



Australian Government  
Department of Defence



# Information Pack

<b>Position Title:</b>	<b>STEM Cadetship</b>
<b>Job Reference Number:</b>	DPG/03569/19
<b>Position APS Level:</b>	Australian Public Service (APS) Cadet
<b>Position Location:</b>	Various
<b>Salary:</b>	Minimum of \$49,616 pa (plus 15.4% superannuation)
<b>Position/s:</b>	Multiple
<b>Employment Status:</b>	Ongoing
<b>Security Level:</b>	Various (Negative Vetting 1, Negative Vetting 2, Positive Vetting). Cadets may commence on a Baseline clearance.
<b>Group:</b>	Various
<b>Enquiries:</b>	<a href="mailto:stem.cadetship@defence.gov.au">stem.cadetship@defence.gov.au</a>
<b>Closing Date:</b>	<b>11:30pm (AEST), Wednesday, 11 September 2019</b> <b>No extensions will be granted and no late applications will be accepted.</b>

*One APS Career...Thousands of Opportunities*

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## About this Information Pack

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This information pack provides useful material regarding the role that you are applying for and further advice to guide you with your application.

## Position Overview

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The STEM Cadetship Program is an entry-level employment pathway for high performing undergraduate students currently studying a relevant degree in Science, Technology, Engineering or Mathematics (STEM).

As a STEM Cadet, you will be employed as an Australian Public Service (APS) employee (i.e. non-military) where you will be provided with real-world, practical and high-quality work in the Department of Defence. You will be employed in a Defence Group or Service relevant to your tertiary STEM studies.

As a STEM Cadet, you will receive:

- Ongoing (permanent) employment with a minimum salary of \$49,616 pa (plus 15.4% superannuation) during your cadetship;
- Payment of compulsory university fees (i.e. course fees) during your cadetship;
- \$500 per semester book/resources allowance;
- 60-days (minimum) work placements per annum in Defence; and
- Guaranteed employment with Defence upon successful completion of the cadetship.

Explore the opportunities below to find out how your university discipline can lead to a rewarding, challenging and meaningful career in Defence. The STEM Cadetship will provide you with excellent learning and career development opportunities to propel you into your future career with confidence. As a STEM Cadet, you will work across a spectrum of Defence projects that will offer exposure to new and exciting challenges including:

### Science

- Biology, Chemistry, Radiological or related degrees will see you to work in world-class laboratories, contribute to research that informs, safeguards and mitigates risks posed by chemical, biological, and radiological threats and weapons of mass destruction;
- Cadets with a computer science background can apply their degree and contribute to research areas including cyber security, communications and networks research, machine learning and data mining, artificial intelligence, big data analysis, cryptology, advanced robotics, natural language processing, autonomous systems, electronic warfare and reconnaissance systems;
- Human, Social and Health Sciences is all about people. Apply your psychology degree to enhance the selection and training of Australia's warfighters; research human / machine interactions and Human Factors to improve capability functionality;
- As a material scientist, you could test ballistic armour for the Australian Army's armoured personnel carriers to ensure the safety of Australian Defence Force Soldiers;
- Develop, research and procure space and satellite communication systems;
- Using your food science degree, you will conduct quality assurance of combat ration foods, develop novel techniques in stabilisation of probiotics and vitamins, and develop

prototype food products to ensure that the ADF personnel's nutritional health is looked after during training and deployment;

- Conduct research and create knowledge in areas such as submarines, Joint Strike Fighter, hypersonics, land vehicles, space systems, radar systems, autonomous vehicles and integrated technology; and
- Using your sociology degree, identify and analyse current and potential conflicts and emerging contingencies.

## **Technology**

- Testing airborne cameras for monitoring systems;
- Cyber security, satellite communications and digital forensics to ensure the situational awareness between Navy, Army and Air Force platforms are secure;
- Software design and support to develop and research electronic warfare, reconnaissance, surveillance, electronic warfare, combat and life support systems;
- Space and satellite communication systems;
- Cyber incident response, network design and programming;
- Network and system engineering;
- Malware analysis and penetration testing;
- Analysing and reporting on weapon systems and defence technologies that may pose threats to Australian forces; and
- Military test and evaluation activities, including vehicle and weapon trials; and
- Use photo imagery and high speed video to capture and record the impact of armament and other military technologies on land vehicles and inform Defence's technical teams on the performance of the vehicle's survivability.

## **Engineering**

- Supporting unprecedented multi-billion dollar projects in the Maritime sphere within Defence and have the unique opportunity to be a part of this significant contribution to Australian Navy capability;
- Supporting major acquisition projects worth billions of dollars, such as the Joint Strike Fighter, soldier combat vehicles and protection systems, electronic warfare, communications and surveillance systems and guided weapons;
- Work on Air Force capability including aircraft design, testing and combat systems on projects such as F-35A Joint Strike Fighter, P-8 Poseidon, EA-18G Growler electronic warfare technologies and MQ-4 Triton reconnaissance and surveillance systems;
- Performing and managing systems engineering focused activities, including planning, facilitating and assuring confidence in the delivery of engineering outcomes for Defence;
- Testing and evaluating weapon, communication, navigation, surveillance, life support and combat systems and platforms.
- As a Civil or Structural Cadet, you will be involved in the development of wide range of facilities from standard commercial type facilities such office buildings and sleeping accommodation through to complex Defence specific facilities such as wind tunnels, live fire ranges and underwater escape trainers.
- Working with specialised Defence industry partners to deliver and maintain capability outcomes to our Defence domains. This includes definition, development and control of requirements, overview and assurance of design, manufacturing, maintenance and modification of a product; and
- As a research engineer, you will use your degree to conduct research and create knowledge, continuously pushing the boundaries to ensure that Australia's Defence Capabilities are at the forefront.

## Mathematics

- Supporting national intelligence priorities of Government and Defence's military operations regionally and beyond;
- Exploring traditional cyber security roles spanning from cryptography, coding, software production, computer science and big data analysis;
- Analysing threat and weapons systems;
- Developing, testing and researching sonar technologies and acoustic signatures research for current future Navy ships and submarines;
- Analysing data, models and solutions to enhance the Australian Defence Force's decision making;
- Analysing communications systems, solving cryptological problems, and connecting intelligence from multiple sources including reconnaissance and surveillance platforms; and
- Conducting complex modelling and simulation activities, including signature predictions.

Why choose the STEM Cadetship Program?

*Put your studies into practice and your practice back into your studies*

- As a STEM Cadet, you will have the opportunity to apply your academic knowledge and research skills to contribute to Defence's research and military capability programs. Similarly, you will be able to apply the practical skills and knowledge that you learn from your Defence work placement back to your studies.

*Get a head start in your research career*

- With the STEM Cadetship, you won't have to wait until the final-year of your degree to start looking for a job. Upon successful completion your Cadetship, you will have guaranteed employment with the Department of Defence in an APS role.

*Learn from the best*

- Not only will you be supervised by a senior scientist, engineer or IT professional, you will be provided world class training to help gain and expand your skills and knowledge from Australia's brightest and most innovative specialists at the forefront of international Defence capability and research. During the STEM Cadetship, you will also participate in a mentoring program.

*Work Content. More than  $\pi$  in the sky*

- At Defence, you will have access to leading edge technology and experience a stimulating and dynamic environment that fosters innovation and creativity. You will be proud to know that your efforts will contribute to Australia's future defence and national security capability. In addition, during your 60 days of work placement per annum, the STEM Cadetship offers opportunities across a range of duties including:
  - Working with Australian Defence Force and Defence civilian employees to provide scientific advice and/or develop technologies relevant to your university studies;
  - Providing scientific and technical support to current defence operations and military capability platforms;
  - Investigating future technologies for defence and national security applications;
  - Ensuring Australia is a smart buyer and user of defence equipment;
  - Developing new defence and national security capabilities. This may include intelligence, reconnaissance, surveillance, communication, weapon platform,

- cyber security, ballistic, aircraft, guidance, war fighter and mechatronic technologies;
- Enhancing existing capabilities by increasing performance and safety, and reducing the cost of ownership of defence assets;
- Supporting collaborative relationships with government agencies to strengthen national security; or
- Assisting and engaging with industry to better support Defence capability needs.

## Eligibility Criteria

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The STEM Cadetship is open to Australian undergraduate university students who:

- a) Have Australian citizenship; and
- b) Have a credit average (GPA  $\geq 5$  on a seven point scale); and
- c) Will complete their tertiary studies (including Honours / Masters) between the end of Semester Two 2020 and the end of Semester Two 2022; and
- d) Are currently enrolled in a relevant\* STEM or photography / imaging undergraduate (with honours / masters) degree, or are eligible and agree to undertake an honours / masters degree as part of the STEM Cadetship if required.

\*Applicants must be studying one of the below disciplines

### Science

Biological Science, Chemical science, Computer Science, Food Science, Materials Science, Physics , Psychology and Social Science, Radiological Science

### Technology

Computing and Cyber Security, Computer Systems, Information Technology, Photography / Imaging

### Engineering

Aerospace / Aeronautical Engineering, Avionics Engineering, Chemical Engineering (including majors in Armament), Civil / Construction / Structural Engineering, Communications / Telecommunications Engineering, Electrical / Electronic Engineering, Maritime Engineering / Marine Engineering / Naval Architecture, Mechanical Engineering, Mechatronic Engineering (including Robotics), Software Engineering, Space Engineering / Space Systems, Systems Engineering

### Mathematics

Mathematics

## Locations

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- Adelaide
- Brisbane (Amberley)
- Canberra
- Melbourne
- Newcastle
- Perth (Rockingham)
- Sydney

## Duty Statement

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1. As directed by your supervisor, contribute to Defence's research and/or capability programs by undertaking a range of tasks relevant to your academic discipline.
2. At the completion of a work placement, prepare and provide a research report and deliver a presentation on research project.
3. Continue university studies within the discipline related to the STEM Cadetship and maintain a credit average (GPA  $\geq 5$  on a seven point scale) for the duration of your Cadetship.

## Application Process

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To be considered for this vacancy, applicants will be required to do the following:

- Provide a current CV showcasing relevant skills and experience for this role;
- Complete various online assessments; and/or other forms of assessments including (but not limited) to work sample assessments; and
- Provide a response to three selection criteria.

Online assessments are conducted via an external provider. **Please read the following information very carefully:**

No assessment extensions will be granted for this recruitment activity.

By clicking "submit" on your application, you are agreeing for Revelian, the online assessment provider, who are located in Australia, to use only your given name and family name, along with your email address. No other personal details are provided or transmitted. Revelian data storage and security meets the International Organisation for Standardisation (ISO) requirements.

**PLEASE NOTE:** if you are a Defence employee, the Defence Restricted Network may not allow you to complete the assessments online. All assessments, therefore, should be completed using personally owned equipment.

Your email is our primary method of contacting you, please make sure that the email and phone number you provided us is correct, current and accessible. **We recommend applicants to not use their work email on their application for accessibility.**

Should you experience technical difficulties please contact the Revelian technical support team at [rvln.io/contact](http://rvln.io/contact) to submit a support case or call 1300 137 937 Monday - Fridays 7.30am to 9.30pm AEST.

Defence supports RecruitAbility and will provide reasonable adjustments where practical. If you opt into the RecruitAbility scheme, you will be provided with the opportunity for reasonable adjustment during the assessment stage.

## Selection Criteria

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Applicants will be assessed against the following four selection criteria:

- *Thinking Skills*
- *Desire to work in Defence*
- *Achieves Results*
- *Communication (A specific communication question will not be asked, however your three responses will also be assessed against this criteria)*

Defence undertakes a holistic approach to the selection of candidates. Each criterion will be assessed throughout specialised activities and methods including written application, assessment center, and interview.

As part of the written application process, you will be required to provide a response (450 words) to each of the following three questions.

### THINKING SKILLS

To shape your response, you may consider the below dot points:

- A capacity to undertake high quality research.
- Ability and willingness to participate in field trials which maybe on land, air, or sea based platforms.
- Demonstrated ability to use professional judgment and initiative in solving technical problems.
- Ability to use creativity and sound judgment in problem solving.
- The ability to apply scientific, technical, engineering or mathematic principles or concepts to define, structure and analyse complex problems.

### Selection Criteria Question 1:

Using an example from your background, describe how YOU planned and conducted a research, scientific, technology, engineering or mathematic project.

*Provide details regarding:*

- *the purpose and nature of the project;*
- *what analytical tools/techniques you used;*
- *how you overcame issues/problems; and*
- *the project outcome.*

### DESIRE TO WORK IN DEFENCE

To shape your response, you may consider the below dot points:

- An interest in working in Defence
- A proven level of self-motivation.
- An ability to structure work and achieve goals.
- An ability to accept responsibilities and integrate them with personal needs.
- Alignment between organisational and personal values.

### **Selection Criteria Question 2:**

Describe why you want to work in Defence.

You may wish to provide details regarding:

- Your interest in a specific program / work area in Defence
- How would you contribute to Defence's objectives
- Career plan or strategy to achieve your goals

### **ACHIEVES RESULTS**

To shape your response, you may consider the below dot points:

- Capacity and willingness to broaden the fields from those encompassed by formal training and background.
- Ability to adapt to changes brought about by varying priorities and resources.

### **Selection Criteria Question 3:**

Provide an example of when you had to adjust quickly to changes over which you had no control.

Provide details regarding:

- the nature of the changes;
- the strategies you used to cope with the situation;
- the outcome of your efforts; and
- what you would do differently next time (if relevant).

## **Application Instructions**

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We recommend you start your application on eRecruit as soon as possible. It is best to complete your Selection Criteria in Microsoft Word then copy, paste and save each criterion into the system.

All applications must be submitted through the online application system prior to the closing date.

**NOTE:** Do not withdraw your application for editing. **Once you have withdrawn your application, you will NOT be able to re-submit it or submit another application for this vacancy.**

Further advice on addressing selection criteria can be found the '[Cracking the Code](#)' publication located on the Australian Public Service Commission website.

You do not need to include written referee reports with your application. However, you should include the names and contact details of two referees who can comment on your work performance. We expect that one of your referees will be your current supervisor or manager. If you don't want us to contact your referees without advising you first, indicate this in your application.

Vacancies will be extended **in exceptional circumstances only**. Applicants requesting an extension **must** contact the Contact Officer **24 hours prior** to the vacancy closing date.



**PLEASE NOTE:** **APS Careers @ Defence** is for job seekers only. We do not accept unsolicited resumes or applications from recruitment agencies and/or search firms and will not pay fees to any such organisations unless arranged with the provider prior to advertising the vacancy.

## Diversity and Inclusion

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The range and nature of work in Defence requires a workforce that reflects our diverse society. We welcome applications from Indigenous Australians, people from diverse cultural and linguistic backgrounds and people with disabilities. We are committed to providing an environment that values diversity and supports employees to reach their full potential.

Defence will accommodate all requests for reasonable adjustment for people with disabilities to assist in the application process and if successful, the inherent requirements of the position.

If you have individual requirements that need to be accommodated in order to participate in an interview or assessment centre please inform the contact person listed on the front of this Information Pack.

For confidential advice contact: [diversitypolicyandprograms@defence.gov.au](mailto:diversitypolicyandprograms@defence.gov.au).

## Relocation Assistance

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For **ongoing** positions, successful applicants will be provided with relocation assistance, if required, and in accordance with Defence policy. Further information on relocations assistance will be available to the successful applicant through the Chairperson of the selection panel.

## The Selection Process

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Defence APS recruitment processes are based on merit which means that we select the best person for the job from a field of applicants. We compare and weigh-up the skills, experience and abilities of each applicant and often use different tools and techniques (such as written applications, interviews and/or work sample tests) to collect the evidence needed to make a merit-based decision.

### **Merit Pool**

A merit pool may be created from the list of suitable applicants which may be used to fill similar position/s in the event a position/s becomes vacant within the 12 months from gazettal date of this position.

## Eligibility

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Employment with the Department of Defence is subject to conditions prescribed within the Public Service Act 1999.

**Citizenship** - To be eligible for employment with Defence, applicants must be an Australian citizen. Only in exceptional circumstances can this requirement be waived.

**Health Assessment** – The preferred applicant will be required to undergo a medical examination conducted by the Department's preferred medical provider.

**Security Clearance** - The preferred applicant will be required to successfully undergo the security clearance vetting process at a specified clearance level. The preferred applicant **MUST** be willing to disclose all relevant and required information.

The preferred applicant **MUST** have lived in Australia, or have a checkable background, for at least the preceding:

- **Five** years for BASELINE clearances, or
- **Ten** years for NEGATIVE VETTING 1 / NEGATIVE VETTING 2 clearances, or
- **Whole of life** for TOP SECRET POSITIVE VETTING clearances.

**Important:** You must be able to provide background information to the Australian Government Security Vetting Agency (AGSVA), to cover the relevant period of time in line with the required security clearance for this position. Details of the information and documents you are required to provide can be found on [the Security Clearance - Fact Sheet](#). Please ensure that you read this information thoroughly and confirm that you are able to provide the necessary documents if you apply for the position.

The security clearance level required for this position can be found on the front page of this Information Pack.

More information on the security clearance vetting process is available on the [Australian Government Security Vetting Agency \(AGSVA\) website](#).

**Thank you for your interest**

**Department of Defence**