

Industry Snapshot

# Engineering

Develop world-changing solutions



THE UNIVERSITY OF  
NEWCASTLE  
AUSTRALIA



Vibin, India  
Master of Materials Science and Engineering, 2021

IChemE



ENGINEERS  
AUSTRALIA



Washington Accord

INTERNATIONAL  
ENGINEERING  
ALLIANCE

[newcastle.edu.au/intl-eng](http://newcastle.edu.au/intl-eng)

# Why Engineering?

Unleash your potential with our professional practice and leadership courses in Engineering. Develop skills in project management, complex problem solving, innovation, and communication, and gain international recognition to take your career to new heights worldwide.



## Why study Engineering?

The role of an engineer is ever-changing. Engineers play a critical role in overcoming the challenges our world faces. From building computer systems, to influencing the infrastructure we use every day, or finding new ways to harness energy. Engineers help solve challenges around food and water security, climate change and much more.

As a qualified engineer you can travel the world and work almost anywhere you choose. Our degrees are professionally accredited through Engineers Australia which lets you work in places such as Canada, Hong Kong, India, Ireland, Japan, Korea, Malaysia, New Zealand, Russia, Turkey, the UK and the USA.



### Ranked 1

in Australia and 16 in the world for Automation and Control Engineering<sup>1</sup>



### Ranked 1

for learning facilities and resources<sup>2</sup>



### Top 200

in the world for Engineering and Technology<sup>3</sup>

<sup>1</sup> Shanghai Ranking's Global Rankings of Academic Subjects, 2022

<sup>2</sup> Student Experience Survey 2019 and 2020 - Postgraduate Engineering. <sup>3</sup> QS World University Rankings by Subjects 2022.

# Careers in Engineering

Embarking on a career in engineering opens up a vast array of opportunities across various industries, including electronics, energy, food, manufacturing, pharmaceuticals, construction, environmental health, and transportation.

With engineering being one of the most sought-after qualifications globally, choosing engineering not only allows you to delve into diverse roles but also addresses the growing demand for professional skills in the field, making it a rewarding and promising choice.



**Laureate Professor Behdad Moghtaderi**  
School of Engineering  
(Chemical Engineering)

## Top Hunter in-demand Engineering jobs<sup>1</sup>

- Civil Engineer
- Chemical/Process Engineer
- Mechanical Engineer
- Validation Engineer
- Electrical Engineer
- Mining Engineer
- Aerospace and Aeronautical Engineer
- Water Resource Specialist
- Environmental Engineer
- Transportation Engineer
- Industrial Engineer

The Hunter region provides world-class research, agricultural productivity, renewable energy, and mining services to meet the demands of industries, while addressing the in-demand skills shortage in Australia, making it a hub of innovation and opportunity.

## Top 10 specialised skills (National, Hunter and Central Coast)<sup>1</sup>

- Project Management
- Civil Engineering
- Mechanical Engineering
- Teamwork/Collaboration
- Budgeting
- Scheduling
- Electrical Engineering
- Commissioning
- Engineering Design and Installation
- AutoCAD
- Quality Assurance and Control

## Top baseline skills (National)<sup>1</sup>

- Communication Skills
- Planning
- Problem Solving
- Mentoring
- Building Effective Relationships
- Writing
- Detail-Oriented
- Time Management
- Verbal Communication
- Organisational Skills
- Stakeholder Engagement and Management

## National employment projections for Engineering<sup>2</sup>

Engineering employment is collected into nine broad job categories:

- Engineering managers
- Chemical and materials engineers
- Civil engineering professionals
- Electrical engineers
- Electronics engineers
- Industrial, mechanical and production engineers
- Mining engineers
- Other engineering professionals
- Engineering professionals

National growth for those jobs combined is projected to be 10.6% from Nov 2021 to Nov 2026.<sup>2</sup>

# Fastest growing jobs by region in Engineering



Shubham, India  
Master of Professional Engineering (Mechanical), 2018

## India<sup>1</sup>

- Environmental Engineer
- Software Engineer
- Renewable Energy Engineer
- Biomedical Engineer
- Site Reliability Engineer
- Machine Learning Engineer



For more information about roles in India that are in high demand.

## Australia<sup>1</sup>

- Machine Learning Engineer
- Site Reliability Engineer
- Power System Engineer
- Data Engineer
- Head of Engineering



For more information about roles in Australia that are in high demand.

## Southeast Asia<sup>1</sup>

### Singapore

- Machine Learning Engineer
- Data Engineer

### Indonesia

- Machine Learning Engineer



For more information about roles in Southeast Asia that are in high demand.

## Examples of Engineering Organisations in the Newcastle and Hunter Region



<sup>1</sup> LinkedIn Jobs on the Rise 2023.

# Benefits of studying with us

As a global leader in Engineering higher education, the University of Newcastle stands out as an institution that fosters innovation and empowers students to make a significant impact in the world.

## School Research

Our School of Engineering is a strong research-intensive school with expertise in a wide range of disciplines.

Our research focus ensures that students are exposed to cutting edge thinking and taught by staff at the forefront of developments in their chosen field.

Many of our staff possess real-world experience and are internationally recognised for their contributions to engineering and technology. As leaders in their fields, they bring a wealth of practical knowledge and expertise to our students.

The School of Engineering is proud to be recognised as one of the top Engineering Schools in Australia.

## Student Work

Our Engineering graduates are highly sought after, with many students landing a job before they even finish their degree. In their final year, students bring theory and practice together in sophisticated research projects.

They also have the opportunity to build important professional and industry networks while gaining real-world experience during 12 weeks of compulsory professional placement.

Our students have access to a whole range of rich experiences during their studies.



Dr Jafar Zanganeh, Project Manager, left; and Mohammed J. Ajrash, research student, at the detonation tube. Newcastle Institute for Energy and Resources, Callaghan.

# Real-world learning

At the University, we believe in providing students with practical pathways that go beyond traditional classroom learning. Through various initiatives and extracurricular activities, students have the opportunity to engage in real-world projects that enhance their skills, knowledge, and passion for Engineering.



Newcastle Institute for Energy and Resources,  
Callaghan



## Newcastle University Women in Engineering (NUWiE)

NUWiE hosts a range of activities and events such as seminars with female graduates and site visits. This group offers students the opportunity to meet likeminded people and be part of a broader network of female engineers.



## NU Teams

NU Teams compete at the highest level of engineering competitions. Teams include undergraduate students studying Mechanical, Mechatronics, Aerospace Systems, and Electrical/ Electronic engineering from every year of study.

Students show unmatched dedication, skill and enthusiasm while solving problems and gaining real-world experience as they prepare for their future in industry.



## The MedMakers

The MedMakers is a social, networking and practical club that aim to provide hands-on learning on groundbreaking projects in the medical field. Industrial placement, work experience and scholarships are encouraged and promoted for The MedMakers' members.



Learn more about our experiences, groups and projects.

# Real-world experience

Work Integrated Learning means as a student you encounter real on-the-job experience. These powerful experiences happen in partnership with industries, communities, and government. It helps you to forge strong relationships that will prepare you not only for future workplaces, but also for life after you graduate.



## Akshata takes her development skills into the workforce

Akshata has been studying the Bachelor of Software Engineering (Hons) and has dreams of becoming a data engineer within the data science and analytics space.

As part of her studies, Akshata decided to complete an end of year project, with a company she selected with help from teaching staff, which was integrated into her degree.

"I decided to undertake Software Engineering as I wanted to work with a company and get that hands-on, practical experience of working in a software team with a client before I step out into the workforce," said Akshata.

"This course not only provides that experience but also prepares students on undertaking an engineering research thesis thus, preparing us for a master's program," she said.

Speaking of her experience, Akshata felt relieved to have had the opportunity to work within a software team prior to working full-time within this space.

"It feels quite satisfying and relieving to have worked in a big software project as it reduces the stress of working in a software team in the workforce," she said.

This experience has better prepared Akshata for the workforce. It's also made her more employable.



"I definitely think undertaking this project gives me a competitive edge over others as this project has given me a lot of insight into how a software team works in the workforce with client defined deliverables and timeline."



For more information about Akshata's Journey.

## Bachelor of Chemical Engineering (Honours)

CRICOS code	111298J
Duration	4 yrs FT
Locations	Newcastle – Callaghan
Indicative annual fee	2024 A\$41,906
IELTS	IELTS overall minimum - 6.0 IELTS section minimum - 6.0
Intake	S1, S2

### Course overview

The University of Newcastle trains engineers capable of solving the greatest global challenges. As a Chemical Engineer, you will apply the fundamental principles of physics and chemistry to analyse and design processes, plants, and control systems for productivity, safety and sustainability.

Chemical Engineering is about designing efficient processes to produce, utilise, transport and transform materials and energy. Chemical engineers work in a vast range of industries, including both large-scale industries such as mineral processing and energy generation, down to the production of consumer products such as food and cosmetics.

Study at one of only three Australian member institutions of the Global Engineering Education Exchange Program (Global e3).

### What you will study

Build critical technical engineering skills in: Build critical technical engineering skills in:

- Fluid mechanics
- Green engineering and sustainability processes
- Heat transfer and design of energy systems
- Kinetics and reaction engineering
- Mass transfer and separation processes
- Thermodynamics

### Practical experience

Students will complete a total of 12 weeks relevant practical experience. The 12 weeks includes 4 weeks undertaken as part of a 10-unit credit bearing course and an additional 8 weeks.

### Professional recognition

Our degree is accredited through Engineers Australia and the Institution of Chemical Engineers (UK), meaning graduates have greater opportunities for international mobility. Successful graduates are also eligible to apply for membership to the Institution of Chemical Engineers.

### Career opportunities/outcomes

Chemical engineers are employed in a wide range of industries. They may be involved in creating products like plastics, fertilisers, consumables and pharmaceuticals. They might also work to develop fields such as environmental control, resource utilisation, minerals processing, renewable energy, waste management and recycling.

Chemical engineering is flexible and diverse. You may prefer hands-on fieldwork, design and development, or a leadership role managing people and projects. Typical positions include:

- Biotechnology Engineer
- Chemical Safety Manager
- Environmental Remediation Engineer
- Mineral Processing Engineer
- Nuclear Engineer
- Water Treatment Designer

Remarkably, engineering is the most commonly held degree among the highest performing Fortune 500 CEOs – the CEOs of companies such as Google, Microsoft, Amazon and Tesla Motors are all engineers.



See the website for more information about this degree.

## Bachelor of Civil Engineering (Honours)

CRICOS code	111301H
Duration	4 yrs FT
Locations	Newcastle – Callaghan Singapore*
Indicative annual fee	2024 A\$41,957
IELTS	IELTS overall minimum - 6.0 IELTS section minimum - 6.0
Intake	S1, S2

### Course overview

Civil engineers are responsible for the physical infrastructure that enables modern societies to function. Buildings, bridges, highways and railways, tunnels, airports, water supply and wastewater capture and treatment facilities, power generation facilities and harbour facilities are all designed, built and managed by civil engineers. With a Bachelor of Civil Engineering (Honours), you could engineer energy efficient buildings, or help develop sustainable and resilient infrastructure in developing countries. You might even design Australia's first high-speed train network to connect communities and reduce carbon emissions. Study at one of only three Australian member institutions of the Global Engineering Education Exchange Program (Global e3).

### What you will study

All of our civil engineering students complete courses in the three core civil specialisations of structural, water and geotechnical engineering, making them highly employable upon graduation.

Become job-ready through four professional practice courses and diversify your skills with an elective pathway. Build critical, technical engineering skills in:

- Civil engineering materials
- Engineering management
- Geomechanics
- Structural engineering
- Transportation engineering
- Water engineering

### Practical experience

Students will complete a total of 12 weeks relevant practical experience. The 12 weeks includes 4 weeks undertaken as part of a 10-unit credit bearing course and an additional 8 weeks.

### Professional recognition

Professional recognition through Engineers Australia and the Washington Accord qualifies you as a professional engineer, meaning graduates have greater opportunities for international mobility.

### Career opportunities/outcomes

Civil engineers work for construction companies, consulting firms, project management companies, transport companies and governments. Civil engineering is flexible and diverse. You might prefer to work onsite, in design and development, or a leadership role managing people and projects.

Some typical positions include:

- Civil Engineering Designer
- Geotechnical Engineer
- Project Manager
- Stormwater Engineer
- Structural Engineer
- Transport Systems Engineer
- Urban Development Engineer

Students have the option for further study with a Master of Professional Engineering.

### Combine this degree with

- Bachelor of Business
- Bachelor of Environmental Engineering (Honours)
- Bachelor of Mathematics
- Bachelor of Surveying (Honours)



See the website for more information about this degree.

\* Please note that there is a separate program code for the Singapore offering of this program. Refer to the website for full details of the Singapore program. For a full list of degrees, combined degree options and programs offering end on honours see pages 14-15.



## Bachelor of Computer Systems Engineering (Honours)

<b>CRICOS code</b>	111305D
<b>Duration</b>	4 yrs FT
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$41,143
<b>IELTS</b>	IELTS overall minimum - 6.0 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

Computer systems engineers use digital and computing technologies to solve problems in industrial systems. As part of a Bachelor of Computer Systems Engineering (Honours) students will learn to combine creativity with technology to develop both hardware and software for electronic and ICT systems. These skills are essential in rapidly growing fields like the Internet of Things, autonomous vehicles, and machine learning.

As part of the program, students will undertake hands-on learning and build their professional networks with 12 weeks of professional practice.

Graduates have a unique skillset and may find themselves developing advanced computing hardware and software for diverse industrial sectors including intelligent transport, e-health, aviation, and civic infrastructure, which are the building blocks of modern society.

### What you will study

Become job ready through four professional practice courses and diversify your skills with an elective pathway.

Build critical technical engineering skills in:

- Communication networks
- Computer and electrical engineering
- Cyber security
- Electronics design
- Embedded systems
- Internet of things
- Programmable logic design
- Software engineering

### Practical experience

Students will complete a total of 12 weeks relevant practical experience. The 12 weeks includes 4 weeks undertaken as part of a 10-unit credit bearing course and an additional 8 weeks.

### Professional recognition

Professional recognition through Engineers Australia, the Australian Computer Society, and the Washington Accord. You will be qualified as a professional engineer who can work almost anywhere in the world.

### Career opportunities/outcomes

Computer systems engineering is flexible and diverse. Graduates might choose to focus on hands-on fieldwork, design and development, or pursue a leadership role managing people and projects.

Some typical positions include:

- Computer Systems Analyst
- Computer Systems Engineer/Specialist
- Cyber Security Engineer
- Electronics Engineer
- Embedded System Developer
- Information and Communications Technologist
- Information Technology Manager
- Network Engineer
- Solutions Architect
- Systems Engineer
- Web/Cloud Computing Developer



See the website for more information about this degree.

## Bachelor of Electrical and Electronic Engineering (Honours)

<b>CRICOS code</b>	111310G
<b>Duration</b>	4 yrs FT
<b>Locations</b>	Newcastle – Callaghan Singapore
<b>Indicative annual fee</b>	2024 A\$41,756
<b>IELTS</b>	IELTS overall minimum - 6.0 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2 – Callaghan T1, T2, T3 – Singapore

### Course overview

Electrical and electronic engineers design and build systems and machines that automate, control, generate, transmit, measure, and use electrical energy essential to modern life. Electrical and electronic technologies are at the heart of our world and our future, including things like alternative energy systems, high speed wireless data communications, electrical transportation systems, micro and nanoelectronics, robotics and automation, and medical technologies. Electrical and electronic engineers work on both the hardware and software (the intelligence) behind the myriad of devices essential to address the needs of modern society. Study at one of only three Australian member institutions of the Global Engineering Education Exchange Program (Global e3).

### What you will study

Build critical technical and engineering skills in:

- Communications systems and the internet of things
- Electric energy systems
- Electric machines, power systems and renewables
- Electrical engineering design
- Procedural programming
- Signals and systems

You will tackle real-world challenges through professional practice courses and diversify your skills with an elective pathway. Advance your career and gain a Master of Professional Engineering in just 1 year on top of your combined engineering degree.

### Practical experience

Students will complete a total of 12 weeks relevant practical experience. The 12 weeks includes 4 weeks undertaken as part of a 10-unit credit bearing course and an additional 8 weeks.

### Professional recognition

Professional recognition through Engineers Australia and the Washington Accord qualifies you as a professional engineer, meaning graduates have greater opportunities for international mobility.

### Career opportunities/outcomes

Electrical engineers are employed in utilities, industry, manufacturing, transportation, consulting services and electronic design and development. You might focus on electronics engineering, automation and control engineering, robotic engineering or power generation and distribution.

Some typical positions include:

- Automatic Systems Designer
- Biomedical Instrumentation Designer
- Electrical Design Engineer
- Embedded System Designer
- Renewable Energy Systems Engineer
- Robotics Engineer
- Telecommunications Equipment Engineer



See the website for more information about this degree.

## Bachelor of Environmental Engineering (Honours)

<b>CRICOS code</b>	111338F
<b>Duration</b>	4 yrs FT
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$42,235
<b>IELTS</b>	IELTS overall minimum - 6.0 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

As an environmental engineer you may help rehabilitate land impacted by mining or work on the clean-up of an oil spill that threatens ecosystems. You could even help prevent flooding of some of the world's fast-growing cities. Environmental engineers apply their knowledge of chemistry, geomechanics, hydrology and land surface processes to find solutions to complex environmental problems. Study at one of only three Australian member institutions of the Global Engineering Education Exchange Program (Global e3).

### What you will study

Build critical technical and engineering skills in:

- Environmental chemistry
- Environmental legislation and planning
- Fluid mechanics
- Hydrobiological modelling
- Land surface process and management
- Water engineering

### Practical experience

Students will complete a total of 12 weeks relevant practical experience. The 12 weeks includes 4 weeks undertaken as part of a 10-unit credit bearing course and an additional 8 weeks.

### Professional recognition

Professional recognition through Engineers Australia and the Washington Accord qualifies you as a professional engineer, meaning graduates have greater opportunities for international mobility.

### Career opportunities/outcomes

Environmental engineering is flexible and diverse. You may prefer hands-on fieldwork, design and development, or a leadership role managing people and projects. You may find work with consultancies, contracting firms, research and development organisations, and government bodies.

Some typical positions include:

- Climate Change Impact Consultant
- Environmental Impact Consultant
- Environmental Remediation Engineer
- Sustainable Fisheries Consultant
- Toxic Materials Control Engineer
- Water Reclamation Project Designer

### Combine this degree with

- Bachelor of Civil Engineering (Honours)
- Bachelor of Science



See the website for more information about this degree.

## Bachelor of Mechanical Engineering (Honours)

<b>CRICOS code</b>	111339E
<b>Duration</b>	4 yrs FT
<b>Locations</b>	Newcastle – Callaghan Singapore
<b>Indicative annual fee</b>	2024 \$41,839
<b>IELTS</b>	IELTS overall minimum - 6.0 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2 – Callaghan T1, T2, T3 – Singapore

### Course overview

Mechanical engineers design, manufacture and optimise specialist machines and processes. They solve important problems using robotics, new advanced materials, the fundamental laws of energy generation and transmission and the computer control of physical systems. They work on everything from power plants to air conditioners, aircraft engines and racecars. Study at one of only three Australian member institutions of the Global Engineering Education Exchange Program (Global e3).

### What you will study

Mechanical engineering is the broadest of all engineering disciplines. Build critical technical and engineering skills in:

- Advanced materials and manufacturing
- Bulk solids handling
- Computer-aided engineering, CAD modelling and drawing
- Design and prototyping of machines and systems
- Fluid dynamics
- Fundamental mathematics and physics
- Mechanics of materials, structures and machinery
- Thermodynamics

### Practical experience

Students will complete a total of 12 weeks relevant practical experience. The 12 weeks includes 4 weeks undertaken as part of a 10-unit credit bearing course and an additional 8 weeks.

### Professional recognition

Professional recognition through Engineers Australia and the Washington Accord qualifies you as a professional engineer, meaning graduates have greater opportunities for international mobility.

### Career opportunities/outcomes

Mechanical engineers work in medical, transport, aerospace, electronics, mining, renewable energy, robotics, automation and advanced manufacturing industries.

Some typical positions include:

- Engineering Project Manager
- Mechanical Engineering Designer
- Mechanical Systems Supervisor
- Mechanical Technology Engineer
- Operating Plant Manager



See the website for more information about this degree.

## Bachelor of Mechatronics Engineering (Honours)

<b>CRICOS code</b>	111375A
<b>Duration</b>	4 yrs FT
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$41,705
<b>IELTS</b>	IELTS overall minimum - 6.0 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

The Bachelor of Mechatronics Engineering (Honours) focuses on the synergy of electrical, computer and mechanical technologies that lead to new solutions to industrial problems. You might build robots or unmanned aircraft, design bionic implants or even energy harvesting equipment. Mechatronics engineers are involved in the technical design, automation and operational performance of electromechanical systems. Study at one of only three Australian member institutions of the Global Engineering Education Exchange Program (Global e3).

### What you will study

Gain essential workplace skills with professional practice courses and build critical technical and engineering skills in:

- Autonomous systems
- Computer-integrated manufacturing
- Electronic design
- Mechatronics design
- Microprocessor systems
- Modelling and simulation
- Sensors and actuators

### Practical experience

Students will complete a total of 12 weeks relevant practical experience. The 12 weeks includes 4 weeks undertaken as part of a 10-unit credit bearing course and an additional 8 weeks.

### Professional recognition

Professional recognition through Engineers Australia and the Washington Accord qualifies you as a professional engineer, meaning graduates have greater opportunities for international mobility.

### Career opportunities/outcomes

Mechatronic engineers play an essential role in a growing number of fields. They might take up careers in robotics, aerospace, chemical, defence, automotive, marine, manufacturing, mining or finance industries.

Some typical positions include:

- Avionics Engineer
- Data Communications Engineer
- Industrial Automation Engineer
- Robotics Designer
- Smart Infrastructure Designer

Complete one extra year of study and broaden your options with the Master of Professional Engineering.



See the website for more information about this degree.

## Bachelor of Medical Engineering (Honours)

<b>CRICOS code</b>	111378J
<b>Duration</b>	4 yrs FT
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$41,658
<b>IELTS</b>	IELTS overall minimum - 6.0 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

Medical engineering is a new and exciting engineering discipline, spanning medicine, biomedical science and engineering. Medical engineers seek to improve human health through the development and design of equipment, devices, computer systems and software. We offer the only medical engineering degree in NSW, so our graduates are uniquely placed to improve lives both locally and around the world. Study at one of only three Australian member institutions of the Global Engineering Education Exchange Program (Global e3).

### What you will study

Build critical medical and engineering skills through courses in:

- Analog and digital communications
- Electrical engineering design
- Electronics design
- Fluid mechanics
- Human pathophysiology
- Neurobiology
- Pharmacology
- Programming and computing

Choose one of the following majors:

- Biomechanics
- Medical Devices

### Practical experience

Students will complete a total of 12 weeks relevant practical experience. The 12 weeks includes 4 weeks undertaken as part of a 10-unit credit bearing course and an additional 8 weeks.

### Career opportunities/outcomes

Medical engineers are involved with the design, development, testing and implementation of technological solutions for the health and medicine industry. You could work with:

- Artificial organs
- Biomedical devices
- Diagnostic equipment
- Dialysis equipment
- Implantable devices
- Nanotechnology drug delivery
- Prosthetic limbs
- Radiotherapy equipment
- Rehabilitation systems
- Respirators and ventilators
- Surgical equipment
- Systems and diagnostic tests

Medical engineers work in hospitals, medical institutions, health-related manufacturing and technology companies, pharmaceutical companies, and research organisations. Emerging technologies and engineering applications are leading to global growth in demand for biomedical engineers.



See the website for more information about this degree.

## Bachelor of Renewable Energy Engineering (Honours)

<b>CRICOS code</b>	111379H
<b>Duration</b>	4 yrs FT
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$41,839
<b>IELTS</b>	IELTS overall minimum - 6.0 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

Spanning the disciplines of chemical, electrical and mechanical engineering, this degree will equip you to work across the whole spectrum of technologies for renewable energy capture, conversion, storage, delivery and management. You'll also choose courses in related areas of climate change policy, law and economics and environmental sciences. Study at one of only three Australian member institutions of the Global Engineering Education Exchange Program (Global e3).

### What you will study

Build critical technical engineering skills in:

- Bioenergy
- Energy storage systems
- Geothermal, hydro, ocean and hybrid systems
- Power electronics and renewable energy systems
- Solar and wind

Become job-ready through four professional practice courses and diversify your skills with an elective pathway.

### Practical experience

Students will complete a total of 12 weeks relevant practical experience. The 12 weeks includes 4 weeks undertaken as part of a 10-unit credit bearing course and an additional 8 weeks.

### Professional recognition

This program has been granted provisional accreditation through Engineers Australia.

### Career opportunities/outcomes

A significant number of highly qualified engineers with specialties in renewable energy are required worldwide in order to meet global commitments to tackle climate change.

This has driven government and organisations to seek highly trained engineers with expertise in the multidisciplinary field of renewable energy to evaluate, design, operate and optimise renewable energy systems for power generation.

Typical jobs include:

- Energy Accounting/ Auditing
- Energy Management Consultant
- Energy Policy Development Officer
- Renewable Energy Engineer
- Renewable Energy Innovation
- Renewable Energy Systems Design



See the website for more information about this degree.

## Bachelor of Software Engineering (Honours)

<b>CRICOS code</b>	111380D
<b>Duration</b>	4 yrs FT
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$40,232
<b>IELTS</b>	IELTS overall minimum - 6.0 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

Software engineering is behind much of the everyday technology we take for granted – from our iPads, computer software and mobile phones through to digital televisions, computer games and online banking. With the Bachelor of Software Engineering (Honours), you might develop software for digital forensics analysis to help fight crime, or work in defence and combat cyber-attacks. Software engineers focus on analysing a client's needs. You will learn to design the best software architecture solutions, as well as coordinating implementation, integration and testing.

### What you will study

Build critical technical and engineering skills in:

- Database management systems
- Enterprise software architecture
- Formal languages and automata
- Professional engineering principles and practices
- Programming languages and paradigms
- Software architecture and quality management
- Software development
- Web engineering

### Practical experience

Students will complete a total of 12 weeks relevant practical experience. The 12 weeks includes 4 weeks undertaken as part of a 10-unit credit bearing course and an additional 8 weeks.

### Professional recognition

Professional recognition through Engineers Australia and the Australian Computer Society means graduates will be qualified as professional engineers.

### Career opportunities/outcomes

Software engineers play a vital role in a wide range of industries such as defence and security, aerospace, computer games and entertainment as well as government and commerce.

Some typical positions include:

- Applications Software Developer
- Information System Manager
- Internet and Web Engineer
- Software Development Manager
- Software Engineer
- System Analyst and Designer



See the website for more information about this degree.

## Bachelor of Surveying (Honours)

<b>CRICOS code</b>	111381C
<b>Duration</b>	4 yrs FT
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$41,720
<b>IELTS</b>	IELTS overall minimum - 6.0 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

This degree is designed to produce educated surveyors capable of meeting the biggest global surveying and town planning challenges. Surveyors specialise in the measurement, management, analysis and display of spatial information describing the earth and its physical features. You could be involved in the preparation for building of a new tunnel, mapping of flood areas for disaster preparedness, designing a new township/land development, predicting earthquakes or surveying of the ocean floor.

### What you will study

Build critical technical and surveying skills in:

- Cadastral surveying
- Geodesy
- Hydrology and water engineering
- Industrial Surveying
- Land and mining surveying
- Legal systems and processes
- Modern techniques and computations
- Photogrammetry and laser scanning
- Satellite positioning
- Spatial data systems and remote sensing
- Town planning

### Practical experience

Students will complete a total of 12 weeks relevant practical experience. The 12 weeks includes 4 weeks undertaken as part of a 10-unit credit bearing course and an additional 8 weeks.

### Professional recognition

This program is accredited by the Council of Reciprocating Surveyors Boards of Australia and New Zealand and accepted by the Board of Surveying and Spatial Information of NSW as a qualification for registration. This program is accredited and by the Land Surveyors Board of Malaysia, and the Singapore Institute of Surveyors and Valuers (Land Surveying Division).

### Career opportunities/outcomes

You may prefer hands-on fieldwork, office-based computation and computer drafting, research, or a leadership role.

Typical positions include:

- Engineering Surveyor
- Geodesist
- Geographic Information Systems Specialist
- Geospatial Specialist
- Hydrographic Surveyor
- Mining Surveyor
- Photogrammetrist
- Registered Land Surveyor
- Town Planning



See the website for more information about this degree.

## Master of Materials Science and Engineering

<b>CRICOS code</b>	0100265
<b>Duration</b>	2 yrs FT Accelerated options available
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$45,840
<b>IELTS</b>	IELTS overall minimum - 6.5 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

With a focus on the fast-growing field of advanced nanomaterials, you will learn how the processing of a material influences its structure, properties and performance. Delivered through the Global Innovative Centre for Advanced Nanomaterials (GICAN) and in collaboration with industry partner CSIRO, the Master of Materials Science and Engineering will prepare you to meet the global demand of this growing industry. You could work in fields like education, medicine, information technology, energy and environmental technologies, and space science.

### What you will study

This unique program focuses on the expanding field of advanced nanomaterials for use in energy, environment, biology and life science industries.

Through this program you will deepen your skills in:

- Batteries and supercapacitors
- Biomaterials
- Bioplastics and environmental science
- Carbon capture and conversion technologies
- Drug delivery
- Functional materials
- Hydrogen generation and storage technologies
- Nanomaterials
- Photovoltaics
- Sensors
- Soft materials
- Useful metal alloys

### Practical experience

Students have the opportunity to engage with industry sponsored projects at the GICAN Centre. They also have opportunities to meet industry managers and CEOs and gain insights through industry visits.

### Career opportunities/outcomes

Materials science and engineering expertise is in high demand. Career examples include:

- Clean Energy Specialist
- Environmental Scientist
- Forensic Scientist
- Formulation Chemist
- Industrial Chemist
- Laboratory Technician
- Market Researcher/Analyst
- Materials Scientist
- Metallurgist
- Net Zero Specialist
- Product Analyst/Developer
- Quality Assurance Specialist
- Research Officer



See the website for more information about this degree.

## Master of Professional Engineering (Civil)

<b>CRICOS code</b>	098283G
<b>Duration</b>	3 yrs FT Accelerated options available
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$44,233
<b>IELTS</b>	IELTS overall minimum - 6.5 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

The Master of Professional Engineering (Civil) is a flexible degree that will allow you to fast-track your career in civil engineering. This degree will help you develop the strategic and technical skills required to help build the physical infrastructure that enables our societies to thrive and grow. If you have a background in a related area, such as science or mathematics, the three-year MPE provides an opportunity to gain a professionally recognised qualification in engineering. For those with an engineering degree, you can apply for credit and take this program in accelerated mode (1-2 years) to gain professional recognition in Australia and advance your career.

### What you will study

You will deepen your skills through advanced civil engineering courses in areas such as:

- Geotechnical and geo-environmental engineering
- Hydrology and water engineering
- Land surface process and management
- Structural engineering design
- Transportation

Plus, you can broaden your skill base with complementary courses in management, disaster preparedness, business and the environment and entrepreneurship and innovation.

You will also complete a year-long advanced civil engineering project.

### Practical experience

Students in the 2 year and 3 year programs will undertake 12 weeks of industrial experience.

### Professional recognition

The 2-year and 3-year programs have been granted provisional accreditation through Engineers Australia.

### Career opportunities/outcomes

Civil engineers work for:

- Construction companies
- Consulting firms
- Governments
- Transport companies

Civil Engineering is one of the most in-demand qualifications in the world, with many countries desperate to fill this skills shortage. A Master of Professional Engineering can empower you to take on a leadership role, start your own business or manage major engineering projects.



See the website for more information about this degree.

## Master of Professional Engineering (Electrical and Electronic)

<b>CRICOS code</b>	098284F
<b>Duration</b>	3 yrs FT Accelerated options available
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$45,567
<b>IELTS</b>	IELTS overall minimum - 6.5 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

This program will help you develop management expertise, specialize and deepen your technical skills and be equipped to lead projects and move into more senior roles. Gain advanced capabilities in emerging electrical engineering technologies, which are currently transforming modern society. If you have a background in a related area, such as science or mathematics, the three-year MPE provides an opportunity to gain a professionally recognised qualification in engineering. For those with an engineering degree, you can apply for credit and take this program in accelerated mode (1-2 years) to gain professional recognition in Australia and advance your career.

### What you will study

You will have the opportunity to diversify your engineering expertise with courses in specialised areas including:

- Advanced telecommunication
- Control systems design and automation
- Digital and electronic design
- Electric drives and highly efficient power utilisation
- Power electronics
- Renewable energy integration

Plus, you can choose a major project that's focused on design or research.

### Practical experience

Students in the 2-year and 3-year programs will undertake 12 weeks of industrial experience.

### Professional recognition

The 2-year and 3-year programs have been granted provisional accreditation with Engineers Australia.

### Career opportunities/outcomes

Electrical engineers are employed in:

- Automotive industry and transport
- Control instruments and automation
- Electronic design and development
- IT and telecommunications
- Management and consulting
- Manufacturing and construction
- Power and utilities

Electrical engineering is one of the most in-demand qualifications in the world. A Master of Professional Engineering will open up diverse career opportunities, empowering you to take on a leadership role, start your own business or manage major projects.



See the website for more information about this degree.

## Master of Professional Engineering (Geospatial Engineering and Surveying)

<b>CRICOS code</b>	092850G
<b>Duration</b>	2 yrs FT Accelerated options available
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$44,444
<b>IELTS</b>	IELTS overall minimum - 6.5 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

If you are looking to launch or advance your career in the field of surveying and spatial information, this program will help you develop management expertise, specialize and deepen your technical skills and be equipped to lead projects and move into more senior roles. You will be educated with the courses in general engineering management and the specialized courses with advanced technology including Geographic Information System (GIS), Global Navigation Satellite System (GNSS) aka GPS, laser scanning and LiDAR, and photogrammetry on the ground, airborne and satellite platforms, applied to problems in natural and built environments. The students will have an opportunity to work on their research theses under direct supervision of academics and researchers in their chosen fields.

### What you will study

You will be educated with the courses in general engineering management and the specialised courses with advanced technology including:

- Airborne and satellite platforms, applied to problems in natural and built environments
- Global navigation satellite system (GNSS) aka GPS
- Laser scanning and LiDAR
- Photogrammetry on the ground

### Practical experience

Students in the 2-year program will undertake 12 weeks of industrial experience.

### Career opportunities/outcomes

Geospatial engineers work on different projects across a number of different environments, including industries like:

- Construction
- Environmental management and transportation
- Geodesy and space (defense) research
- Land surveying
- Mining surveying
- Remote sensing

Surveying and geospatial engineering continues to be one of the most in-demand qualifications in the world, with many countries needing to fill a shortage of professional skills in this field.



See the website for more information about this degree.

## Master of Professional Engineering (Mechanical)

<b>CRICOS code</b>	098285E
<b>Duration</b>	3 yrs FT Accelerated options available
<b>Locations</b>	Newcastle – Callaghan
<b>Indicative annual fee</b>	2024 A\$44,940
<b>IELTS</b>	IELTS overall minimum - 6.5 IELTS section minimum - 6.0
<b>Intake</b>	S1, S2

### Course overview

Fast-track or diversify your career with this degree. Specialise your technical skills and develop the professional attributes to provide innovative solutions to society's needs. You will gain project management and complex problem-solving skills and learn how to apply design thinking and systems engineering principles. If you have a background in a related area, such as science or mathematics, the three-year MPE provides an opportunity to gain a professionally recognised qualification in engineering. For those with an engineering degree, you can apply for credit and take this program in accelerated mode (1-2 years) to gain professional recognition in Australia and advance your career.

### What you will study

Take advanced mechanical engineering courses in:

- Bulk materials handling and transport
- Computer aided engineering and manufacturing
- Dynamics of machines
- Engineering computations
- Engineering economic analysis
- Fluid mechanics
- Materials science and engineering
- Mechanical engineering design
- Mechanics of solids and heat transfer
- Renewable energy conversion

Plus, you can choose a major project that's focused on either design or research.

### Practical experience

Students in the 2-year and 3-year programs will undertake 12 weeks of industrial experience.

### Professional recognition

The 2-year and 3-year programs have been granted provisional accreditation with Engineers Australia.

### Career opportunities/outcomes

Mechanical engineers are need in industries such as: medical, transport, automotive, aerospace, electronics, and mining industries, and in growth sectors like renewable energy, robotics, automation and advanced manufacturing.



See the website for more information about this degree.

	CRICOS	Duration (Years, semesters or trimesters)	Location	Intakes	IELTS Overall Minimum/ Section Minimum	2024 indicative annual fee A\$ <sup>e</sup>
<b>Undergraduate</b>						
Bachelor of Chemical Engineering (Honours)	111298J	4	N	S1, S2	6.0/6.0	\$41,906
Bachelor of Chemical Engineering (Honours)/ Bachelor of Business	111299H	5	N	S1	6.0/6.0	\$39,835
Bachelor of Chemical Engineering (Honours)/ Bachelor of Mathematics	111300J	5	N	S1	6.0/6.0	\$40,510
Bachelor of Civil Engineering (Honours)	111301H	4	N SG	S1, S2 S2	6.0/6.0	\$41,957
Bachelor of Civil Engineering (Honours)/ Bachelor of Business	111462B	5	N	S1	6.0/6.0	\$39,676
Bachelor of Civil Engineering (Honours)/ Bachelor of Environmental Engineering (Honours)	111302G	5	N	S1	6.0/6.0	\$42,281
Bachelor of Civil Engineering (Honours)/ Bachelor of Mathematics	111303F	5	N	S1	6.0/6.0	\$40,582
Bachelor of Civil Engineering (Honours)/ Bachelor of Surveying (Honours)	111304E	5	N	S1	6.0/6.0	\$41,813
Bachelor of Computer Systems Engineering (Honours)	111305D	4	N	S1, S2	6.0/6.0	\$41,143
Bachelor of Computer Systems Engineering (Honours)/ Bachelor of Computer Science	111306C	5	N	S1	6.0/6.0	\$40,556
Bachelor of Computer Systems Engineering (Honours)/ Bachelor of Mathematics	111307B	5	N	S1	6.0/6.0	\$40,165
Bachelor of Electrical and Electronic Engineering (Honours)	111310G	4	N SG	S1, S2 T1, T2, T3	6.0/6.0	\$41,756
Bachelor of Electrical and Electronic Engineering (Honours)/ Bachelor of Business	111332A	5	N	S1	6.0/6.0	\$39,588
Bachelor of Electrical and Electronic Engineering (Honours)/Bachelor of Computer Systems Engineering (Honours)	111309M	5	N	S1	6.0/6.0	\$41,411
Bachelor of Electrical and Electronic Engineering (Honours)/Bachelor of Mathematics	111333M	5	N	S1	6.0/6.0	\$40,639
Bachelor of Environmental Engineering (Honours)	111338F	4	N	S1, S2	6.0/6.0	\$42,235
Bachelor of Mechanical Engineering (Honours) <sup>^</sup>	111339E	4	N SG	S1, S2 T1, T2, T3	6.0/6.0	\$41,669
Bachelor of Mechanical Engineering (Honours)/ Bachelor of Business	111371E	5	N	S1, S2	6.0/6.0	\$39,676
Bachelor of Mechanical Engineering (Honours)/ Bachelor of Mathematics	111373C	5	N	S1	6.0/6.0	\$40,345
Bachelor of Mechanical Engineering (Honours)/ Bachelor of Mechatronics Engineering (Honours)	111374B	5	N	S1	6.0/6.0	\$41,828
Bachelor of Mechatronics Engineering (Honours)	111375A	4	N	S1, S2	6.0/6.0	\$41,705

**KEY FOR LOCATIONS**

**N** Newcastle – Callaghan  
**SG** Singapore

**KEY FOR INTAKES**

**S1** Semester 1  
**S2** Semester 2

**T1** Trimester 1  
**T2** Trimester 2  
**T3** Trimester 3

	CRICOS	Duration (Years, semesters or trimesters)	Location	Intakes	IELTS Overall Minimum/ Section Minimum	2024 indicative annual fee A\$ <sup>^</sup>
Bachelor of Mechatronics Engineering (Honours)/ Bachelor of Electrical and Electronic Engineering (Honours)	111376M	5	N	S1	6.0/6.0	\$41,813
Bachelor of Mechatronics Engineering (Honours)/ Bachelor of Mathematics	111377K	5	N	S1	6.0/6.0	\$40,592
Bachelor of Medical Engineering (Honours)	111378J	4	N	S1, S2	6.0/6.0	\$41,658
Bachelor of Renewable Energy Engineering (Honours)	111379H	4	N	S1, S2	6.0/6.0	\$41,839
Bachelor of Software Engineering (Honours)	111380D	4	N	S1, S2	6.0/6.0	\$40,232
Bachelor of Surveying (Honours)	111381C	4	N	S1, S2	6.0/6.0	\$41,720
Bachelor of Surveying (Honours)/Bachelor of Business	111382B	5	N	S1	6.0/6.0	\$39,686
<b>Postgraduate</b>						
Master of Materials Science and Engineering	0100265	4 semesters	N	S1, S2	6.5/6.0	\$45,840
Master of Professional Engineering (Civil) <sup>a</sup>	098283G	6 semesters	N	S1, S2	6.5/6.0	\$44,233
Master of Professional Engineering (Electrical and Electronic) <sup>a</sup>	098284F	6 semesters	N	S1, S2	6.5/6.0	\$45,567
Master of Professional Engineering (Geospatial Engineering and Surveying) <sup>a</sup>	092850G	4 semesters	N	S1, S2	6.5/6.0	\$44,444
Master of Professional Engineering (Mechanical) <sup>a</sup>	098285E	6 semesters	N	S1, S2	6.5/6.0	\$44,939

**KEY FOR LOCATIONS**

**N** Newcastle – Callaghan  
**SG** Singapore

**KEY FOR INTAKES**

**S1** Semester 1  
**S2** Semester 2

**T1** Trimester 1  
**T2** Trimester 2  
**T3** Trimester 3

# International Scholarships

Worried about the cost of studying in Australia? The University of Newcastle is one of the more affordable options for study in Australia. We also offer a range of scholarship opportunities for international students studying undergraduate and postgraduate degrees. Scholarships are valued up to A\$75,000, depending on the length of study and chosen degree, and can greatly reduce the cost of tuition and other study-related expenses.



For more information about scholarships.



**Cheena, India**  
International Scholar, 2019  
Bachelor of Computer Systems Engineering (Honours)

## ASEAN Excellence Scholarship

This merit-based scholarship of up to A\$50,000, recognises applicants from Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Singapore, Thailand, The Philippines and Vietnam, with a strong academic background. Scholarships of A\$10,000 per year of study, under full-time study load, are automatically awarded.

## Onshore Excellence Scholarship

Scholarships of A\$10,000 per year of study, under full-time study load, are based on merit and are automatically awarded to eligible students. The scholarship pays up to A\$50,000.

## South Asia Excellence Scholarship

This merit-based scholarship of up to A\$50,000 recognises applicants from Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka, with strong academic backgrounds. Scholarships of A\$10,000 per year of study, under full-time study load, are automatically awarded.





# Get career ready

## Career Support

The University offers free support to all students and graduates. From helping you gain part-time work while you study to clarifying your longer-term goals, or connecting with industry.

Through the Careers Service, you can access:

- The Make a World of Difference program which is designed to help international students navigate and understand the Australian workplace
- One-on-one appointments with staff to get advice and help with career planning, job search strategies, job applications, and interviews
- CareerHub, an online platform where you can search current job vacancies, events, and access resources and support for careers-related topics.



Find out more about career support.

## Access Additional Post-Study Work Opportunities

The Australian Government allows students who meet the study and skills criteria to stay temporarily in Australia after they complete their studies to gain valuable work experience in Australia. To promote in-demand industries and living and working in regional areas, students who choose to study with us may be eligible to stay up to 7 years depending on the chosen degree, level of Australian study qualification and location<sup>1</sup>.



Find out more about Post-Study Work Opportunities.

## Work Integrated Learning (WIL)

The best way to learn the practical skills required after graduation is to apply your theoretical knowledge in real-world environments. Work Integrated Learning (WIL) is also often referred to as practicum, placement, internship, project-based learning, simulation activities and fieldwork. Through WIL, you will gain hands-on knowledge in your field of expertise, have the opportunity to engage with industry partners and build your professional networks.



Find out more about WIL.

## Career Connect

Career Connect is the University wide program that allows you to build your employability skills outside the classroom. Developing these skills will prepare you for your transition into the workforce and the confidence you need to connect with future employees.



Find out more about Career Connect.

## Employment Exhibitions and Industry Days

Employment Exhibitions and Industry Days are the perfect opportunity to speak directly with employers and learn more about your future industry and career options. From the first to final year of study, it is always the right time to connect, network and learn more about the world of careers and employment.



Find out more about Employment Expos and Industry Days.

## Work While Studying

One of the many advantages of studying in Australia is that international students can work part-time to earn an income while studying. Regardless of whether it is relevant to your studies, these opportunities help build your employability skills.

Retail, Hospitality and Tourism, Health Care and Social Assistance and Manufacturing and Construction are some of the major industries in Newcastle offering part-time work opportunities. The University and Study NSW help to connect students to these opportunities.



Find out more about part-time work opportunities.

# Newcastle and Hunter Region Employment Opportunities

## Newcastle and Hunter Region Snapshot<sup>1</sup>



Largest regional economy in Australia with output of \$129.541 billion, ranking above Tasmania, the Northern Territory and the Australian Capital Territory.



Home to four world-class research institutions including the University of Newcastle, Hunter Medical Research Institute (HMRI), Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Newcastle Institution for Energy & Resources (NIER).



Population of over 770,000 and expected to grow by 25% over the next 20 years.



By 2036 over 70,000 more homes are planned for the region (reference Hunter Regional Plan 2036).



Over 300,000 jobs in the region currently with 65,000 new jobs by 2036.



Access to national and international markets through the global gateways of Newcastle Airport and the Port of Newcastle.



Health and education are two of the largest sectors in our region's economy. They are also two of the fastest-growing sectors, with the number of jobs projected to increase from 63,000 to 73,000, representing 21 per cent of the workforce by 2036.



Major industries include Health Care and Social Assistance, Education and Training, Retail Trade, Manufacturing and Construction (Engineering), Tourism and Professional, Scientific and Technical Services.

## Future growth and development for the region<sup>1</sup>

- Development of advanced manufacturing, defence, and aerospace hubs.
- Diversification and growth in the energy sector to more energy efficient and renewable energy technologies.
- With its energy industries and research base, the Hunter region has the potential to be a major hub for next-generation power.
- The Hunter region is an energy, research, and innovation powerhouse, with the complimentary infrastructure and industrial expertise to accelerate renewable hydrogen generation, storage, and use. The development of a hydrogen economy in the region is set to provide significant economic benefits including employment and industry growth.<sup>2</sup>
- The broader Hunter provides world-class research into agricultural productivity, renewable energy, and mining services. A skilled science, technology and engineering workforce is engaged in advanced manufacturing, mining, and digital technologies.<sup>3</sup>

- Enhancement of regional linkages to support economic growth through improved transport corridors and freight facilities.

The Regional Strategic Growth areas include:

- Advanced manufacturing
- Creative industries
- Defence and aerospace
- Food and agribusiness
- Medical technology and pharmaceuticals
- Mining equipment, technology, and services
- Renewable energy

The region continues to recognise that modern technology and communications are essential to removing barriers and opening opportunities to join the bigger markets through high-tech, creative, and knowledge-based industries.

# How to apply

It is recommended you submit your application a minimum of 12 weeks before your intended semester or trimester start date. Late applications may be considered for the next available intake\*.

## Find an agent in your country

Our agents have the expertise to assist you in streamlining your application to the University of Newcastle, and applying for a visa from the Australian Government Department of Home Affairs.

You should ensure that your agent is contracted to the University of Newcastle to avoid delays with your application.



Find a list of contracted education agents in your country.

## Apply online

International applicants are able to apply through our International Application System. Once you have started your online application form you will be provided with a reference number. Should you have any questions you can contact International Admissions with your reference number.



Apply online.

## What you will need

As part of your application you will need to provide scanned coloured original **or** certified copies of original documents:

- Academic Transcripts
- Completion Certificates
- Evidence of English Proficiency
- Passport Biometric page

For programs requiring work experience, a CV/resume and/or letters of work experience are recommended.

You are able to have your documents certified by:

- A registered Notary Public
- A registered Justice of the Peace
- Any Australian Education Centre
- An authorised officer of an Australian diplomatic mission or
- A University of Newcastle contracted agent you have nominated as your representative.

**Please note:** if your documents are not in English you will need to provide certified English translations.



More information on how to apply on the University's website.

## Compare study options

With so many study options to choose from, we know it can be hard to choose the right degree. Our website offers a degree comparison tool so that you can favourite and compare degrees that you are interested in. Plus, you can download your very own personalised degree guide.



Add degrees to your wishlist and compare.

 [newcastle.edu.au/international](https://newcastle.edu.au/international)

 [newcastle.edu.au/south-asia](https://newcastle.edu.au/south-asia)

 [china.newcastle.edu.au](https://china.newcastle.edu.au)

 +61 2 4913 8300

 1300 275 866 (inside Australia)



### **Newcastle Campus**

#### **Callaghan**

University Drive,  
Callaghan NSW 2308

### **Sydney Campus**

55 Elizabeth Street,  
Sydney NSW 2000

### **Newcastle City Campus**

#### **NUspace**

Corner Hunter and Auckland  
Streets,  
Newcastle NSW 2300

### **Singapore Campus**

6 Temasek Boulevard,  
#10-02/03, Suntec Tower 4,  
Singapore 038986

### **Central Coast Campus**

#### **Ourimbah**

Chittaway Road,  
Ourimbah NSW 2258



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