: none"> <li>- <b>National Security Policy and Strategy</b></li> <li>- Strategy theory and practice</li> <li>- Understand the Global Environment</li> <li>- National Security and Intelligence</li> <li>- The Defence and Security Organisation</li> <li>- Civil/Military Relations</li> <li>- Preparedness and Mobilisation</li> <li>- Strategic Logistics/sustainment</li> <li>- Communication with Government</li> <li>- Working with Government and Ministers</li> <li>- Interagency Collaboration</li> </ul>	<div style="background-color: #e0e0e0; padding: 10px; border: 1px solid #ccc;"> <p style="text-align: center; font-weight: bold; font-size: 1.2em;">Service led Supported by ADC</p> </div>				
<ul style="list-style-type: none"> <li>- <b>Command, Leadership and Ethics</b></li> <li>- The Profession of Arms, military values and characteristics</li> <li>- Leadership</li> <li>- Command and Control</li> <li>- Oral and Written Communications</li> <li>- Cross-Cultural Intelligence</li> <li>- Ethics and moral component of War</li> <li>- The Law of Armed Conflict</li> <li>- Management and Business in Defence</li> </ul>					
<ul style="list-style-type: none"> <li>- <b>Joint Warfare</b></li> <li>- Philosophy of War and Military Theory</li> <li>- Applied Military History</li> <li>- Tactics across the spectrum of conflict</li> <li>- Operational Art</li> <li>- Operational Logistics</li> <li>- Staff Planning Process</li> <li>- Campaigning</li> <li>- Future Operating Concepts</li> </ul>					
<ul style="list-style-type: none"> <li>- <b>Technology and Capability</b></li> <li>- ADF Capabilities</li> <li>- Capability Life Cycle</li> <li>- Working with Industry</li> <li>- Technical Literacy</li> <li>- Current and Emerging Technology (cyber, AI, robotics)</li> <li>- Application of Technology for Operations</li> </ul>	<div style="background-color: #e0e0e0; padding: 10px; border: 1px solid #ccc;"> <p style="text-align: center; font-weight: bold; font-size: 1.2em;">ADC led Supported by Services and Groups</p> </div>				

## Four Core Professional Learning Areas of Study

The Four Core Professional Learning Areas of Study cover the breadth of general theory, knowledge, understanding, principles and skills considered necessary to master in the profession of arms. They can be applied to the Joint Force, wider Department of Defence, Australian national security community, and foreign Defence Forces. These four areas form the common framework for the core body of knowledge of the profession of arms through which Australian Defence personnel will study at various levels through their career. These areas of study are deliberately broad to accommodate and facilitate changes in focal areas and insights of knowledge, research and lessons learnt over time. They provide the backbone for developing the curricula through which critical, creative and strategic thinking lenses will be honed and developed over time. They are:



## Strategic Learning Outcomes

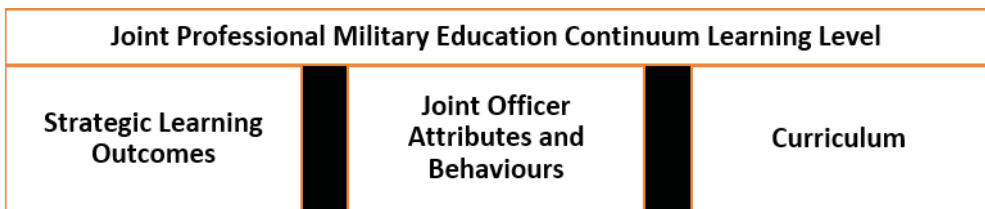
The Joint Professional Military Education Strategic Learning Outcomes complement single-service professional military education systems—including the Defence Professionalisation Framework<sup>22</sup> for Defence Australian Public Service personnel—to provide direction and guidance in the design, development and delivery of joint education and training outcomes. They also incorporate learning opportunities for inter-agency and inter-governmental cooperation and partnerships.

Each of the Four Core Professional Learning Areas of Study has been structured to include learning for all, defined as Core Learning Outcomes. These intend to raise education and learning for the total Joint Force. Targeted learning outcomes are specific in nature, defined to capture specific knowledge and skills of individuals to meet the organisation's need at certain points in their career. This type of learning will be made available to smaller or targeted groups and individuals. Examples of these include just in time training, talent management programs and niche skills sets, elective or specific courses and qualifications. They have been differentiated for individuals who may need to undertake further education and training at a specific period in their career that will benefit the Joint Force.

22 Australian Government, Department of Defence 2017, *Defence Professionalisation Pathways Guide Book*

## The Joint Professional Military Education Curricula

Curricula refers to the aggregate of courses of study or a specific learning set of programs or learning offerings. It describes the teaching, learning and assessment materials available for a given course of study.<sup>23</sup> Curricula necessitate that learners are provided with a road map of what they can expect to learn, such as topics, areas of study, and a sense of how their learning is organised and structured. Typically, a curriculum has a nested structure, meaning there is an overarching program within which are several connected parts.<sup>24</sup> The Joint Professional Military Education Curricula consists of multiple curriculum and learning events,<sup>25</sup> structured around the Learning Levels and Four Core Professional Learning Areas of Study.<sup>26</sup> This program of learning provides personnel with opportunities to identify potential areas of growth and development, and to map out learning and development pathways to master in the profession of arms. Design and development of all curriculum and learning events must ensure they are aligned to the Strategic Learning Outcomes and the Joint Officer Attributes and Behaviours.



The following chapters describe in detail the components of the Joint Professional Military Education Continuum.

23 Macquarie Dictionary, [www.macquariedictionary.com.au](http://www.macquariedictionary.com.au) accessed October 2018.

24 These are typically captured in a Learning Management Package.

25 Includes learning not typically captured in a Learning Management Package as a course. Examples include conferences, seminars, self-study options and exercises.

26 Also known as a prospectus of learning offerings for the Joint Professional Military Education Continuum.



# CHAPTER THREE

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## Joint Professional Military Education Officer Attributes and Behaviours

The following descriptors outline expected Joint Officer Attributes and Behaviours for each Joint Professional Military Education Learning Level. Non commissioned personnel will be incorporated into this continuum from mid-2019.

### Learning Level One: Professional Foundation

*(Ab-initio through First Appointment Course O2, APS 2–4)*

Level One establishes the foundation for junior leadership within the profession of arms. At this level joint officers appreciate the context and roles as an emerging member of the profession of arms through a thorough introduction to the Joint Force. It is a critical phase for inculcating the values, attitudes and behaviours demanded of the profession of arms, and for developing skills in critical thinking and technical literacy within service systems. This level is primarily the responsibility of the Australian Defence Force Academy and service ab-initio officer training institutions, supported by the Australian Defence College. At this level, joint officers are expected to:

- Contribute to organisational purpose and direction.
- Achieve results by making the best use of their own abilities.
- Actively contribute to team goals through cooperation and building good team relationships.
- Display high ethical and professional standards and practices in all aspects of work.
- Convey ideas and concepts within own team and other work groups.
- Develop foundation level knowledge of joint warfare, strategy, national security and technology and capability.
- Apply a systems thinking approach to understand the complexity of problems in the process of contributing to ideas generation and assessing potential solutions.
- Display intellectual curiosity.

### Learning Level Two: Tactical Mastery

*(O2 – Junior O4, APS 4–6)*

Level Two continues to build the foundation for junior leadership within the profession of arms, through tactical mastery within their own service and specialisation. This level is characterised by application of skills in leadership and joint warfighting at the tactical level. Officers at this level will increase their comprehension of and exposure to joint perspectives and environments—including in-service and emerging technology systems that affect the joint battlespace—while contributing their individual specialisation and skills. This is the primary responsibility of the services, supported by Australian Defence College. At this level, joint officers are expected to:

- Comprehend, support and promote organisational purpose and direction.
- Achieve results by making the best use of the team and their own professional, technical and social mastery.

- Build rapport and cooperation within and across teams to produce effective outcomes.
- Display and foster high ethical and professional standards and practices in all aspects of work.
- Facilitate and promote ideas, concepts and arguments within own team and other workgroups.
- Develop tactical level knowledge of joint warfare, strategy, national security, and technology and capability.
- Employ creative thinking to produce novel ideas and apply critical thinking techniques to evaluate their usefulness and to resolve moderately complex problems.
- Commit to self-directed learning.

### **Learning Level Three: Operational Art**

*(Mid O4 – mid O5, APS 6 – EL1)*

Level Three builds on the significant experiential learning provided by the services and group. This period marks a transition from the tactical to the operational and strategic domains as well as the need to understand and operate within the broader Defence Organisation. At this level officers and Defence Australian Public Service junior executives expand their interactions with joint matters at the operational levels of peace and war, and are able to carry out national military strategy and develop operational plans. They are introduced to the Capability Life Cycle, emerging technological trends and disruptive technology effects. This is the point in the continuum where Defence personnel begin to develop and apply strategic leadership capabilities, which builds on their tactical, service leadership and management experience. Officers will be prepared for unit level command appointments. This learning is the responsibility of Australian Defence College, with support from the services. At this level, joint officers and junior executives are expected to:

- Provide direction to others by illustrating how teams align with organisational purpose and direction.
- Achieve results by building teams with complementary skills and expertise, and allocating resources appropriately.
- Build and sustain relationships with a network of key people internally and externally.
- Model high ethical and professional standards as an effective representative of the organisation in public and internal forums.
- Translate ideas, concepts and information to bring mutual understanding and agreed courses of action within their own organisation and across whole-of-government.
- Develop and apply operational level knowledge of joint warfare, strategy and national security, and technology and capability.
- Generate creative approaches and apply critical thinking to produce a range of options to uncertain problems that balance risks and assumptions to assist decision makers.

- Explore potential areas of study within the profession of arms to make a future contribution to the Joint Professional Military Education body of knowledge.

### **Learning Level Four: Nascent Strategist**

*(Senior O5-O6, EL 1 – EL 2)*

Level Four prepares officers and Defence Australian Public Service executives for key command and staff appointments so they are able to lead staff at operational and strategic levels. This level prepares officers for command at formation level. Level Four Officers and Executives apply military power to support national objectives in joint inter-agency, inter-governmental and multinational environments. They are able to use instruments of national power to develop national military strategy, policy, operational plans and Australian Defence Force concepts that incorporate emerging future technological trends. At this level, joint officers and executives are expected to:

- Develop strategic direction and long terms plans for the organisation to create a shared sense of purpose in an environment of ongoing change and uncertainty.
- Achieve results deploying resources astutely, identifying optimum resourcing combinations and managing risk in cross-agency approaches to national security objectives.
- Build and sustain inter-agency, inter-governmental and multinational relationships that provide a rich intelligence network.
- Model high ethical and professional standards as an effective representative of the organisation in international forums.
- Provide advice to government that reflects analysis of a broad range of issues.
- Formulate and execute strategic level knowledge of joint warfare, strategy and national security, and technology and capability.
- Apply experience, rigorous critical thinking, intuition and research to assess and make evidence based decision options for highly ambiguous and ill-defined problems.
- Conduct research that makes a novel contribution in a specialist area of the profession of arms to the Joint Professional Military Education body of knowledge.

### **Learning Level Five: National Security Leadership**

*(O7+, SES 1+)*

Level Five prepares officers and Defence Australian Public Service Senior Executives for key command appointments at service, group and department. Officers and senior executives at this level possess the habits of mind, personal mastery and critical faculties to operate in a competitive, technologically complex and volatile environment at the highest level of strategic responsibility. They influence and holistically implement national strategy by orchestrating all instruments of national power in a coherent plan to achieve national objectives in peace, crisis and war. At this level, joint officers are expected to:

- Set the strategic direction for the Defence enterprise and create a shared sense of purpose across governmental, inter-agency and multinational organisations.
- Achieve results by engaging in agile resource management, looking beyond the

organisation's boundaries to achieve the optimum resourcing combination.

- Sustain deep professional relationships that facilitate cooperation and partnerships through which the Joint Force derives strength and unity of effort.
- Model high ethical and professional standards as an effective representative of the organisation in international forums.
- Provide advice to government that reflects analysis of a broad range of issues, influences decisions in government, other departments, other military organisations and industry.
- Display resilience and adaptability in continuously reforming and streamlining organisational structures and processes.
- Determine and evaluate strategic level knowledge of joint warfare, strategy and national security and technology and capability.
- Capitalise on experience and intuition, and exemplify critical thinking behaviours to assess the strategic impact of potential scenarios to the organisation, government and Australian public.
- Champion the profession of arms and research which contributes to the Joint Professional Military Education body of knowledge.





# CHAPTER FOUR

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## Professional Learning Area One: National Security Policy and Strategy



This area focuses on a thorough examination of the Australian Defence Force and Australia's place in the regional and global context. This demands an understanding of the Australian Defence Organisation, the broader security community and other parts of government. It will examine the systems and support for strategic logistics and sustainment. This will address our relationship and how we communicate with government. It will examine strategy from simple understanding to synthesising and generating strategic direction. Topics include:

- Strategy Theory and Practice.
- Understanding the Global Environment.
- National Security and Intelligence.
- The Defence and Security Organisation.
- Civil-Military Relations.
- Preparedness and Mobilisation.
- Strategic Logistics/Sustainment.
- Communication with Government.
- Inter-Agency Collaboration.

### Strategy Theory and Practice

This topic defines strategy and describes how the strategic level relates to tactics, operations and policy. While the precise definition of strategy is heavily contested, the focus here is on both military and national strategy. This primarily consists of understanding the goals (or ends) sought, the ways in which these goals will be achieved and the resources or means available to achieve them. Strategy is an interactive process, with each of these three elements shaping and informing the other elements.

Key resources include *Getting Strategy Right* (available online) and Defence's Strategy Planning Framework along with other course and pre-course readings.

This topic also explains what strategic thinking is and gives guidance on how to achieve it. It examines how critical thinking and creative thinking relate to strategic thinking. The topic also explores strategic planning and how it differs from and relates to strategic thinking. It further explores how strategic plans are formed and executed.

This topic also includes:

- military strategy and military strategic thinking
- how these differ from – and relate to – other forms of thinking, and
- military history, which is vital for understanding the contributions of historical strategists through a strategic/political lens.

## **The Global Environment**

Australia operates as a member of an international community. This subject highlights Australia's strategic interests and why the international environment area is important to, and affects, Australia. There are relevant national and international theories, concepts, structures and processes that contextualise Australia's interaction with the rest of the world. To understand these fully, it is also important to develop an understanding of the actors in the international system, how they interact, and how the system itself shapes these interactions. This subject also analyses contemporary issues in world politics, the international political economy, non-traditional security, globalisation and international development. Cultural considerations, social traits and conditions, customs and habits, gender roles and relations, ethnic composition and religion can all shape national policy and so remain important at the higher end of this level. All of these considerations assist a whole-of-government comprehension of the impact of world events on Australia.

## **National Security and Intelligence**

This topic examines the elements that influence national security policy. It explores what policy is, how national security policy is formed, the key concerns of Defence and other national security ministers, the legal, constitutional, political and other contexts within which policy operates, the range of government and external influences on policymaking, the roles of other government agencies, and how Defence contributes to formation of policy and also to the deliberations of the National Security and other Cabinet committees.

The structure and roles of the various elements of the Australian Intelligence Community both at home and overseas are described, as are the changes following the 2017 Intelligence Review. This learning area briefly highlights the role of the Inspector General for Intelligence and Security, as well as the parliamentary committee. The learning area also discusses some of the challenges facing the intelligence community (as well as specific areas within it), the implications of these challenges and what they might mean for the future of intelligence. It also examines how intelligence is assessed and how it helps form security policy.

Intelligence is broader than the Australian intelligence community and so this learning area also needs to consider how Defence, the Department of Foreign Affairs and Trade and other agencies monitor local, regional and global events from an Australian national interest perspective.

## **The Defence and Security Organisation**

This topic details the purpose, roles, authorities, responsibilities, functions and relationships of the Prime Minister, the Minister for Defence, Secretary of Defence, Chief of Defence Force and Vice Chief of Defence force as the Joint Force Authority. It explores how the Australian Defence Force is organised to raise forces, plan, execute, sustain and train for joint, inter-agency, intergovernmental and multinational operations. It will look at Defence's roles, how it is organised internally to undertake these roles and what other options might exist. It will also consider the partners with which Defence works and the nature of their contribution. This helps build an understanding of the domestic and international elements of the security environment and their implications for the use of all instruments of national power.

## **Civil–Military Relations**

Civil–Military Relations are the interface and the interoperation of the profession of arms with its host society. Foundation concepts include civil security sector relations, democratic control of security forces and the limitations of national armed forces in policing society. The study progresses to liberal

democracies, transitional societies, multi-ethnic societies, military and social change, and civilian oversight of multinational operations.

### **Preparedness and Mobilisation**

The topic examines the issues, processes and practices involved in preparing, mobilising and responding to unknown future engagement. Military preparedness refers to readiness of the appropriate mix of military personnel, weapons, equipment and supplies to be deployed to achieve a given mission within time constraints. It outlines what training forces need to be prepared for in their future roles. Military mobilisation speaks of the processes and practices required for such a deployment. National mobilisation further implies to co-opting civilian personnel and resources to achieve the desired mission.

### **Strategic Logistics and Sustainment**

Military logistics is the acquisition, distribution, maintenance, evacuation and disposition of military personnel, equipment, supplies and support services. This study area focuses on the importance of logistics and how they contribute to or affect military operations. At more advanced levels, the focus is on the evaluation of future military needs, how they are changing (and may change further in the future) and the design and development of the appropriate military personnel, equipment, supplies and support services required to fulfil those future needs.

### **Communication with Government and other Stakeholders**

In many different situations, the Australian Defence Force needs to give advice or information to various government agencies as well as other stakeholders. This study area explains how to communicate effectively and concisely, as well as the value of 'strategic' communications more generally. It explores the different communication mechanisms that occur between Defence, government and other stakeholders. The various protocols and communication channels and their governance is also described. In specifically engaging with government, this learning area considers ministerial and government needs, their context and information requirements, the need for frank and fearless (apolitical, but politically aware) advice and the purposes of the communication and information provided.

### **Inter-agency Collaboration**

There are many circumstances which will demand an Australian whole-of-government response projected into domestic or international environments. These include emergency response, humanitarian intervention, natural disaster mitigation, domestic terrorism or mass violence, military operations and war. In none of these circumstances can (or should) the military act independently – it will always be more effective in partnership with elements of national power or government. In these circumstances, the Australian Defence Force will work with other agencies including government departments and non-government organisations. This topic examines the issues of working across agencies, including which agencies could and should be engaged and how they contribute to various contingencies. For domestic (and some international) responses, state and territory perceptions, contributions and responses are also important to understand. The structures of formal consultation and inter-agency interaction are also critical.

In addition, this topic explains how to promote working relationships amongst agencies to improve efficiency and effectiveness. Defence brings a very different approach to problem solving issues than other agencies. It is important to understand that the techniques and types of engagement that are effective in a Defence environment may have deleterious consequences when applied externally. The communication and other techniques required to build relationships with external counterparts can differ greatly from those in Defence.





## Strategic Learning Outcomes – National Security Policy and Strategy

### Joint Professional Military Education Level 1 – CORE:

1. Review Australia's strategic environment (regional and global).
2. Detail the roles and responsibilities of components of national security strategy and policy (agencies, structures and responsibilities).
3. Analyse the basic structures, functions and responsibilities of the Australian Defence Organisation.
4. Review the role of civil military relations and their importance to national security.
5. Examine resource management fundamentals at small unit level.

### Joint Professional Military Education Level 2 – CORE:

1. Review the Australian approach to the formulation of military strategy.
2. Examine Australia's strategic environment in context of international and geopolitical influences.
3. Investigate cultural competence as an enabler for individual and mission success on operations.
4. Explore the interaction of strategy and policy across intergovernmental organisations and its impact on national power.
5. Investigate civil military decision making in addressing challenges for Joint Forces.
6. Review conflict environments to understand international security including military and non-military threats.
7. Review the roles and responsibilities of governmental departments and agencies which collectively contribute to national security.

### Joint Professional Military Education Level 3 – CORE:

1. Evaluate Australia's strategic environment and future strategic options.
2. Analyse critically the development of Australia's foreign and Defence policy in relation to current and future key issues.
3. Reflect on how the Australian Government operates and the role of public policy development.
4. Explore joint and multinational logistic and resource management principles and how these impact on Australian Joint Force contributions.
5. Research the purpose, role, authorities, responsibilities, functions and relationship between government and Defence.
6. Synthesise how the Australian Defence Force is organised to plan, execute, sustain and train for joint, interagency, inter-governmental and multinational operations that support national objectives.

### Joint Professional Military Education Level 3 – TARGETED:

1. Evaluate Australian strategy and policy through the integrated employment of military and non-

military instruments of national power.

2. Apply key strategic concepts, critical thinking and analytical frameworks to formulate and execute strategy.
3. Evaluate contemporary operating environments (contestants, trends, genetics, robotics, info and nano (GRIN) developments) for implications to military and security forces.
4. Analyse the ends, ways and means that interrelationships can help achieve national security objectives.

#### **Joint Professional Military Education Level 4 – CORE:**

1. Evaluate the impact of current issues on national Defence policy and strategy.
2. Analyse the implications of the joint functions and the domestic influences on the formulation and development of national security strategies.
3. Analyse the art and science of developing, deploying, employing and sustaining the nation's military resources in concert with other instruments of national power, in a comprehensive approach to attain national security objectives in a changing security environment.
4. Compare traditional international relations theories and apply them as analytical frameworks to examine contemporary global affairs.
5. Critically analyse the practical methods by which nations develop and implement national security policy in light of national interest and values, governmental processes, bilateral relationships and international commitments.
6. Examine the methods by which nations translate national security policies into planning approaches and comprehensive responses to the current and future strategic security environment.

#### **Joint Professional Military Education Level 4 – TARGETED:**

1. Apply joint and service warfare concepts and doctrine to strategic planning.
2. Evaluate how theatre strategies, campaigns and major operations achieve national strategic goals across the range of military operations.
3. Analyse the fundamental nature, capabilities and limitations of the instruments of national power as tools in war and peace.
4. Analyse the organisation, responsibilities and capabilities of the military services and related entities that support Defence. Analyse military strategies and the process by which operational forces and capabilities are integrated by combatant commanders.
5. Evaluate historical and contemporary applications of national security strategies to include the current Australian national security strategy and military strategy.

#### **Joint Professional Military Education Level 5 – CORE:**

1. Analyse the impact of strategic communication and information operations on unity of effort, and the achievement of national objectives.
2. Comprehend the attributes of the joint force, force structure and capability requirements, operational

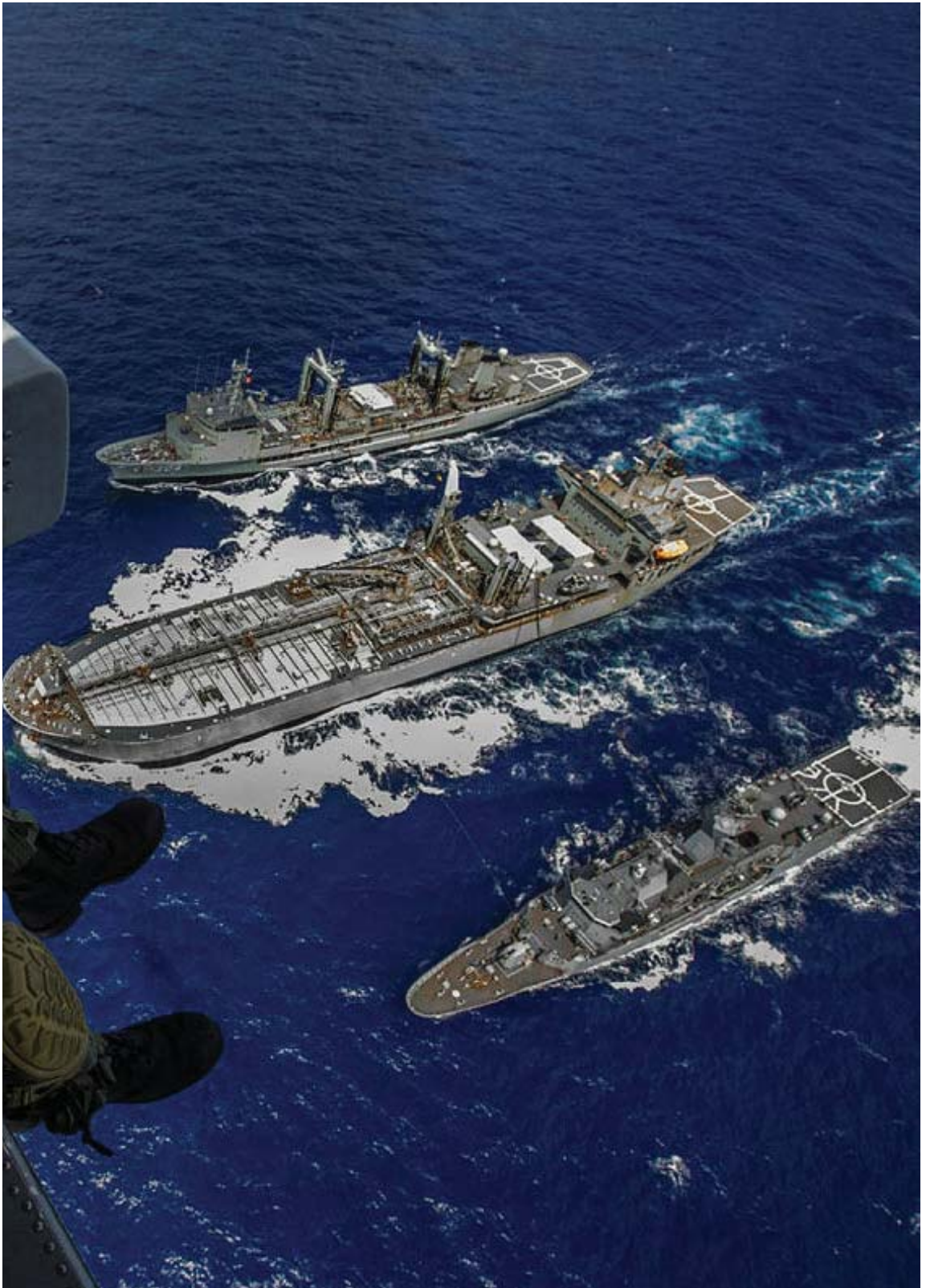
contract support, joint planning processes, emerging concepts and the risks that affect the development of military strategies.

3. Explain concepts and approaches for the employment of a multitude of instruments in support of national security strategy.
4. Evaluate the overarching view of the intelligence services and interface with the national intelligence community leadership to understand support for joint forces from strategic perspectives.
5. Discuss how to lever Australian relations with external stakeholders, including other government departments and agencies, non-government organisations and international partners.
6. Interpret the inter-relationship to grand strategy, policy formulation and employment of the armed forces.

**Joint Professional Military Education Level 5 – TARGETED:**

7. Apply critical and analytical thinking tools and concepts to anticipate and respond to strategic level complexity, uncertainty, change and surprise.
8. Evaluate the implications of contemporary challenges (to include violent extremism, terrorism and insurgency) on strategic thought and national security strategies.
9. Evaluate the fundamental characteristics, capabilities and limitations of all instruments of power on influence.







# CHAPTER FIVE

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## Professional Learning Area Two: Command, Leadership and Ethics

This area focuses on the knowledge, skills, attitudes and behaviours that support effective leadership and followership, from the most junior level to the strategic multinational environment. It addresses what it is to be a member of the profession of arms, and ethical considerations from individual moral responsibility to the just war. This area includes the essential skills of communication, including formal and informal means, Defence writing, academia and professional papers, and presentations. It addresses how we relate to others from small groups to diverse and complex organisations, and how we manage a diverse workforce. It will also provide skills and knowledge in understanding the business of Defence. Topics include:

- The profession of arms, military values and characteristics
- Leadership
- Command and Control
- Oral and Written Communications
- Cross-Cultural Understanding
- Ethics and Moral Component of War
- The Law of Armed Conflict, and
- Management and Business in Defence.

### **The Profession of Arms, Military Values and Characteristics**

There are certain inherent requirements of military service which apply to all Australian Defence Force service personnel and that distinguish the profession of arms from civilian employment. The profession of arms is the acceptance of an ‘unlimited liability’ which separates civilian professions from the military. It includes the commitment to operational service, command and discipline, unrestricted service and regulation of lifestyle. Within the profession of arms there is an ethical obligation to ensure that the lawful use of armed force, which may result not only in the death of others – enemy or own personnel – but also yourself, is conducted in a manner that adheres to Australian Defence Force values and the characteristics expected of Australian Defence Force personnel. This area of study explores the inherent requirements of service and how the required characteristics and values ensure the profession of arms is respected and trusted with the Australian community. Further, this area addresses the requirement for all personnel to become a steward and foster a culture of stewardship of the profession of arms.

### **Leadership**

Leadership in the Australian Defence Force is defined as the process of influencing others to gain their willing consent in the ethical pursuit of missions. For leadership to be effective it must also include the values and behaviours considered important in achieving the ethical pursuit of missions. Furthermore,

while the core tenets of leadership remain unchanged, the style of leadership employed will adapt to reflect the tactical, operational or strategic situation, and the technical and cultural context of the environment in which the group is employed. While the concept of leadership has broad practitioner and academic interest, the Australian Defence Force approach to leadership is that it is a process, and within that process there are a series of components that make up the leadership experience. Mentoring is a key component and embraces the role of leaders as teachers in imparting knowledge, skills and wisdom to inculcate the profession of arms. Moreover, it recognises that effective leadership must be based upon a solid ethical foundation. This area of study explores the range of leadership principles and theories that guide and support leadership in the Australian Defence Force.

### **Command and Control**

Command and Control, often abbreviated to C2, is the system empowering designated personnel to exercise lawful authority and direction over assigned forces to accomplish missions and tasks. The study of C2 explores command responsibilities, and the control elements of coordination and synchronisation of the application of force.

### **Cross-Cultural Understanding**

Much of the Australian Defence Force work conducted at the joint level is across agencies and national borders. It requires an understanding of one's own culture, and its subsets, as well as an appreciation of the cultures of the other groups with which you deal. Each agency and foreign country has its own culture, dialect and customs. To achieve effective Australian Defence Force outcomes at the joint level it is essential to have a sound understanding of the influence of these multicultural factors. This study area examines individual versus collective cultures, interpersonal and social cultural differences and also areas where cultures conform. Participants will develop skills to work effectively with individuals and organisations from a variety of different cultural backgrounds.

### **Ethics and Moral Component of War**

This area of study considers both ethics in the military and military ethics. 'What one ought to do' during the conduct of war is the cornerstone of the moral principles by which a military leader's decision making will be judged. This is encapsulated within the three components of fighting power; moral, physical and intellectual. The moral component of war is significant as it supplies and sustains the will to fight. The decision to go to war is a purely political responsibility, yet the will to fight and the ethical conduct of operations will be determined by the effectiveness of leadership within the military organisation. The ethical and moral components of warfare will be explored deeply within this area of study through observations on military ethics, just war theory and the ethics and morality of future wars.

### **The Law of Armed Conflict**

Civilised nations seek to prevent unnecessary destruction and suffering during war. At the same time, these measures should not impede the effective, and lawful, waging of war. The Law of Armed Conflict informs the rules of engagement. The rules of engagement in turn regulate how armed conflict will be conducted. Law of Armed Conflict seeks to protect civilians, prisoners of war, the wounded, sick and shipwrecked. It forms part of international law and applies to international armed conflicts, and increasingly to conflict within nations and between non-state players. This study area explains how rules of engagement are constructed, briefed to government, form the basis of status of force agreements, and how they can be changed. The study area also explores how to work in coalitions with differing rules of engagement. It also covers the legal issues, international legal mechanisms, and the application of those mechanisms in the military context.

## Communication

Many different forms of communication are required across the various levels and functions of the Australian Defence Force. Broadly speaking, oral communication takes place in formal or informal settings and between individuals or groups. Similarly, written communication has a sender and one or more recipients, and can be in long form or a digital transmission. Other methods of communication include social media networks, video and DVD, and the expanding use of virtual platforms. All forms of communication are influenced by the context in which the exchange takes place, and the form of communication used. This study area examines the communication cycle and the effect of each element of that cycle on understanding the message. It also explains principles of concise and effective communication.

## Management and Business in Defence

Defence is one of the nation's largest enterprises with similar management demands to any other large business entity. Success as a military leader requires a solid grounding in day-to-day business management practice. Managing Defence business is a considerable responsibility with an expectation of consistent and exacting performance. Defence has a responsibility to ensure leaders at every level understand what is expected and produce high quality managerial results. As well as considering issues relating directly to Defence, this study area will examine recent examples of poor corporate conduct and behaviour. This topic provides a structured framework to equip future commanders with the knowledge and skills to effectively meet Defence's corporate responsibility.





## Strategic learning outcomes – Command Leadership and Ethics

### **Joint Professional Military Education Level 1 – CORE:**

1. Develop junior leadership attributes.
2. Explore professional military ethics.
3. Describe the basic principles of the Law of Armed Conflict, Law of the Sea and Just War theory.
4. Acquire basic command and control functions in the Australian Defence Force.

### **Joint Professional Military Education Level 2 – CORE:**

1. Articulate the ethical dimension of tactical leadership.
2. Execute tactical leadership.
3. Explore professional military ethics.
4. Apply the laws of armed conflict, Jus in Bello to tactical operations.
5. Develop subordinates professional mastery.
6. Contribute individual specialisation to joint environments and capabilities.

### **Joint Professional Military Education Level 3 – CORE:**

1. Critique leadership development techniques, theories and cultural issues across a range of situations, integrated and joint work environments.
2. Evaluate personal leadership and personal moral reasoning against requisite competences of strategic leaders.
3. Execute operational leadership.
4. Transcribe the role of the profession of arms in contemporary environments.
5. Characterise the command, leadership and ethical dimension of operational leadership, and the challenges that it may present when considering the values of the profession of arms.

### **Joint Professional Military Education Level 3 – TARGETED:**

1. Analyse command, leadership, ethical, legal and cultural issues within operational military focus at strategic levels.
2. Analyse the Law of Armed Conflict, Jus ad Bellum, Jus in Bello, via the means and methods of warfare.
3. Joint Professional Military Education Level 4 – CORE:
4. Evaluate techniques for leading transitions and building effective joint/combined teams.
5. Develop a peer network to enable future cooperation between senior military officers and senior executives.
6. Assess the practice of strategic leadership.

7. Evaluate the interpersonal skills needed to operate at the strategic level.
8. Apply principles of effective communication, sound judgement and mental agility to develop organisational vision to lead collaborative joint teams to effect desired change.

#### **Joint Professional Military Education Level 4 – TARGETED:**

1. Evaluate the attributes, skills, character and behaviours needed to lead in a dynamic joint, inter-agency, inter-governmental and multinational strategic environments.
2. Evaluate how strategic leaders develop innovative organisations capable of operating in a dynamic, complex and uncertain environment, anticipate change and respond to surprise and uncertainty.
3. Evaluate leadership in the context of the political, societal and international environment to position the Australian Defence Force for success.
4. Examine the role of leadership and professional stewardship in achieving the internal institutional environment to position the Australian Defence Force for success.
5. Analyse the changed nature of joint/combined operations, identifying fundamental differences in the way joint/combined force commanders must think critically and strategically about the environment to anticipate and respond to surprise and uncertainty.

#### **Joint Professional Military Education Level 5 – CORE:**

1. Appraise strategic level problem solving, creative thinking and change management.
2. Execute strategic leadership.
3. Analyse strategic decisions against ethical standards and the shared values of the profession of arms.
4. Demonstrate influence in communicating strategically with government, inter-governmental and inter-agency to execute national objectives.

#### **Joint Professional Military Education Level 5 – TARGETED:**

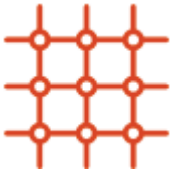
1. Review the role of institutional leaders as stewards of the profession of arms.
2. Synthesise techniques for anticipating and responding to surprise and uncertainty while anticipating and recognising change and leading transitions.



# CHAPTER SIX

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## Professional Learning Area Three: Joint Warfare



Includes understanding the nature and changing character of war through a lens of applied military history. It includes the application of tactics at small tactical level through to operational considerations, operational design, logistics at the operational level, campaigning, war gaming and how future concepts may be applied across the domains and spectrum of conflict. Topics include:

- Philosophy of War and Military Theory
- Applied Military History
- Tactics across the spectrum of conflict
- Operational Art
- Operational Logistics
- Staff Planning Process
- Campaigning, and
- Future Operating Concepts.

### Philosophy of War and Military Theory

Military theory has a classical theoretical base. It has been applied to war and conflicts and discussed in commentaries extensively over the last 200 years. War is a social study. Military strategy is an art. Military tactics are a science. This study area engages the social study, art and science of the various aspects of war. Theoretical discussion centres around concepts such as:

- the dialectical and critical approach to military analysis
- the balance of power mechanism
- the relationship between political and military objectives
- the trinity of war
- the fog of war, and
- friction, strategic and operational centers of gravity.

Competing theories explaining lines of operation and zones of operation are also discussed. Theories of naval and air warfare are explained. Comparisons between western conceptualisations of warfare and those of other cultures are also made.

### Applied Military History

The profession of arms, like other professions, looks to past and existing practice to challenge and inform present and future practice. This study area examines modern conflicts in the light of historical theories. It also examines past practices and uses them to refine new theories and practices for modern conflict situations.

## Tactics Across the Spectrum of Conflict

There are different forms of conflict, and each has different challenges which require different strategies, operations and tactics. Better advice to government—and better mission planning—can be achieved with an understanding of the different forms of conflict.

Different forms of conflict include but are not limited to gray zone conflicts and ambiguous warfare, irregular warfare and terrorism, hybrid warfare, unconventional conflict, deterrence, international engagement and partnering, constabulary (at sea), strategic strike, limited conventional war and major theatre war.

Failure to understand the different forms of conflict and their challenges can lead to undesirable consequences for both society and the military. These include an unreasonable political and public expectation for quick wins at low cost, a simplistic and unrealistic expectation of the efficacy of blunt military power, and naïve views of adversaries and the conflict context.

## Operational Art

Operational art is the use of military forces to achieve strategic goals through the design, organisation, integration, and conduct of strategies, campaigns, major operations, and battles. Operational art helps commanders use resources efficiently and effectively to achieve strategic objectives. Joint operational art focuses in particular on the fundamental methods and issues associated with synchronising air, land, sea, space and special operations forces.

The fundamental elements of operational art include synergy, simultaneity and depth, anticipation, balance, leverage, timing and tempo, operational reach and approach, forces and functions, arranging operations, centers of gravity, direct versus indirect approach, decisive points, culmination and, finally, termination.

## Operational Logistics

Military logistics is the science of planning and carrying out the movement and maintenance of military forces. In its most comprehensive sense, those aspects of military operations which deal with the design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposal of materiel. Logistics also includes transporting personnel, acquisition or construction, maintenance, operation, and disposal of facilities. In addition, operational logistics deals with the acquisition or furnishing of services, and medical and health service support. Logistical judgements require an understanding of the interrelationship of strategy, tactics, intelligence, training, personnel and finance.

## Staff Planning Process

The military has a variety of ongoing functions and staff is needed to facilitate this. The Staff Military Appreciation Process underscores staff planning, and this subject area explains its phases from preliminary analysis, mission analysis, course of action development, course of action analysis, and decision and execution. At higher levels students will be exposed to other approaches such as the United States Military Decision Making Process.

## Campaigning

A military campaign is a series of inter-related military operations. They are distinct parts of a broader conflict. The characteristics of a military campaign are that they are large in scale, long in duration, and require significant military strategy plans.



Campaigning is the discipline of planning, executing, controlling and concluding a military campaign. This subject area assists the participant to understand the operating environment, design and construct the campaign, employ integrated forces to secure gains, and assess and adapt to the campaign. Campaigning also deals with successfully facing the challenges of the complexity of the environment, interactions with adaptive adversaries, trans-regional issues, emerging patterns of competition below the threshold of traditional armed conflict, and integrating military activities with inter-organisational partners.

### Future Operating Concepts

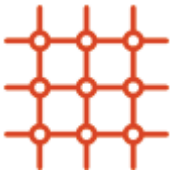
Engagements in the last five years have taught the western military forces that dominating activities alone do not automatically lead to securing the desired political objectives. Maintenance of hard-won political objectives requires methodical, transitional follow-through activities which will likely last for multiple years, even decades.

Modern strategic rivals are achieving their political goals using coercive methods in the competitive space between peace and war. These operations avoid crossing the threshold of military response. They are characterised by uncertainty to create ambiguity and public confusion. This paralyses the political decision making of countering forces and subverts existing legal frameworks.

Fake news and electoral interference are examples of non-military, informational and economic means that modern strategic rivals can use to achieve their political ends. The concepts of contested norms and persistent disorder will have significant impact upon future operations. This topic will enable joint military professionals to consider alternate futures and formulate pathways to desired wins.<sup>27</sup>



27 Joint Concept of Integrating Campaigning , US DoD, 16 March 2018, page 2 and 3.



## Strategic Learning Outcomes – Joint Warfare

### Joint Professional Military Education Level 1 – CORE:

1. Examine conventional and irregular warfare.
2. Discuss the basic process of Joint Operational Planning.
3. Explore Joint Operations.
4. Consider the impact of technology's influence (space, cyber, AI, robotics, etc.) on current and future warfare.
5. Outline current Australian Defence Force operations.

### Joint Professional Military Education Level 2 – CORE:

1. Examine service warfare systems and capabilities (land, sea, air, cyber, space) and how synergetic effects contribute to Joint Force capabilities and operations.
2. Detail the basic principles of joint planning and design using the Joint Military Appreciation Process.
3. Relate the nature and theory of war to doctrine.
4. Explore military decision making models.
5. Review historical case studies and contemporary military issues.

### Joint Professional Military Education Level 2 – TARGETED:

1. Use planning processes to develop tactical plans.
2. Explore the impact of technology's influence (space, AI, robotics, etc) on current and future warfare.
3. Examine the joint aspects of traditional and irregular warfare.

### Joint Professional Military Education Level 3 – CORE:

1. Examine Joint Force command relationships.
2. Analyse campaigns/operations and the operational art of warfare in terms of employment of all instruments of national power.
3. Investigate the process by which policy and strategic decisions are made and how the process is integrated with decisions made at the operational level of war.
4. Examine the inter-relationship among strategic, operational and tactical levels of war and the importance of comprehensive approaches, including phase zero operations, in support of national security interests.
5. Review emerging trends and the future of irregular warfare.
6. Translate the doctrine, organisation and planning requirements for force generation.

7. Explore emerging and non-traditional concepts that shape the character of contemporary joint and multinational warfare.

### **Joint Professional Military Education Level 3 – TARGETED:**

1. Formulate an operational plan using planning processes.
2. Explore national and military strategic planning considerations, objectives and decision making processes for the employment of military forces.
3. Review a comprehensive approach to warfighting through Australian and international perspectives.
4. Illustrate the roles that factors such as geopolitics, geostrategic, society, region, culture and religion, learning, adaptation, and logistics and sustainment play in shaping planning and execution of joint force operations across a range of military operations.
5. Synthesise valid courses of action and function in volatile, uncertain, complex and ambiguous operating environments.
6. Detail the impacts of technology on current and future warfare and the role of a whole-of-government response.

### **Joint Professional Military Education Level 4 – CORE:**

1. Evaluate the principles of joint operations, joint military doctrine and emerging concepts across the conflict continuum from peace to war, and into post conflict settings.
2. Apply joint leader critical cognitive skills to anticipate, plan and respond to complex operational challenges in the joint and combined environment to achieve operational success.
3. Evaluate how strategic level plans anticipate and respond to surprise, uncertainty and emerging conditions.
4. Analyse the impact of strategic objectives on planning comprehensive approaches to operations through the critical analysis of historical campaigns and operations.
5. Examine the art and science of developing, deploying, employing and sustaining military resources in conjunction with other instruments of national power to attain national security objectives.
6. Evaluate the effects contracting and contracted support have on the domestic and operational environments.

### **Joint Professional Military Education Level 4 – TARGETED:**

1. Evaluate joint, inter-agency, inter-governmental, international and multinational capabilities. Review the integration of these in joint planning processes, systems, and command and control to achieve national, theatre and campaign strategic objectives.
2. Analyse the likely attributes of the future joint force and the challenges faced to plan, organise, prepare, sustain, conduct and assess operations.
3. Apply contemporary and emerging planning concepts, techniques and procedures—including phase zero activities, war gaming, modelling and simulation—for integrating battlespace support

systems into campaign and theatre planning operations.

4. Evaluate key classical, contemporary and emerging concepts, including information operations, cyber and space through doctrinal, traditional and irregular approaches to war.
5. Postulate Australian force requirements and force development initiatives in light of the current and anticipated security environment.

#### **Joint Professional Military Education Level 5 - CORE:**

1. Analyse the changed nature of joint/combined operations, identifying fundamental differences in the way a joint/combined force commander must think critically and strategically about the environment in order to anticipate and respond to surprise and uncertainty
2. Synthesise operational level lessons learned from the full spectrum of recent major operations in order to evaluate them with regard to potential future operations
3. Appraise the purpose and role of budget and acquisition processes in national planning when executing strategy and selecting future forces
4. Postulate the future of international security and warfare
5. Examine the strategic implications of higher design and planning for joint, multi-agency and combined operations

#### **Joint Professional Military Education Level 5 - TARGETED:**

1. Analyse processes for future identification and understanding of the challenges associated with blending the art (synergy) and science (synchronisation) of commanding joint forces. This includes learning, anticipation and adaption in command (including joint/combined forces).
2. Evaluate the attributes of the joint force, force structure and capability requirements, operational contract support, joint planning processes, emerging concepts, and the risks that affect development of military strategies and campaigns.
3. Assess the transformational concepts of design and planning, mission command, and command and control enhancements, and the integration of convention and special operational forces that will be employed in future operations.
4. Synthesise the ability to understand the security environment to more effectively apply the instruments of national power to influence a potential's adversary's political, military, economic, social, infrastructure and information elements.
5. Evaluate various issues related to deployment, employment and sustainment of forces from the perspective of the joint/combined force commander.

# CHAPTER SEVEN

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## Professional Learning Area Four: Technology and Capability

This Professional Learning Area focuses on understanding the Australian Defence Force capabilities. At lower Joint Professional Military Education levels this reflects the service technical trade schools training. From level 3 this area examines the capability life cycle and project management including realising future concepts. This area of study also challenges personnel to understand emerging technologies, threats and opportunities and how they can be applied in the wider context of joint warfighting. Topics include:

- Australian Defence Force capabilities
- capability life cycle
- technological literacy
- current and emerging technology, and
- application of technology for operations.

### Australian Defence Force capabilities

A capability is the capacity to achieve a task or outcome. This study area examines the Australian Defence Force roles, structures and responsibilities. It also examines the capabilities in land, sea, air, cyber, space and joint. It explores functions and command of components and how they contribute to achieving desired effects. It evaluates the capabilities and limitations of all services and special operations forces in achieving strategic objectives in an integrated environment. It also analyses the role of supporting service capabilities and joint functions to meet strategic objectives, while considering the effects contracting and contracted support have on the operational environment.

### Capability Life Cycle

The Capability Life Cycle is the core business process of Defence and a central part of the One Defence Business Model. The end-to-end process applies to all major investment decisions, the two main components of capability development and delivery, collectively covering off the introduction, sustainment, upgrade, replacement and disposing of Defence capability. The four phases of the capability life cycle are strategy and concepts, risk mitigation and requirement setting, acquisition, and in-service and disposal.

This study area focuses on understanding the joint and integrated approach to effective development and delivery of future Defence capability to ensure that:

- capability options are aligned with strategic and resource guidance
- benefits of integrated planning are achieved across all the fundamental inputs to capability, and
- critical enablers such as infrastructure and information and communications technology are accorded appropriate priority in investment decisions.

It also covers the importance of:

- transparency
- effective arms-length contestability
- appropriate risk management, planning and governance activities, and
- a fast and simple decision making process.

### **Technological literacy**

Foundational technological literacy means the technological skills that allow individuals to understand the principles in operation, and how they influence effective employment and integration in a systems of systems approach to capability delivery. It implies a foundation level of understanding for further development of more advanced skills.

This subject area develops a technological proficiency in language and understanding of application required to navigate the modern Defence industry and commercial arena. It includes an understanding of the emerging importance of big data techniques, artificial intelligence, and autonomous systems. This study area also examines the possible future demands on technological literacy such as the artificial intelligence/human interface, and artificial intelligence involvement in command and control cycles.

### **Current and emerging technology**

This study area explores technologies currently making an impact on the character of warfare. It also examines the emerging technologies that may change both the character and nature of warfare. Technologies explored include:

- big data
- nanotechnology
- cyber
- artificial intelligence
- autonomous systems
- robotics
- hyper-sonics
- camouflage and stealth technology, and
- directed energy, laser, electromagnetic, particle beam and sonic weapons.

### **Application of technology for operations**

Emerging technologies will change the nature of future threat, and this will impact future ADF capability requirements. This study area explores innovation injected into the capability development process. It examines the impact of new and emerging technologies and techniques on existing and future capability development and delivery, as well as examining the challenges for operational integration of emerging and future technological driven capabilities.



## Strategic Learning Outcomes – Technology and Capability

### Joint Professional Military Education Level 1 – CORE:

1. Outline ADF roles, structures and responsibilities.
2. Discuss future innovations and the capability development process.
3. Explore the inclusion of artificial intelligence and cyber capabilities into Joint Force design, outlining their opportunities and challenges for integration.
4. Review the Capability Life Cycle and the importance for future force structures.

### Joint Professional Military Education Level 2 – CORE:

1. Justify how single service capabilities contribute to the Joint Force (land, sea, air, cyber, space).
2. Review joint functions, commands and structures and how they contribute to achieving desired military effects.
3. Consider emerging capabilities and technology and their integration into the Australian Defence Force.
4. Review recent policy directions focusing on meeting capability needs (First Principles Review).

### Joint Professional Military Education Level 3 – CORE:

1. Analyse the fundamental functions and command components of the Joint Force and examine how they contribute to achieving desired effects.
2. Analyse Australian Defence Force capabilities and postulate their changing requirements and how this contributes to the evolution of the Joint Force.
3. Evaluate Australian Defence Force capability management and force structures.

### Joint Professional Military Education Level 3 – TARGETED

1. Evaluate the structure, function and executive management of Defence and develop policy arguments.

### Joint Professional Military Education Level 4 – CORE:

1. Evaluate the capabilities and limitations of all services and special operations forces in achieving strategic objectives in an integrated environment.
2. Analyse the effects contracting and contracted support have on the operational environment.
3. Analyse and evaluate techniques for leading strategic change and building consensus among key constituencies, including service, joint, inter-agency, inter-governmental and multinational partners given the changing nature of conflict and national security.
4. Define the attributes and emerging concepts of the future joint force and how this force will organise, plan, prepare and conduct operations across all domains.

5. Investigate emerging technology into future operating concepts.

**Joint Professional Military Education Level 5 – CORE:**

1. Evaluate specific enablers such as the decision cycle, information/knowledge, management, targeting methodologies and battle rhythm flexibility that support the commander’s decision cycle.
2. Evaluate the impact of emerging technologies on complex security environments, including the potential of offensive and defensive cyber operations.
3. Integrate emerging capabilities into the Australian Defence Organisation.
4. Develop an understanding of technologies that impact on military strategy.
5. Develop an understanding of technologies and capabilities—including sovereign capability—that influences Defence and national security policy development and implementation.





## PART III – APPLICATION OF THE CURRICULA

### CHAPTER EIGHT

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#### **Approaches to excellence in education and training**

The Australian Defence College seeks to create stimulating, challenging and rewarding learning experiences in a world class learning community. This is achieved through a fusion of education, research and professional practice that inspires learners and staff to enrich the profession of arms. It seeks to achieve excellence in education and training through academic quality standards, quality of teaching, exploiting the capabilities of learners, and optimising the scale and provision of resources to support student achievement. The Australian Defence College prepares personnel to be operational and tactical leaders as well as strategic leaders and thinkers,<sup>28</sup> shaping the rules, norms and values that surround the decisions to use war as a mechanism of national defence, order building, and humanitarian protection now and into the future. We are preparing personnel “to fight war and to construct defences for peace.”<sup>29</sup> Excellence in these areas requires dedicated students, qualified educators and instructors, scaffolded benchmarked curriculum and agile adaptation mechanisms, and a research-teaching nexus. This part of the book outlines the Australian Defence College’s approach to implementing the Joint Professional Military Education Continuum and Curricula.

#### **Difference between education and training.**

There are significant differences between education and training. Training refers to an act of inculcating specific skills in a person, it is learning by doing. Training pertains to mastering practical aspects of a task or job only. It aims to improve the performance, productivity and competency of individuals through learning to carry out employment efficiently and effectively.

Education is a system of learning that aims to create permanent behavioural changes in the individual by imparting knowledge. It is a formal system of learning that helps individuals gain conceptual understandings and develop habits of mind to increase cognitive functions, sense of reasoning, understanding, judgement and intellect. Education prepares people to face future challenges and prepares the person for future roles; it prepares beyond the qualification. Both education and training are important and integral to the Australian Defence Force in preparing its people for now and for the future. The table below highlights some of these differences. The Joint Professional Military Education Continuum seeks to increase the educational opportunities to better prepare our people for the future.

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28 Johnson-Freese, J *Educating America’s Military*, Routledge CASS Military Studies, 2013, p. 1.

29 Johnson-Freese, J *Educating America’s Military*, p. 3.

Basis For	Training	Education
Meaning	The process of inculcating specific skills in a person is training	Theoretical learning in the classroom or any institution is education
Based on	Practical application	Theoretical orientation
Perspective	Narrow	Wide
Involves	Job experience	Knowledge acquisition
Term	Short term	Comparatively long term
Prepares for	Present job	Future job
Objective	To improve performance and productivity	To develop a sense of reasoning and judgement
Teaches	Specific task	General concepts

### Excellence in teaching

Excellence in higher education teaching and learning, and vocational education and training, requires not only expert content knowledge, but knowledge of teaching and learning pedagogy, and experience in educational delivery. The Australian Defence College invests in ongoing staff development to create high calibre educators, instructors, facilitators, researchers and mentors. These are paramount to the success of the Joint Professional Military Education Continuum and Curricula and to create a Defence organisation with a critical intellectual edge.

To attract and retain educators and staff with the right skills, it is important that we understand what excellence in teaching looks like. Currently the global standard for higher education is articulated in the United Kingdom Professional Standards Framework, managed and accredited through the Higher Education Academy in the United Kingdom.<sup>30</sup> Current contracted university partners of the Australian Defence College use the United Kingdom Professional Standards Framework<sup>31</sup> to guide their teaching and learning strategies, ensure quality professional development for educators, and confirm that the teaching delivered is world class. The Australian Defence College will build on the intentions of the framework which include:

- To promote professionalisation of teaching and learning support.
- Foster creative and innovative approaches to teaching and learning.

30 <https://www.heacademy.ac.uk/>

31 UK Professional Standards Framework 2011 <https://www.heacademy.ac.uk/download/uk-professional-standards-framework-ukpsf-pdf-708kb>

- Develop policies and systems to enable staff to gain recognition and reward for developing their capabilities as teachers and supporters of learning.
- Facilitate and support the design and delivery of initial and continuing education development programs and activities.
- Promote a strong culture of teaching and learning support.<sup>32</sup>

## Competencies of higher education professionals

The United Kingdom Professional Standards Framework<sup>33</sup> outlines a series of professional competencies for educators in areas of activity, core knowledge and professional values. Professionals should work to and operate across four descriptor levels which align with experience and roles in higher education teaching and learning. The diagram below outlines the components within each of these competencies.

A crucial aspect for the Australian Defence College in ensuring a commitment to education and training across Defence is to create a strong community of practice in joint professional military education. Vygotsky describes learning as both socially and culturally bound. This can also be thought of as learning bound, especially in an organisation such as Defence which has a very strong and recognisable culture.<sup>34</sup> Learning can challenge this culture and organisational framework, creating an environment of critical thinking, questioning, complex and dynamic learning that moves the organisation forward, while also creating a community of practice that embraces challenges to its foundations. In this learning environment competence does not drive our experience and experience does not prevent us from adopting challenging views.<sup>35</sup>

Alternatively teaching and learning can reinforce the existing community of practice and organisational social learning. This can help strengthen the basis of knowledge, build upon past understandings and practices and use experience to educate those either new to the organisation or taking on different roles as they progress through their career. It is important to understand that these two forms of teaching and learning are not mutually exclusive.<sup>36</sup> As an organisation we need to embrace components of both at different stages in the education continuum. A key to teaching excellence is a strong understanding of how experience and critical academic probing can be integrated into learning to achieve the best outcomes for students.

The following table highlights the core components of the United Kingdom Professional Standards Framework and its relationships to education and support staff at the Australian Defence College.

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- 32 <https://www.heacademy.ac.uk/system/files/downloads/What%20is%20the%20UK%20Professional%20Standards%20Framework.pdf> p. 2.
- 33 UK Professional Standards Framework 2011 <https://www.heacademy.ac.uk/download/uk-professional-standards-framework-ukpsf-pdf-708kb>
- 34 Wenger, E (2000) 'Communities of Practice and Social Learning Systems,' Organisation vol. 7, no. 2.
- 35 Wenger, E (2000) 'Communities of Practice and Social Learning Systems,' p. 227.
- 36 Wenger, E (2000) 'Communities of Practice and Social Learning Systems,' p. 227.

	Descriptor 1 (Associate Fellow) ADC Synodicate Directors	Descriptor 2 (Fellow) Visiting Academic Staff	Descriptor 3 (Senior Fellow)	Descriptor 4 (Principal Fellow) Experienced Academics
Areas of Activity	A1 Design and plan learning activities and/or programs of study	✓	✓	✓
	A2 Teach and/or support learning	✓	✓	✓
	A3 Assess and give feedback to learners	✓	✓	✓
	A4 Develop effective learning environments and approaches to student support and guidance	✓	✓	✓
	A5 Engage in continuing professional development in subjects/disciplines and their pedagogy, incorporating research, scholarship, and the evaluation of professional practices	✓	✓	✓
Core Knowledge	K1 The subject material	✓	✓	✓
	K2 Appropriate methods for teaching, learning and assessing in the subject area and at the level of the academic program	✓	✓	✓
	K3 How students learn, both generally and within their subject/disciplinary area(s)	✓	✓	✓
	K4 The use and value of appropriate learning technologies	✓	✓	✓
	K5 Methods for evaluating the effectiveness of teaching	✓	✓	✓
Professional Values	V1 Respect individual learners and diverse learning communities	✓	✓	✓
	V2 Promote participation in higher education and equality of opportunity for learners	✓	✓	✓
	V3 Use evidence-informed approaches and the outcomes from research, scholarship and continuing professional development	✓	✓	✓
	V4 Acknowledge the wider context in which higher education operates recognising the implications for professional practice	✓	✓	✓
		A commitment to appropriate professional values in facilitating others' learning	Successful engagement in appropriate teaching practices related to the Areas of Activity	Successful engagement in appropriate teaching practices related to the Areas of Activity
Additional requirements	Subject and pedagogic research and/or scholarship within areas of activity	Successful incorporation of subject and pedagogic research and/or scholarship within the above activities, as part of an integrated approach to academic practice	Successful incorporation of subject and pedagogic research and/or scholarship within the above activities, as part of an integrated approach to academic practice	Successful, strategic leadership to enhance student learning, with a particular, but not necessarily exclusive, focus on enhancing teaching quality in institutional, and/or (inter)national settings
	Professional development activity related to teaching, learning and assessment responsibilities	Successful engagement in continuing professional development in relation to teaching, learning, assessment and, where appropriate, related professional practices	Successful engagement in continuing professional development in relation to teaching, learning, assessment and, where appropriate, related professional practices	Establishing effective organisational policies and/or strategies for supporting and promoting others (e.g. through mentoring, coaching) in delivering high quality teaching and support for learning
		Successful coordination, support, supervision, management and/or mentoring of others (whether individuals and/or teams) in relation to teaching and learning	Successful coordination, support, supervision, management and/or mentoring of others (whether individuals and/or teams) in relation to teaching and learning	Championing, within institutional and/or wider settings, an integrated approach to academic practice (e.g. incorporating teaching, learning, research, scholarship, administration, etc)
				A sustained and successful commitment to, and engagement in, continuing professional development related to academic, institutional and/or other professional practices

## Professional Educator Development Program

The Australian Defence College is implementing a world-leading and research-based professional educator development program. Using the United Kingdom Professional Standards Framework as the basis, the program will include:

- applying a variety of education and training approaches including face-to-face, blended learning and online delivery, that facilitate the best learning strategies and delivery mechanisms. Some of these approaches will include visible learning, technology based and problem based learning<sup>37</sup>
- recognising, interpreting and analysing complex problems, and educational design challenges to create and implement effective solutions
- understanding teaching practices and how these can be used in the classroom. This includes the relationship between lecturing (as knowledge imparting), facilitating (knowledge testing and development), mentoring and coaching
- implementing reflective practice in professional self-awareness<sup>38</sup>
- investing in the development of staff scholarly practices including:
  - principles of curriculum design
  - understanding and teaching to learning outcomes
  - student engagement, peer learning and active learning<sup>39</sup>
  - dealing with diversity
  - evaluating teaching quality
  - teaching–research nexus
  - supporting students
  - why we write, including the importance of sound questioning
  - how we write including analysing questions, argument construction and essay framing
  - planning, researching, referencing and academic integrity
  - how to give and receive feedback as a developmental process, and
- moving staff towards professional accreditation and recognition.

The internal program can be further enhanced by helping teaching and support staff to undertake higher education, such as a graduate certificate, diploma, or masters in higher education. Several of our university contracted partners offer these courses which can be completed through various delivery mechanisms to align with workloads. Completing the Professional Educator Development Program will be a mandatory component of education and instructing roles at the Australian Defence College.

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37 Savery, J. R (2006) 'Overview of Problem-Based Learning: Definitions and Distinctions,' *The Inter-Disciplinary Journal of Problem-Based Learning*, vol. 1 no. 1.

38 Brockbank, A and McGill, I. 2001. *Facilitating Reflective Learning in Higher Education* Second Edition, Berkshire: SRHE/Open University Press. See Also Barnett, R. 1992. *Improving Higher Education*, Buckingham: SRHE/Open University Press.

39 Boud, D, Cohen R and Sampson, J (eds) (2013) *Peer Learning in Higher Education: Learning From and with Each Other*, Routledge, London.

## Fellows Program

The Australian Defence College will invest in a Fellows Program which will complement the Post-Doctoral positions and Visiting Chairs in Defence Studies and Ethics established through the Centre for Defence Research. The program will provide opportunities for Military and Defence Australian Public Servants to undertake a research apprenticeship through one of our contracted university partners. Support will be provided to undertake a research degree (PhD or MPhil) in an area of Defence priority, while also teaching courses at the university in relevant areas. The program not only develops research expertise, but teaching and learning experience that can be used when posted to the Australian Defence College on completion of their Fellowship. Their research will contribute to Defence publications and to the field of knowledge in their subject area.

## Teaching methods and delivery approaches

Excellence in teaching requires highly educated staff, the right teaching methods and modes of delivery. The choice of teaching method should be determined by the content being delivered, the teaching strengths of the individual educators, and the learning outcomes required. As learning is understood to be a social, cultural and an organisational activity, teaching methods need to be engaged, imaginative, and aligned.<sup>40</sup> Teaching methods also need to ensure that there are opportunities for engagement through joint activities, interaction and producing outcomes together. Engagement is critical as “the ways in which we engage with each other and with the world profoundly shape our experience of who we are. We learn what we can do and how the world responds to our actions”.<sup>41</sup> This is equally true from an organisational perspective. Imaginative teaching methods help to ‘...orient ourselves, to reflect our situation, and to explore possibilities...’<sup>42</sup>

A variety of teaching methods and approaches will be used by educators and instructors to achieve the necessary outcomes described in the Joint Professional Military Education Continuum and Curricula, and to ensure the development of the joint officer and the intellectual edge. A combination of teaching approaches and methods will be encouraged across the continuum and curricula.

## Learning methods

A key principle of the Joint Professional Military Education Continuum is the understanding that formal education and training is combined with informal learning and development activities, which together, are necessary for the complete development of an individual.

As personnel move through the Joint Professional Education Continuum, learning and development is recognised using the 70:20:10 model. This model acknowledges that most learning comes from experience on the job and exposure to desired leadership behaviours through mentorship, job shadowing and stretch assignments. This model highlights three types of learning: experience, exposure and education.

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40 Wenger, E (2000) ‘Communities of Practice and Social Learning Systems,’ pp. 227–228.

41 Wenger, E (2000) ‘Communities of Practice and Social Learning Systems,’ p. 227.

42 Wenger, E (2000) ‘Communities of Practice and Social Learning Systems,’ p. 228.



## Mentoring

Mentoring is an interpersonal relationship between two people—the mentor and the mentee—who work together to achieve development goals over an extended period. It is a supporting relationship that embeds change, improves performance and raises the impact in personal and professional development. The adoption of mentoring behaviour in the Australian Defence College is a cornerstone expectation of staff. The Australian Defence College asserts that leaders are teachers and mentors who take an active role in developing others, and who are an integral part of leadership in the profession of arms.

## Residential courses

Residential courses have been the standard form of education and training delivery since the first universities opened in the 11th century.<sup>43</sup> It has long been argued in pedagogical literature that learning is active and is situated within, and impacted by, social and cultural context.<sup>44</sup> The interaction with peers, and with educators, as well as the more critical nature of an environment that allows for active debate, is what makes face-to-face delivery so successful and popular.<sup>45</sup> In addition, a very significant component of the learning experience in any residential course is networking and cohort building. The creation of a professional network will carry through a career and is fundamental for ensuring the Defence Department, national security agencies and Defence industry partners are able to work well together into the future. This method of education and training delivery will be enduring, including the ongoing adaptation of practices to combine learning innovations and the needs of students in the 21st century.

43 Kaplan, A.M and Haenlein, M (2016) 'Higher Education and the Digital Revolution: About MOOCs, SPOCs, Social Media, and the Cookie Monster,' *Business Horizons*, vol. 59, p. 442.

44 Crews, T and Butterfield, J (2014) 'Data for Flipped Classroom Design,' p. 44. This has been most famously articulated in the work by Vygotsky, L. (1978). *Mind and society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.

45 Crews, T and Butterfield, J (2014) 'Data for Flipped Classroom Design, p. 41.

## Alternative Learning and Delivery Mechanisms

Interactive, flexible and student-centred learning such as blended, hybrid, micro learning, self-study and flipped courses—which include both online and face to face components—are becoming more popular for alternative learning modes.<sup>46</sup> This type of learning and delivery effectively captures the ability for students to engage with different mediums, to combine work and study, while allowing for networking, relationship building, and critical engagement that comes with face-to-face delivery modes. These are explained below:

- Online delivery allows for education and training to be delivered using a clear structure, a single platform of interaction, clear goals, and flexibility. Courses can be delivered in a synchronous or asynchronous manner to support the learner.<sup>47</sup>
- Blended delivery options allow broader access to the suite of education available in the Joint Professional Military Education Curricula.
- Flipped classrooms will be implemented in residential programs and courses. This approach is a learner-centric model where students are expected to prepare themselves outside of the classroom using the online component provided for knowledge transfer. Rather than a traditional lecture to convey information or transfer knowledge, this is achieved through carefully designed online delivery such as a recorded lecture, readings, videos and demonstrations. During tutorials, students focus is on the application, testing and expansion of this knowledge, problems solving, group interaction, project work, or inquiry based learning.<sup>48</sup> This approach builds more successful life-long learners capable of a more nuanced critical application of knowledge with higher order problem solving skills.<sup>49</sup>
- Self-study and self-directed learning is an important aspect to enhance intellectual curiosity in the profession of arms. This mode of learning falls on the responsibility and desire of an individual to seek out learning and development for personal and professional growth. Self-study and self-directed learning options will be hosted on The Forge.<sup>50</sup> Facilitated unclassified literature, media, learning resources, information and available learning opportunities across the continuum will be made available for personnel to commit to self-development through self-study.

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46 Crews, T and Butterfiled, J (2014) 'Data for Flipped Classroom Design: Using Student Feedback to Identify the Best Components From Online and Face-To-Face Classes,' Higher Educations Studies, vol.4, no. 3, 2014, p. 38.

47 Crews, T and Butterfiled, J (2014) 'Data for Flipped Classroom Design,' pp. 42-43. See also Kaplan, A.M and Haenlein, M (2016) 'Higher Education and the Digital Revolution, p. 444.

48 Crews, T and Butterfiled, J (2014) 'Data for Flipped Classroom Design,' p. 40. See also Bergmann, J., & Sams, (2012). *Flip Your Classroom: Reach Every Student*. International Society for Technology in Education; and the Flipped Learning Network <https://flippedlearning.org/>

49 Van Vliet, E.A, Winnips, J.C and Brouwer, N (2015) 'Flipped-Class Pedagogy Enhances Student Metacognition and Collaborative-Learning Strategies in Higher Education But Effect Does Not Persist, *Life Sciences Education*, vol. 14.

50 The Forge is an unclassified, open source website managed by the Australian Defence College. This site will host learning content and materials related to the Australian Joint Professional Military Education Continuum.



- Micro learning, nano degrees, or micro credentials are an opportunity to gain knowledge in a very specific study area. They are delivered almost exclusively online and can have any number of students enrolled at any time, as they can be done at the students' own pace.
- Conferences and seminars allow for an intensive interrogation of a theme or specific topic and can be tailored to a specific level within or across the continuum. These learning forums bring together leading experts in a specific field and are best used to challenge existing assumptions and knowledge, as they allow for questions, problems, issues and controversies to be explored in detail. Conferences and seminars can capture a larger and more diverse audience in a short period of time at a relatively low cost. They are very useful for showcasing the most up-to-date research and establishing future learning interests. They provide an excellent experiential learning opportunity by enabling sharing and questioning in an open forum and networking opportunities with other participants.
- Simulation and wargames provide learners with a high degree of realism and allow for maximum learner participation to test operational decision making and examination of wicked problems. They allow for identification of weaknesses in plans, testing of critical thinking processes and generates creative and strategic solutions. Wargames are an excellent vehicle for learning various aspects of military art.





# CHAPTER NINE

## Excellence in developing learners

The Joint Professional Military Education Continuum seeks to harness and broaden the development of individuals for the benefit of the organisation as a whole. The Australian Defence College educates life-long learners who are able to apply their skills and knowledge beyond the classroom in the context of their professional roles and personal ambitions.

Experience (informal)	Exposure (informal)	Education and training (formal)
<ul style="list-style-type: none"> <li>• On the job experiences: tasks, practice and feedback</li> <li>• Higher duties</li> <li>• Job rotation</li> <li>• Secondments</li> <li>• Work projects</li> <li>• Simulations (for practice)</li> </ul>	<ul style="list-style-type: none"> <li>• Attendance at events</li> <li>• Conferences/symposiums</li> <li>• Mentoring and coaching</li> <li>• Communities of practice</li> <li>• Cross functional projects</li> <li>• Exercises</li> <li>• Professional networks</li> <li>• Job shadowing</li> <li>• Seminars</li> <li>• Discussion groups</li> <li>• Webinars</li> <li>• Videos</li> </ul>	<ul style="list-style-type: none"> <li>• Residential courses (e.g. ACSC)</li> <li>• Virtual classrooms</li> <li>• Online (eLearning, lecture recordings)</li> <li>• Workshops</li> <li>• Instructor-led training (classroom)</li> <li>• Defence library</li> <li>• Academic research</li> <li>• Simulations (for training)</li> </ul>

## Effective learners

One of the most important skills we can teach students is learning how to be an effective learner. This shifts the focus in education from ‘what’ we need to know to ‘how’ we should learn. Success in learning is not always about the content. Mastery of specific skills and knowledge is vital at levels one and

two of the Joint Professional Military Education Continuum, where emphasis is both educational and vocational. When students transition into levels three, four and five of the continuum, success will be measured also by their development as a learner and their ability to ‘...have the personal capability to find new approaches or fresh information, and ... to apply these in an effective manner’.<sup>51</sup>

Learning to learn involves understanding how best to acquire the skills and how to operate best as a learner. Some students learn most effectively in an individual environment, others thrive on interaction, discussion and group work. Regardless of the approach, establishing effective learners requires building self-awareness and reflective students, supported by the right learning approaches so they can adjust practices where needed. This is described as ‘double-loop learning’, understanding how, where and why to learn.<sup>52</sup> This is a learner-centric model of learning and skill to develop and is often used in non- residential educational delivery where a learner is responsible for negotiating the structure and learning strategies themselves.

To develop excellence in learners, the role of educators requires:

- awareness of the different types of learning
- how they play a role in the acquisition of knowledge, and
- how they can be used in the process of solidifying knowledge in an active learning environment.

A crucial component of this is creating self-aware learners who can recognise different learning processes and critical skills for success.<sup>53</sup>

## Cognitive development

Cognitive development includes:

- Leadership – a combination of habits of mind and behaviours that can be learned and honed over time. When combined with the knowledge and skills to build mastery in national security policy and strategy, joint warfighting and technology and capability, our framework naturally generates an intellectual advantage.
- Thinking – slow and fast, critically, creatively, tactically, strategically and politically, concrete to abstract and conceptual. Futures thinking. A capacity to think broadly and deeply.
- Envisioning, envisaging and imagination.
- Visualisation of second/third/other order effects.
- Acuity, information sensitivity, speed and accuracy of comprehension, pattern recognition.
- Decision making – deliberate, intuitive, RPDM and a bias to make decisions, fail fast, adapt, learn, reorientate then try again.

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51 Sharples, M Adams, A, Ferguson, R Gaved, M McAndrew, P Rienties, B Weller, M and Whitelock, D (2014). *Innovating Pedagogy 2014: Exploring New Forms of Teaching , Learning and Assessment to horde educators and Policy Makers*, Open University Innovation Report No. 3

52 Sharples et al *Innovating Pedagogy 2014*, p. 21.

53 *Innovating Pedagogy 2014: Exploring New Forms of Teaching , Learning and Assessment to horde educators and Policy Makers*, Open University Innovation Report No. 3 <https://www.learntechlib.org/p/149392/> p. 20.

- Ability to learn – the capacity to realise the opportunities to develop and adapt, and capacity to learn.
- The ability to do all the above under pressure in arduous, adverse and dangerous conditions, or conditions of great psychological pressure in the face of voluminous information of questionable veracity or pertinence.
- Exemplifying and modelling behaviours expected of personnel including a commitment to life-long learning.

## Research skills

Research is defined as ‘original work conducted to produce new knowledge.’<sup>54</sup> Research is systematic, planned and purposive.<sup>55</sup> The Defence library service provides research process support and—combined with the Centre for Defence Research—support to students through lectures on research and writing skills. All students enrolled in a Post Graduate Degree undertake a research methods course and staff will be skilled through the Professional Educator Development Program. Skills and processes that are emphasised include:

- Why do we research? What does it mean to make a novel contribution to knowledge?
- Establishing research questions.
- What do you research? Different types of research materials that can provide you with the information you need.
- Where do you find information – using libraries, archives and online resources.
- Non-text based research – interviews or discussions as a form of knowledge building.
- How to use the information you have collected. Analysing sources to make an argument.
- Research and writing relationship.

## Writing skills

Writing is considered a traditional format of assessment in higher education. Academic writing asks for an artificial and systematic structure that students commonly struggle with. Explicitly teaching students why writing is important and how to write is a critical task that the college will undertake. This will include a focus on academic processes such as:

- Australian academic culture and how this impacts how and why we write
- how to analyse a question
- how to frame an argument versus tell a story. Academic writing is ‘writer responsible’ and students will be taught what this means for how to structure, write and evidence work
- how to plan a writing structure (essay, literature review, presentation etc. Different writing requires a different focus)

54 Mapping Australian Higher Education Report, p. 14.

55 TEQSA ‘Guidance Note: Research and Research Training’ Version 1.3, July 5 2018, <https://www.teqsa.gov.au/latest-news/publications/guidance-note-research-and-research-training>

- academic integrity
- how to use a topic sentence and link paragraphs
- how to maintain an argument across a piece of writing including signposting
- referencing styles and the mechanics of referencing, including effectively integrating research into your writing
- drafting and feedback, and
- editing and proof reading.

The Australian Defence College will ensure that regardless of which level of the Joint Professional Military Education Continuum a student is engaging at, there will be resources available to educate and support our people as researchers and writers into their professional careers.



# CHAPTER TEN

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## Excellence in engagement

The Australian Defence College seeks engagement with internal and external audiences. This enables relationships with stakeholders to be strengthened, trust to be built, and resources committed to ongoing education and training development as an investment in the future of the Australian Defence Force. The size of the Australian Defence Force means we are unable to maintain the requisite skills and knowledge in all areas of education and training required for the teaching and learning functions at the Australian Defence College.

Excellence in engagement is fundamental to ensuring that we attract the highest quality educators to contribute to our mission and strategy. Many of these will be from international partners including the United States, United Kingdom, New Zealand, Canada, Singapore, Indonesia, Japan and the Pacific. Similarly, the size and nature of Australia's research community means we are often a consumer of research advancements rather than a leader in research fields. This is where strong engagement and relationships can ensure access to the most up-to-date information to educate our people. Building collaboration in research and education builds our capacity to provide a world-leading program for Australian and global Defence personnel.

Excellence in engagement is fundamental to academic research. The Centre for Defence Research's emphasis is to:

- connect with domestic and international researchers
- partner in research initiatives
- ensure world-class publication output, and
- integrate research into teaching.

The Australian Defence College Research Scheme seeks to connect national and international researchers to the college and produce critical research in priority areas. Distinguished scholars from around the world will work with us through the Visiting Chair program, and invest in the future generation of researchers through a post-doctoral program. The college will recognise our Defence, industry and academic partners and stakeholders—and engage with them early and often—as a priority setting for curriculum design and development.





# CHAPTER ELEVEN

## Excellence in quality standards and outcomes

The Joint Professional Military Education Continuum and Curricula is centred on a commitment to quality standards and outcomes that operates within the Australian Qualifications Framework. It is guided by the governing bodies which set the standard for education and training.

### The Australian Qualifications Framework

The Australian Qualifications Framework sets the policy for regulated qualifications in the Australian education and training system. The framework was first introduced in 1995 to underpin the national system of qualifications in Australia, encompassing higher education, vocational education and training, and schools. The framework is the agreed policy of Commonwealth, state and territory ministers.<sup>56</sup>



The framework applies to all learning across the Joint Professional Military Education Continuum and Curricula as it incorporates vocational qualifications as well as higher education. Regardless of whether the educational and training offerings are directly accredited to a qualification, these qualifications standards will be the minimum baseline of design and development. For example if a short course is aimed at attracting students between level three and level four of the continuum, then it needs to be designed to an Australian Qualification Framework Level Nine – Master Degree standard. The Australian Qualification Framework Level Nine criteria is captured in the below table.<sup>57</sup>

56 Australian Qualifications Framework Council Australian Qualifications Framework Second Edition, January 2013 <https://www.aqf.edu.au/aqf-second-edition-january-2013> p. 8.

57 Australian Qualifications Framework Council Addendum to AQF Second Edition January 2013: Amended Qualification Type – Masters Degree, 2014, <https://www.aqf.edu.au/aqf-second-edition-january-2013> p. 5.

AQF level 9 criteria	
<b>Summary</b>	Graduates at this level will have specialised knowledge and skills for research, and/or professional practice and/or further learning
<b>Knowledge</b>	Graduates at this level will have advanced and integrated understanding of a complex body of knowledge in one or more disciplines or areas of practice
<b>Skills</b>	<p>Graduates at this level will have expert, specialised cognitive and technical skills in a body of knowledge or practice to independently:</p> <ul style="list-style-type: none"> <li>• analyse critically, reflect on and synthesise complex information, problems, concepts and theories</li> <li>• research and apply established theories to a body of knowledge or practice</li> <li>• interpret and transmit knowledge, skills and ideas to specialist and non-specialist audiences</li> </ul>
<b>Application of knowledge and skills</b>	Graduates at this level will apply knowledge and skills to demonstrate autonomy, expert judgement, adaptability and responsibility as a practitioner or learner

## Education and training regulatory bodies

The Australian Defence College must comply with two regulatory bodies for quality standards in education and training. For higher education national quality assurance, the regulator is the Tertiary Education Quality and Standards Agency. Vocational education and training quality standards are overseen by the Australian Skills Quality Authority. The Australian Defence Force is a registered training organisation and must comply with all legislative and policy requirements under the frameworks managed by Australian Skills Quality Authority. The Australian Defence College is responsible for maintaining Defence registered training organisation status.

The Tertiary Education Quality and Standards Agency regulates and assures the quality of Australia's higher education sector. It registers any organisation that offers higher education qualifications, defined as Australian Qualifications Framework levels 5 to 10.<sup>58</sup> The agency is underpinned by a suite of higher education legal frameworks including the *Tertiary Education Quality and Standards Act 2011*, The Higher Education Standards Framework (Threshold Standards 2015), *Education Services for Overseas Students Act 2000*, and the National Code of Practice for Providers of Education and Training to Overseas Students 2018.<sup>59</sup>

The Australian Defence College contracted university partners report regularly to the Tertiary Education Quality and Standards Agency on student outcomes, course standards and the degrees offered. All education available through the Joint Professional Military Education Continuum and Curricula will align carefully with the Threshold Standards.<sup>60</sup> The standards will be mandatory guidance for all Joint Professional Military Education curriculum design, development and delivery—including evaluation—regardless of the type of learning. The Australian Defence College ensures all staff are qualified for their roles in the vocational education and training sector and for higher education.

58 TEQSA 'What we Do' <https://www.teqsa.gov.au/what-we-do>

59 TEQSA 'What We Do' <https://www.teqsa.gov.au/what-we-do>

60 TEQSA 'Higher Education Standards Framework 2015' <https://www.teqsa.gov.au/higher-education-standards-framework-2015>

## CHAPTER TWELVE

### Changing the curricula – adaptation mechanisms

There are many challenges in measuring the effectiveness of learning and development activities for the business of Defence. Typically, Defence measures education and training outcomes—including course completions, graduation results and feedback from the workplace and the learner—to determine whether learning has had an impact on the individual. Implementing the Joint Professional Military Education Continuum highlights many challenges to successfully identifying the impacts and benefits the continuum and curricula will have on the organisation, workplace and individual, to ensure it contributes to inculcating an intellectual edge for the Australian Defence Organisation.

The Australian Defence College will establish an evaluation and reporting framework from 2019 and undertake continuous evaluation to improve the curricula and assess how the continuum and supporting curricula are instilling the Joint Officer Attributes and Behaviours, and contributing to the intellectual edge.



### Evaluation and performance measurement

The evaluation and reporting framework will be reflected through the Defence endorsed Systems Approach to Defence Learning<sup>61</sup> based on the internationally recognised ADDIE model of learning development—Analyse, Design, Develop, Implement and Evaluate. It is the mandated model by the Secretary and Chief of the Defence Force for all Defence learning and development activities.<sup>62</sup>

While evaluation activities occur across all phases of this model, most are concentrated in the Analyse and Evaluate phases.

### Analyse phase

In this phase, the Australian Defence College will engage with learning authorities and subject matter experts to analyse learning needs across the continuum. Activities include assessing the scope of performance problems, and defining target audiences, job roles and learning objectives. The current skills, knowledge and attributes of learners, desired role capabilities and existing learning and development opportunities will be evaluated. Measures to assess the impact of Joint Professional Military Education Continuum on the organisation will be established for monitoring in this phase.

61 Australian Government, Department of Defence, 2016, *The Systems Approach to Defence Learning (SADL), Practitioner Guide*, available at this [link](#).

62 Australian Government, Department of Defence, 2016, *The Systems Approach to Defence Learning (SADL), Practitioner Guide, Preliminaries*, page 9.

## Design phase

Evaluation methods will occur on learning event content maps for face-to face, residential and blended courses, including storyboards for online and digital learning. These will assess:

- how the curriculum is structured
- materials or learning aids used, and
- activities to reflect learning outcomes.
- Engagement with subject matter experts will determine the quality of curriculum content.

## Develop phase

Evaluation of the developed learning materials and content occurs through a pilot of the curriculum, where evaluators assess materials, timing, design, participant interaction, quality of the facilitator and other presenters, and analyse feedback from participants. Review of the materials by subject matter experts also occurs during this phase.

## Implement phase

Evaluation occurs by gathering feedback from students and educators following learning completion. This occurs immediately after a learning event and can be repeated when further application on the job has occurred. This process flows into the evaluate phase where the data is aggregated and analysed.

## Evaluate phase

This phase evaluates the effectiveness of the Joint Professional Military Education Continuum and Curricula. It includes:

- reviewing feedback provided by participants on their individual learning
- facilitator feedback, and
- assessing quality of content and program coordination against learning outcomes and objectives.

Evaluation data is combined with other information systems, including learning management systems and PMKeyS data to provide an overall picture of learning uptake and effectiveness. Reporting to relevant stakeholders, both internal and external, also occurs during this phase.

## Evaluation model

Evaluation is a systematic, objective assessment of the appropriateness, effectiveness or efficiency of a learning solution including the input requirements and subsequent workplace performance.<sup>63</sup> The Systems Approach to Defence Learning advocates the use of the Kirkpatrick Evaluation Model. The Joint Professional Military Education Evaluation and Reporting Framework will be based on Kirkpatrick's Evaluation Model, and will explore other options such as the Phillips' Return on Investment Model to build a robust, effective evaluation and reporting framework. An abbreviated snapshot of Kirkpatrick's Evaluation Model is outlined below.

### *Level one: reaction*

Reaction measures how individuals reacted to the learning and development initiative and the learning administration. It is desirable that participants feel the initiative was a valuable experience for their

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63 Australian Government, Department of Defence, 2016, *The Systems Approach to Defence Learning (SADL), Practitioner Guide, Preliminaries*, page 16.

individual learning, content was relevant to their role, facilitators and the materials were credible, and that venue and coordination were of a professional standard. This level assists in improving the learning initiative for future deliveries.

#### *Level two: learning and confidence*

This level measures whether employees acquired the knowledge, skills, attitudes and behaviours from the learning event and how motivated and confident they are to apply their learning in the work environment.

#### *Level three: behaviour and workplace application*

The behavioural level of measurement evaluates the extent to which an individual's behaviour has changed due to the learning they have completed. It reviews how they have applied their learning within the work environment and the extent to which their chain of command has supported the application of learning.

#### *Level four: impact and results*

This level evaluates the impact that the Joint Professional Military Education Continuum has on business outcomes and departmental culture. The metrics to illustrate the impact on business results are identified during the analyse phase, and should be considered throughout the design of education and training events. In a small number of cases, a financial analysis, or return on investment evaluation may also be conducted to demonstrate the economic benefit of education and training to the organisation.

### **Reporting**

The evaluation and reporting framework outlines a consistent approach to collecting and analysing learning and development evaluation information across the Joint Professional Military Education Continuum and Curricula. It will outline the approach the Australian Defence College will take to report performance to departmental executives, committees, academic partners and continuum users. A strong evaluation framework supported by clear systems and processes will help establish a cycle of continuous improvement. It will underpin the Australian Defence College's role as a centre of Joint Professional Military Education learning excellence.

### **Accountability and responsibility**

The Australian Defence College is the policy owner for Systems Approach to Defence Learning and the evaluation and reporting framework. Commander Australian Defence College is accountable for establishing learning and development processes and standards across the joint individual education and training environment. The college is responsible for evaluating and reporting activities for the entire Joint Professional Military Education Continuum.

## Reporting

This table outlines the methods by which Joint Professional Military Education Continuum and curricula evaluation data will be reported.

	Report Type	Frequency	Reported To
<p><b>Department Level:</b></p>	<p>Report on Joint Professional Military Education Continuum and Curricula effectiveness (includes all learning uptake and evaluation data) plus recommendations for curricula priorities for the following year (in conjunction with the Centre for Defence Research)</p> <p>Joint Professional Military Education Continuum and Curricula Report</p>	<ul style="list-style-type: none"> <li>Annual (mid-year)</li> <li>Align with meeting schedule</li> </ul>	<ul style="list-style-type: none"> <li>Chief of Services Committee</li> <li>Training Education Policy and Projects Group</li> <li>Defence Education and Training Board</li> </ul>
<p><b>College/ Faculty/ Program Level:</b></p>	<p>Joint Professional Military Education Curricula Report by professional areas of study and learning level (includes a high-level dashboard summary of learning through-put and evaluation data)</p> <p>Training needs analysis report – as required for new education and training initiatives</p>	<ul style="list-style-type: none"> <li>Quarterly</li> <li>As required</li> </ul>	<ul style="list-style-type: none"> <li>Commander Australian Defence College (through internal governance committees)</li> </ul>

## Governance

To ensure the Joint Professional Military Education Continuum and Curricula is flexible and adaptive, continuous improvement will be undertaken according to the following governance framework. This comprises internal Australian Defence College committees which feed into existing Defence education and training working groups, boards and high level committees.

### Internal

Committee name	Role/purpose	Members	Meeting frequency
Joint Professional Military Education Executive Committee	To review Joint Professional Military Education Curricula Report and recommend curriculum changes (includes changes to strategic learning outcomes, program learning outcomes)	Managers of learning programs, Joint Professional Military Education Curriculum, futures, finance, procurement and contracting as required	Bi-annual to align to Chief of Services Committee
Curricula Review Board	Review and approve curriculum changes recommended by Joint Professional Military Education  Executive committee before presenting report to Commander Australian Defence College	1 Star/SES 1	Three times a year

## External

Committee name	Role/purpose	Members	Meeting frequency
Training Education Policy and Projects Group	Advise members on Joint Professional Military Education Curricula effectiveness and proposed changes	Service and organisational representatives (06/EL2)	Quarterly
Defence Education and Training Board	Advise members on Joint Professional Military Education curriculum effectiveness and recommend changes	1 Star/SES 1	Quarterly
Chiefs of Services Committee	Report on Joint Professional Military Education Continuum effectiveness, outline recommended changes and obtain endorsement for priorities	3 Star	Annually



# CONCLUSION

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Developing an intellectual edge to seek an advantage in war fighting requires a commitment to professional learning that spans a career.

The Australian Defence College's approach to joint education and training—by building mastery in the profession of arms—supports the development of this intellectual advantage for Defence.

Mastery of the profession of arms demands inculcating behaviours of life-long, self-directed learning and supporting personnel to invest in their professional development. It also requires a system characterised by flexible delivery platforms, incentives to enhance engagement and greater accessibility.

This guidebook will evolve and adapt to the changing character of war and reflect Defence's strategic priorities while maintaining focus on building the professional for future warfare.

Further—with mechanisms to facilitate continuous improvement including research-led curriculum development, comprehensive instructor development, agile governance and evaluation to measure organisational impact—Australia's Joint Professional Military Education system will remain relevant in developing the future joint force, and help safeguard Australia's intellectual edge in war fighting.





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