



# Tertiary Pathways

for students interested in *Earth & Environmental Science* and associated *STEM* careers





# Pathways at Flinders University

For a full list of science and environment courses at Flinders University visit:

<https://www.flinders.edu.au/study/science-environment>

## BSc Specialisations

NB: All of these courses are also available as a 4-year honours degree

### Bachelor of Science (Coasts and Oceans)

Develop an understanding of a variety of coastal, marine and ocean systems, and examine the physical processes shaping these environments. You will be introduced to the use of coasts and oceans as resources and a variety of management and policy interventions, with the opportunity to participate in project work and field exercises.

<https://www.flinders.edu.au/study/courses/bachelor-science-coasts-oceans>

### Bachelor of Science (Environmental Science)

Examine how natural processes and their changes impact human society, and how human activities interact with and modify environments. This multidisciplinary degree focuses on understanding, monitoring and improving the environment. Expand your knowledge, obtain skills, and learn critical thinking about environmental issues and problems

<https://www.flinders.edu.au/study/courses/bachelor-science-environmental-science>

### Bachelor of Science (Geography)

Gain a broad foundation in geography, in a degree offering a powerful mix of interdisciplinary skills to solve a range of real-world problems. Investigate the dynamic relationships between humans, their cultures and environments, and cover a range of contemporary issues including social and environmental justice, and the efficient, equitable and sustainable use of resources.

<https://www.flinders.edu.au/study/courses/bachelor-science-geography>





## Bachelor of Science (Hydrology)

Delve into the science of water movement in the atmosphere, surface systems and aquifers. The degree includes cross-disciplinary aspects such as water quality, ecological water requirements, field and computer-based methods of investigation, and management practices. Solve hydrological problems and real-world issues associated with people and the environment.

<https://www.flinders.edu.au/study/courses/bachelor-science-hydrology>

## BSc Majors

### Environmental Geology

Environmental geology applies geology or geoscience to our living environment. The environmental geology major examines how geological processes and hazards influence human activities and vice versa.

<http://www.flinders.edu.au/courses/rules-2017/undergrad/bsc/bsc-envg.cfm>

### Environmental Hydrology and Water Resources

The environmental hydrology and water resources major is about solving a diverse range of environmental and water problems. It gives you a broad background in natural sciences including earth sciences, environmental sciences and marine sciences.

<http://www.flinders.edu.au/courses/rules-2017/undergrad/bsc/bsc-ehywr.cfm>

### Environmental Management

Environmental management is the management of our impact on the environment. The environmental management major aims to give you an understanding of the complexity and contexts of environmental decision-making.

<http://www.flinders.edu.au/courses/rules-2017/undergrad/bsc/bsc-enmg.cfm>





## Geography

The geography major provides a broad foundation in geography. It involves investigating the dynamic relationships between humans, their cultures, and environments.

<http://www.flinders.edu.au/courses/rules-2017/undergrad/bsc/bsc-geog.cfm>

## Ocean and Climate Sciences

The ocean and climate sciences major provides you with a deeper understanding of the physical processes shaping the marine environment and influencing climate.

<http://www.flinders.edu.au/courses/rules-2017/undergrad/bsc/bsc-ocncs.cfm>

# Pathways at the University of Adelaide 2019

## Bachelor of Science/Bachelor of Science (Advanced)

The BSc and BSc (Advanced) are broad, overarching programs, designed to give students the flexibility to tailor their emerging scientific interests. Among the Earth and Environmental Science majors are Geology, Geophysics and Applied Geology, Soil Science, Palaeontology and Ecology.

[https://www.adelaide.edu.au/degree-finder/2018/bsc\\_bsci.html](https://www.adelaide.edu.au/degree-finder/2018/bsc_bsci.html)

[https://www.adelaide.edu.au/degree-finder/2018/bsc\\_bscadv.html](https://www.adelaide.edu.au/degree-finder/2018/bsc_bscadv.html) (Advanced)

## Bachelor of Agricultural Sciences

The Bachelor of Agricultural Sciences allows students to develop core scientific skills in biology, chemistry and statistics in their first year. These skills are specialised in subsequent years where students develop their understanding of agricultural systems such as crop science, livestock science, soil science and agribusiness.

[https://www.adelaide.edu.au/degree-finder/2018/bags\\_bagricsci.html](https://www.adelaide.edu.au/degree-finder/2018/bags_bagricsci.html)





## Bachelor of Science (Ecotourism)

Students become familiar with fundamental scientific concepts in both Geology and Environmental Biology, building on these concepts through majoring in either Geotourism or Nature Based Tourism. A BSc (Ecotourism) degree provides students with an understanding of the nexus between marketed tourism and the natural environment.

[https://www.adelaide.edu.au/degree-finder/2018/bsc\\_bscetour.html](https://www.adelaide.edu.au/degree-finder/2018/bsc_bscetour.html)

## Bachelor of Science (Mineral Geoscience)

Students of the BSc (Mineral Geoscience) will build an understanding of the minerals and energy sector, focusing specifically on a range of topics embodied within the geosciences such as tectonics, geophysics and mineral exploration. Unique to this degree is the opportunity to gain practical field experience, often under the guidance and supervision of geoscience professionals.

[https://www.adelaide.edu.au/degree-finder/2018/bsc\\_bscmige.html](https://www.adelaide.edu.au/degree-finder/2018/bsc_bscmige.html)

## Bachelor of Science (Wildlife Conservation Biology)

Students study landscape ecology, wildlife genetics, endangered species biology and pest management in the BSc (Wildlife Conservation Biology). Routine field research will be conducted with an emphasis on fundamental concepts in environmental conservation, and students will develop the skills to plan, execute and monitor habitat restoration programs.

[https://www.adelaide.edu.au/degree-finder/2018/bsc\\_bscwcb.html](https://www.adelaide.edu.au/degree-finder/2018/bsc_bscwcb.html)

# Pathways at the University of South Australia

Science and the Environment brochure:

[http://www.unisa.edu.au/contentassets/942efd58d74842f68d8a24e2828ac68d/2019-brochures/sc\\_env\\_web.pdf](http://www.unisa.edu.au/contentassets/942efd58d74842f68d8a24e2828ac68d/2019-brochures/sc_env_web.pdf)

For a full list of study options at University of South Australia visit: <http://study.unisa.edu.au/>





## Bachelor of Environmental Science

If you have genuine concern for the environment and a commitment to sustainability, a degree in Environmental Science can help to launch your career, with research rated above world-class in environmental science and management.

Broadly, you will examine biological and earth science systems, covering topics including: ecology, soil science, geography and social sciences. Within the electives that will shape your journey, you will gain practical experience through field trips and real-world projects. Cutting-edge technology puts you in an immersive virtual environment using Project Live visualisation technology which transforms traditional classroom activities into flexible, interactive and engaging learning experiences.

\*The Bachelor of Environmental Science (LBVT) shares common first year courses with the Bachelor of Geospatial Science (LBSP), so if you meet the subject requirements you can transfer and retain credits for courses you have completed.

<http://study.unisa.edu.au/degrees/308-303#degreeoverview>

## Relevant Majors in Bachelor of Science

### Geoscience Major:

<https://study.unisa.edu.au/msm/44>

### Environmental Systems Major:

<https://study.unisa.edu.au/msm/39>

### Geospatial Information Systems Major:

<https://study.unisa.edu.au/msm/45>





## Pathways at TAFESA

### Diploma of Conservation and Land Management AHC51116

Park rangers protect and preserve national, state or local parks, nature reserves and recreational and scenic areas. They also ensure park facilities and equipment are properly maintained, help with guided tours and features of the park, control traffic and participate in search and rescue operations. In 2011 there were 96 people employed full-time as park rangers in South Australia compared with 70 in 2006.

### Diploma of Conservation and Land Management/Bachelor of Science (Wildlife Conservation Biology) - University of Adelaide Pathway (TAFE SA Code: DP10017)

This course reflects the role of personnel working in management positions with technical level skill in land management roles.

[https://www.tafesa.edu.au/xml/course/aw/aw\\_DP10017.aspx](https://www.tafesa.edu.au/xml/course/aw/aw_DP10017.aspx)

### Certificate III in Mining Exploration

National Code: RII30515 TAFE SA Code: TP00880

A career in mineral exploration or petroleum exploration can take you anywhere in the world. This course aims to train you to become a geoscience field assistant. Geoscience field assistants work alongside geoscientists in various areas of mineral, oil and gas exploration undertaking various geological duties in the field and office.

<https://www.tafesa.edu.au/courses/mining-engineering-automotive/mining-infrastructure-oil-gas>

