

STUDY THEME: SUSTAINABILITY STUDIES



STUDY ABROAD AT UOW

Study Abroad students can select a program of study for one or two sessions from any of the academic disciplines at the University of Wollongong. A series of study packages covering various academic themes has been developed to assist with the planning process. Some of the themes include opportunities for students to incorporate an extra dimension to their semester abroad through an associated volunteering, service learning or internship relevant to the topic.

The selection of subjects highlights offerings in the particular study area in either Autumn (February-June) session or Spring (July-November) session. The themes are indicative only and students have the flexibility to substitute subjects from any of the academic faculties.

More information about the subjects, including individual subject descriptions, assessment requirements and pre-requisite information is available in the Undergraduate Handbook at: www.uow.edu.au/handbook

The latest timetable information for Wollongong campus offerings is at www.uow.edu.au/student/timetables

Detailed subject descriptions can be provided upon request. studyabroad@uow.edu.au

A complete list of subjects https://sols.uow.edu.au/owa/sid/CAL.USER_CALENDAR_SELECT_SCREEN

The Sustainability Studies theme includes new technologies, environmental conservation, green energy, climate change and philosophy and it will be relevant to a variety of study majors. Subjects are taught by academics who are also undertaking cutting-edge research in their field. A number of interdisciplinary research groups highlight the depth of research in this area at UOW.

The UOW Energy Futures Network operates across several faculties. UOW's capabilities in Energy Futures fall into four broad research themes and current research activities cover a broad range of areas:

- > **Energy production and delivery;**
- > **Energy conversion and storage;**
- > **Power Quality and**
- > **Atmospheric Chemistry.**

research.uow.edu.au/energyfutures

The **GeoQuEST Research Centre** is committed to conducting innovative research in the earth and environmental sciences, atmospheric chemistry as well as environmental engineering. It brings together researchers from the disciplines of geography, geology, environmental science, atmospheric chemistry and environmental engineering with innovative and interdisciplinary research interests in earth processes, environmental change and human interactions, water quality and treatment as well as environmental fluid mechanics in pursuit of excellence.

www.uow.edu.au/science/eesc/geoquest

Within the Faculty of Science, the **Centre for Atmospheric Chemistry** is investigating atmospheric composition at local through to global scales. Members of the group are active participants in a number of national and international networks, including the ARC Network for Earth Systems Science, the Network for Detection of Atmospheric Composition Change (NDACC) and the Total Column Carbon Observing Network (TCCON)

www.uow.edu.au/science/research/cac

ADDITIONAL OPPORTUNITIES

Volunteer opportunities with organisations such as Conservation Volunteers of Australia; Education majors can gain valuable experience as guides or 'explainers' at Futureworld Eco-Technology Centre; or the Science Centre at the Innovation Campus

Field activities: Selected environmental engineering subjects have field trips to visit sustainable design projects in the South Coast region of New South Wales.

Faculty of Science research internship opportunities may be available to approved 3rd year science students. Topics vary from session to session- Spring (July-Dec) 2009 topics included 'Climate change effect on arid Australia during the past 100,000 years', 'Drought, land degradation, and the beginnings of Central Australian ecological research in the 1960s' and 'How long can we sustain our soil resources?'

www.uow.edu.au/science/researchinternships

SUBJECT INFORMATION:

	SUBJECT CODE	SUBJECT NAME	PRE-REQUISITE KNOWLEDGE
Autumn session (Feb-July)	STS100	Social Aspects of Science & Technology	None
	EESC 103	Landscape Change and Climatology	None
	BIOL 104	Evolution, Biodiversity and the Environment	None
	LAW 101	Law, Business and Society	None
	ABST 201	Redefining Eden: Indigenous Peoples and the Environment	36 cp at 100 level
	PHIL 206	Practical Ethics	Any 36 cp
	PHIL 256	Ethics and Environment A	At least 36 cp
	HIST 239	Water in Australia: An Environmental History	36 cp at 100 level
	ENVE 385	Environmental Engineering*	None
Additional subject options for students with a strong background in engineering	MECH 442	Sustainable Energy in Buildings**	Strong engineering and maths background recommended
	ENVE 311	Pollution Control & Cleaner Production	ENVE 220 Water Quality & Ecological Engineering or equivalent
	ENVE 377	Membrane Science & Technology	ENVE 220 Water Quality & Ecological Engineering or equivalent
	ENVE 320	Environmental Engineering Design for Sustainability	ENVE 220 Water Quality & Ecological Engineering or equivalent
Spring Session (July-November)	SCIE 103	Climate Change	12 cp @ 100 level
	EESC 102	Earth Environment and Resources	None
	EESC 104	The Human Environment: Problems and Change	None
	EESC 208	Environmental Impact of Societies	12 @100 level
	STS116	Environment in Crisis	None
	LAW 334	Environmental Law	LAW 101 Law, Business & Society
Additional subject options for students with a strong background in engineering	ENVE 220	Water Quality and Ecological Engineering	ENGG 252 Engineering Fluid Mechanics
	ENVE 221	Air & Noise Pollution Control Engineering†	None
	ENVE 410	Site Remediation Engineering	None
	ENVE 420	Water Resources Engineering	CIVL332 Hydraulics & Hydrology
	ENVE 421	Environmental Engineering Design 2	ENVE 320 Environmental Engineering Design for Sustainability & CIVL332 Hydraulics & Hydrology
	MECH 479	Sustainable Transport & Engine Technologies**	MECH252 Thermodynamics, Experimental Methods and Analysis & MECH226 Machine Dynamics
	MECH 378	Sustainable Energy Technologies	ENGG252 – Engineering Fluid Mechanics or MECH440 or MECH340

* Service subject for Environmental Science students ** Does not run every year- check on-line † Co-requisite ENGG 252 Engineering Fluid Mechanics

LEVELS OF STUDY

100 level: a subject at first year level, usually introductory

200 level: a subject at second year level, normally requires some background knowledge.

300 level: a subject at third year level, advanced level undergraduate

Standard load: one year of full-time study is equivalent to 48 credit points, or 24 credit points each academic session

GLOSSARY:

> **Subject** a unit of study within a program or degree (called a course in the US system)

> **Assessment** work which a student is required to complete to provide a basis for an official record of achievement or certification of competence in a subject.

> **Credit point (cp)** the value that indicates the study load attached to the subject. One credit point has an implied workload of 2 hours per week- for example, a six credit point subject represents a minimum of 12 hours of work per week: this may be 3 hours of classes, 4 hours of reading and 5 hours of personal study.

> **Faculty** a group of Academic Units or Schools.

> **Timetable** a weekly schedule of subject meeting times which may include lectures, tutorial, labs and workshops.

> **Tutorial** often called a tute, a small discussion group, led by a tutor, designed to provide more detailed coverage of subject content.

> **Uni** a common term for a university in Australia

CONTACT INFORMATION:

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The University of Wollongong attempts to ensure the information contained in this publication is correct at the time of production (August 2009), however, sections may be amended without notice by the University in response to changing circumstances or for any other reason. Check with the University at the time of application/enrolment for any updated information.

UOW CRICOS Provider No.: 00102E

