



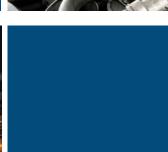
# Advanced Diploma of Engineering Program Training (ADEPT)

leading to Bachelor of Engineering

- Civil Engineering (Honours)
- Mechanical Engineering (Honours)
- Coastal Engineering (Honours)























#### ABOUT US

Outsource Institute (AUS) is a fully Australian-owned Registered Training Organisation (RTO), based in Queensland, Australia. Outsource has been in operation for over two decades (20+ years) and provides its services Australia wide.

Outsource's core products include the advanced facilitation of nationally accredited qualifications, in Engineering and Business. OIA offers Advanced Trades in welding, hydraulics, maintenance and instrumentation and specialise in Engineering, Project Management, Human Resources, Leadership and Quality Auditing.

The Advanced Diploma offered by Outsource Institute have direct pathways into university, ensuring its students have the option to continue with their learning. OIA is experienced in the training of apprentices and has state government funding approvals across multiple states in Australia.

Staff at Outsource are aware of the key issues that Australian organisations face and the shortage of skilled employees. The qualifications Outsource Institute offers, provide students with both the practical and theoretical knowledge necessary to think in a safe and innovative manner.

The Trainers and Assessors at Outsource are professionally experienced and qualified to the highest degree. Outsource Institute's trainers take pride in their training delivery and work around the clients' needs and parameters. The delivery of programs employs active learning, continuous improvement projects, workplace mentoring, assessments and workshop solutions.

Outsource Institute of Technology is rapidly expanding and is now embarking on extending its specialised training programs to offshore markets like India to service increasing current & future demand for a skilled workforce by the Australian Engineering Industry. Outsource graduates from India can further pathway to Australian universities gaining credits towards their Bachelor Degree programs thus leading to long term opportunities.

We stretch the boundaries of our unique organisation, we're looking forward to the opportunities and possibilities that lie ahead.

## **OUR DIFFERENTIATION**

#### Diversity

Outsource Institute delivers to a wide range of students, industry leaders and businesses. Outsource Institute's management, staff, industry network & students influences its strength, productivity and intellectual personality.

#### People

Outsource Institute employs only the best people who share similar business values, goals, beliefs and services. With a diverse range of trainers, Outsource Institute is able to provide the people most suited to assist individual needs.



#### **Productivity and Efficiency**

Outsource meets the requirements & demands of the Australian Engineering industry to assist current & future employees gain necessary skills boost productivity and efficiency levels.

#### Location

Outsource institute deploys a multi-modal approach using a diverse range of teaching and learning activities, thus making international education accessible to all. Outsource builds on interaction with learning peers, tutors, Access to international engineering experts and practitioners including video tutorials via online training platforms and discussion board conversations.

### ADVANCED DIPLOMA OF ENGINEERING PROGRAM TRAINING (ADEPT)

#### **COURSE CONTENT**

#### **Core Units**

- MEM16006A Organise and communicate information
- MEM16008A Interact with computing technology
- MEM22001A Perform engineering activities
- MEM22002A Manage self in the engineering environment
- MEM30007A Select common engineering materials
- MEM30012A Apply mathematical techniques in a manufacturing engineering or related environment
- MSAENV272B Participate in environmentally sustainable work practices

#### **Elective Units**

Group A – general

- MEM12024A Perform computations
- MEM30005A Calculate force systems within simple beam structures
- MEM30006A Calculate stresses in simple structures
- MEM30008A Apply basic economic and ergonomic concepts to evaluate engineering applications
- MEM30009A Contribute to the design of basic mechanical systems
- MEM30031A Operate computer-aided design (CAD) system to produce basic drawing elements
- MEM30032A Produce basic engineering drawings
- MEM30033A Use computer-aided design (CAD) system to create and display 3-D models

Group B – specialist

- MEM09115A Prepare mechanical models for computer-aided engineering (CAE)
- MEM09157A Perform mechanical engineering design drafting
- MEM12025A Use graphical techniques and perform simple statistical computations
- MEM14085A Apply mechanical engineering analysis techniques
- MEM14089A Integrate mechanical fundamentals into an engineering task
- MEM22012A Coordinate resources for an engineering project or operation
- MEM22013A Coordinate engineering projects
- MEM23003A Operate and program computers and/or controllers in engineering situations
- MEM23004A Apply technical mathematics
- MEM23007A Apply calculus to engineering tasks
- MEM23063A Select and test mechanical engineering materials
- MEM23109A Apply engineering mechanic principles
- MEM23111A Select electrical equipment and components for engineering applications
- MEM23120A Select mechanical machine and equipment components
- MEM23123A Evaluate manufacturing processes

#### PACKAGING RULES

The minimum requirements for achievement of the MEM60112 Advanced Diploma of Engineering are:

- Completion of the seven (7) core units of competency listed, and
- Completion of twenty-three (23) elective units, to bring the total number of units to thirty (30) Group A and Group B elective units must be selected as follows:
- Up to eight (8) general elective units from the list in Group A
- At least fifteen (15) specialist elective units from Group B, to bring the total number of elective units to
- twenty-three (23)

Note that when selecting elective units any prerequisite units must also be completed and count towards the required number of elective units (refer to units for details).

Five (5) appropriate Group B electives may be chosen from other endorsed Training Packages and accredited courses where those units are available for inclusion at Advanced Diploma.

#### ENTRY REQUIREMENTS

- English requirement: IELTS- 5.5, TOEFL IBT 46-59, PTE 43-50 OR
- Complete a Outsource Institute's Language, Literacy & Numeracy Test
- Completion of Year 12 or equivalent within the Science stream
- Students from other streams can be considered on a case by case basis
- Student must be 18+ years and above at the time of course commencement
- Ability to independently use & operate a computer / laptop
- Knowledge of basic use of office applications
- Students must have access to a computer & internet services outside class hours
- Attend an interview (face to face / phone / skype)

#### JOB OPPORTUNITIES

Possible job titles relevant to this qualification include:

- Electronics Engineering Technologist
- Manufacturing Systems Engineer
- Mechanical Engineering Associate
- Mechatronics Associate
- Production Engineer

#### STUDENT SUPPORT (In India)

- Academic/English support services
- Availability of student resources outside of classroom hours
- Learning support services
- Payment options

#### STUDENT SUPPORT (In Australia)

- Employment support
- Student support
- Accommodation services
- Student health care

#### **GENERAL DESCRIPTION**

Outsource Institute's Head Office and campus is located at Brisbane Technology Park (BTP) in Brisbane, Queensland, Australia. Please refer to the 'International Student Handbook' and website (www.outsourceinstitute.com.au) for further information on policies and procedures, a description of the ESOS Framework, costs of living in Australia, accommodation options and schooling obligations for school-aged children.





#### ABOUT THE UNIVERSITY

Southern Cross University is a multi-campus university on Australia's east coast. We are proud of our reputation as a progressive institution, engaging with the communities we serve to create change that has an impact around the world.

Our campuses are located in southeast Queensland adjacent to the Gold Coast Airport, in New South Wales at Lismore and in Coffs Harbour, where the University's National Marine Science Centre is also located. Branch campuses in Sydney, Melbourne and Perth operate in collaboration with EduCo and the University operates The Hotel School Sydney, Melbourne and Brisbane in partnership with Mulpha Australia. We also deliver degrees with collaborators in China and Papua New Guinea.

The regions we call home all have unique characteristics as study locations – from cosmopolitan cities, thriving industries and coastal lifestyles to living laboratories of great natural beauty and ecological diversity, right next to the campus.

Our locations have a profound influence on our teaching and academic programs, from business degrees that examine ecological tourism to marine science that is helping to regenerate the reef and engineering to make our urban environments smarter and more sustainable. We celebrate our cultural diversity with a festival every year because it is the diversity that makes us bold, and pushes us to challenge the status quo.

Southern Cross delivers degrees on campus and online, with a rich academic portfolio covering a wide range of disciplines. Professional placements are a feature of most degrees.

The University is home to nine research centres, all with deep connections to the communities they serve and a commitment to research output that has global relevance, be it marine ecology, organic agriculture, plant and geoscience, adolescent development or flood mitigation.

In the latest Excellence in Research for Australia report, Southern Cross achieved outstanding ratings of 'at world standard' or above in 23 research fields. In 14 research fields, the University was evaluated at the highest possible classification of 'well above world standard'. This was achieved in the fields of Earth Sciences, Geochemistry, Oceanography, Environmental Science and Management, Ecology, Zoology, Agricultural and Veterinary Sciences, Crop and Pasture Production, Fisheries Sciences, Forestry Sciences, Civil Engineering, Resources Engineering and Extractive Metallurgy, Nursing, Complementary and Alternative Medicine.

Southern Cross has been ranked in the world's top 150 universities under the age of 50 by the Times Higher Education World University Rankings. It's an accolade we don't take lightly – we are constantly reviewing our degrees and pathway programs to make sure you are equipped with the skills and knowledge you need to forge your twenty-first-century career.

#### BACHELOR OF ENGINEERING 1. Civil Engineering (Honours)

The Bachelor of Engineering (Honours) in Civil Engineering equips students with the relevant skills and knowledge to provide a range of professional civil engineering services in regional, national and international environments. The course prepares graduates for work involving the planning, design, construction and maintenance of critical civil engineering infrastructure such as buildings, roads, bridges, dams, pipelines, transport systems, and water supply and waste water treatment facilities.

The course is structured around 16 key competencies identified by Engineers Australia as being essential to the graduating engineer. These competencies are broadly grouped into: knowledge and skills, application, personal and



professional skills. Students develop core theoretical knowledge and skills vital to the engineering profession and the ability to apply these in the most relevant applications. The course is strongly focused on project engineering from first year through to the final year, with an emphasis on critical issues for modern engineers such as professional ethics, sustainability, conflict resolution and negotiation. All students undertake a full-year subject in engineering research (thesis unit) in their final year, which enables them to explore the frontiers of engineering development and contribute to new knowledge in their chosen field.



#### 2. Mechanical Engineering (Honours)

The Bachelor of Engineering (Honours) in Mechanical Engineering equips students with the relevant skills, experiences and knowledge to provide a range of professional mechanical engineering services in regional, national and international environments.

The course prepares graduates for work involving the design and maintenance of machinery, computer-aided design and manufacturing (CAD/CAM), consumer product design, automotive, robotics and control systems, water supply, vibration, acoustics and noise control, heat transfer and refrigeration, energy technology and pollution control in the marine, oil, gas and aerospace industries.

The course is structured around 16 key competencies identified by Engineers Australia as being essential to the graduating engineer. The educational philosophy and objective of this course aims to cultivate insight and knowledge in the mechanical engineering discipline, producing highly skilled engineers who not only have technical skills but also a commitment to continuous learning throughout their careers. Students gain the skills necessary to define and develop solutions to challenging problems, as well as leadership skills and the ability to respond to the demands and expectations of society, industry and academia.

#### 3. Coastal Systems Engineering (Honours)

With strong population growth and significant changes in hydrology predicted for the coastal margin of Australia, there is an increasing demand for civil and environmental engineers with expertise in managing coastal and floodplain hydrology. The Bachelor of Engineering (Honours) in Coastal Systems Engineering is one of just a few specialist undergraduate professional engineering degrees in Australia to train industry-ready graduates for work in water engineering, coastal engineering and catchment management. The course addresses an increasing need for engineering expertise in these fields that is currently only available through on-the-job training and/or postgraduate qualifications.





Why study Engineering with Outsource Institute (India) leading to Bachelor Of Engineering at Southern Cross University (Australia)?

- Southern Cross is ranked No.1 in Australia for graduate salary (The Good Universities Guide 2020)
- Southern Cross University is ranked number 1 in Australia for overall international student support (International student Barometer 2018)
- Southern Cross University has a 5-star institutional rating for student support and social equity (Good Universities Guide 2020)
- Southern Cross engineering postgraduate students have almost a 100% full-time employment rate and earn an average salary of \$120,000 (\$34,000 above the sector average) (Graduate Outcomes Survey 2019)

- The average salary for Southern Cross University postgraduate ranks in the top 5 nationally at \$100,000 (Graduate Outcomes Survey 2019)
- Students can participate in Exchange and Study Abroad Agreements in 17 countries and over 50 partner institutions
- Range of scholarships on offer, with specific scholarships for international students (Destination Australia scholarship worth \$15,000\* a year)
- Free 1 year of on-campus accommodation\* at Southern Cross University, Lismore campus





## REASONS TO STUDY IN AUSTRALIA

# DISCOVER HOW TO BE AN INNOVATIVE, AGILE THINKER

Australian universities, colleges and schools are committed to equipping you with practical skills and knowledge to help you succeed in your chosen industry. As global demand booms for entrepreneurial and innovative thinkers, Australian education providers have reengineered their approaches to teaching and learning to inspire thought-leading creativity among students in every discipline. Australian universities, colleges and schools will teach you the practical skills and theoretical knowledge to help you succeed in a fast-changing world and remain agile in uncertain times.

# STUDY AT GLOBALLY RANKED INSTITUTIONS

Australia is setting international standards for excellence in education.

The Australian education sector comprises world-leading education institutions, premium training facilities, and outstanding lecturers and student support services. If you're looking for unbiased proof that Australian universities truly are world-class, look at independent global rankings such as Times Higher Education, QS and Shanghai Rankings. These organisations consistently rank Australian institutions in the world's top 100 universities year after year.

### GAIN WORK EXPERIENCE WHILE YOU STUDY

Australian institutions provide an education designed to help you succeed in the global workforce. An Australian qualification will make you very attractive to potential employers in Australia, at home and around the world.

Many Australian degrees and vocational courses include work experience programs and internships so you can gain handson industry experience and grow your professional network while you study. Once you complete your degree, you may also be eligible to stay and work in Australia. While studying, you can work up to 20 hours per week during the semester and full-time during the

semester break. This can be a great way to find study-related work or simply pay for your lifestyle in Australia.

#### ACCESS EXTENSIVE STUDENT SUPPORT SERVICES

Australian institutions offer a huge range of student support services to help you settle into your new life in Australia. Education providers must comply with strict quality control and government accreditation measures so you can be assured you will receive only the best service. In several cities and towns, there are dedicated international student support centres, each offering practical advice and support on issues like legal rights, job skills and opportunities to meet and socialise with other local and international students.

Australia's Education Services for Overseas Students (ESOS ACT) framework enforces by law the bestpractice protection for the rights of international students studying in Australia.





#### LIVE AND STUDY IN SAFETY

Australian cities have some of the lowest crime rates in the world, and our streets and public spaces are open and safe. There are many options for accommodation: you can live in purpose-built student villages, homestays, private rentals, share-houses or boarding school accommodation.



#### FEEL WELCOME IN A MULTICULTURAL SOCIETY

Australia is a friendly and welcoming country. Our nation values individual freedoms, and the rights of citizens and visitors are protected under a transparent legal system.

We are also a multicultural society with respect for others no matter who they are or where they come from. Did you know almost 30% of Australians are born overseas? This has made our country rich with nationalities and cultures from all over the world.

When you study in Australia, you will join more than half a million international students from 192 countries who have been welcomed into Australian life.

#### MAKE THE MOST OF AUSTRALIA'S GREAT OUTDOORS

With a unique mix of thriving cities and regional centres,

vast open spaces and spectacular landscapes, it's no wonder Australia attracts people from all over the world. The first thing you will notice when you land in Australia is our fresh air and blue skies. We have a long history of protecting the beauty and sustainability of our environment. The result? Clean and sustainable cities and regional centres with plenty of green spaces and relatively low air pollution.

Our diverse natural environment offers a range of experiences – you can relax on our golden beaches, venture into our national parks to see our unique plants and animals, and explore the untamed outback.

Australian institutions also place great importance on teaching students the value of sustainability and how to apply it in all areas of industry.

#### **ENJOY A HIGH STANDARD OF LIVING**

Australian cities are consistently ranked as some of the most liveable in the world. Our quality of education, healthcare, transport, infrastructure and government services are rated well above international averages. Australia is a technologically advanced country with a strong, globally competitive economy. You will enjoy all

strong, globally competitive economy. You will enjoy all the benefits of high-quality services, transportation and infrastructure in our towns and cities.

#### **EMPLOYMENT OPPORTUNITIES**

Our educational institutions make students work-ready and understand what it takes to succeed in the global workforce. An Australian qualification will make you a very attractive potential employee to employers in Australia, at home and around the world.

Reference resource : https://www.studyinaustralia.gov.au

## STUDENT / PARENT TESTIMONIALS

#### **APPLICATION PROCESS**





MSA

#### Address:

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## **INDUSTRY PARTNERS & MEMBERSHIPS**

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