WHY ANU?

4 Nobel Laureates
#1 university in Australia
#24 in the world
3rd best city in the world

1 QS World University Rankings 2019
2 Lonely Planet’s “Best in Travel 2018: Top 10 Cities”
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Please note that this student guide is correct as at time of printing and should be used as a guide only. For the most up-to-date information please visit the ANU website.
POSTGRADUATE COURSEWORK PROGRAMS

What is a postgraduate coursework program?
A major component of a postgraduate coursework degree program is attendance at lectures and tutorials; examinations; and the submission of assessments such as essays and assignments.
Some postgraduate coursework programs also include a research component.
Our postgraduate coursework programs result in the awarding of the following qualifications:

**Graduate certificate:**
Approximately 24 units, or six months of full-time study.

**Graduate diploma:**
Approximately 48 units or one year of full-time study.

**Master degree:**
Approximately 96 units, or two years of full-time study (or less with credit).

**Master (Advanced) degree:**
Approximately 96 units, or two years of full-time study (or less with credit). Includes a 24-unit equivalent supervised sub-thesis.

Am I qualified to apply?
You need to have a Bachelor (undergraduate) degree or equivalent to apply for a postgraduate coursework program.
Each program has specific application requirements. For more information, see the detailed program descriptions in this guide.

When can I start?
Most degree programs have two intakes per year and can be started in either semester one (mid- to late February) or semester two (mid-July).
For more information, see the detailed program descriptions in this guide.

How much does it cost?
Fees for domestic and international students can be found in each of the program descriptions in this guide. Please note the fees listed are indicative only as they are dependent on your course selection and are subject to change.

Are scholarships available?
Some of our research schools offer scholarships for specific programs. Information about these scholarships can be found in the program descriptions in this guide.
There are a number of ANU scholarships available to domestic and international students, as well as external scholarships managed by organisations outside of the University.
For more information, visit anu.edu.au/study/scholarships

How do I apply?
Domestic students apply for postgraduate coursework programs through the University Admissions Centre at uac.edu.au.
The closing date for semester one entry is the end of January, and closing date for semester two entry is the end of June.
International students can apply for postgraduate coursework programs and find more information about closing dates online at anu.edu.au/study/apply/international-applications-undergraduate-and-postgraduate/international-applications-anu

How long will it take to finish?
A Master degree from ANU usually takes two years of full-time study to complete, but most programs can be fast-tracked with recognition of previous study in a related discipline.

Can I get credit for previous study?
Your prior study might count towards your Master degree, meaning you can complete the degree in less than two years.
If you have an Australian undergraduate degree (or international equivalent) in a related field, you might get six months’ credit towards your Master degree.
If you have an Australian undergraduate degree with honours (or international equivalent) in a related field, or a graduate diploma in a related field, your Master degree might only take one year to complete.
Graduate certificate and graduate diploma awards are available as exit options in circumstances where the two-year Master degree cannot be completed.
For more information about your program, see the detailed descriptions in this guide.
English Language Requirements

You must provide evidence of English language proficiency required for admission to ANU.

You may meet this requirement if your tertiary studies were entirely taught and assessed in English during the past two years.

If you are an international student and you completed your English studies more than two years ago, you will need to provide an English proficiency test certificate, such as the International English Language Testing System (IELTS) or the Test of English as a Foreign Language (TOEFL).

English language preparation

The ANU Access English program is a 10-week course offered by ANU College. The course runs four times a year and is designed so that you can finish the course in time to start your studies at ANU. You must already have an IELTS (or recognised equivalent) score of 6.0, with a minimum score of 5.5 in all bands, to gain entry to the course.

For all information on English language requirements visit:
anu.edu.au/pg/english

<table>
<thead>
<tr>
<th>Test</th>
<th>Regular Degree Programs (including Exchange and Study Abroad)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic IELTS</td>
<td>An overall score of 6.5 with at least 6 in each component of the test</td>
</tr>
<tr>
<td>TOEFL1 – paper-based test</td>
<td>A score of 570 with TWE* score of 4.5</td>
</tr>
<tr>
<td>TOEFL1 – internet-based test</td>
<td>A score of 80, with a minimum of 20 in Reading and Writing and 18 in Speaking and Listening</td>
</tr>
<tr>
<td>Cambridge CAE Advanced</td>
<td>80 (Grade A)</td>
</tr>
<tr>
<td>PTE Academic</td>
<td>Overall 64, minimum score of 55 in each section</td>
</tr>
</tbody>
</table>

*TWE = Test of Written English

For all information on English language requirements visit:
anu.edu.au/pg/english

Contact ANU College

T +61 2 6125 6688
W anucollege.edu.au
CRICOS Code: 01682E
POSTGRADUATE RESEARCH

We offer Doctor of Philosophy (PhD) and Master of Philosophy (MPhil) postgraduate research programs across a range of disciplines in science.

Our postgraduate research students have access to cutting-edge research facilities and work alongside some of the world’s most influential and innovative academics.

Pathways to a PhD
If you are interested in a PhD but your previous studies do not include a research component, you can consider an advanced Master degree, which combines coursework and research. Upon completion, you will have the skills to continue your research career and the academic qualifications needed to apply for a PhD.

You can find more information about our advanced Master programs in the postgraduate coursework section of this guide.

Postgraduate research areas

Astronomy and astrophysics:
The research interests of our staff include planetary science, cosmology, instrumentation, observational and theoretical aspects of extra-solar planets, stellar atmospheres and evolution, the interstellar medium, globular clusters, galactic structure, the Magellanic clouds, normal galaxies, active galaxies, radio sources, quasars, and cosmology.

Biomedical science and biochemistry:
We offer research projects in a range of biological systems, which involve fundamental investigations and applications of molecular, physiological, cellular, developmental and genetic processes in animals, plants, micro-organisms and viruses.

Biological science and biochemistry:
We offer research projects in a range of biological systems, which involve fundamental investigations and applications of molecular, physiological, cellular, developmental and genetic processes in animals, plants, micro-organisms and viruses.

Chemistry:
Our research groups work in areas from a wide spectrum of chemistry, including computational chemistry, materials science and protein structure and function. A large number of international scientists visit the groups each year, contributing to research projects, the extensive seminar series and graduate lecture courses.

Earth, marine and planetary sciences:
Our research in Earth sciences focuses on the physical and chemical Earth processes ranging from those that led to the Earth’s formation and shaped its subsequent evolution, to processes impacting on our current environment. Our research is multidisciplinary and encompasses the physical sciences, geology, and biology.

Environment and resource management:
Our research students collaborate with world-renowned academic leaders in a wide range of topics spanning environment and society, including conservation biology, landscape ecology, interdisciplinary environmental studies, sustainability science, global change, environmental policy and economics, forest science and geography.

Evolution, ecology and genetics:
Research in evolution, ecology and genetics is a broad-based program that aims to provide students with a diversity of opportunities and training in biological research, and encourages graduates to take advantage of the rich and diverse community of biologists engaged in teaching, research, environmental management and policy formulation in Canberra.

Mathematical and computational sciences:
Broad research areas include advanced computation and modelling; algebra and topology; analysis and geometry; applied and nonlinear analysis; astronomy and astrophysics; mathematical physics; statistical science; and stochastic analysis. Students have the choice of studying mathematics and statistics in their own right and/or applying them in other disciplines.

Physics:
The underlying impetus of our research in physics is a belief in the fundamental importance of physics to all of science. Research areas include applied mathematics, materials engineering, quantum science, optics and theoretical physics. Students have access to some of Australia’s most important installations, such as the only Heavy Ion Accelerator and centre for nuclear research in the country.
Plant sciences:
Research in plant sciences serves as a focal point for graduate students interested in the broad range of research in plant biology that exists in the scientific community in Canberra. Students have the opportunity to work on research incorporating photosynthesis and plant energy biology; plant environmental biology and functional ecology; plant genetics and gene regulation; and plant-microbe interactions.

Science communication:
Research in science communication is for graduates with an interest in how science is communicated to diverse non-scientific audiences. Students may examine a scientific issue from a public communication perspective, investigate how a particular medium works to engage people with science, or explore scientists’ experiences with communication.

How to apply for a PhD or an MPhil

**STEP 1:**
Expression of interest
Prospective research students first need to identify a research project and find an academic supervisor.

If you are not sure which area of research or supervisor matches your interest please complete an expression of interest online at science.anu.edu.au/hdr-expression-interest

**STEP 2:**
Academic supervisor
Email your academic supervisor directly to enquire about projects and supervision. You may also submit a short research proposal.

Once an academic supervisor has been confirmed to support your application you may proceed to step three.

**STEP 3:**
Scholarships
A number of scholarships are available and are awarded on a merit basis. You can also talk to your academic supervisor about other sources of funding you might access to assist with living expenses and tuition fees.

Please note, international research scholarships are only awarded to the most outstanding students and are extremely competitive.

Scholarship applications can be made when completing the program application process, step four.

**STEP 4:**
Application
Applicants should apply online at anu.edu.au/study/apply/anu-postgraduate-research-domestic-and-international-applications
## OUR DEGREES

<table>
<thead>
<tr>
<th>DEGREE NAME</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>Master of Astronomy and Astrophysics (Advanced)</td>
<td>Discover key areas of modern astronomy and develop the physical concepts necessary for their exploration. You will undertake coursework in areas such as astrophysical techniques, astrophysical computing, planetary science, stellar astrophysics, galaxies, cosmology, astrophysical gas dynamics and high energy astrophysics. At the same time, you will undertake a two-year-long research project supervised by an academic.</td>
</tr>
<tr>
<td>Master of Biotechnology (Advanced)</td>
<td>Place yourself at the forefront of innovation, engineering organisms to address issues of food security, disease and climate change. Study alongside our leading researchers who work on issues of global importance in areas of biochemistry and molecular biology in the biomedical, animal and plant sciences.</td>
</tr>
<tr>
<td>Master of Biotechnology (Advanced)</td>
<td>This Advanced program incorporates a research project supervised by an academic.</td>
</tr>
<tr>
<td>Master of Earth Sciences (Advanced)</td>
<td>In this program, students will delve into the complex systems and processes that shape our planet, at Australia’s leading academic research institution for Earth sciences. Study courses from different Earth science disciplines and undertake training on how to gather data and interpret results, before undertaking a research project supervised by an academic.</td>
</tr>
<tr>
<td>Master of Energy Change (Advanced)</td>
<td>Climate change is one of the greatest challenges of the 21st century, and can only be solved with a worldwide transition to carbon-free forms of energy. In this interdisciplinary degree, you will tailor a suite of courses suited to your individual interests, skills and aspirations, developing your expertise in the relevant policy, legal, technological, environmental and regulatory aspects of energy change.</td>
</tr>
<tr>
<td>Master of Language and Communication (Advanced)</td>
<td>Equip yourself with the skills to tackle the big environmental problems facing contemporary and future society. You could choose to specialise in biodiversity conservation, climate change, disaster studies, environmental policy, environmental studies and human ecology, geography, natural resource management, sustainability science or water science and management.</td>
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<td>Master of Environmental Science</td>
<td>You’ll be studying at one of the top 10 universities in the world for environmental science, developing your breadth of knowledge in environmental science and its applications, and depth in aspects of one or more of the biological, earth and environmental or ecological environmental sciences.</td>
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<td>Master of Forestry (Advanced)</td>
<td>The program reflects the diversity of perspectives needed for effective forest resource management. You will take courses that develop your knowledge in either the science and methods or policy and management aspects of forestry and sustainable forest management.</td>
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<td>Master of Forestry (Advanced)</td>
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<td>Master of Mathematical Sciences (Advanced)</td>
<td>Study a variety of courses tailored to your interests and needs, ranging from pure mathematics to mathematical modelling, computational mathematics and applications of mathematics, as well as courses in related disciplines such as statistics, computer science, financial mathematics and econometrics.</td>
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<td>Master of Science Communication</td>
<td>In this contemporary degree, you’ll join Australia’s founding and leading science communication institution, and be taught by some of the world’s leading science communicators. Combining theoretical and practical aspects of science communication, you’ll delve into topics including science in the media, science and public policy, ethics of science and cross-cultural science communication.</td>
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**ENTRY REQUIREMENTS**

- A Bachelor degree or international equivalent with a minimum GPA of 5.5/7.0, with at least eight courses in a cognate area.
- A Bachelor degree or international equivalent with a minimum GPA of 5.0/7.0, with at least eight courses in a cognate area, including a minimum of two courses in chemistry.
- A Bachelor degree or international equivalent with a minimum GPA of 5.5/7.0, with at least eight courses in a cognate discipline.
- A Bachelor degree or international equivalent with a minimum GPA of 5.0/7.0, with at least eight courses in a cognate area.
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- A Bachelor degree or international equivalent with a minimum GPA of 5.5/7.0, with at least eight courses in a cognate area.

**INTAKE ENTRY REQUIREMENTS**

- UAC Code: 830770
- CRICOS Code: 0822776F
- UAC Code: 830702
- CRICOS Code: 082280G
- UAC Code: 830782
- CRICOS Code: 082288M
- UAC Code: 830776
- CRICOS Code: 082291E
- UAC Code: 830777
- CRICOS Code: 082292D
- UAC Code: 830715
- CRICOS Code: 082293C
- UAC Code: 830716
- CRICOS Code: 082294B
- UAC Code: 830785
- CRICOS Code: 082297K
- UAC Code: 830786
- CRICOS Code: 082298J
- UAC Code: 830722
- CRICOS Code: 082299G
- UAC Code: 830723
- CRICOS Code: 082300J
- UAC Code: 830788
- CRICOS Code: 082337G
- UAC Code: 830749
- CRICOS Code: 082350K

2020 Postgraduate Student Guide
# OUR DEGREES

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<tr>
<td>Master of Science Communication Outreach</td>
<td>This life-changing program is one-of-a-kind: you’ll gain specialist education in science communication performance and exhibition design, including using science media across platforms, engaging varied audiences with science and managing science centres. You’ll also spend 14 weeks of the year travelling to remote and regional areas of Australia presenting the Shell Questacon Science Circus to school children and teachers.</td>
</tr>
<tr>
<td>Master of Science in Biological Sciences</td>
<td>This program allows you to specialise in a particular area of biology such as biomedical sciences, ecology and evolution, genetics, and plant sciences. Alternatively, you can utilise the program to provide a broad overview of biological sciences today. Our practical classes build on your traditional technical knowledge while developing your skills in new cutting-edge experimental techniques.</td>
</tr>
<tr>
<td>Master of Science (Advanced) in Biological Sciences</td>
<td>This program offers a research component which provides the student an opportunity to conduct hands-on research in a laboratory of a research scientist/ supervisor.</td>
</tr>
<tr>
<td>Master of Science in Quantitative Biology and Bioinformatics</td>
<td>This degree provides students with experience in the use of methods and tools to organise and analyse biological data, statistically, mathematically and computationally. The course caters to a range of students including students who have come from an undergraduate biological degree, by providing the appropriate mathematical and programming skills; to students with a more quantitative undergraduate background, by providing the necessary background in biology and biological data and analyses.</td>
</tr>
<tr>
<td>Master of Science (Advanced) in Quantitative Biology and Bioinformatics</td>
<td>In this program students will develop work on an original research project that builds on, and applies, their knowledge of quantitative biological data analysis.</td>
</tr>
<tr>
<td>Master of Science in Precision Instrumentation &amp; Measurement</td>
<td>In this program students have the opportunity to learn the most advanced techniques for studying the heavens, the Earth, and everything in-between. The interdisciplinary expertise students acquire will impact on diverse areas of fundamental scientific research as well as industrial applications. The degree is a mix of coursework and projects, comprising individual and group-based research.</td>
</tr>
<tr>
<td>Master of Science (Advanced) in Precision Instrumentation &amp; Measurement</td>
<td>The degree is a mix of coursework and projects, comprising individual and group-based research. This Advanced program incorporates a research project supervised by an academic.</td>
</tr>
<tr>
<td>Master of Science in Nuclear Science</td>
<td>Students will study the fundamentals and applications of nuclear science, including materials analysis, dating techniques, nuclear medicine, and nuclear energy. The degree is a mix of coursework and projects, comprising individual and group-based research. You will develop the scientific background you need for informed debate on nuclear issues, without advocating a particular position.</td>
</tr>
<tr>
<td>Master of Science (Advanced) in Nuclear Science</td>
<td>This Advanced program incorporates a research project supervised by an academic.</td>
</tr>
<tr>
<td>Master of Science in Quantum Technology</td>
<td>This program equips you with the required skills and knowledge of the scientific, technical, business and societal aspects of quantum technology to be highly competitive in the emerging quantum industries of the present day and of the future.</td>
</tr>
<tr>
<td>Master of Science (Advanced) in Quantum Technology</td>
<td>This Advanced program incorporates a research project supervised by an academic.</td>
</tr>
</tbody>
</table>

For detailed admission requirements check the Programs and Courses website → programsandcourses.anu.edu.au
<table>
<thead>
<tr>
<th>DURATION (FULL TIME)</th>
<th>SEMESTER INTAKE</th>
<th>ENTRY REQUIREMENTS</th>
<th>UAC CODE</th>
<th>CRICOS CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>1 only</td>
<td>A Bachelor Honours degree, Graduate Certificate, Graduate Diploma or international equivalent with a minimum GPA of 5.0/7.0, with at least eight courses in a cognate area. Successful assessment of suitability based on a supplementary form, two referee reports and interview/audition.</td>
<td>Direct applications only</td>
<td>083816F</td>
</tr>
<tr>
<td>2 years</td>
<td>1 &amp; 2</td>
<td>A Bachelor degree or international equivalent with a minimum GPA of 5.0/7.0, with at least eight courses in a cognate area.</td>
<td>830706</td>
<td>096439G</td>
</tr>
<tr>
<td>2 years</td>
<td>1 &amp; 2</td>
<td>A Bachelor degree or international equivalent with a minimum GPA of 5.5/7.0, with at least eight courses in a cognate area.</td>
<td>830707</td>
<td>096440D</td>
</tr>
<tr>
<td>2 years</td>
<td>1 &amp; 2</td>
<td>A Bachelor degree or international equivalent with a minimum GPA of 5.0/7.0, with at least eight courses in a cognate area.</td>
<td>830737</td>
<td>096439G</td>
</tr>
<tr>
<td>2 years</td>
<td>1 &amp; 2</td>
<td>A Bachelor degree or international equivalent with a minimum GPA of at least 5.5/7.0, with at least eight courses in a cognate area.</td>
<td>830738</td>
<td>096440D</td>
</tr>
<tr>
<td>2 years</td>
<td>1 &amp; 2</td>
<td>A Bachelor degree or international equivalent with a minimum GPA of 5.0/7.0, with at least eight courses in the fields of Physics or Engineering with a minimum GPA of 5.0/7.0. Mathematics at least to the level of MATH2305.</td>
<td>830747</td>
<td>099248B</td>
</tr>
<tr>
<td>2 years</td>
<td>1 &amp; 2</td>
<td>A Bachelor degree or international equivalent with a minimum GPA of 5.5/7.0, with at least eight courses in the fields of Physics or Engineering with a minimum GPA of 5.5/7.0. Mathematics at least to the level of MATH2305.</td>
<td>830748</td>
<td>099249A</td>
</tr>
<tr>
<td>2 years</td>
<td>1 &amp; 2</td>
<td>A Bachelor degree or international equivalent with a minimum GPA of 5.0/7.0, with at least eight courses in the fields of Physics or Engineering with a minimum GPA of 5.0/7.0.</td>
<td>830750</td>
<td>099254D</td>
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<td>2 years</td>
<td>1 &amp; 2</td>
<td>A Bachelor degree or international equivalent with a minimum GPA of 5.5/7.0, with at least eight courses in the fields of Physics or Engineering with a minimum GPA of 5.5/7.0.</td>
<td>830740</td>
<td>099251G</td>
</tr>
<tr>
<td>2 years</td>
<td>1 &amp; 2</td>
<td>A Bachelor degree or international equivalent with a minimum GPA of 5.0/7.0, with at least eight courses in the fields of Physics and/or Engineering and/or Mathematics with a minimum GPA of 5.0/7.0.</td>
<td>830741</td>
<td>099252F</td>
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<tr>
<td>2 years</td>
<td>1 &amp; 2</td>
<td>A Bachelor degree or international equivalent with a minimum GPA of 5.5/7.0, with at least eight courses in the fields of Physics and/or Engineering and/or Mathematics with a minimum GPA of 5.5/7.0.</td>
<td>830752</td>
<td>099253E</td>
</tr>
</tbody>
</table>
MASTER OF ASTRONOMY & ASTROPHYSICS (ADVANCED)

Key facts

- **Duration:** Two years full-time (or less with credit)
- **Semester intake:** Semester 1 or 2
- **Indicative annual domestic fee:** $30,720.00
- **Indicative annual international fee:** $45,864.00
- **CRICOS code:** 082274F
- **UAC code:** 830780
- **Cognate disciplines:** Computer Science, Earth and Marine Sciences, Physics, and Mathematics.

Admission requirements

A Bachelor degree or international equivalent with a minimum GPA of 5.5/7.0, with at least eight courses in a cognate area.

Eligibility for credit

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

Program description

The Master of Astronomy and Astrophysics (Advanced) incorporates a 50 percent coursework component and a 50 percent research component.

The coursework component can be tailored to your interests, and can include astrophysical techniques, astrophysical computing, planetary science, stellar astrophysics, galaxies, and cosmology. Many courses contain research or hands-on components that develop your skills and knowledge in the latest advances in astronomy and astrophysics.

The research project provides the opportunity to enhance and develop your detailed knowledge and skills in a specific area of astronomy or astrophysics. It may include the acquisition and analysis of telescope data, the development of theoretical models, or the development and testing of new astronomical instrumentation.

Domestic students can apply for the Research School of Astronomy and Astrophysics Masters (Advanced) Scholarship which provides a $10,000 stipend per annum.

Career opportunities

Graduates are well positioned to pursue further studies in astronomy and astrophysics in some of the best institutions in Australia and overseas.

→ science.anu.edu.au/study/master-degrees/master-astronomy-and-astrophysics-advanced

STUDENT PROFILE

**Karlie Noon**

**Master of Astronomy and Astrophysics (Advanced)**

Karlie is studying her Masters at ANU and is specifically interested in making connections between astronomy and her Indigenous heritage.

“Indigenous knowledge is an incredible source of complexity and science. Doing inquiry for 60,000 years produces a plethora of intricate knowledge, often things that the rest of the world has only recently discovered or who knows, might yet to be discovered.

“A lot of discoveries in science are pinned to Europeans however this is not the case when you consider the vast amount of discoveries Indigenous Australians made.”
MASTER OF BIOTECHNOLOGY

Key facts

**Duration:** Two years full-time (or less with credit)

**Semester intake:** Semester 1 or 2

**Indicative annual domestic fee:** $30,720.00

**Indicative annual international fee:** $45,864.00

**UAC code:** 830701 / 830702 (Advanced)

**CRICOS code:** 082279A / 082280G (Advanced)

**Cognate disciplines:** Biochemistry, Molecular Biology and Gene Technology

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.5/7.0 and at least eight courses in cognate disciplines and two courses in the field of chemistry. The GPA requirement for this program must be met by both the program as a whole, as well as by the eight courses in a cognate area.

Eligibility for credit

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

Program description

The Master of Biotechnology is a coursework program that provides a pathway for science graduates with background knowledge in biochemistry, molecular biology and chemistry to acquire new knowledge, or extend and update their theoretical and practical understanding of modern biotechnology. Throughout the program, students have many opportunities to interface with scientists who are advancing research in areas of biochemistry and molecular biology in the biomedical, animal and plant sciences.

Career opportunities

A Master of Biotechnology degree provides students with opportunities to carry out research in basic, medical or agricultural sciences in university, industry or government research institutions. Opportunities exist in scientific sales, pharmaceutical and pathology companies, or in government and public service positions. A Master of Biotechnology (Advanced) can lead to a PhD.

Science.anu.edu.au/study/master-degrees/master-biotechnology

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MASTER OF BIOTECHNOLOGY (ADVANCED)

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.5/7.0 and at least eight courses in cognate disciplines and two courses in the field of chemistry.

Eligibility for credit

Applicants with a Bachelor degree, Honours, Graduate Diploma or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit.

Program description

The Advanced program incorporates a research project supervised by an academic, and is a gateway to further research, such as a PhD. A scholarship is offered to international students who receive the highest mark in the Advanced program.

Science.anu.edu.au/study/master-degrees/master-biotechnology
MASTER OF EARTH SCIENCES (ADVANCED)

Key facts

Duration: Two years full-time (or less with credit)
Semester intake: Semester 1 or 2
Indicative annual domestic fee: $30,720.00
Indicative annual international fee: $45,864.00
UAC code: 830782
CRICOS code: 082288M
Cognate disciplines: Chemistry, Earth and Marine Science, Engineering, Mathematics, Physics, Biology

Admission requirements

A Bachelor degree or international equivalent with a minimum GPA of 5.0/7.0, with at least eight courses in a cognate discipline.

Eligibility for credit

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for up to 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for up to 48 units (one year full-time) of credit.

Program description

Earth science deals with complex systems and processes that shape our planet. Pressing issues such as the safe supply of water, resources and energy, climate change, sea level rise as well as natural hazards are all intimately related to Earth sciences. Courses from different Earth science disciplines and training on how to gather data and interpret them are offered, as well as expert supervision for your extensive research project.

A number of scholarships are on offer to the best international and domestic students. Domestic students, including those who are successful in obtaining a Commonwealth Supported Place, may apply for a scholarship offered by the Research School of Earth Sciences.

Career opportunities

A Master of Earth Sciences (Advanced) degree gives you the opportunity to gain a wide range of knowledge and skills that are relevant for employment in industry, government agencies, education, as well as for further university studies.

STUDENT PROFILE

Karina Tuveng
Master of Earth Sciences (Advanced)

“For my research project, I’m part of a team looking at climate change that took place 40 to 50 million years ago, when the Earth transitioned from ‘greenhouse’ to ‘icehouse’.

“We are analysing the geochemical processes that took place in the ocean at the time by looking at small microorganisms called Foraminifera, collected from 40-million-year-old sediments on the ocean floor.”

→ science.anu.edu.au/study/master-degrees/master-earth-sciences-advanced
MASTER OF ENERGY CHANGE

Key facts

- **Duration**: Two years full-time (or less with credit)
- **Semester intake**: Semester 1 or 2
- **Indicative annual domestic fee**: $30,720.00
- **Indicative annual international fee**: $45,864.00
- **UAC Code**: 830776 / 830777 (Advanced)
- **CRICOS code**: 082291E / 082292D (Advanced)
- **Cognate disciplines**: Biology, Chemistry, Economics, Engineering, Environmental Studies, Law, Mathematics, Physics, Political Science, Sociology

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.0/7.0 and at least eight courses in cognate disciplines.

Eligibility for credit

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for up to 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for up to 48 units (one year full-time) of credit.

Program description

The Master of Energy Change is an interdisciplinary coursework program that allows you to develop a program of advanced learning suited to your individual interests, skills and aspirations in the area of energy change. A major key to addressing climate change is the need for a world-wide change to carbon-free forms of energy production.

Career opportunities

The need for energy change is well-established yet there are relatively few people with an effective overview or the multi-disciplinary skills needed to effectively contribute to this complex issue. Depending on the area of study and specialisation, our graduates find work in government, policy, scientific research, development and aid organisations, multi-national companies, and many other exciting fields. The Advanced program is also a pathway to more advanced study.

STUDENT PROFILE

Megan Ward
Master of Energy Change

“I’m doing the Master of Energy Change part-time in conjunction with working for the ACT Government, and I’m finding the program very flexible and accommodating. It’s also a great fit with what I’m doing and is informing how I do my job.”

MASTER OF ENERGY CHANGE (ADVANCED)

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.5/7.0 and at least eight courses in cognate disciplines.

Eligibility for credit

Applicants with a Bachelor degree, Honours, Graduate Diploma or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester) of credit.

Program description

The Master of Energy Change (Advanced) is a multi-disciplinary coursework and research degree which will provide you with both a strong basis in the fundamental areas related to energy change, as well as allowing you to undertake advanced courses and research in areas suited to your individual interests.

→ science.anu.edu.au/study/master-degrees/master-energy-change
MASTER OF ENVIRONMENT

Career opportunities
You can choose from a range of careers as diverse as the environment itself. Many of our graduates are employed in policy-making within local, state and federal governments, water resource management, environmental management, urban planning and sustainability, climate change adaptation consulting, and applied research science. Examples of roles of our graduates include: Assistant Director, federal Department of Environment; Lecturer, Eduardo Mondlane University (Mozambique); Manager of Hydrology and Flood Risk, JBA Consulting (UK); and Project Officer, Conservation Council, ACT Region.

MASTER OF ENVIRONMENT (ADVANCED)

Admission requirements
A Bachelor degree or international equivalent with a GPA of 5.5/7.0.

Eligibility for credit
Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

Program description
In the Advanced program you will develop research expertise through completing a substantial research project supervised by an academic, which constitutes appropriate research training for a PhD.
MASTER OF ENVIRONMENTAL SCIENCE

Key facts

- **Duration:** Two years full-time (or less with credit)
- **Semester intake:** Semester 1 or 2
- **Indicative annual domestic fee:** $30,720.00
- **Indicative annual international fee:** $45,864.00
- **UAC Code:** 830785 / 830786 (Advanced)
- **CRICOS code:** 082297K / 082298J (Advanced)
- **Cognate disciplines:** Biology, Earth Science, Ecology, Environmental Science, Geology, Marine Science

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.0/7.0 and at least eight courses in cognate disciplines.

Eligibility for credit

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

Program description

Our Master programs in environmental science are designed to build on your prior knowledge to extend and deepen your understanding in one or more of the biological, Earth, and environmental and ecological sciences. You will also develop your knowledge across the environmental sciences.

Career opportunities

This program is for those students wanting to increase their scientific and professional expertise for careers in many aspects of environmental science, including environmental policy, management, administration, industry, services and research. Examples of roles of our graduates include: Technical Officer, CARE International; Manager, National Water Commission; Assistant Director, EcoTrust; Research Associate, Scripps Institution of Oceanography (USA); and Researcher, Wildlife Conservation Society.

→ science.anu.edu.au/study/master-degrees/master-environmental-science

MASTER OF ENVIRONMENTAL SCIENCE (ADVANCED)

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.5/7.0 and at least eight courses in cognate disciplines.

Eligibility for credit

Applicants with a Bachelor Degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

Program description

The Advanced program focuses on completing a substantial research project supervised by an academic, which constitutes appropriate research training for a PhD.
**Key facts**

- **Duration:** Two years full-time (or less with credit)
- **Semester intake:** Semester 1 or 2
- **Indicative annual domestic fee:** $32,160.00
- **Indicative annual international fee:** $45,864.00
- **UAC Code:** 830722 / 830723 (Advanced)
- **CRICOS code:** 082299G / 082300J (Advanced)
- **Cognate disciplines:** Ecology, Environmental Policy, Environmental Science, Environmental Studies, Forestry, Natural Resource Economics, Natural Resource Management, Resource Management

**Admission requirements**

A Bachelor degree or international equivalent in a cognate discipline with a minimum GPA of 5.0/7.0.

**Eligibility for credit**

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

**Program description**

Forestry encompasses the planning and management of natural forests and woodlands, plantations and agroforestry through the practical application of scientific, economic and social principles. Sustainable management of forest resources requires both short-term management of variability and the ability to plan for the long-term sustainability of forest ecosystems.

Our forestry degree programs offer flexible, advanced learning to develop your knowledge and skills in forestry and the forest sciences and their relationship to other land management disciplines. The broad scope of the program reflects the diversity of perspectives needed for effective forest resource management, and the choice of courses within forestry sub-disciplines develops your knowledge in either the science and methods or policy and management aspects of forestry.

**Career opportunities**

Our graduates go on to careers in forestry and natural resource management and science. Roles include foresters, rangers, technicians and a range of consulting roles in the government and private sectors.

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**STUDENT PROFILE**

**David Stock**

**Master of Forestry (Advanced)**

“I have a background in straight science so it was really interesting for me to do some forest management courses, looking at how you balance the ecologically best option with what’s applicable in the real world. ANU does a great job at that balance between science and society.”

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**MASTER OF FORESTRY (ADVANCED)**

**Admission requirements**

A Bachelor degree or international equivalent with a GPA of 5.5/7.0.

**Eligibility for credit**

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

**Program description**

The Advanced program focuses on completing a substantial research project supervised by an academic, which constitutes appropriate research training for a PhD.
MASTER OF MATHEMATICAL SCIENCES
(ADVANCED)

Key facts
Duration: Two years full-time (or less with credit)
Semester intake: Semester 1 or 2
Indicative annual domestic fee: $30,720.00
Indicative annual international fee: $45,864.00
UAC Code: 830788
CRICOS code: 082337G
Cognate disciplines: Mathematics, Statistics, Mathematical Economics, Mathematical Finance, Actuarial Studies, Computer Science, Bioinformatics

Admission requirements
A Bachelor degree or international equivalent with a GPA of 5.5/7.0 and at least eight courses in cognate disciplines.

Eligibility for credit
Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

Program description
This degree enables students to upgrade their expertise in the mathematical sciences, either as a route to further study of mathematical sciences, or to upgrade their quantitative skills in areas that are rapidly becoming more reliant on advanced techniques from the mathematical sciences, such as the biological and computational sciences.

Students can take a variety of courses ranging from pure mathematics to mathematical modelling, computational mathematics and applications of mathematics, as well as courses in related disciplines such as statistics, computer science, financial mathematics and econometrics. The program can be tailored to the interests and needs of each student as much as possible. Past students have completed research projects in various branches of pure mathematics, as well as in applications including economics, epidemiology, financial mathematics and computational astrophysics.

STUDENT PROFILE
Chaitanya Oehmigara
PhD in Mathematical Sciences
“Maths is actually a booming field at the moment. It has such a broad scope and there are so many opportunities in it. It’s not going anywhere, except up.
“Maths is fundamental to astrophysics and the techniques that we use. My big motivation is to make a contribution to the field of gravitational wave astronomy in my career.”

Career opportunities
Examples of roles of our graduates include: Associate, Quantitative Applications Division at Macquarie Group; Lecturer, Sanata Dharma University (Indonesia); and Visiting Assistant Professor of Managerial Economics and Decision Sciences, Kellogg School of Management (USA).

science.anu.edu.au/study/master-degrees/master-mathematical-sciences-advanced
Key facts

Duration: Two years full-time (or less with credit)
Semester intake: Semester 1 or 2
Indicative annual domestic fee: $30,720.00
Indicative annual international fee: $45,864.00
UAC Code: 830749
CRICOS code: 082350K
Cognate disciplines: Mathematical Sciences, Physics and Astronomy, Chemical Sciences, Earth Sciences, Biological Sciences, Environmental Studies, other Natural and Physical Sciences, Information Technology, Engineering and related Technologies, Health

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.0/7.0 and at least eight courses in cognate disciplines.

Eligibility for credit

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

Program description

The Master of Science Communication is a coursework program with a significant research project. Taught by some of Australia’s leading science communicators, the program combines theoretical and practical aspects of science communication, including courses on science in the media; science communication on the web; ethics, issues and consequences of science; science and public policy; and cross-cultural science communication.

Research projects have looked at a range of key issues in the relationship between science and the rest of society, such as attitudes to controversial science, use of rhetoric in science communication, and cutting edge use of new technology to communicate science.

The program is ideal for people interested in becoming professional science communication officers and managers, or in gaining skills in communicating their own science.

STUDENT PROFILE

Skye Zhu
Master of Science Communication

“I have a Bachelor degree in science education and have experience teaching science but I didn’t like the way I communicated with the students. It seemed quite boring.

The Master program has taught me to be more engaging in the way I communicate. Before I came here I would use lots of technical terms to show how much I knew about science. Now I use plain English so the audience can understand me, and I include stories to relate the science to their daily lives.”

Career opportunities

Graduates have found careers as communications officers for scientific organisations such as CSIRO, science-oriented government departments, university departments and businesses. Examples of roles of our graduates include: Senior Medical Writer, Health Interactions; Physics Science Communicator, University of Sydney; Senior Policy Officer, Department of Industry, Innovation and Science; Freelance Journalist; and Radio Host, ABC Canberra.
MASTER OF SCIENCE COMMUNICATION OUTREACH

Key facts

Duration: One year full-time
Semester intake: Semester 1 only
Indicative annual domestic fee: Commonwealth Supported Place
Indicative annual international fee: $45,864.00
CRICOS code: 083816F
Cognate disciplines: Science, Engineering and Technology degrees including Mathematical Sciences, Physics and Astronomy, Chemical Sciences, Earth Sciences, Biological Sciences, Environmental Studies, Other Natural and Physical Sciences, Information Technology, Engineering and Related Technologies, Health and Education

Admission requirements

A Bachelor Honours degree, Graduate Certificate, Graduate Diploma or international equivalent with a minimum GPA of 5.0/7.0, with at least eight courses in a cognate area. Successful assessment of suitability is based on a supplementary form, two referee reports and interview/audition. Application closing date is August 31 each year.

Program description

The Master of Science Communication Outreach is an internationally well-regarded qualification unlike any other. Our education experiences are hosted at Questacon and ANU, with scientists and science communicators giving lectures and presentations based on cutting-edge research in science communication.

You will develop skills in public speaking; presentation and media; public relations; exhibition design and communication research; team work strategies; as well as developing expertise in presenting science and technology to students.

Career opportunities

You will have the opportunity to sample diverse careers at the interface of science and the community, including travel to remote and regional areas of Australia while staffing the Shell Questacon Science Circus.

STUDENT PROFILE

Nate Byrne
Master of Science Communication Outreach

“The coursework whipped me into shape from an academic point of view, and made sure I’d be ready to write some government or strategic policy, and back myself with solid, academically rigorous stuff.

“Being on the road with the Science Circus really let me hone my skills in communication. I’ve always liked talking, but it taught me how to talk with more meaning, refine my message, and be concise and understandable to a wide audience.”

Further information

All students in the program who are Australian citizens or permanent residents are financially supported by a scholarship that is paid fortnightly throughout the program. In the previous year the scholarship was valued at $340 per week. An additional travel allowance of $25 per day is paid when on mainstream tour and $30 per day when touring in remote regions. This is exempt from income tax. The exact scholarship value for next year is still to be determined, but will be a minimum of $340 per week.

Your enrolment is conditional on meeting the requirements of the Working with Vulnerable People Check. On a case by case basis (depending on the destination of tours), students will be required to complete and pass additional checks for further States and Territories as deemed appropriate by the program convener.

--- science.anu.edu.au/study/master-degrees/master-science-communication-outreach
MASTER OF SCIENCE IN BIOLOGICAL SCIENCES

Key facts

**Duration:** Two years full-time (or less with credit)

**Semester intake:** Semester 1 or 2

**Indicative annual domestic fee:** $30,720.00

**Indicative annual international fee:** $45,864.00

**UAC code:** 830706 / 830707 (Advanced)

**CRICOS code:** 096439G / 096440D (Advanced)

**Cognate disciplines:** Biology, Biomedical Sciences, Molecular Biology, Biochemistry, Genetics, Evolution, Ecology, and Plant Sciences.

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.0/7.0 and at least eight courses in cognate disciplines.

Eligibility for credit

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

Program description

The Master of Science in Biological Sciences is a coursework program allowing you to specialise in areas such as biomedical sciences, ecology and evolution, genetics, plant sciences and biochemistry. Alternatively, you can choose a broad overview of biological sciences today. Our practical classes refresh your skills, while developing your expertise in new, cutting-edge techniques.

Career opportunities

A degree in biological science provides students with a solid background to pursue career goals in a range of fields including plant laboratory science, industry, agriculture, public and environmental policy or further study.

STUDENT PROFILE

Minette Salmon

Master of Biological Sciences (Advanced)

“I’ve been trying to genetically engineer red blood cells to express a mutation that will stop malaria parasites getting into red blood cells, and breeding,” she explains. “If you can stop the parasite getting inside the red blood cell, that’s a potential cure for the disease.”

MASTER OF SCIENCE (ADVANCED) IN BIOLOGICAL SCIENCES

Admission requirements

Applicants must present a Bachelor degree or international equivalent with a minimum GPA of 5.5/7.0, with at least eight courses in a cognate area.

Eligibility for credit

Applicants with a Bachelor degree, Honours, Graduate Diploma or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit.

Program description

The Advanced program incorporates a research project supervised by an academic, and is a gateway to further research, such as a PhD. A scholarship is offered to international students who receive the highest mark in the Advanced program.

→ science.anu.edu.au/study/master-degrees/master-science-biological-sciences
**Key facts**

**Duration:** Two years full-time (or less with credit)

**Semester intake:** Semester 1 or 2

**Indicative annual domestic fee:** $30,720.00

**Indicative annual international fee:** $45,864.00

**UAC code:** 830737 / 830738 (Advanced)

**CRICOS code:** 096439G / 096440D (Advanced)

**Cognate disciplines:** Computer science, mathematics, statistics, biology, computational chemistry

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**Admission requirements**

A Bachelor degree or international equivalent with a GPA of 5.0/7.0 and at least eight courses in cognate disciplines.

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**Eligibility for credit**

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

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**Program description**

The Master of Science in Quantitative Biology and Bioinformatics is a program that provides students with experience in the use of methods and tools to organise and analyse biological data, statistically, mathematically and computationally. The course caters to a range of students including students who have come from an undergraduate biological degree, by providing the appropriate mathematical and programming skills; to students with a more quantitative undergraduate background, by providing the necessary background in biology and biological data and analyses. Students also have the opportunity to learn about, and apply, techniques in client engagement and the real-world practice of consulting.

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**Career opportunities**

This program provides you with skills that are in high demand in a variety of areas including forensic science, agri-technology, the pharmaceutical industry, medical research, bioengineering and biotechnology.

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MASTER OF SCIENCE IN PRECISION INSTRUMENTATION AND MEASUREMENT

Key facts

Duration: Two years full-time (or less with credit)
Semester intake: Semester 1 or 2
Indicative annual domestic fee: $30,720.00
Indicative annual international fee: $45,864.00
UAC code: 830747 / 830748 (Advanced)
CRICOS code: 099248B / 099249A (Advanced)
Cognate disciplines: Physics, Engineering

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.0/7.0 and at least eight courses in the field of Physics or Engineering with a GPA of 5.0/7.0 in those courses. Mathematics at least at the level of MATH2305.

Eligibility for credit

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for up to 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for up to 48 units (one year full-time) of credit.

Program description

Measurement is at the heart of scientific discovery, and the frontiers of knowledge are expanded through the development of new and more precise instrumentation. This program draws on the history and current expertise of three leading research schools at ANU: the Research School of Physics and Engineering, the Research School of Earth Sciences, and the Research School of Astronomy and Astrophysics. Each of these Schools are at the forefront of modern scientific research and have outstanding pedigree in the development of advanced scientific instrumentation.

You will be learning from ANU scientists who have worked on projects including: the design and development of instrumentation for the Nobel-prize winning discovery of gravitational waves, a high-resolution ion microprobe for geological analysis, a high-resolution x-ray computed tomography instrument for the study of porous and disordered materials, and, an integral-field spectrograph for an international, next-generation, thirty-meter class optical telescope.

Career opportunities

A Master’s degree specialising in precision instrumentation and measurement provides you with the skills to develop the instrumentation technologies that underpin the advancement of science and industry. ANU has a strong pedigree in the development of new scientific instrumentation, and our graduates are highly sought-after and go on to find interesting careers in a range of areas.

MASTER OF SCIENCE (ADVANCED) IN PRECISION INSTRUMENTATION AND MEASUREMENT

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.5/7.0 and at least eight courses in the field of Physics or Engineering with a GPA of 5.5/7.0 in those courses. Mathematics at least at the level of MATH2305.

Eligibility for credit

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

Program description

The Advanced program provides you with the opportunity to extend your practical, coursework experience in precision instrumentation and measurement with the development and implementation of a research project supervised by an academic. You will be required to develop expertise in a nominated area through independent research and completion of a dissertation. It is particularly relevant to those who wish to benefit from the research strengths of ANU. A Master of Science (Advanced) in Precision Instrumentation and Measurement can also lead to a PhD.

science.anu.edu.au/study/master-degrees/master-science-precision-instrumentation-measurement

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MASTER OF SCIENCE IN NUCLEAR SCIENCE

Key facts
- Duration: Two years full-time (or less with credit)
- Semester intake: Semester 1 or 2
- Indicative annual domestic fee: $30,720.00
- Indicative annual international fee: $45,864.00
- UAC code: 830750 / 830740 (Advanced)
- CRICOS code: 099254D / 099251G (Advanced)
- Cognate disciplines: Physics, Engineering

Admission requirements
A Bachelor degree or international equivalent with a GPA of 5.0/7.0 and at least eight courses in the field of Physics or Engineering with a GPA of 5.0/7.0 in those courses.

Eligibility for credit
Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for up to 24 units (1 semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for up to 48 units (1 year full-time) of credit.

Program description
The Master of Science in Nuclear Science gives you the opportunity to study the fundamentals and applications of nuclear science, including materials analysis, dating techniques, nuclear medicine, and nuclear energy.

The program provides students with sound knowledge of the underlying nuclear science; knowledge of the contemporary issues associated with nuclear science; practical knowledge of the measurement techniques employed in nuclear science; skills to assess the place of nuclear science in a broader context; and an appreciation of the issues associated with nuclear power as a source of energy. The program combines contact coursework with opportunities to acquire or extend practical skills.

Career opportunities
Our students go on to careers in policy development, defence, security or related fields, and to careers in the nuclear industry. Examples of roles of our graduates include: TLD Operations Officer, Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and Process Engineer, Australian Nuclear Science and Technology Organisation (ANSTO).

STUDENT PROFILE
Ken Maxwell
Master of Nuclear Science

“My Masters isn’t directly related to my work; it’s more about being challenged and studying something I’m interested in. But nuclear knowledge, related to mining, storage and defence for example, is going to be more and more in demand in Australia over the next five to twenty years, and it’s important to have people who can understand the concepts and communicate them.

“The program is structured to cater to people from all sorts of backgrounds, whether they’re professionals like me, or from government departments, or they want to be a nuclear physicist. It covers the whole spectrum from practical expertise to pure theory.”

→ science.anu.edu.au/study/master-degrees/master-science-nuclear-science
MASTER OF SCIENCE IN QUANTUM TECHNOLOGY

Key facts

Duration: Two years full-time (or less with credit)
Semester intake: Semester 1 or 2
Indicative annual domestic fee: $30,720.00
Indicative annual international fee: $45,864.00
UAC code: 830741 / 830752 (Advanced)
CRICOS code: 099252F / 099253E (Advanced)
Cognate disciplines: Physics, Engineering, Mathematics

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.0/7.0 and at least eight courses in the field of Physics and/or Engineering and/or Mathematics with a GPA of 5.0/7.0 in those courses.

Eligibility for credit

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for up to 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for up to 48 units (one year full-time) of credit.

Program description

Quantum technologies such as computing, metrology and communications have the potential to vastly change our world, as they push us towards the Quantum Age. By exploiting quantum phenomena, society-changing technologies such as unbreakable cryptography or exponentially faster computers are poised to become a reality. Recently, many of these technologies have matured to the point that a commercial quantum industry is emerging. This has been met with huge investments from government and industry, both domestically and internationally.

The coming Quantum Age will require a technically-skilled workforce to serve the needs of this new and rapidly evolving industry. There will also be an increased demand for knowledge of the field within government, defence, finance, professional services and related sectors. This program equips you with the required skills and knowledge of the scientific, technical, business and societal aspects of quantum technology to be highly competitive in the emerging quantum industries of the present day and of the future.

Career opportunities:

A Master degree specialising in quantum technology provides you with the skills to pursue a career at the forefront of the emerging quantum industry, including quantum computing, quantum communication, quantum metrology, policy surrounding quantum technologies or further study. ANU has a strong reputation in the field of quantum science, meaning our graduates are highly sought-after and go on to find interesting careers in a range of areas. A Master of Science in Quantum Technology (Advanced) can also lead to a PhD.

MASTER OF SCIENCE (ADVANCED) IN QUANTUM TECHNOLOGY

Admission requirements

A Bachelor degree or international equivalent with a GPA of 5.5/7.0 and at least eight courses in the field of Physics and/or Engineering and/or Mathematics with a GPA of 5.5/7.0 in those courses.

Eligibility for credit

Applicants with a Bachelor degree or Graduate Certificate in a cognate discipline may be eligible for 24 units (one semester full-time) of credit. Applicants with a Graduate Diploma or Honours in a cognate discipline may be eligible for 48 units (one year full-time) of credit.

Program description

The Advanced program provides you with the opportunity to extend your practical, coursework experience in quantum technology with the development and implementation of a research project supervised by an academic. You will be required to develop expertise in a nominated area through independent research and completion of a dissertation. It is particularly relevant to those who wish to benefit from the research strengths of ANU.

→ science.anu.edu.au/study/master-degrees/master-science-quantum-technology
CANBERRA

Australia’s capital, Canberra, is a thriving city of over 400,000 set within a classic Australian bush landscape. Etched with bike paths and walking trails, and serviced by reliable public transport, it’s easy, fast and affordable for students to get around.

Ranked third on Lonely Planet’s “Best cities to travel to in 2018”, Canberra is a buzzing city that many tourists overlook when they make their travel plans.

Here’s our pick of why it’s great to study, work and live in Canberra

**Enviable lifestyle**
Canberra has earned the number one spot on the Numbeo Quality of Life Index list in 2017, 2018 and 2019. Canberra was also ranked the world’s best city to live by the OECD two years running in 2014 and 2015.

**University town**
Over 25% of the Canberra population are students.

**Safest cities**
Canberra is considered one of the safest cities in Australia with one of the lowest crime rates.

**Leader of the nation**
You’ll have great resources at your doorstep with 12 national institutions including Australian Parliament House, the National Library of Australia, the High Court of Australia and … ANU of course.

**Less time in transit**
Canberra has the shortest commute times of any major Australian city. You can drive to anywhere in Canberra is less than 30 minutes so you will spend more time doing what you want to do and less time sitting in traffic.

**Fly conveniently**
Decrease the chaotic airport rush with a short and traffic-free drive to the airport. Canberra International Airport offers over 800 flights a week around Australia, Singapore and Doha.

**Close to major cities**
It is only a three-hour drive to Sydney and seven-hour drive to Melbourne. Or you can fly direct to either of the cities in just over one hour.

**Get away**
Enjoy the summer with a two-hour road trip to the crystal blue waters of beaches like Batemans Bay and Nowra, or head in the opposite direction to hit the powdery slopes of the Snowy Mountains during the colder months.

**Cash in**
Canberrans earn Australia’s highest average weekly income.

**Four seasons**
Canberra experiences the true climate of Spring, Summer, Autumn and Winter. Did someone say Christmas in July? You’ll also enjoy sunshine 246 days of the year.

**Cosmopolitan**
Home to foreign missions and diplomats, Canberra has a diverse multicultural community and is home to the National Multicultural Festival.
