



Australian  
National  
University



SCHOOLS ENRICHMENT PROGRAM  
TERM 2, 2017

# CONTENTS

<b>Schools Enrichment Program</b>	<b>4</b>
<b>Workshops</b>	<b>5</b>
#PARADISE: understanding the Pacific beyond the pictures	5
Angry Birds	5
Arab and Islamic Studies: Middle East and Central Asia	5
Archaeology: making blades – stone artefact knapping workshop	5
Archaeology: practical skills on the dig site	6
Art at ANU: tours of the School of Art & Design	6
Art History and Art Theory	6
Asia and the Pacific: your passport to the region	6
Asia Pacific Day	7
Bachelor of Philosophy (PhB) Symposium	7
Being safe and keeping safe online	7
Biological and Forensic Anthropology: bone lab	7
Biological Anthropology: primate conservation in disappearing habitats	7
Biology at ANU: practical classes	8
Biomedical Engineering	8
Chemistry at ANU: practical classes	8
Conflict, International Security and Foreign Policy	9
Daytime school visit to Mount Stromlo Observatory	9
Design at ANU: design workshop	9
Discover Demography at ANU	9
Discover the Universe with our astronomers and astrophysicists	10
Engineers Without Borders – Floating Houses	10
Engineers Without Borders – Introduction to Engineering	10
Engineers Without Borders – Murray-Darling Basin workshop	11
Engineers Without Borders – Prosthetic Leg	11
Engineers Without Borders – Water for Life	11
English Literature	12
Evening school visit to Mount Stromlo Observatory	12
Explore the world of Biology	12
Girls in Engineering and Technology program – GET Set	13
History at ANU	13
Languages: translation	13
Learn to write your name in Arabic or Persian	13

Linguistics: cracking the code of language!	14
Lively and energetic science shows with the Science Circus	14
Masculinity and amen's magazines	14
Music: composing music for video games and film	14
Music: composing your own original song	14
Music: contemporary improvisation	15
Music: engagement program	15
Music: facilities tour	15
Music: using the recording studio	15
Philosophy: harming some to save others	16
Physics at ANU: Einstein and relativity	16
Physics at ANU: optics and photonics	16
Physics at ANU: physics walk	17
Physics at ANU: radioactivity, nuclear and particle physics, nuclear medicine	17
Politics and International Relations at ANU	17
Rethinking migration: past, present, future	17
Robotics	18
Science talks and practical experiments	18
The Centre for Classical Studies: life in the ancient world	19
Tours of the ANU Classics Museum	19
Why study a Bachelor of Arts at ANU?	19
Work experience at the Research School of Astronomy and Astrophysics	19

## Bookings 20



INTERNATIONAL ALLIANCE OF  
RESEARCH UNIVERSITIES



**GROUP  
OF EIGHT  
AUSTRALIA**

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No undertakings are binding on the University unless they are obtained in an official letter from the Deputy Vice-Chancellor (Academic). The University may vary the ATARs, other entrance scores and requirements, content and availability of programs and courses, and costs and charges applied to the courses outlined in this guide. The University reserves the right to change the contents of courses and not to offer all courses listed in this guide.

## ABOUT ANU

### 1st in Australia and 22nd in the world<sup>1</sup>

The Australian National University (ANU) really does stand apart from other Australian universities. We are Australia's only national university and we consistently rank among the top universities in the world. Currently, we are first in Australia and 19th in the world.

### Student to staff ratio of 10:1

This culture of ground-breaking research shapes how our students learn. With an average student to staff ratio of 10:1 (the best among the Group of Eight), our students work closely with researchers who are addressing some of the biggest challenges of our time.

### Learn and travel overseas

We encourage our students to broaden their horizons and gain unique experiences by taking their studies overseas. ANU Travel Grants help students to participate in courses not available at ANU but offered at other leading universities around the world, while making new friends, forming networks and immersing themselves in another culture.

### ANU graduates Australia's most employable<sup>2</sup>

Our research-led culture, innovative approach to education and global outlook have helped to make our graduates Australia's most employable and in-demand overseas.

### 750 possible degree combinations

In a globalised world with a rapidly evolving job market, it is important for students to be able to choose from a range of disciplines and degree structures to suit their interests, strengths and career goals. That is why we pioneered the Flexible Double Degree, which lets ANU students combine two undergraduate degrees together and graduate with two qualifications.

### 6 Nobel Laureates

Our ranking and reputation largely stem from our focus on research, which is central to everything we do. We have some of the best researchers in the world and we count more Nobel Laureates among our faculty and alumni than any other Australian university. In fact, our Vice-Chancellor, Professor Brian Schmidt helped discover that the expansion of our Universe is accelerating, not decelerating as was previously thought, which earned him the 2011 Nobel Prize for Physics.

# SCHOOLS ENRICHMENT PROGRAM

The Australian National University Schools Enrichment Program gives students in years 10 to 12 an amazing opportunity to experience what it is like to learn at Australia's national university.

They will see what studying at ANU is all about by participating in workshops delivered by some of our leading researchers, designed to deepen their knowledge and interest in the field.

Workshops cover a range of disciplines across our academic Colleges from Fine Arts to Astrophysics and everything in between.

We look forward to welcoming your students to ANU.



# WORKSHOPS

## #PARADISE: understanding the Pacific beyond the pictures

The Pacific is a diverse region rich in culture and history, and has long been an important neighbour to Australia. Learn more about this fascinating region, and hear from our regional experts on the important contemporary issues outlined in the lecture topics listed below:

- > Pacific in film and television: what can we learn from Disney's 'Moana and Maui' and Chris Liley's 'Jonah from Tonga'?
- > From sinking to synching: climate change and diplomacy in the Pacific
- > The Pacific 'muscle trade': sports and migration in the region
- > Aid and assistance: Australia's role in the region

College	ANU College of Asia and the Pacific
Areas of interest	Pacific studies, global studies, legal studies, culture, society, international relations, languages, politics and history
Location	On campus
Year group	9 -12
Date	24 July–27 October (Semester 2). Excludes public holidays.
Time	40 minutes–1 hour
Numbers	Maximum 100
Format	Interactive lecture
Cost	No cost

## Angry Birds

This workshop will be held by Professor Jochen Renz and his team who are organising the international Angry Birds Artificial Intelligence Competition (aibirds.org). In this workshop, students will learn how to build an artificially intelligent agent that can play the popular game Angry Birds. By integrating their own game strategies, students can further improve their Angry Birds agent.

Students will gain experience using Snap!, a simple visual programming language that is very easy to learn and to use.

This workshop will also look into the fun side of Artificial Intelligence and how it can successfully interact with the real world while students gain hands-on coding experience. At the end of the workshop, we organise a competition where we determine the best Angry Birds agent. For information on the programs provided by the ANU College of Engineering and Computer Science visit [cecs.anu.edu.au/outreach](https://cecs.anu.edu.au/outreach)

College	ANU College of Engineering and Computer Science
Areas of interest	Computing, computer science, programming, artificial intelligence and coding
Location	On campus
Year group	9-12
Date	Weekdays excluding public holidays during teaching periods
Time	2-3 hours
Numbers	Maximum 36 on campus, in-school numbers dependent upon computer access
Format	Interactive workshop
Cost	No cost

## Arab and Islamic Studies: Middle East and Central Asia

Delve deep into the history, politics, economy and culture of the Middle East and Central Asia.

This session is offered by the Centre for Arab and Islamic Studies, led by Distinguished Professor Amin Saikal, one of the foremost leading experts on the Middle East, who provides frequent commentary on TV and radio.

College	ANU College of Arts and Social Sciences
Areas of interest	Politics, history, Middle Eastern studies, language, culture
Location	On campus
Year group	10-12
Date	Anytime during teaching period
Time	Flexible
Numbers	50
Format	Interactive workshop
Cost	No cost

## Archaeology: making blades – stone artefact knapping workshop

Our ancient ancestors made stone blades (sometimes hafted on wooden handles). This allowed them to spear and butcher animals, cut down saplings and many other tasks. As archaeologists we find these stone artefacts scattered across the country, allowing us to revive long buried stories and learn about the people who made them. In this workshop we will show you examples of tools spanning 200,000 years and many continents and teach you how to make stone blades.

College	ANU College of Arts and Social Sciences
Areas of interest	Archaeology
Location	On campus
Year group	9-12
Date	Anytime during teaching period
Time	60-90 mins
Numbers	20 max
Format	Brief presentation followed by interactive activity
Cost	No cost

**Key:** ANU College of Arts and Social Sciences

ANU College of Physical and Mathematical Sciences

ANU College of Asia and the Pacific

ANU College of Medicine, Biology and Environment

ANU College of Business and Economics

\* In-school activity is only available in ACT and NSW and is dependent upon staff availability

ANU College of Engineering and Computer Science

# WORKSHOPS

## ■ Archaeology: practical skills on the dig site

Practice using the tools, methods and skills of our archaeologists and students at the ANU dig site – the same ones that led to the 2015 re-discovery of the Springbank Island homestead.

College	ANU College of Arts and Social Sciences
Areas of interest	Archaeology
Location	On campus
Year group	9-12
Date	Weekdays excluding public holidays during teaching periods
Time	1-1.5 hours
Numbers	Maximum of 20
Format	Presentation and interactive activity
Cost	No cost

## ■ Art at ANU: tours of the School of Art & Design

The ANU School of Art & Design (SOA&D) prepares students for professional careers in visual arts, curatorship or design. It has built a reputation as a leading arts educator offering specialist training across a range of visual arts and crafts disciplines, design, art history and curatorship, and art theory.

Tours of the School of Art & Design can visit all or a selection of the following areas: Animation and Video, Ceramics, Furniture, Glass, Gold & Silversmithing, Painting Photography, Printmedia & Drawing, Sculpture & Textiles and the School's galleries.

College	ANU College of Arts and Social Sciences
Areas of interest	Art, design
Location	On campus. School of Art & Design, 105 Childers Street, ANU
Year group	9-12
Date	Any day except Monday during teaching periods
Time	30-60 mins (flexible) 30 min tour would include 4-5 workshops
Numbers	15 preferred. Maximum 20
Format	Tour
Cost	No cost

## ■ Art History and Art Theory

Art History introduces students to painting, sculpture, printmaking, photography, architecture, film, digital images and the decorative arts within their historical, social, cultural and political contexts.

Art Theory is primarily designed to meet the needs and interests of visual artists, designers and makers by informing their practice with sustained critical inquiry into the social, cultural, ethical and historical contexts of contemporary art.

College	ANU College of Arts and Social Sciences
Areas of interest	Art history, art theory, curatorship
Location	On campus. School of Art & Design, 105 Childers Street, ANU
Year group	11-12
Date	Anytime during teaching periods
Time	60 minutes (flexible)
Numbers	15 preferred. Maximum of 20
Format	Presentation
Cost	No cost

## ■ Asia and the Pacific: your passport to the region

Equip your students with the knowledge and skills to become global citizens in the Asia Pacific century. Get involved in our guest lecture series and hear from regional experts on trends and issues facing the region. Whether On campus or in your school, choose from one or more of the lecture topics below:

- > The rise of K-pop and related developments in East Asian popular culture
- > Manga, anime, film and visual arts – the wild and wacky world of Japanese Popular Culture
- > Engaging Asia: Australia in the Asian Century
- > Gender and sexuality in the Pacific
- > Power, resistance and rebellion in Asia
- > Monolingualism is curable! Studying an Asian language
- > Specific language workshop
- > Social Control in China: Friends, Funds, and Fear

College	ANU College of Asia and the Pacific
Areas of interest	Asian and Pacific studies, global studies, history, archaeology and geography, languages (Japanese, Chinese, Korean, Indonesian, Hindi, Thai, Vietnamese, Sanskrit, Mongolian, Tetum, Burmese), culture, gender, society, international relations and politics.
Location	On campus or in-school*
Year group	10-12
Date	Weekdays excluding public holidays during teaching periods at ANU
Time	40 mins to 1 hour
Numbers	Maximum of 100
Format	Interactive lecture
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences  
■ ANU College of Physical and Mathematical Sciences

■ ANU College of Asia and the Pacific  
■ ANU College of Medicine, Biology and Environment

■ ANU College of Business and Economics

■ ANU College of Engineering and Computer Science

\* In-school activity is only available in ACT and NSW and is dependent upon staff availability

# WORKSHOPS

## ■ Asia Pacific Day

Asia Pacific Day is an annual event for high schools from across the ACT. The event is designed to give students the opportunity to come onto campus and experience a day in the life of a university student while increasing their understanding of Asia and the Pacific, and Australia's engagement with the region. Students participate in a number of lectures and activities throughout the day which are designed to align their high school curriculum. Taught by leading ANU scholars, Asia Pacific Day aims to link Australia's engagement with the Asia Pacific region with high school tertiary-accredited courses across a range of disciplines, including geography, global studies, history and modern history, economics, international relations and legal studies.

College	ANU College of Asia and the Pacific
Areas of interest	Asia Pacific studies, global studies, legal studies, culture, society, international relations, politics and history, gender, society, Asian languages.
Location	On campus
Year group	10-12
Date	21 July 2017
Time	10am-3pm
Numbers	Unlimited
Format	Interactive lectures and presentations
Cost	No cost

## ■ ■ ■ ■ Bachelor of Philosophy (PhB) Symposium

The PhB program at ANU is one of the most prestigious and rewarding degrees in Australia, offering unique opportunities to participate in real research at the undergraduate level leading to an integrated Honours degree. Students are required to complete at least three projects throughout, and these often take place at the frontier of their chosen field with one-on-one guidance from world-leading experts. This symposium is aimed at showcasing the PhB program to Year 11 secondary students from across Canberra and the surrounding region who are interested in the opportunity to gain real-world research experience during their undergraduate degree or who may be considering a career in academia. Modelled on the world-renowned Three Minute Thesis (3MT), current PhB students will give three minute presentations on interesting research projects they've taken across the sciences, arts, humanities, social sciences and Asia Pacific studies, showcasing the many opportunities offered in PhB and at ANU more broadly.

College	ANU College of Arts and Social Sciences ANU College of Asia and the Pacific ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Research
Location	On campus
Year group	11
Date	August
Numbers	Maximum of 200
Format	Presentation
Cost	No cost. Lunch will be provided.

## ■ Being safe and keeping safe online

Delivered by our leading criminologists, this session is designed to provide students with the tools to understand safety on the Internet. Information in the session can include phishing attempts, security of personal information, and social media.

College	ANU College of Arts and Social Sciences
Areas of interest	Criminology, cyber safety and social media
Location	On campus
Year group	10-12
Date	Anytime during teaching period (17 July to 27 October).
Time	90 minutes
Numbers	Maximum of 20
Format	Brief presentation followed by interactive activity
Cost	No cost

## ■ Biological and Forensic Anthropology: bone lab

An interactive workshop in which students will handle and identify hominid and primate bones, and learn how to identify certain genetic markers that are recognisable through skeletal remains from our skilled researchers and students.

College	ANU College of Arts and Social Sciences
Areas of interest	Biological anthropology
Location	On campus
Year group	11-12
Date	Weekdays excluding public holidays during teaching periods. Advance notice is required to book labs and prepare specimens.
Time	1 hour
Numbers	Maximum of 15
Format	Workshop
Cost	No cost

## ■ Biological Anthropology: primate conservation in disappearing habitats

Monkeys and apes are the closest living relatives to humans, yet due to habitat destruction they are disappearing at an alarming rate. This tutorial style workshop will explore some of these endangered species and various conservation strategies being used to save them and their habitats.

College	ANU College of Arts and Social Sciences
Areas of interest	Biological Anthropology
Location	On campus
Year group	All years
Date	Anytime during teaching period (17 July–27 October).
Time	60 minutes
Numbers	25 max
Format	Workshop
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

■ ANU College of Asia and the Pacific

■ ANU College of Business and Economics

■ ANU College of Engineering and Computer Science

■ ANU College of Physical and Mathematical Sciences

■ ANU College of Medicine, Biology and Environment

★ In-school activity is only available in ACT and NSW and is dependent upon staff availability

# WORKSHOPS

## ■ ■ Biology at ANU: practical classes

The Research School of Biology at ANU offers an array of practical laboratory classes on campus. These include:

- > Aspects of Human Inheritance
- > Who-dunn-it?
- > DNA forensics and phenotyping
- > Molecular modelling and bioinformatics
- > Stick insect ecology
- > Bioinformatics, stick insect ecology and lab tour
- > Biology speed-dating (combination of short activities)
- > Exercise physiology
- > The Drugs Don't Work
- > Fluorescence microscopy (for groups of up to 7 students)

The level of practical demonstrations varies depending on the age group and our scientists will make every effort to link into the National Curriculum where possible.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, biology, genetics, ecology, immunology and plant science
Location	On campus
Year group	10-12
Date	Weekdays excluding public holidays during teaching periods. Please contact us for availability throughout the rest of the year. At least one month's notice is required.
Time	Range from 45 minutes to 3 hours
Numbers	Maximum of 100
Format	Interactive activities and experiments
Cost	No cost

## ■ ■ Biomedical Engineering

In this workshop students will be introduced to the concept of tissue engineering, in which biomaterials are engineered to mimic healthy body tissues and support regeneration. We will look at the problem of brain repair with a systems engineering approach to demonstrate both how complex such a problem can be, and how we can methodically find new solutions. Split into teams, each focusing on a different aspect of biomaterial design (chemical, biological, physical properties, etc.), students will learn about the requirements within their focus area for a successful biomaterial. All teams will have the same information on a variety of different biomaterial options, and must select the material that best meets the requirements of their focus area. In scrambled groups, the students will then brainstorm an innovative solution to satisfy all the requirements, which systems engineering demands. Current research at ANU in biomaterial tissue engineering will be presented to the students, highlighting innovative strategies used to solve such a complex problem as brain repair. For information on the programs provided by the ANU College of Engineering and Computer Science visit [cecs.anu.edu.au/outreach](http://cecs.anu.edu.au/outreach)

College	ANU College of Engineering and Computer Science
Areas of interest	Engineering, systems engineering and biomedical engineering
Location	On campus or in-school
Year group	11-12

Date	Weekdays excluding public holidays during teaching periods. Please contact us for availability throughout the rest of the year.
Time	1-1.5 hours
Numbers	Maximum of 25
Format	Interactive presentation and workshop
Cost	No cost

## ■ ■ Chemistry at ANU: practical classes

The Research School of Chemistry at ANU offers an array of practical laboratory classes on campus. These include:

- > Spectrophotometry—analysis of copper content in brass
- > Making Aspirin and Paracetamol
- > Crystals and Blueprinting
- > Slime and Fluorescein
- > Liquid Nitrogen Ice cream

The level of experiments varies depending on the age group, and our scientists will make every effort to link into the National Curriculum where possible. The visit may include a tour through a research area.

Please note it is required that students wear closed shoes that are non-absorbent.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science and chemistry
Location	On campus
Year group	10-12
Date	Weekdays excluding public holidays. Please contact us for availability throughout the year. At least one month's notice is required.
Time	2-3 hours (flexible)
Numbers	Maximum of 100
Format	Interactive activities and experiments
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

■ ANU College of Physical and Mathematical Sciences

■ ANU College of Asia and the Pacific

■ ANU College of Medicine, Biology and Environment

■ ANU College of Business and Economics

■ ANU College of Engineering and Computer Science

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# WORKSHOPS

## ■ Conflict, International Security and Foreign Policy

From instability in the Middle East, to the rising occurrences of computer hacking or global warming and its impact on human populations, there's a whole range of global security challenges which face business, government and international organisations today.

Give your students a taste of what it means to be a diplomat, foreign correspondent, humanitarian or strategist! Whether on campus or in your school, choose a lecture on one of the topics listed below:

- > ISIS: death cult or state?
- > Diplomacy: how to negotiate your way out of a hostage situation
- > Strategy: missile defence and nuclear weapons
- > Australia's foreign policy: 21st century challenges and opportunities

College	ANU College of Asia and the Pacific
Areas of interest	Asia Pacific studies, global studies, legal studies, culture, society, international relations, politics and history
Location	On campus or in-school*
Year group	10-12
Date	Weekdays excluding public holidays anytime during teaching periods.
Time	40 minutes to 1 hour
Numbers	Maximum of 100
Format	Interactive lecture
Cost	No cost

## ■ ■ Daytime school visit to Mount Stromlo Observatory

A typical daytime tour takes students around the site showing them both the research buildings and telescope domes while explaining the science that has been done at Mt Stromlo over the past 100 years. On the tour, we also talk about the current science projects being undertaken and our future plans. The tour includes viewing the labs where instruments for the Giant Magellan Telescope are being built and our Laser Space Debris Telescope, a 250kg meteorite and Professor Brian Schmidt's Nobel Prize and more. Students will also have the opportunity to ask questions.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, physics, astronomy, astrophysics and engineering
Location	On campus (Mt Stromlo)
Year group	10-12
Date	Weekdays excluding public holidays. Please contact us for availability throughout the year. At least one month's notice is required.
Time	1 hour
Numbers	Maximum of 40
Format	Interactive tour
Cost	No cost

## ■ Design at ANU: design workshop

Design at the ANU School of Art and Design produces inventive graduates equipped with the skills and knowledge to succeed in new and emerging fields of design practice. The program's breadth of content presents an exciting mix of hands-on making and innovative digital practices, while its flexible structure allows students to build truly unique educational experiences.

College	ANU College of Arts and Social Sciences
Areas of interest	Design, art, computing, engineering
Location	On campus or in-school
Year group	11-12
Date	Flexible
Time	60-180 minutes
Numbers	15 preferred, maximum 20
Format	Workshop
Cost	No cost

## ■ Discover Demography at ANU

Demography is fundamental for understanding the world around us – from our society and economy to the environment we live in. Discover this fascinating discipline with leading experts at ANU. Sessions in the School of Demography can cover the following topics:

- > The drivers and consequences of demographic change
- > Our life course and the importance of family, health and society
- > Canberra's past, present and future – is it growing the way we expected?

College	ANU College of Arts and Social Sciences
Areas of interest	Demography, population, migration, fertility, family, mortality and health
Location	On campus
Year group	11-12
Date	Weekdays excluding public holidays anytime during teaching periods.
Time	Flexible
Numbers	Maximum of 25
Format	Presentation
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

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■ ANU College of Business and Economics

■ ANU College of Engineering and Computer Science

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# WORKSHOPS

## Discover the Universe with our astronomers and astrophysicists

Astronomers from Mt Stromlo Observatory are available to provide talks on their current research and the science that is achieved at the Research School of Astronomy and Astrophysics. Topics include:

- > The Big Bang and Cosmology
- > The Solar System and Planets
- > The Earth, Moon and Sun
- > The Universe, Astronomy at ANU
- > Exoplanets, Stars and Galaxies
- > The Milky Way
- > Space Exploration and Travel

Please note that talk times are dependent on the availability of our astronomers.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, physics, astronomy, astrophysics and engineering
Location	On campus, online or in-school*
Year group	10-12
Date	Weekdays excluding public holidays. Please contact us for availability throughout the year. At least one month's notice is required.
Time	0.5-1 hour
Numbers	Maximum of 25
Format	Presentations
Cost	No cost

## Engineers Without Borders – Floating Houses

Floating Houses covers the nature of engineering (responding to the needs of a society), with a particular focus on civil engineering. Students will learn about the importance of understanding context when implementing an engineering solution, particularly in humanitarian engineering. They will also gain an appreciation of the complex process of material selection, balancing cost, use and longevity through the activity.

The workshop is based on Engineers Without Borders' work in Tonlé Sap, where the annual floods present a major challenge in the design of dwellings. Students are presented with this information and must meet the outlined requirements for longevity and number of people their dwelling can adequately house.

After discussing the challenge and formulating a solution, the students are given a time limit in which to construct the most suitable structure. Their solutions are then tested and compared. The workshop tests their comprehension of physics and balance, as well as their ability to assess the economics of their project by maintaining a tally of the cost of the materials and their use. For information on the programs provided by the ANU College of Engineering and Computer Science visit [cecs.anu.edu.au/outreach](http://cecs.anu.edu.au/outreach)

College	ANU College of Engineering and Computer Science
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Areas of interest	Engineering, civil engineering, materials and humanitarian engineering. Australian National Curriculum: ACSHE194, ACSHE195, ACSHE192, ACSHE230, ACSIS199, ACSIS204, ACSIS205, ACSIS208 ACT Curriculum: ELA 3, ELA 5, ELA 19, ELA 20, ELA 23
Location	On campus or in-school*
Year group	7-12
Date	Weekdays excluding public holidays during teaching periods
Time	1-1.5 hours
Numbers	Maximum of 25
Format	Interactive presentation and hands-on workshop
Cost	No cost

## Engineers Without Borders – Introduction to Engineering

In this workshop students will discuss their ideas of engineering and engineers – what do they do and what skills do they need? Historical examples are used to highlight the breadth and creativity of technology and engineering, which leads into a discussion of contemporary and cutting-edge engineering research and development. Students will be split into teams and complete a design-and-build activity to investigate how engineering is undertaken. Pathways to engineering and a snapshot of the profession are then provided. For information on the programs provided by the ANU College of Engineering and Computer Science visit [cecs.anu.edu.au/outreach](http://cecs.anu.edu.au/outreach)

College	ANU College of Engineering and Computer Science
Areas of interest	Engineering, humanitarian engineering, foreign aid and developing communities. Australian National Curriculum: ACSHE194, ACSHE195, ACSHE192, ACSHE230, ACSIS199, ACSIS204, ACSIS205, ACSIS208 ACT Curriculum: ELA 3, ELA 5, ELA 19, ELA 20, ELA 23
Location	On campus or in-school*
Year group	7-12
Date	Weekdays excluding public holidays during teaching periods
Time	1-1.5 hours
Numbers	Maximum of 25
Format	Interactive presentation and hands-on workshop
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

■ ANU College of Physical and Mathematical Sciences

■ ANU College of Asia and the Pacific

■ ANU College of Medicine, Biology and Environment

■ ANU College of Business and Economics

■ ANU College of Engineering and Computer Science

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# WORKSHOPS

## ■ Engineers Without Borders – Murray-Darling Basin workshop

The Murray-Darling Basin workshop focuses on concepts related to equitable utilisation of natural water sources and the possible consequences of this provision of water. It aims to educate students about sustainable water use in Australia and multilateral cooperation between governments towards this goal. The workshop also provides insights into the Indigenous peoples' perspective of the significance of the river system. The workshop includes a brief overview of engineering and areas in which engineering can be applied as well as an activity where groups of students interact with the river system, which is represented by a basket of ping pong balls. They get an opportunity to see the consequences of their interaction and discuss engineering solutions to those consequences. For information on the workshops provided by the ANU College of Engineering and Computer Science visit [cecs.anu.edu.au/outreach](https://cecs.anu.edu.au/outreach)

College	ANU College of Engineering and Computer Science
Areas of interest	Engineering, humanitarian engineering, sustainability and Australian water systems.  Australian National Curriculum: ACSHE194, ACSHE195, ACSHE192, ACSHE230, ACSIS199, ACSIS204, ACSIS205, ACSIS208  ACT Curriculum: ELA 3, ELA 5, ELA 19, ELA 20, ELA 23
Location	On campus or in-school*
Year group	7-12
Date	Weekdays excluding public holidays during teaching periods
Time	1-1.5 hours
Numbers	Maximum of 25
Format	Interactive presentation and workshop
Cost	No cost

## ■ Engineers Without Borders – Prosthetic Leg

The Prosthetic Leg workshop introduces the needs of those who have lost a limb, particularly in developing communities, and the role of the biomedical engineer in meeting these needs. Students will gain an understanding of the difficulty in obtaining appropriate medical care in developing communities and how organisations like EWB are working to change this. After learning about the structure of the lower leg and the consequences of losing the limb, students are presented with the task of building their own prosthetic leg from the knee down. They will need to take into account the information they have been presented with, as well as the materials available to them. Students are encouraged to use the resources sparingly, imitating its availability in developing communities and highlighting the importance of sustainability. Teams will then demonstrate their design to the rest of the class, as well as explaining why they chose the final design. The program ends with a reflection on the design process.

College	ANU College of Engineering and Computer Science
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Areas of interest	Engineering, biomedical engineering, biology and medicine.  Australian National Curriculum: ACSHE194, ACSHE195, ACSHE192, ACSHE230, ACSIS199, ACSIS204, ACSIS205, ACSIS208  ACT Curriculum: ELA 3, ELA 5, ELA 19, ELA 20, ELA 23
Location	On campus or in-school*
Year group	7-12
Date	Weekdays excluding public holidays during teaching periods
Time	1-1.5 hours
Numbers	Maximum of 25
Format	Interactive presentation and hands-on workshop
Cost	No cost

## ■ Engineers Without Borders – Water for Life

Water for Life introduces the concept of global water accessibility and how people across the globe have different levels of access to clean water for consumption and sanitation. Students are then asked to construct a water filter using materials accessible and affordable to developing communities.

The presentation covers what engineers are, the definitions of science and technology, and the role these play in meeting the needs of both developing and developed communities. There is a focus on the 'three A's' of obtaining materials: accessibility, availability and affordability.

The main component of the workshop is the activity in which students construct their own water filter. Each group is given a country profile with instructions and a budget for the filter. Different groups will face different obstacles depending on the literacy rate and income of their country, which will influence their final design. For information on the programs provided by the ANU College of Engineering and Computer Science visit [cecs.anu.edu.au/outreach](https://cecs.anu.edu.au/outreach)

College	ANU College of Engineering and Computer Science
Areas of interest	Engineering, humanitarian engineering, foreign aid and developing communities.  Australian National Curriculum: ACSHE194, ACSHE195, ACSHE192, ACSHE230, ACSIS199, ACSIS204, ACSIS205, ACSIS208  ACT Curriculum: ELA 3, ELA 5, ELA 19, ELA 20, ELA 23
Location	On campus or in-school*
Year group	7-12
Date	Weekdays excluding public holidays during teaching periods
Time	1-1.5 hours
Numbers	Maximum of 25
Format	Interactive presentation and hands-on workshop
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

■ ANU College of Physical and Mathematical Sciences

■ ANU College of Asia and the Pacific

■ ANU College of Medicine, Biology and Environment

■ ANU College of Business and Economics

■ ANU College of Engineering and Computer Science

\* In-school activity is only available in ACT and NSW and is dependent upon staff availability

# WORKSHOPS

## English Literature

Can studying English give you the extra edge in life? Make up your own mind when you experience a foretaste of university level literary studies by choosing a session on one of the texts studied at school. The below sessions are available:

- > Jane Austen past and present
- > How to read poetry
- > Shakespeare and the Globe Theatre

College	ANU College of Arts and Social Sciences
Areas of interest	English literature
Location	On campus or in school
Year group	11-12
Date	Any time during teaching period
Time	30-60mins (flexible)
Numbers	Minimum 25 for in-school, any number on campus
Format	Interactive lecture
Cost	No cost

## Evening school visit to Mount Stromlo Observatory

Mt Stromlo Observatory offers evening school/educational group visits. A typical evening visit starts with a welcome by professional astronomers, followed by a 3D astronomy movie viewing. The movie is both fun and educational and lasts about 15 minutes. The group then moves outside for the main part of the evening, a stargazing session using Mt Stromlo's outreach telescopes.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, physics, astronomy, astrophysics and engineering
Location	On campus (M Stromlo)
Year group	10-12
Date	Weekdays excluding public holidays. At least one month's notice is required. Please note that this session is very popular and it is advisable to book early.
Time	2 hours (evening – to begin when the sun sets)
Numbers	Maximum of 40
Format	Interactive tour
Cost	\$5 per visitor

## Explore the world of Biology

Our world-leading biologists from the Research School of Biology will talk about their current research. These topics include:

- > From Single Cell to Human Body with Assoc. Prof. Maja Adamska
- > Spiders, Evolution or Things that Live in Rotting Logs with Prof. David Rowell
- > Disarming Bacterial Pathogens of Key Molecular Weaponry with Dr Denisse Leyton
- > Parasites – What's Eating You? with Assoc. Prof. Alex Maier
- > Alpine Ecology in a Changing Climate with Prof. Adrienne Nicotra
- > Photosynthesis, the most important biological process on Earth; Photosynthesis, Light and Action; Photosynthesis evolution: the story of plants and why we can't live without them, or Improving photosynthesis to help feed the world population by 2050 with Prof. John Evans and Dr Ben Long
- > Biological Nitrogen Fixation – from Genes to Environment with Prof. Uli Mathesius.
- > How many species are there on earth? with Assoc. Prof. Marcel Cardillo (interactive talk)
- > Evolution and Medicine with Professor Allen Rodrigo
- > Talking a Cellfie – plant signals to update its status with PhD student Estee Tee

The level of presentation varies depending on the age group, and our scientists will make every effort to link into the National Curriculum where possible. Schools who wish to visit campus can include a tour through our research areas.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, biology, genetics, ecology, immunology and plant science
Location	On campus or in-school*
Year group	10-12
Date	Weekdays excluding public holidays during teaching periods. At least one month's notice is required.
Time	1 hour (flexible)
Numbers	100
Format	Interactive presentation
Cost	No cost

**Key:** ANU College of Arts and Social Sciences

ANU College of Physical and Mathematical Sciences

ANU College of Asia and the Pacific

ANU College of Medicine, Biology and Environment

ANU College of Business and Economics

ANU College of Engineering and Computer Science

\* In-school activity is only available in ACT and NSW and is dependent upon staff availability

# WORKSHOPS

## ■ Girls in Engineering and Technology program – GET Set

Interested in a career that will have a positive impact on society? Then join us for our Girls in Engineering and Technology program – GET Set.

GET Set is designed for female students in years 11 and 12. With engaging hands-on activities, GET Set is the perfect opportunity to explore a career path which is both exciting and in demand!

For more information and to register for GET Set visit [cecs.anu.edu.au/getset](http://cecs.anu.edu.au/getset)

College	ANU College of Engineering and Computer Science
Areas of interest	Engineering, robotics, biology, science, physics, problem solving, teamwork, leadership
Location	On campus
Year group	11-12
Date	Wednesday 19 July 2017
Time	8.30am–3.30pm (7 hours)
Numbers	Maximum of 80
Format	Interactive activities and presentation
Cost	No cost

## ■ History at ANU

ANU is ranked first in Australia and 12th in the world for history (QS World University Rankings by Subject 2016). Areas of interest in at the ANU School of History include Australia, the United States and Europe. Sessions in the School of History can cover the following topics:

- > The Hidden History of Canberra – Nicholas Brown
- > The Eighties – the decade that changed Australia – Frank Bongiorno

As Manning Clark, who founded History at ANU, would say, “come and join the great conversation”.

College	ANU College of Arts and Social Sciences
Areas of interest	History
Location	On campus
Year group	9-12
Date	Mondays or Fridays during teaching periods
Time	Flexible
Numbers	Maximum of 25
Format	Presentations
Cost	No cost

## ■ Languages: translation

Translators are highly sought after language professionals, who, as well as having excellent linguistic abilities also have highly-developed analytical and written communication skills. This session introduces students to the linguistic process of translation – what are the issues faced by translators? What makes a good translation and why? How is translation even possible, if each language is intrinsically tied to the culture of its speakers?

College	ANU College of Arts and Social Sciences
Areas of interest	Language study, translation
Location	On campus or in-school
Year group	11-12
Date	Any time during teaching period
Time	60 minutes
Numbers	30 max
Format	Presentation and interactive activity
Cost	No cost

## ■ Learn to write your name in Arabic or Persian

Arabic is the mother language of over 250 million people in the Middle East (West Asia and North Africa), and one of the six official languages of the United Nations. It was the language of an ancient civilisation which contributed greatly to human knowledge. Arabic is also the living medium of a contemporary dynamic literature and culture. Its rich and magnificent poetry, classical and modern, is especially captivating.

- > Persian (otherwise known as Farsi) is spoken today primarily in Iran, Afghanistan and Tajikistan, was once widely understood from the Mediterranean to India, and has a rich historical and cultural legacy. In this interactive calligraphy workshop, students will learn to write their name in Persian or Arabic.

College	ANU College of Arts and Social Sciences
Areas of interest	Arabic and Persian
Location	On campus
Year group	9-12
Date	Weekdays excluding public holidays during teaching periods
Time	0.5-1 hour
Numbers	Maximum of 20
Format	Interactive workshop
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

■ ANU College of Physical and Mathematical Sciences

■ ANU College of Asia and the Pacific

■ ANU College of Medicine, Biology and Environment

■ ANU College of Business and Economics

■ ANU College of Engineering and Computer Science

★ In-school activity is only available in ACT and NSW and is dependent upon staff availability

# WORKSHOPS

## Linguistics: cracking the code of language!

Why is it that the only code not broken during World War II was a real language? How close are we to having computers who can talk to us the way that HAL does in Stanley Kubrick's 2001: A Space Odyssey? We discuss these sorts of questions and more about natural and artificial languages and introduce you to problem solving strategies for cracking a variety of language codes. You then get to apply these strategies to the sorts of problems high school students get each year as part of the Australian Computation and Linguistics Olympiad (OzCLO) and the International Linguistics Olympiad (ILO). No previous language or linguistic experience necessary!

College	ANU College of Arts and Social Sciences
Areas of interest	Problem-solving using both natural and artificial languages
Location	On campus or in-school
Year group	9-12
Date	Flexible
Time	1-1.5 hours (flexible)
Numbers	Any number
Format	Brief presentation followed by interactive activity
Cost	No cost

## Lively and energetic science shows with the Science Circus

The Shell Questacon Science Circus visits local schools to present lively and energetic science shows using everyday materials and props. Adapted to the age of the students, the shows cover a wide range of topics from states of matter and pressure to bubbles and balance to collisions and chemistry and so much more. Students who participate in the program at school receive a free ticket to attend the Science Circus hands-on exhibition – a portable science centre with over 50 interactive exhibits held in a central public venue such as a town hall. The Science Circus also run professional development workshops for science teachers. The Science Circus presenters are ANU Master of Science Communication Outreach students, based at the Australian National Centre for the Public Awareness of Science (CPAS).

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, physics, chemistry and biology
Location	In-school*
Year group	7-12
Date	Depending on touring schedule
Time	1 hour shows (up to 4 shows per day)
Numbers	Maximum of 150
Format	Interactive presentation
Cost	\$5 per visitor
Bookings	Bookings are taken about six months in advance at <a href="http://questacon.edu.au/outreach/programs/science-circus/schools-and-teachers/bookings">questacon.edu.au/outreach/programs/science-circus/schools-and-teachers/bookings</a>

## Masculinity and men's magazines

Ideals of masculinity have undergone quite dramatic changes over the past couple of decades, with researchers developing new concepts to understand the different ways of being a man in the 21st century. This workshop begins with a brief presentation on masculinity studies, followed by an interactive activity focused on analysing men's lifestyle magazines such as *Men's Health* and *Smith Journal*.

College	ANU College of Arts and Social Sciences
Areas of interest	Sociology and gender
Location	On campus
Year group	11-12
Date	Fridays during teaching periods excluding public holidays
Time	1.5 hours
Numbers	Maximum of 20
Format	Brief presentation followed by interactive activity
Cost	No cost

## Music: composing music for video games and film

Have you dreamed about being a songwriter, producer or audio engineer? Ever wanted to mix and play with sounds and music? We will introduce you to Logic Pro X, an industry standard piece of software, allowing you to compose, record, edit, and mix high-quality music or sound. No previous musical experience necessary!

College	ANU College of Arts and Social Sciences
Areas of interest	Audio Production and Music Composition
Location	On campus or in-school if students bring mac laptops
Year group	11-12
Date	Any time during teaching periods
Time	60 mins
Numbers	20 max
Format	Presentation
Cost	No cost

## Music: composing your own original song – no experience necessary!

Have you dreamed about being a songwriter, producer or audio engineer? Ever wanted to mix and play with sounds and music? We will introduce you to Logic Pro X, an industry standard piece of software, allowing you to compose, record, edit, and mix high-quality music or sound. No previous musical experience necessary!

College	ANU College of Arts and Social Sciences
Areas of interest	Audio Production and Music Composition
Location	On campus or in school if students bring mac laptops
Year group	11-12
Date	Any time during teaching periods
Time	60 mins
Numbers	20 max
Format	Presentation
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

■ ANU College of Physical and Mathematical Sciences

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# WORKSHOPS

## ■ Music: contemporary improvisation

Humans improvise every day and music students have nothing to fear when it comes to learning how to improvise. Learn how to improvise using the tools that you already know! Open to all instruments including vocals.

College	ANU College of Arts and Social Sciences
Areas of interest	Music Contemporary Improvisation
Location	On campus, School of Music, 100 Childers Street, ANU Campus
Year group	11-12
Date	Any time during teaching periods
Time	60 minutes (flexible)
Numbers	Flexible
Format	Presentation
Cost	No cost

## ■ Music: engagement program

The MEP offers training to teachers and students using its innovative Music Outreach Principle, which encourages the sharing of music, especially through singing, within and beyond the school. Many schools in Canberra use the MEP approach already. The MEP is offering sessions for existing school partners and those wishing to learn more about the approach. Workshops are tailored for each environment and there are a range of activities to suit age groups from pre-school to Year 10. Specific provision can also be made for interested College groups.

College	ANU College of Arts and Social Sciences
Areas of interest	Music
Location	In-school*
Year group	Pre-school to Year 10; special arrangements for colleges as required.
Date	Weekdays excluding public holidays during teaching periods (17 July to 27 October)
Time	Various times during the school day
Numbers	10–300
Format	Workshop for groups of students and teachers on MEP outreach singing model
Cost	No cost

## ■ Music: facilities tour

Tour the School of Music facilities with our teaching staff to see the many performance spaces and how technology plays an important role in the constantly evolving delivery of tertiary music education.

College	ANU College of Arts and Social Sciences
Areas of interest	Music
Location	On campus
Year group	9-12
Date	Any time during teaching periods
Time	1 hour
Numbers	Maximum of 20
Format	Tour
Cost	No cost

## ■ Music: using the recording studio

Have you dreamed about being a songwriter, producer or audio engineer? Ever wanted to sit in front of a giant mixing console and record music? Come play and learn in our multi-million dollar recording studio. No previous musical experience necessary!

College	ANU College of Arts and Social Sciences
Areas of interest	Audio Production and Music Composition
Location	On campus or in-school if students bring mac laptops
Year group	11-12
Date	Any time
Time	60 minutes
Numbers	20 max
Format	Presentation
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

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■ ANU College of Asia and the Pacific

■ ANU College of Medicine, Biology and Environment

■ ANU College of Business and Economics

■ ANU College of Engineering and Computer Science

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# WORKSHOPS

## ■ Philosophy: harming some to save others

Philosophy was a foundation discipline in the Research School of Social Sciences (RSSS) when ANU was created. For the last two decades the school has consistently ranked as the leading philosophy department in Australasia, and (alongside Oxford, Toronto, and Cambridge) among the top four departments in the world outside of the United States. According to *Philosophical Gourmet*, we presently rank 24th in the Anglophone world overall. Our faculty include four of the 25 most-cited living philosophers in the world, as well as recipients of major ARC awards such as Laureate and Future Fellowships, and national and international prizes for research. We have three core research centres – the Centre for Moral, Social and Political Theory, the Centre for Consciousness, and the Centre for Philosophy of Science (to be launched in 2017) – but our work covers a wide range of topics, such as Asian philosophy, decision theory, ethics, epistemology, European philosophy, logic, metaphysics, philosophy of science (especially philosophy of biology) and political philosophy.

Sessions in the School of Philosophy will address one of these areas:

Our lives are sometimes harmonious; everyone can live freely and well without impinging on anyone else. But sometimes we face tragic conflicts, and the security of some can be bought only at the cost of others. Moral theory can help tell us when it is permissible to harm some in order to save others; but questions of permissible harm can also tell us much about the nature of moral theory. In this session, students will discuss central topics in the ethics of war and killing with Head of School, Associate Professor Seth Lazar ([sethlazar.xyz](http://sethlazar.xyz)).

College	ANU College of Arts and Social Sciences
Areas of interest	Philosophy
Location	On campus
Year group	11-12
Date	Flexible
Time	Flexible
Numbers	Flexible
Format	Interactive
Cost	No cost

## ■ ■ Physics at ANU: Einstein and relativity

This program involves the use of simulations using Real Time Relativity to model and observe the effects of travelling at speeds close to that of light. The session also features the use of a Michelson Interferometer, observation of the Doppler Effect using sound, and a visit to the Gravitational Wave Research. There may also be an opportunity for our scientists to link into the National Curriculum.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, physics, astronomy, astrophysics and engineering
Location	On campus
Year group	10-12
Date	Weekdays excluding public holidays. Please contact us for availability throughout the year. At least one month's notice is required.
Time	40 mins–2 hours (flexible)
Numbers	Maximum of 25
Format	Interactive activities and experiments
Cost	No cost

## ■ ■ Physics at ANU: optics and photonics

The optics and photonics program involves a number of experimental activities including:

- > Michelson Interferometer
- > Diffraction
- > Image processing
- > Spectra
- > Optical fibres
- > Medical use of Gamma Radiation
- > Bell Photo-phone
- > Solar cells.

The level of experiments varies depending on the age group. There may also be an opportunity for our scientists to link into the National Curriculum. It's important that students and teachers enjoy the activities and that's why we link them all into the outside world where the physics is used. The visit may include a tour through a research area and several demonstrations of physics in action.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, physics, astronomy, astrophysics and engineering
Location	On campus
Year group	8-12
Date	Weekdays excluding public holidays. Please contact us for availability throughout the year. At least one month's notice is required.
Time	40 mins–2 hours (flexible)
Numbers	Maximum of 25
Format	Interactive activities and experiments
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

■ ANU College of Physical and Mathematical Sciences

■ ANU College of Asia and the Pacific

■ ANU College of Medicine, Biology and Environment

■ ANU College of Business and Economics

★ In-school activity is only available in ACT and NSW and is dependent upon staff availability

■ ANU College of Engineering and Computer Science

# WORKSHOPS

## ■ ■ Physics at ANU: physics walk

This is an opportunity to get out of the laboratory and study the impact of physics on our everyday lives. The experience starts in the main physics building and includes large-scale research laboratories, the Big Dish, mobile phone towers, electricity sub-station, solar hot water installations, solar cells, roof top solar devices, TV and radio transmitters, optical fibre networks, air conditioners, traffic lights and street lighting, birds and any other seasonal phenomena. There may also be an opportunity for our scientists to link into the National Curriculum.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, physics, astronomy, astrophysics and engineering
Location	On campus
Year group	10-12
Date	Weekdays excluding public holidays. Please contact us for availability throughout the year. At least one month's notice is required.
Time	40 mins (flexible)
Numbers	Maximum of 25
Format	Interactive activities and experiments
Cost	No cost

## ■ ■ Physics at ANU: radioactivity, nuclear and particle physics, nuclear medicine

The electrostatic accelerator at ANU is ten storeys high, operates at up to 15 million volts, and is used to initiate nuclear reactions, make exotic radio-isotopes and study fundamental aspects of the strong and weak nuclear forces. As well as a tour of this national and international facility, visitors can learn about the science behind nuclear power, medical physics and how isotopes are made and can be safely used. Hands-on experiments are possible, including measuring radiation levels, identifying isotopes and observing different types of nuclear decay and measuring radioactive half-lives. There may also be an opportunity for our scientists to link into the National Curriculum.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, physics, astronomy, astrophysics and engineering
Location	On campus
Year group	10-12
Date	Weekdays excluding public holidays. Please contact us for availability throughout the year. At least one month's notice is required.
Time	40 mins–2 hours (flexible)
Numbers	Maximum of 25
Format	Interactive activities and experiments
Cost	No cost

## ■ Politics and International Relations at ANU

Politics and International Relations at ANU is ranked number one in Australia and 8th in the world (QS World University Rankings by Subject 2016). Hear from key experts in the field of Politics and International Relations about a topic of global concern. Classes can be delivered on a case-by-case basis and tailored for the needs of the group.

College	ANU College of Arts and Social Sciences
Areas of interest	Politics and international relations
Location	On campus
Year group	9-12
Date	Anytime during teaching periods
Time	Flexible
Numbers	Maximum of 20
Format	Masterclass
Cost	No cost

## ■ Rethinking migration: past, present, future

Migration and refugees dominate our news and politics but how are they understood by researchers? This multi-disciplinary workshop explores how human mobility has been analysed by different academic disciplines – from politics, law, history, economics, sociology, demography, geography, anthropology and cultural studies. How is migration changing and what impact will it have on the future? Make up your own mind as we examine a range of global case-studies and the main research approaches used in social sciences.

College	ANU College of Arts and Social Sciences
Areas of interest	Global studies, social sciences
Location	On campus or in-school
Year group	11-12
Date	Thursdays and Fridays during teaching period
Time	60 minutes
Numbers	30 minimum
Format	Workshop
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

■ ANU College of Physical and Mathematical Sciences

■ ANU College of Asia and the Pacific

■ ANU College of Medicine, Biology and Environment

■ ANU College of Business and Economics

■ ANU College of Engineering and Computer Science

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# WORKSHOPS

## ■ Robotics

This workshop is run by the ANU chapter of Robogals – a student-run organisation that aims to increase student participation in engineering, science and technology through fun and educational initiatives.

Students in the workshop will be introduced to Lego Mindstorms robots and their components before commencing a programming tutorial. The tutorial will touch on programming language and problem-solving. Students will work in groups of two or three to program their robot to successfully complete given challenges such as obstacle courses. Other challenges are available if time permits. Engineering and computing disciplines are also discussed as Robogals volunteers present various projects from their study at ANU. For information on the workshops provided by the ANU College of Engineering and Computer Science visit [cecs.anu.edu.au/outreach](https://cecs.anu.edu.au/outreach)

College	ANU College of Engineering and Computer Science
Areas of interest	Robotics, coding, engineering and computing
Location	On campus or in-school*
Year group	7-12
Date	Weekdays excluding public holidays during teaching periods
Time	1-1.5 hours
Numbers	Maximum 20 per workshop (multiple workshops run simultaneously can be organised)
Format	Interactive presentation and hands on workshop
Cost	No cost

## ■ ■ Science talks and practical experiments

The ANU Colleges of Science cover a broad range of scientific areas including astronomy, biology, chemistry, earth and marine sciences, environmental sciences, mathematics, health, psychology, physics, and science communication.

Our world-leading research is headed up by some of Australia's, and the world's, greatest scientists and they are available to inspire your students through a range of practical and informative workshops and presentations. If you are interested in a particular science area and you cannot find a relevant program listed please contact [science@anu.edu.au](mailto:science@anu.edu.au) to see if we can arrange another activity for your class.

A number of topics which include but are not limited to:

- > Chemistry of Medicines
- > Chemistry of Natural Systems
- > Climate Variability, Vulnerability and Adaptation
- > Earth Climate Science
- > Knots and Shapes in Mathematics
- > Planetary Geochemistry
- > Read My Mind: a User's Guide to the Brain
- > Mathematics of Fractal Geometry

The level of presentation or activity varies depending on the age of the group, and our scientists will make every effort to link into the National Curriculum where possible.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, biology and chemistry
Location	On campus or in-school*
Year group	8-12
Date	Weekdays excluding public holidays during teaching periods. At least one month's notice is required.
Time	1 hour (flexible)
Numbers	25-100 (depending on topic)
Format	Interactive presentation
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

■ ANU College of Physical and Mathematical Sciences

■ ANU College of Asia and the Pacific

■ ANU College of Medicine, Biology and Environment

■ ANU College of Business and Economics

■ ANU College of Engineering and Computer Science

★ In-school activity is only available in ACT and NSW and is dependent upon staff availability

# WORKSHOPS

## ■ The Centre for Classical Studies: life in the ancient world

The Centre for Classical Studies offers students a chance to explore the ancient worlds of Greece and Rome from a variety of perspectives. Classics is the original interdisciplinary discipline. We use textual, historical, archaeological and theoretical tools to discover how people lived, what they thought about, and what they left behind. Antiquity continues to hold a fascination for us today. Staff are available to give talks on the ANU campus or in schools on the following broad themes:

- > Classical epic and tragedy
- > Greek and Roman history
- > Greek myth and storytelling
- > Introduction to ancient Greek and Latin
- > The objects of everyday life in Greece and Rome

These talks can be tailored to suit the interests of the class or to fit with your curriculum. In addition, we offer guided tours of our extensive museum collection.

College	ANU College of Arts and Social Sciences
Areas of interest	Ancient History, Classics, Greek, Latin
Location	On campus or in-school
Year group	9-12
Date	Flexible
Time	30-60 mins (flexible)
Numbers	Flexible
Format	Presentations, interactive classes, museum tours
Cost	No cost

## ■ Tours of the ANU Classics Museum

Visitors to the Classics Museum at ANU gain a taste of everyday life in the ancient world. The collection spans the Mediterranean and beyond. It features examples of ancient art and objects of daily life from Greece and the Roman world, including Egypt and the Near East.

College	ANU College of Arts and Social Sciences
Areas of interest	History, ancient languages and art
Location	On campus
Year group	9-12
Date	Second Friday of each month during teaching periods
Time	30 minutes to 1 hour
Numbers	Maximum of 15
Format	Tour
Cost	No cost

## ■ Why study a Bachelor of Arts at ANU?

Explore almost 50 majors and 80 minors in our ANU Bachelor of Arts (BA) degree. The BA is one of the most flexible degrees, with varied subjects to choose from, ranging from History to Criminology, or a language – a veritable smorgasbord of options to complement varied interests. Every one of our students is studying their own unique program. Find out why this is one of the most popular degrees at ANU.

College	ANU College of Arts and Social Sciences
Areas of interest	Arts and Social Sciences
Location	On campus
Year group	9-12
Date	Anytime during teaching periods
Time	Flexible
Numbers	Maximum of 25
Format	Presentation
Cost	No cost

## ■ Work experience at the Research School of Astronomy and Astrophysics

The Mount Stromlo Observatory offers a limited number of work experience places to year 10, 11 and 12 students each year. These placements are typically one week in duration and students work on an astronomical project under the supervision of professional astronomers. Aside from working on their project, work experience students also learn computing skills, attend departmental talks and find out further information about University courses that are available to them and the potential career paths they may embark on.

College	ANU College of Physical and Mathematical Sciences ANU College of Medicine, Biology and Environment
Areas of interest	Science, physics, astronomy, astrophysics and engineering
Location	On campus (Mt Stromlo)
Year group	10-12
Date	Weekdays excluding public holidays. Please contact us for availability throughout the year. At least one month's notice is required.
Time	1 week from 9am to 5pm
Numbers	12 per year
Format	Work Experience
Cost	No cost

**Key:** ■ ANU College of Arts and Social Sciences

■ ANU College of Physical and Mathematical Sciences

■ ANU College of Asia and the Pacific

■ ANU College of Medicine, Biology and Environment

■ ANU College of Business and Economics

■ ANU College of Engineering and Computer Science

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# BOOKINGS

Most of our workshops are only available during ANU teaching periods and some require advance planning of several weeks.

Teaching periods are:

20 February – 26 May (Semester 1)

24 July – 27 October (Semester 2)

## How to book

1

Browse and make a note of the School Enrichment Programs that you wish to book or enquire about.

2

Click here to make your bookings/enquiries – this will require:

- > the number of students participating
- > their year group
- > the dates/times that could work

3

Once you have submitted your booking we will be in touch within three business days.

In-school activity is only available in ACT and NSW and is dependent upon staff availability.



## CONTACT US

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**ANU Open Day**

Saturday 26 August 2017, 9am-4pm

[www.anu.edu.au](http://www.anu.edu.au)