

Engineering in Australia & New Zealand



Australian and New Zealand universities are world leaders in engineering and the sciences. You can study any type of engineering you are interested in at these institutions. State-of-the-art facilities, world-class faculty, and cutting-edge research are just a few of the reasons why you should consider Australia or New Zealand as an engineering study abroad destination. Having international experience on your resume will not only broaden your own horizons and personal perspectives of the world, it will make you all the more attractive to potential employers.



Semester/Year Abroad at an Australian or New Zealand University

Earn credit towards your undergraduate degree program—take classes in your major, minor, electives or something unique to these countries.

Universities in Australia and New Zealand have some of the best curriculums in the world and offer a very wide variety of engineering courses you can take, including:

Aerospace and Aviation Engineering	Logistics and Transportation Engineering
Biomedical Engineering	Manufacturing Engineering
Chemical Engineering	Mechanical Engineering
Civil/Structural Engineering	Mechatronics
Computer Engineering	Mining and Mineral Engineering
Geotechnical Engineering	Petroleum Engineering
Electrical Engineering	Sustainable Energy Systems Engineering
Electronics Engineering	Water Resources and Hydrology Engineering
Environmental Engineering	
Industrial and Systems Engineering	

See the following pages for featured universities and other abroad opportunities related to these areas of study.

From our Alumni

“Studying the same subject but in a different context has been an eye-opening experience and very educational. It has opened up new perspectives for me. I think the broad scope of my education has increased by studying abroad and that prospective employers will recognize the benefit of my experience. It may set me apart from other applicants when looking for work in my field.”

- E. Olson, California Polytechnic State University, San Luis Obispo

About Australearn

Australearn is a leading provider of educational abroad programs to Australia and New Zealand. Having sent over 18,000 students abroad in the last 18 years, Australearn strives to offer programs that are both academically and culturally enriching for students. Semester/year study abroad, internship, full degree, and summer programs are all available through Australearn.

Australearn provides a full range of services to assist students with the process of preparing for a successful abroad experience. The cornerstone of Australearn’s program philosophy is integration with local cultures. Our overseas support center is available 24/7 to assist students while abroad, and we provide scholarship opportunities for all Australearn programs.



Australearn: Study in Australia,
New Zealand, and the South Pacific



www.australearn.org

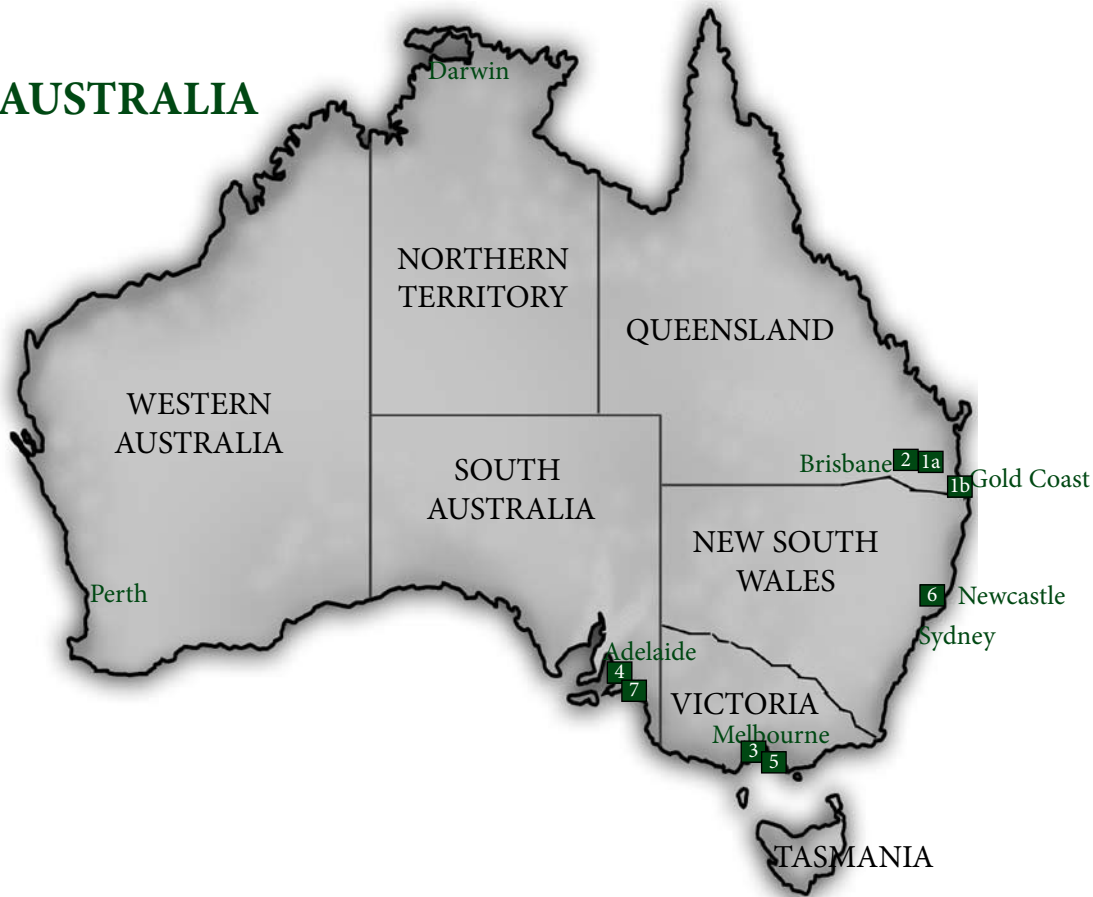
studyabroad@australearn.org

1-800-980-0033

www.australearn.org/Engineering

Engineering in Australia & New Zealand: University Locations

AUSTRALIA



UNIVERSITIES

- 1a. Griffith University-Brisbane
- 1b. Griffith University-Gold Coast
2. Queensland University of Technology
3. Swinburne University of Technology
4. University of Adelaide
5. University of Melbourne
6. University of Newcastle
7. University of South Australia



NEW ZEALAND

Griffith University - Brisbane and Gold Coast, Australia



Griffith University's engineering programs are known for their innovation and practical relevance, with teaching supported by cutting-edge facilities. Industry professionals contribute to program development and teaching and engineering students have access to industrial placements and internships as part of their study. Griffith offers specializations in:

- Civil Engineering (Civil Design, Coastal Engineering, Construction Management)
- Electronic & Computer Engineering
- Environmental Engineering
- Software Engineering

Highlights of the Engineering Program at Griffith University:

Griffith set the standard in engineering education with Australia's first microelectronic engineering degree and the landmark Bachelor of Engineering (Software) which integrates engineering and IT for a vibrant career.

Griffith boasts Australia's only university-based microchip factory, Australia's best airborne biohazard facility as well as specialised visualization and multimedia laboratories.

Special Offerings in Engineering at Griffith University:

Study Abroad students who have completed sufficient engineering subjects at their home institution may be eligible to participate in a part-time or full-time Industrial Affiliates Program that will provide them with industry experience for academic credit.



Sample Engineering Classes available at Griffith University:

- 1003ENG Engineering Materials & Design
- 1302ENG Introduction to Electronics
- 2032ENG Geology and Surveying
- 2205ENG Renewable Energy Systems
- 3001ENG Industrial Affiliates Program
- 3051ENG Construction Engineering

Queensland University of Technology (QUT) - Brisbane, Australia



CRICOS 00213J

QUT's Built Environment and Engineering Faculty offers Australia's only degree in Aerospace Avionics. Graduates are involved in design, development, manufacture, and maintenance work on airplanes, helicopters, spacecraft and satellites. They also offer degrees in civil and construction, civil and environmental, computer systems, electrical, infomechanics, mechanical, medical, and software engineering, and a range of design and urban development courses.

Highlights of the Engineering Program at QUT:

- Extensive timber, metal, and plastics workshops have been established to provide facilities for all students and staff of the Faculty.
- Teaching and learning are enhanced by research which has an international impact in engineering systems. QUT undergraduates are encouraged to become involved in these activities and many are able to continue as research scholars at the University after graduation.
- The QUT Industry Cooperative Program (ICP) in Electrical and Computer Engineering has been designed with both students and industry partners in mind. It aims to produce work-ready graduates to meet the needs of industry.

Special Offerings in Engineering at QUT:

Becoming part of QUT Motorsport is the perfect opportunity to pursue an interest in Motorsport while studying abroad. The project is cross disciplinary and is constantly on the look out for eager students to make contributions towards its success.

The areas in which engineering students may get involved include:

- Design of car components;
- Car construction and fabrication;
- Vehicle testing and optimization; and
- Team recruitment and development.



Sample Engineering Classes available at QUT:

- ENB140 Introduction to Avionics
- ENB376 Transport Engineering
- ENB436 Mechatronics System Design
- ENB215 Fundamentals of Mechanical Design
- ENB372 Design and Planning of Highways
- ENB378 Water Engineering
- ENB377 Water and Waste Water Treatment Engineering
- ENB383 Environmental Resource Management

View complete university profiles and more available classes at www.australearn.org/Engineering

Swinburne University of Technology - Melbourne, Australia



CRICOS 00111D

Swinburne's Engineering courses tackle real-world issues and have an industry-focused curriculum. Their hands-on, project-based learning approach enables graduates to become productive immediately upon employment. The structure and content of the engineering courses are continually reviewed and improved to match the needs of industry by an external/internal Advisory Board and Engineers Australia.

Sample Engineering classes available at Swinburne:

HES1115	Sustainable Design
HES1945	Aircraft Electrics and Avionics
HES2146	Computer Aided Engineering
HES3334	Thermofluid Systems
HES4126	Structural Engineering
HES4136	Transport Engineering
HES4250	Design for Manufacture
HES5250	Robot System Design
HES5370	Automotive Electronics
HET417	Photonics and Fiber Optics

Highlights of the Engineering Program at the Swinburne University of Technology:

- Swinburne's engineering programs are accredited by the Institution of Engineers Australia.
- Swinburne is also a founding member of Nanotechnology Victoria Limited (Nanovic), a research and development organization with a focus on nanoscience and nanotechnology. Nanovic aims to create and deliver competitive advantages to industries in the state of Victoria, through their research in nanoscience and nanotechnology.
- All courses are conducted at Swinburne's main campus, located in the inner-city suburb of Hawthorn, surrounded by cafés, bookshops, and boutiques.

Special offerings in Engineering at Swinburne University of Technology:

- The Faculty of Engineering and Industrial Sciences offers courses in a range of study areas, including Advanced Manufacturing Technologies, Air Transportation Management, Aviation, Biomedical Engineering, Microelectronic Engineering, Photonics, Product Design Engineering, and Robotics and Mechatronics Engineering.
- Swinburne offers both flying and non-flying courses in the aviation department. Swinburne and its flight-training provider, General Flying Services, are the preferred providers of cadet pilot training for Qantas in Melbourne.



University of Adelaide - Adelaide, Australia



THE UNIVERSITY
OF ADELAIDE
AUSTRALIA
CRICOS 00123M

Engineering is among University of Adelaide's strongest academic areas. The Faculty of Engineering, Computer, and Mathematical Sciences provides high quality teaching and research in strategically chosen areas of Engineering, Computer Science, and Mathematics. Graduates from this Faculty are highly regarded by employers and have been successful in a variety of areas. The academic staff of the Faculty are world

leaders in their disciplines, staff who actively contribute to real-world problems through consulting and advanced fundamental and applied research.

Highlights of the Engineering Program at the University of Adelaide:

- The Faculty has close links with industry, and its research is well supported by grants and contracts from both government and the private sector. Many of its technological breakthroughs form the basis of independent companies with University shareholding or joint venture agreements with industry both in Australia and overseas.
- University of Adelaide's program in Sustainable Energy Engineering enables development of long-term solutions to meet the world's rapidly growing energy needs. Students will learn to develop and apply alternative technologies such as wind, solar, tidal, wave, hydro, and geothermal power.



Special offerings in Engineering at University of Adelaide:

University of Adelaide offers all the standard areas of engineering as well as several unique programs that allow students to focus on very specific areas within the innovative engineering industry. Classes are available in the following engineering specialties: software, aerospace, architectural, automotive, avionics and electronic systems, chemical, computational, environmental, civil/structural, computer systems, electrical/electronic, mechanical, mechatronic, mining, petroleum, pharmaceutical, sports, and sustainable energy engineering.

Sample Engineering classes available at Adelaide:

PETROENG 1006	Introduction to the Petroleum Engineering
PETROENG 3024	Petroleum Exploration and Management
CENVENG 1011	Introduction to Mining Engineering
CENVENG 2006	Geotechnical Engineering II
CENVENG 2033	Water Engineering II
CHEM ENG 2009	Principals of Pharmaceutical Engineering
CHEM ENG 2006	Plant and Process Engineering
MECH ENG 3016	Aeronautical Engineering
ECH ENG 3035	Automotive Combustion Technology
MECH ENG 3017	Sustainability and the Environment

View complete university profiles and more available classes at www.australearn.org/Engineering

University of Melbourne - Melbourne, Australia



THE UNIVERSITY OF
MELBOURNE
CRICOS 00116K

Melbourne Engineering provides you with the opportunity to study science and technology from a different perspective. Programs are offered in the following areas: civil, chemical, mechanical, biomedical, and environmental engineering.

Architectural Design in the Faculty of Architecture, Building, and Planning combines studio-based exercises and contemporary developments in computer aided techniques to introduce students to the built and natural environment. Students will take part in drawing, physical model making, digital imaging and 3D computer modelling to develop ideas for architecture form.

Highlights of the Engineering Program at the University of Melbourne:

- Its interdisciplinary focus offers students the opportunity to explore an area of study without assumed prior knowledge or to continue study in their chosen major.
- Engineering and Architectural Design encompasses the fields of building construction, development, urban planning, and landscape architecture.
- Many of the classes on offer have a unique Australian and Asia-Pacific focus.
- Strong links with industry bring the most recent developments and ideas to studies.

Special offerings in Engineering at University of Melbourne:

- Many classes include site visits or a fieldwork component – providing the opportunity to get away from the campus environment and to put your skills into practice.
- Group learning is designed to help students learn from each other and bring their own ideas and experience to the exercises.
- Facilities include dedicated architecture library and computer and engineering research laboratories.



Sample Engineering classes available at the University of Melbourne:

451-201	Geomatics for Engineers
421-207	Introduction to Design
421-317	Structural Engineering
421-210	Environmental Engineering - Basics
702-302	Architectural Design
702-443	Environmental Design
702-232	Modern Architecture B: 20th Century
702-233	Asian Architecture A: Southeast Asia

University of Newcastle - Newcastle, Australia



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA
CRICOS 00120C

The University of Newcastle's Faculty of Engineering brings together expertise in engineering, architecture, building, surveying, industrial design, and computer science. Our programs focus on the development of innovative, resourceful, and creative graduates – future leaders in industry, the profession, and the community. At the University of Newcastle students have access to world-class facilities and are taught by high quality teaching staff from around the world who are enthusiastic and maintain an active role within their industry. All engineering programs at the University of Newcastle are accredited by Engineers Australia and affiliated international organizations.

Highlights of the Engineering Program at University of Newcastle:

- The University of Newcastle is ranked as one of the world's top 100 universities for engineering technology and computer sciences.
- The School of Architecture and Built Environment has an international reputation for the quality of their research. Several school staff are amongst the top few in world and many hold prestigious grants from the ARC and the EU as well as a range of North American institutions.
- The Faculty has many research groups and centers including: Computational Biomechanics Research Group, Environmental Engineering Research Group, Surveying Research Group, Centre for Bulk Solids and Particulate Technologies, Centre for Infrastructure Performance and Reliability, Centre for Multiphase Processes, CRC for Coal in Sustainable Development, Priority Research Centre for Energy, and the Priority Research Centre for Geotechnical and Materials Modelling.

Study Internship
Combination
Program Available

Special offerings in Engineering at the University of Newcastle:

- The Interdisciplinary Machine Learning Research Group (IMLRG) investigates different aspects of machine learning and data mining in theory, experiments, and applications.
- University of Newcastle offers the following disciplines within the Faculty: architecture, construction management, mechatronics, chemical engineering, industrial design mining, civil engineering, software engineering, computer engineering, environmental engineering, surveying, computer science, mechanical engineering, and telecommunications.

Sample Engineering classes available at the University of Newcastle:

ARBE1101	Construction Technology 1
CHEE1150	Chem. Eng. Principles
CIVL2130	Theory of Structures 1
CIVL4330	Hydrology
ELEC2131	Sensors and Machines
MECH2350	Dynamics 2
MECH2700	Thermofluids
MECH3140	Mechatronics Design
SENG3300	User Interface Design

View complete university profiles and more available classes at www.australearn.org/Engineering

University of South Australia - Adelaide, Australia



We live in a developing world and embedded within almost every innovation or development is an aspect of engineering. From turning on a light switch to supplying entire communities with power, communications, and water, the engineer has a role in serving the community by maintaining and improving our quality of life and standard of living.

Highlights of the Engineering Program at University of South Australia:

- Civil Engineering places particular emphasis on the application of theory through focused project and assignment work. Project work is a significant component in every year of the program.
- Electrical and Mechatronic Engineering program provides students with sound communication and management skills and an understanding of social and environmental issues.
- Electronics and Microengineering is the only program of its kind in the Australasian region, and prepares students for professional careers in electronics and microtechnology, by teaching them skills in microelectronics fabrication and design.
- Mechanical and Manufacturing engineers will be able to undertake the design of components, processes, and systems; project management and control; manufacturing operations management; production engineering; maintenance engineering; and energy management. The Automotive stream, for example, with its high level of industry input, prepares graduates for careers in the automotive industry.

Special offerings in Engineering at Swinburne University of South Australia:

- All students at the University of South Australia (UniSA) are provided with round-the-clock use of a state-of-the-art online environment to assist with learning and communication either externally or from any of the 30 computer pools available.
- UniSA's programs have been designed in consultation with industry and the professions and incorporate real world professional experience so graduates can be immediately effective in the workplace.
- UniSA's continued close work with industry has helped us establish some of the most relevant programs in Australia.

View complete university profiles and more available classes at www.australearn.org/Engineering.

Sample Engineering classes available at University of South Australia:

MFET 4002	Product Design and Innovation
MFET 3008	Project Planning and Control
PHYS 3003	Earth and Space
EEET 1007	Principles of Computer Systems
PHYS 1014	Science, Logic and Philosophy
HUMS 1029	Built Environment
ENVT 1013	Environment: A Human Perspective
ARCH 1016	Planning Heritage Workshop
ARCH 2042	Planning Policy
ARCH 2043	Social and Community Planning

Internships in Australia and New Zealand

PDAC INTERNSHIPS - AustraLearn offers various internships, including Professional Development for Academic Credit (PDAC) Internship placements. These are 10-week, pre-set, high quality professional development opportunities for six academic credits. These internships are currently offered three times a year and placements are available in almost every field of study.

Through an engineering placement with AustraLearn, students can achieve vital experience in their field of study. Engineering placements will depend on the applicant's area of specialization. Placements can be in electrical, mechanical, architectural, environmental, or civil engineering. AustraLearn's Internship Manager will work with each applicant to match up his/her learning goals and interests with the best available internship placement.

CUSTOM DESIGNED INTERNSHIPS - AustraLearn Custom Designed Internships are available in most every field of study. These very independent placements do not include credit, however, they are a fantastic opportunity for students to get the type of internship they are seeking through a partnership with AustraLearn, and offer maximum flexibility: students get to set the length and when they go.

STUDY INTERNSHIP COMBO PROGRAMS - A semester-long study internship combination programs is also available at University of Newcastle for engineering students. This option allows you to take a part-time load of classes (typically 1-3) plus a part-time internship.



Learn more about these internship opportunities at www.australearn.org/Engineering

Summer and January Short Courses

AustraLearn offers a variety of short-term programs covering a variety of different academic areas in Australia or New Zealand. All programs run during the summer, and two also run in January. If you cannot go abroad for a full semester, a short course is the perfect opportunity to still experience these incredible countries while learning a new skill or enhancing an interest.

[A sampling of the programs available to you:](#)

Film and TV Production: The Melbourne Film Experience – three-week course in June/July where students produce a short film from concept to completion, plus get special access to the world-renowned Melbourne International Film Experience. Perfect for any communications major, especially those interested in broadcasting, film/tv production or media studies. Offered through Swinburne University of Technology.

Edge of the Outback: A Photographic Journey Through Rural Australia – three-week course in July. All equipment provided, no experience necessary. Awesome field trips and some of the most beautiful country in the world—seen by few students or tourists—provide the backdrop for this incredible course. Offered through La Trobe University.

Challenge New Zealand: Leadership Development – two-week program in January or June. Develop your leadership skills through immersion in the New Zealand culture, seminars and lectures, a service project, and an awesome outdoor recreation program.

Regional Australian Field Studies: Mountains, Coast and Outback – three-week program in January or June-July. Enjoy lectures and a 10-day field studies trip to some of Australia's most beautiful places.

Wanju Boodjah: Aboriginal Studies in Western Australia – four-week program in June/July in one of the most scenic parts of Australia, with field trips and lectures from some of Australia's leading experts in aboriginal studies and culture.

Graduate School Abroad



Earn your entire graduate degree abroad from a choice of more than 30 universities. Complete a master's degree in as little as one year or a PhD in as little as three. Universities in these countries are ranked highly on the international scale and renowned for their academics, faculty and research. The GRE exam is NOT required, you can get U.S. government financial aid, and costs are, in many cases, cheaper than comparable programs at North American universities.

AustraLearn is the designated North American contact for 31 universities in Australia and New Zealand. AustraLearn provides program and enrollment counseling as well as a range of other services (financial aid, student visa, airline tickets, accommodation, etc.) to assist you with not only applying to universities abroad, but to actually get there. To search for a university offering your preferred degree program, go to www.australearn.org/Engineering and click on "Degree Programs".

Study Abroad in other destinations: Fiji, Asia, or Europe

AustraLearn also offers a semester or year abroad program to the **University of the South Pacific in Suva, Fiji**. Several classes in electrical and mechanical engineering are available to study abroad students.

Interested in studying in another part of the globe? Through **AsiaLearn** and **EuroLearn**, sister organizations to AustraLearn, there are several abroad opportunities around the world.



AsiaLearn programs provide semester and summer opportunities in **China, Hong Kong, Malaysia, Singapore, or South Korea**. Engineering courses are available at most universities, classes are taught in English, and there is no language requirement. Learn more at www.asialearn.org.



EuroLearn currently offers a unique undergraduate **research abroad program** for a semester or year called **EuroScholars**. Students will participate in an academic research project and take a language/culture class at one of 12 prestigious European universities. No previous language skill is required. Learn more at www.eurolearn.org.



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