OK, you’re interested in studying environment and sustainability. What do you do next?

With so many options available, it can be really hard to choose your degree, courses and majors/minors. Start by taking some of our first year courses. After completing any of these you’ll have a much better idea of which Major and Minors to take; and that will help you choose your other courses.

Stepping through your degree

**Year 1**

- **Semester 1** Choose up to five Fenner School 1st year courses to take across both semesters. Check that you’re taking prerequisite courses for 2nd year.
- **Semester 2** Think about majors, minors and prerequisite courses. See a Fenner School Academic Advisor for advice. Think about a semester overseas with a partner university in 2nd or 3rd year.

**Year 2**

- **Semester 1** Consider an Intensive course during summer or winter session. Which study areas are you enjoying most?
- **Semester 2** Nominate majors/minors - discuss with Convenors. Ensure you’re meeting your degree requirements. Discuss career options with your Year 2 Course Convenors.

**Year 3**

- **Semester 1** Check your degree requirements again! Investigate possible Honours or Masters topics for year 4. Discuss with Supervisors.
- **Semester 2** Submit your Honours (and scholarship) or Masters application.
STEPPING THROUGH YOUR DEGREE

START

Enrol in Fenner School (ENVS) Year 1 courses

Nominate your Major/s and minors. Discuss with Course Coordinators

Discuss career options with a Year 2 Academic Advisor

Investigate possible Honours/Masters topics for year 4. Discuss with supervisors

Year 1 SEM 1

What do you like? What are you doing well in?

Year 1 SEM 2

Ensure you’re taking the prerequisite courses for your Major/minor

See a Year 1 Academic Advisor

Make sure you’re meeting your degree requirements

Consider an Intensive course during summer or winter session

Think about a semester overseas on a student exchange in 2nd or 3rd year

Year 2 SEM 1

Year 2 SEM 2

Year 3 SEM 1

Year 3 SEM 2

GRADUATION!!

Submit your application for Honours (including scholarships) or for Masters programs

Where to next?

Honours. Masters. Work. PhD?
Bachelor of Arts
W programsandcourses.anu.edu.au/program/BARTS

Bachelor of Environmental Studies
W programsandcourses.anu.edu.au/program/BENVS
This degree is designed to give you the multidisciplinary perspectives, skills and knowledge you need to engage meaningfully with the complex problems facing societies and the environment.

Our degree offers a broad range of study options from natural ecological and earth system processes, to environmental management, resource use and policy, to cultural ecology and the history of environmental change, perception and philosophy.
You will develop an understanding of the complex and often conflicting interrelationships between human societies and their environment, and of the available solutions to address the world’s most intractable environmental problems.

Bachelor of Science
W programsandcourses.anu.edu.au/program/BSC

Bachelor of Science (Forest Sciences)
W programsandcourses.anu.edu.au/program/BSFOR
If you are passionate about sustainably managing our forests and woodlands, the ANU Bachelor of Science (Forest Science) will give you the grounding you need to ensure they keep growing into the future.

As well as focusing on the physical and biological sciences relevant to forests, you will explore the political, economic and social implications of managing forest ecosystems and learn how to apply that knowledge both in Australia and internationally.

This is a hands-on degree where you will complete research projects in the field, and work with forest sector businesses, management and research agencies, and community and non-government organisations. You will develop knowledge and skills about the relationships between society and environment, with a particular emphasis on forests and woodlands.

Bachelor of Interdisciplinary Studies (Sustainability)
W programsandcourses.anu.edu.au/program/BISSU
The complex and interconnected challenges of creating sustainable societies demands an integrative, holistic appreciation of sustainability and requires us to step beyond disciplines to gain a broader understanding of the world.

This contemporary interdisciplinary degree prepares you to tackle this complexity, and address the challenges of sustainability. The degree draws from the complementary strengths of ANU Colleges in sustainability education and research.

Our flexible program is structured around the Sustainability Science major, which includes a core of compulsory courses focused on helping you develop an interdisciplinary perspective and research skills relevant to sustainability.

If you are passionate about a sustainable future, this program will prepare you to meet the challenges we face to get there.

Bachelor of Science (Resource & Environmental Management)
W programsandcourses.anu.edu.au/program/BSREM
Are you concerned about the state of the environment and want to be part of the solution?

With a strong emphasis on getting outside and learning in the field, the ANU Bachelor of Science (Resource & Environmental Management) will give you a broad environmental education, teaching you to link the natural and social sciences with their applications in environmental conservation and sustainable resource management.

This degree will teach you to be an effective environmental scientist and natural resource manager, helping you to meet the sustainability challenges and opportunities facing us this century.
See our Academic Advisors to help you choose from our very wide range of single and double degree options, and individual courses

<table>
<thead>
<tr>
<th>College</th>
<th>Arts</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td>Bachelor of Arts</td>
<td>Bachelor of Environmental Studies</td>
</tr>
</tbody>
</table>

### Majors

- Environmental & Landscape Sciences
- Environmental Studies
- Geography
- Natural Resource Management
- Sustainability Science

### Minors

- Biodiversity Conservation & Management
- Climate Science & Policy
- Environmental Policy
- Forest Science & Policy
- Geography
- Human Ecology
- Intergrative Methods in Environment & Society
- Soil & Land Management
- Sustainable Development
- Water Science & Policy

**Key study areas**

- Optional study areas

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FIRST YEAR COURSES

After completing any of our first year courses you’ll have a much better idea which Majors and Minors to take

First Year Courses

**Environment & Society:**
**Geography of Sustainability**
ENVS1001 (sem 1)
An innovative, national award winning course that combines science and social sciences approaches to give you a good understanding of global and local issues around environmental sustainability. Includes a field trip to the ANU coastal campus.

**The Blue Planet:**
**An Introduction to Earth System Science**
EMSC1006 (sem 1)
An integrated understanding of Earth as a system. Topics include: a history of Earth’s environment; systems theory; the biophysical processes that characterise the oceans, atmosphere and land surface; the story of life on land and in the oceans; together with an introduction to the global life support systems.

**Introduction to Environmental & Social Research**
ENVS1003 (sem 2)
Students will explore ways in which experiments and other investigations can be made ‘robust’ - collecting and critically examining information about wildlife, plants and humans and the environments in which they occur. Analysis will involve graphical exploration, development of statistical methodology to facilitate good scientific decision making and effective presentation of results to technical and lay audiences. Lectures lead students into the theory and practice of quantitative and qualitative analysis essential in research.

**Australia’s Environment**
ENVS1004 (sem 2)
This course is essential knowledge for anyone with a stake in Australia’s future. You’ll be introduced to the physical, chemical and biological processes that shaped our unique environment as a basis for understanding current environmental issues. Dynamic weekly lectures (3 x 1hr) and tutorials (1hr) are complemented by interesting practicals. You will learn by hands on problem solving and observing, including two overnight field classes to alpine and coastal environments.

Sustainable Development
ENVS1008 (sem 2)
Some analysts claim we are now living in the Asian Century. What, then, are some of the key social, political and environmental issues facing this region? How are they being discussed, researched and acted upon? This course explores these two questions, using place-based case studies to expand student’s knowledge of the region, enabling in-depth discussion of key concepts such as development, power, resource management, consumption and migration.

International Field Schools

**Vietnam Field School**
ENVS2017 (summer intensive, 2016)
Learn about contemporary Southeast Asia through in-country case studies in Vietnam. We emphasise integrating formal learning with first hand experience that will transform how you see environment and sustainability challenges and solutions. The in-country work includes fieldtrips, village stay, language training as well as formal classes given by staff from ANU and from Vietnamese universities. The course focuses on understanding the complex relationships between development and environment issues, the impact of contemporary change on the environment, culture, family structure etc. and on specific groups such as villagers, migrants, farmers and women.

**Island Sustainable Development:**
**Fiji Field School**
ENVS2005 (winter intensive)
Experience Pacific small island culture first hand, and understand the complex social, environmental and cultural challenges that confront Fiji as this island nation works towards sustainable development. You will gain invaluable first-hand experience of the real-world challenges for fisheries, agriculture, energy, tourism and biodiversity in Fiji, learning from NGOs, practitioners and Australian and Fijian academics. Themes explored include climate change, natural disasters, water availability, gender, population and race relations, governance and globalization.
After semester 1 year 1, think about your majors and minors

Fenner School Majors and Minors in Environment and Sustainability can be taken as part of a variety of degree programs, including Arts, Science and a range of combined degrees.

Discuss your choices with a Fenner School Academic Advisor or degree program convenor.

Majors

Environmental & Landscape Sciences
This major explores how key areas of environmental science relate to and are underpinned by landscape processes. Only by understanding these key landscape processes can successful environmental outcomes be achieved. This major includes a focus on current understandings of the science of the environment and landscape processes, and a range of response strategies for their sustainable management.

Environmental Studies
The breadth of disciplinary coverage means that the courses relevant to this major are taught across several ANU Colleges, including Arts and Social Sciences, Business and Economics, Law, and Medicine, Biology and Environment. Different coherent approaches and areas of focus are achieved by grouping these courses to meet students’ particular interests, ranging from a concentration on those natural resources that provide the essential economic foundations for society through to the study of more general aspects of the environment affecting quality of life.

Geography
Students undertaking the major in geography are provided with a rich learning environment characterised by an exciting mix of theoretical and practical training in an applied setting. The course options in the major expose students to a diverse range of skills that are much in demand, including experiential and field-based learning, GIS and spatial technology, the principles of modeling, integrated research training, and small-group learning that draws upon the diversity of student and staff professional and cultural backgrounds.

Natural Resource Management
This major is designed for students seeking careers as environmental scientists and natural resource managers who will be able to meet the sustainability challenges and opportunities of this century. It is structured around a core of natural and social sciences courses, and links that set of knowledge and skills with a range of applications in environmental conservation and sustainable resource management.

Sustainability Science
High quality, integrative research plays a critical role in identifying pathways towards sustainability. The Sustainability Science major builds the fundamental understandings and skills necessary to develop research projects that effectively address complex problems of environment and sustainable development. This is a ‘hands-on’ major, with many opportunities to conduct small-scale research built into its components.
Minors

Biodiversity Conservation & Management
This minor equips students to meet the challenges associated with biodiversity conservation and management and conservation biology. Relevant courses address elements from theoretical to practical, and from qualitative to quantitative, and emphasise field-based learning and solving topical environmental problems with a focus on biodiversity.

Climate Science & Policy
Climate change is recognised as one of the critical challenges to the sustainability of human society and the environment, in Australia and globally. Expertise in the science and policy areas relevant to understanding climate change and its impacts, and to managing natural resources and both human and natural environments under global warming, is in demand in the private sector, at all levels of Australian government, and in research organisations. This minor combines a strong understanding of climate science with relevant knowledge in environmental policy, economics and governance, a combination that is essential to tackling the critical challenges in areas such as climate vulnerability and adaptation, water resource management and natural resource management under climate change.

Environmental Policy
Policy expertise is scarce in the rapidly expanding areas of natural resource management, urban environmental management, and sustainable development. There are significant career opportunities in all three levels of Australian government, as well as in the expanding regional organisations, and in the private sector. In particular, graduates with substantial policy skills matched with a sound background in areas such as climate science, water science, landscape ecology and similar areas are highly sought after, in Australia and internationally.

Forest Science & Policy
The minor in Forest Science and Policy offers students a focus on aspects of forest science and policy fundamental to the conservation and sustainable management of forests. Courses in the minor emphasise field-based and experiential learning, and practical approaches to addressing forest science, management and policy challenges.

Geography
Students undertaking the minor in Geography have the opportunity to explore some of the theoretical and practical perspectives geography offers. The minor in Geography will equip students with a good grounding in aspects of the discipline and will complement a wide range of majors offered across different colleges at the ANU. The minor also allows students taking the major in Geography to tailor a program that will further develop their particular interests in the discipline.

Human Ecology
The health and wellbeing of humans depends upon the capacity of the biosphere to provide the ecosystem services that sustain them. It is now clear that humans are currently using these services at rates which cannot be sustained. The challenge is for societies to change so as to put themselves on pathways towards sustainable futures. However, initiatives designed to do this must take into account the social and cultural dimensions of such change. The challenge is to couple knowledge about biospheric processes and limits with consideration of human values, judgments and motivation, health, wellbeing and dignity, and ethical dimensions of justice and fairness.

Integrative Methods in Environment & Society
Students considering Honours should take the Integrative Methods in Environment and Society minor if they have not chosen the Sustainability Science major. The Integrative Methods minor is recommended for students considering a future career in sustainability-related research, who have not met the first year requirements for the Sustainability Science major.

Soil & Land Management
There is an increasing need for the development of sustainable land and soil management techniques and practices in the Australian context. The emphasis in this minor is on the applications of a thorough understanding of basic physical, chemical and biological properties and ecological processes involving soils and landscapes, and the functions and outputs they provide. Students who complete this minor will have developed the knowledge necessary to understand and contribute to the design and implementation of scientifically valid soil and land management practices.

Sustainable Development
With global population expected to reach nine billion by 2050 our capacity to develop sustainably is even more urgent, though progress to date has been patchy. The minor in Sustainable Development is concerned with understanding what it means to develop sustainably, and what factors shape our prospects and policies for a transition towards sustainability. Students gain an appreciation for how international trends, whether they are economic, social or political, create both opportunities and limitations for sustainable development.

Water Science & Policy
Water is a critical issue for societies and the environment in Australia, in our region, and in many other parts of the world. This issue will continue to be one of the highest priorities for governments in the future due to the pressures exerted by population growth and climate and environmental change. The minor in Water Science and Policy provides students with the opportunity to develop knowledge central to the understanding and management of water resources, and to develop expertise and undertake research relevant to water within the biophysical sciences and from a policy perspective.
## Undergraduate Courses 2016

Discuss these options with a Fenner School Academic Advisor. Mix courses from different themes for a degree best for YOU.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Environmental Policy</th>
<th>Sustainability Approaches &amp; Methods</th>
<th>Environmental Science &amp; Management</th>
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</thead>
<tbody>
<tr>
<td>Year 1 Semester Courses</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>S1</td>
<td>ENVS1001 Environment and Society: Geography of Sustainability</td>
<td>ENVS1003 Introduction to Environmental &amp; Social Research</td>
<td>ENVS1004 Australia’s Environment</td>
</tr>
<tr>
<td>S2</td>
<td>ENVS1008 Sustainable Development</td>
<td>ENVS2005 Island Sustainable Development: Fiji Field School (winter session, Jul)</td>
<td>EMSC1006 The Blue Planet</td>
</tr>
</tbody>
</table>

| Year 2 Intensive Courses | | | |
| * ENVS2017 Vietnam Field School (summer session 2016, Jan) | ENVS2002 Environmental Measurement, Modelling & Monitoring (winter session, Jun & Jul) | ENVS2018 Environmental Science Field School (winter session, Sep) |
| ENVS2006 Island Sustainable Development: Fiji Field School (winter session, Jul) | ENVS2014 Qualitative Research Methods for Sustainability (winter session, Jun & Sep) | |

| Semester Courses | | | |
| S1 | ENVS2011 Human Ecology | ENVS2004 Weather, Climate and Fire | ENVS2020 Water Science |
| | ENVS2007 Economics for the Environment | | |

| Year 3 Intensive Courses | | | |
| ENVS3033 International Environmental Policy (summer session, Feb & Apr) | ENVS3008 Fire in the Environment (summer session, Jan & Feb) | ENVS3026 Geomorphology: Landscape Evolution under Changing Climate (summer session, Feb) |
| ENVS3007 Participatory Resource Management: Working with Communities and Stakeholders (winter session, Jun & Jul) | | *ENVS3001 Climate Change Science & Policy in Practice (spring session 2017, Nov & Dec) |
| ENVS3015 Essentials of Environmental Law | | |

| Semester Courses | | | |
| S1 | ENVS3028 Environmental Policy | ENVS3019 Advanced Remote Sensing and GIS | ENVS3005 Water Management |
| | | | ENVS3029 Palaeo-environmental Reconstruction |
| S2 | ENVS3021 Human Futures | ENVS3014 Ecological Assessment & Management | ENVS3004 Land and Catchment Management |
| | | | * ENVS3013 Climatology (2016) |
| | ENVS3040 Complex Environmental Problems in Action | | * ENVS3020 Climate Change Science and Policy (2017) |
| | | | ENVS3039 Biodiversity Conservation |

### Advanced Study

<table>
<thead>
<tr>
<th>Year 4 Honours</th>
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<tbody>
<tr>
<td>The Fenner School offers Honours, starting in semester 1 or semester 2, in Environment and Society, Forest Sciences, Geography, and Human Ecology</td>
</tr>
</tbody>
</table>

fennerschool.anu.edu.au/education/programs/undergraduate

*ITALICS* - offered biennially: (year next offered)

S1+2

S1

S2

All

Consent is required to enrol in this course
FOURTH-YEAR HONOURS

Maximise the value of your degree

If you care about the environment and sustainability and want to take your three year undergraduate degree to the next level, enrol in Honours at the Fenner School.

Undertake original research, work with a small group of like minded people, develop and apply your analytical thinking skills, mix with other researchers as equals and gain unique insights into what life in research is like.

• Fourth-year Honours gives you a strong competitive edge in employment
• A good Honours grade allows you direct admission to many Masters and PhD programs, and credit towards an ANU Master degree
• Open to students with a wide range of disciplinary backgrounds with interests in environment and sustainability research
• Enrol to start in semester 1 or semester 2

Recent Honours Projects

What’s killing the trees? An investigation of Eucalypt dieback in the Monaro region NSW
The role of sociability in the social system of chacma baboons
Heat stress and extreme heat events in Singapore and Hong Kong
Coping with drought and frost: famine foods and migration during the 1997-98 El Niño event in rural Papua New Guinea
Rainfall and water resources in the Upper Murrumbidgee Catchment
Using a bottom-up GIS approach to model Yawuru collective values along the foreshore of Broome, WA
Soil organic carbon under pasture-cropping and conventional-cropping
Tick tock: evolutionary history and dispersal capacity of Little Blue Penguin ticks
Public policy for a low carbon economy: a case study analysis of the Australian Clean Energy Future Package
Taking the public seriously: factors affecting trust in coal seam gas development
AMAZING CAREERS IN ENVIRONMENT & SUSTAINABILITY

Career choices for graduates with environmental policy, science and management knowledge and skills are as diverse as the environment itself.

The range is enormous:
where – regional communities to capital cities, in Australia and overseas. In the field, in a community, or in an office, apply your talents – work in national, state and local government agencies, research organisations, corporate and small business, and in the community and NGO sectors.

Fenner School graduates are employed in

Policy-making within local, state & federal government
Water resources management
Environmental management
Science journalism
Urban planning & sustainability
Agricultural systems research & management
Sustainable farming systems consulting
Farm forestry consulting
Green & ethical financial planning
Developing & implementing corporate green governance
Applied research science
Environmental data collection
Fire management
Geographic Information Systems applications
Natural resource economics
Wildlife & habitat management
Indigenous Australian land management
Energy efficiency consulting
International development aid management
Food security consulting & management
Climate change adaptation consulting