

ENTRY REQUIREMENTS

Admission is based on minimum university entrance requirements. Students are encouraged to study some of the following TCE subjects: MSP5C Mathematics Specialised; MME5C Mathematics Methods; MAP5C Mathematics Applied; IT862 Computer Science; CHM5C Chemistry; GG833 Geography; EVS5C Environmental Science; PHY5C Physics; BIO5C Biology; PSC5C Physical Sciences.

Subject prerequisites apply within the degree to first-year units in Chemistry, Mathematics and Physics. These prerequisites can also be met by completion of appropriate bridging units provided by the University of Tasmania in mathematics, chemistry and physics.



Photos credits

FURTHER STUDIES

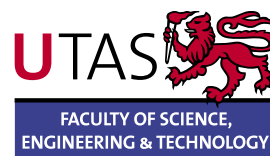
In third year, students undertake a special Antarctic project that will enable them to focus on an area of particular interest. If they decide to continue on to honours in fourth year, or proceed to a research higher degree, opportunities may arise for Antarctic travel.

FOR MORE INFORMATION

Details of courses and units are published annually in the University of Tasmania *Course and Unit Handbook*. Go to the University's website www.utas.edu.au/handbooks

CONTACT

Course Coordinator
Assoc/Prof Andrew McMinn
IASOS
University of Tasmania
Private Bag 77
Hobart, Tasmania 7001
Phone: (03) 6226 2971
Facsimile: (03) 6226 2973
Email: enquiries@iasos.utas.edu.au
www.utas.edu.au/iasos



CRICOS Provider Code:00586B

The Faculty of Science, Engineering and Technology encourages applicants from all equity groups.

Antarctic Studies



FACULTY OF SCIENCE, ENGINEERING & TECHNOLOGY



07071 February 2005

UNIVERSITY OF TASMANIA

DID YOU KNOW
that Antarctica is the
highest, driest, coldest
and windiest continent
in the world?



ANTARCTIC STUDIES

INTRODUCTION

The Bachelor of Antarctic Studies is a three-year science degree with an optional honours year.

Antarctica, together with its surrounding ocean, is a region of major scientific, environmental, strategic and economic interest. The Institute of Antarctic and Southern Ocean Studies (IASOS) is based at the University of Tasmania and acts to promote and focus Australian academic activity concerned with the region. Graduates from this degree will have an excellent opportunity to continue research in their chosen field at IASOS in the only Australian postgraduate research school in Antarctic studies.

WHAT IS ANTARCTIC STUDIES?

"We had bad winds at Cape Evans this year, and we had far worse the next winter when the open water was at our doors. But I have never heard or felt or seen a wind like this. I wondered why it did not carry away the earth."

A. Cherry-Garrard, *The Worst Journey in the World* (1922)

Antarctica is an extreme environment, and science in the Antarctic is a challenge for people and their scientific equipment. But the rewards are great, as science continues to unravel the mysteries of this frozen continent.

Antarctic Studies focuses on the scientific investigation of the south polar regions and the oceans that surround them. Research includes the large-scale interactions of the polar regions with the global environment, as well as providing knowledge for the management of the Antarctic environment and its living and non-living resources. The degree course also covers the subantarctic islands, which represent areas of rich terrestrial and marine biodiversity surrounding the Antarctic continent. The course also provides instruction in the political and legal issues that surround Antarctica and the Southern Ocean.

Areas of concentrated study can include:

- physical, chemical and biological oceanography
- atmospheric physics and chemistry

- satellite remote sensing
- glaciology
- marine biology
- palaeo-climatic reconstruction
- climate system modelling
- law and public policy
- fisheries management
- environmental management

CAREERS IN ANTARCTIC STUDIES

Career possibilities are similar to those of the Bachelor of Science. This course is particularly suited to students planning a scientific career contributing to the understanding of Antarctica and its surrounding oceans.

Possible employers include:

- the Australian Antarctic Division, which administers Australia's wide-ranging activities in Antarctic and subantarctic regions and has its headquarters in Hobart
- CSIRO Marine Research
- Antarctic Climate and Ecosystems Cooperative Research Centre (ACE CRC)
- oceanographic institutions
- other general science-based institutions and industries

Students with a science background would be well-suited to the Antarctic policy area.

WHAT MAKES US DISTINCTIVE?

The course is structured to give first-year students the opportunity to experience in Introduction to Antarctic Studies 1A and 1B some of the units they may choose to study in years 2 and 3. Science in the Antarctic is set against a background of history, international relations and cultural perceptions and this course will make students familiar with this background before they proceed with their specialised field of study.

COURSE CONTENT

Students select a course that fits one of two streams: Physical Sciences or Life Sciences

Year 1

Introduction to Antarctic Studies 1A (12.5%)

Introduction to Antarctic Studies 1B (12.5%)

plus 75% of units chosen from the list below:

Zoology 1E (25%)

Botany 1G (25%)

Understanding Earth Systems (12.5%)

Earth Resources, Environments and Evolution (12.5%)

Geography and Environmental Studies (25%)

Chemistry 1A (25%)

Physics 1A (12.5%)

Physics 1B (12.5%)

Calculus and Applications 1 (25%)

Data Handling and Statistics (12.5%)

Year 2

Antarctic Tourism (12.5%)

Antarctic and Oceans Policy (12.5%)

plus 75% of units from second-year Zoology, Plant Science, Chemistry, Microbiology, Mathematics, Physics, Geology, Geography & Environmental Science and Computing (consult the course coordinator)

Year 3

Antarctic Ecology (12.5%)

Introduction to Oceanography (12.5%)

Environmental Impact Assessment (12.5%)

Special Antarctic Project (12.5%)

plus 50% of units from third-year Zoology, Plant Science, Chemistry, Microbiology, Mathematics, Physics, Geology, Geography & Environmental Science and Computing (consult the course coordinator)