

Engineering & Construction Careers

A guide to careers in Engineering & Construction



University of
South Australia

CIVIL ENGINEERING

- > Learn to develop infrastructure such as bridges, buildings, airports, roads, railways and water systems
- > Become equipped to work creatively and sustainably in the design, construction and maintenance of critical infrastructure
- > Learn in industry-standard specialist facilities and use high-tech testing and computer-modelling equipment



Principal Civil Engineer
Greenhill Engineers
Cindy Oliver

"You're provided the foundation needed to become an engineer and once you're working, everything makes sense as you can apply your skills to real situations.

You can go anywhere with civil engineering because it's such a broad area of practice - it's really unlimited."

CONSTRUCTION MANAGEMENT

- > Focus on developing low-rise and high-rise residential and light commercial buildings
- > Graduate with a degree professionally endorsed by the Australian Institute of Building Surveyors
- > Learn through practical experience gained from real-world projects



Cadet Contract Administrator
FDC Construction and Fitout
Fred Simbor

"I have always admired buildings and how they can be the identity of a town, city or country.

I enjoyed the flexibility of studying at UniSA - you're able to study at home or on campus."

MECHANICAL ENGINEERING

- > Learn the latest industry developments in mechanical system design, manufacturing technologies and sustainable energy
- > Build and design solutions that use mechanised power, machinery and tools
- > Access industry-standard facilities, including the Sustainable Energy Systems and Industry 4.0 Robotics and Machine Vision Lab



Senior Maritime Consultant
Bastion Defence Consulting
Bradley Toole

"My UniSA degree has been essential to get me to where I am today.

The hands-on approach and skills-based learning was particularly beneficial when applied to real world engineering issues."

ELECTRICAL ENGINEERING

- > Focus on design, development and optimisation of electrical and electronic devices, equipment, technology and systems
- > Learn about electrical generation systems, including renewable energy sources and electric and autonomous vehicles
- > Prepare for Industry 4.0 using cutting-edge software platforms and collaborative digital environments



Technical Lead
Telstra
Michelle Howie

"UniSA's engineering programs have a reputation as being more balanced, with appropriate emphasis on developing real-world skills.

UniSA taught me attributes that are ultimately what an employer seeks - not just technical knowledge."

WHERE CAN MY DEGREE TAKE ME?



Science, technology, engineering and mathematics (STEM) knowledge is associated with 75% of the fastest growing occupations, innovations and wage premiums.

CSIRO, Tomorrow's Digitally Enabled Workforce report, 2016.



Employment in the construction industry is predicted to grow by 10%, reflecting solid infrastructure investment.

Australian Government Department of Employment, Skills, Small and Family Business, Projections to 2023.



By 2049-50, it is expected that approximately 51% of Australia's electricity generation will be from renewable sources.

CSIRO, Enabling Australia's Digital Future: cyber security trends and implications report, 2018



BACHELOR OF ENGINEERING (HONOURS) (CIVIL)

CHOOSE FROM MAJORS INCLUDING:

- > Business innovation
- > Construction management
- > Structural engineering
- > Surveying

CAREER OPPORTUNITIES:

- > Civil engineer
- > Geotechnical engineer
- > Water resources engineer
- > Environmental engineer
- > Engineer consultant
- > Project engineer
- > Transport engineer
- > Structural engineer
- > Project coordinator

YOU COULD:

- > Fast track your studies and complete an engineering master degree in one extra year or pair your degree with a business degree gaining two qualifications in one extra year



BACHELOR OF CONSTRUCTION MANAGEMENT (HONOURS)

CHOOSE FROM SPECIALISATIONS INCLUDING:

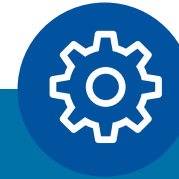
- > Quantity surveying
- > Building surveying
- > Construction management

CAREER OPPORTUNITIES:

- > Construction manager
- > Capital works manager
- > Operations manager
- > Quantity surveyor
- > Building surveyor
- > Project manager
- > Site supervisor
- > Estimator
- > Construction planner

YOU COULD:

- > Study this degree 100% online with UniSA Online



BACHELOR OF ENGINEERING (HONOURS) (MECHANICAL)

CHOOSE FROM MAJORS INCLUDING:

- > Energy systems
- > Engineering management
- > Mechanical design

CAREER OPPORTUNITIES:

- > Mechanical engineer
- > Industrial engineer
- > Mechanical design engineer
- > Maintenance engineer
- > Hydraulics engineer
- > Energy system engineer
- > Product development manager
- > Entrepreneur
- > Project coordinator

YOU COULD:

- > Pair your engineering degree with a business degree to gain two qualifications in just one extra year



BACHELOR OF ENGINEERING (HONOURS) (ELECTRICAL AND ELECTRONIC)

CHOOSE FROM MAJORS INCLUDING:

- > Computer engineering
- > Power engineering
- > Telecommunications

CAREER OPPORTUNITIES:

- > Electrical engineer
- > Electrical design engineer
- > Electronics engineer
- > Power systems engineer
- > Renewable energy engineer
- > Control systems engineer
- > Telecommunications engineer
- > Commissioning engineer
- > Electrical project manager

YOU COULD:

- > Pair your engineering degree with a business degree to gain two qualifications in just one extra year