Engineering Careers

PROFILE

Matching your personality to engineering careers

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Driver Analyser
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About Personality

Our Methodology

Personality is typically defined as the unique and enduring collection of traits, attitudes, motivations, feelings, behaviours, talents and strengths that make each of us who we are.

My Engineering Career, employs proven MyCareerMatch psychometric analysis. We use a four type (DPSA), 16 combinations to determine your personality.

Based on the answers you gave we determine which of these personalities you match. These are mapped to engineering careers.

We have selected six different engineering careers out of the 25 profiled we think best match you.

You can view all by clicking the download link on the back page.

The secret to having a rewarding career lies in matching your personality to careers best suited to you. In our research we've found people are most successful when they are in jobs that allow them to use their natural strengths.

Correlation between Study and Career

Distinctive personality profiles appear across a range of occupations. A study of 8,458 employed individuals found that individuals who held a job that fitted their personality were more likely to earn more.

According to the theory, if an individual's personality and the work environment of their job are congruent, the more satisfied and successful they will be.

A USA study found that personality was important when it came to choosing a major and career. If you are a good match to your studies you are likely to:

▪ Earn higher grades
▪ Stick with your choice of major through graduation
▪ Graduate on time
▪ Be more satisfied and successful in your career

A student's personality can also affect their grades. In an impressive study by Terence Tracey and Steven Robbins (J. of Vocational Behaviour, 2006, 64-89). They followed 80,574 students in 87 colleges over a five-year period.

Students GPAs were examined at the end of their first, second, academic years and their overall GPA at graduation after five years. The results showed that good grades are related to having a major close to one's interests and personality. It is common sense after all that people do well if their studies and career choice match what they are best at.

We know that matching what you're naturally good at with careers that require those skills is logical, but it's not a connection that is obvious to all. After all, having an interest in a career or course doesn't always mean that you're going to be good at it.

In the workplace personality strengths are directly interrelated with career achievement and whether you're happy and fulfilled in your job. The better your career fits who you are, the more likely you'll reach your goals. That also extends to educational choices for students.

You know when you are in the right job when,

▪ You look forward to going to work
▪ You are successful and productive
▪ You feel energised by what you do
▪ You feel optimistic about the future
▪ Your contribution is respected and appreciated
▪ You're proud when describing your work to others
▪ You enjoy and respect the people you work with
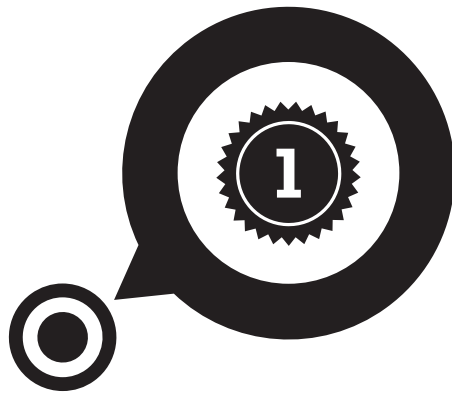
WOW:)

Your Personality Style Is:

① DRIVER ANALYSER

Driver Analysers are determined people who have great confidence. They are not easily side-tracked, and they can't be pushed into doing something they don't want to do. This can make you seem stubborn. You say exactly what you think, and sometimes this upsets people, but you don't really care.

You are a straight forward person and, once you set your mind on something, you just go after it. And you stick with it until you become an expert. You are great at solving problems because you carefully consider your options. You feel that you can take care of things all on your own if you have to, and you are confident when making decisions. You have no problem taking charge, and you are not afraid to tackle new situations. You are willing to take risks and give something new a try but you always consider alternatives first. You love a challenge, and you expect to be the winner. You don't get too emotional; you prefer to deal with facts and numbers than with people. You are a creative thinker and something of an inventor and entrepreneur. Your talent to think things through helps drive your adventurous spirit :)

WORDS THAT DESCRIBE YOU

Inventive ● **Creative** ● Demanding ● **Thinking Ahead** ● Forceful ● **Quiet** ● Thoughtful ● **Logical** Active ● **Results-Oriented** ● Straight forward **Independent** ● Perfectionist
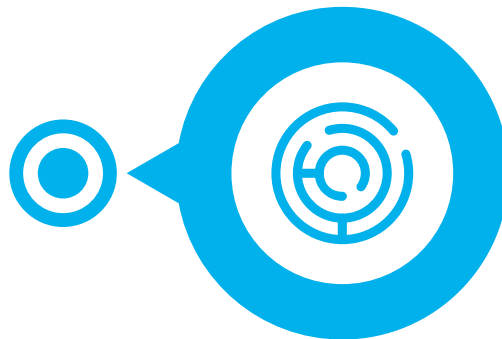
Your Personal Strengths ...

Setting High Standards

Your natural instincts to win mean that you set high standards for yourself and others. You make a difference by encouraging others to be the best they can be and not to expect anything less than success. You respect loyalty and hard work.

Solving Problems

You are a natural and gifted problem solver. You make a difference by being able to get to the core of a problem and provide solutions that work. You see the problem as a challenge rather than a setback, and this gives you the clarity to see through it.
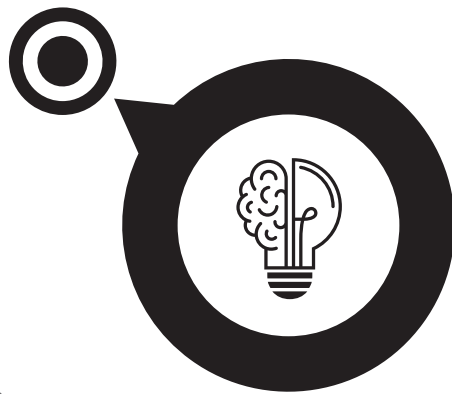
Being A Creative Thinker

You make a difference by being a visionary, a "future oriented" person who doesn't look back. You are good at developing plans, schemes and concepts, sometimes the bigger the better. Nothing is impossible. You use a logical approach to design and innovation.
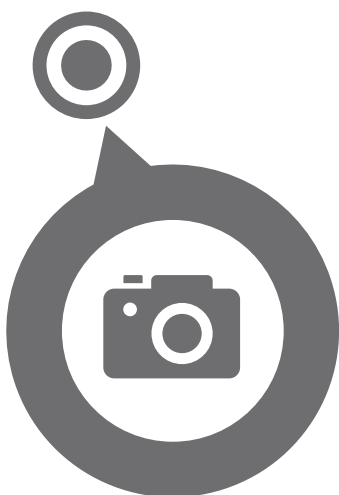
Seeing The Big Picture

You prefer to work with the big picture, the big idea, rather than get into details. You make a difference by your sensible approach to see how things connect. You see how everything relates and where problems may arise. This is what makes a great entrepreneur!

And Soft Skills

Taking Charge

Your leadership skills compel you to take charge and be in control. You make a difference when it's needed to solve a problem because you are willing to back yourself. Your self-confidence and leadership qualities encourage others to follow and support you.

Respecting Rules

You respect authority and are willing to use your authority with a sense of fairness. You understand that rules are meant to be followed because they create order and a method by which things get done. You make a difference by sticking to procedures and systems
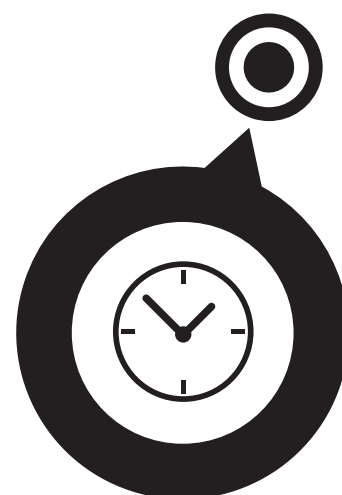
Accepting Challenges

You enjoy a challenge that uses your ability to think outside the box, be innovative and take action. You make a difference by encouraging others to get on with it, take calculated risks and challenge themselves.
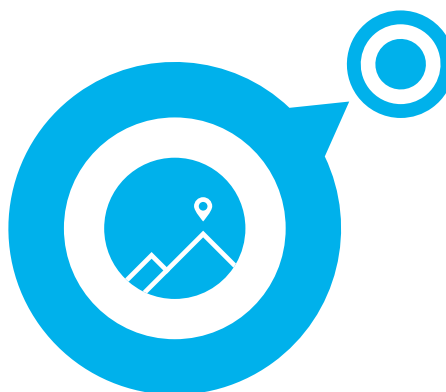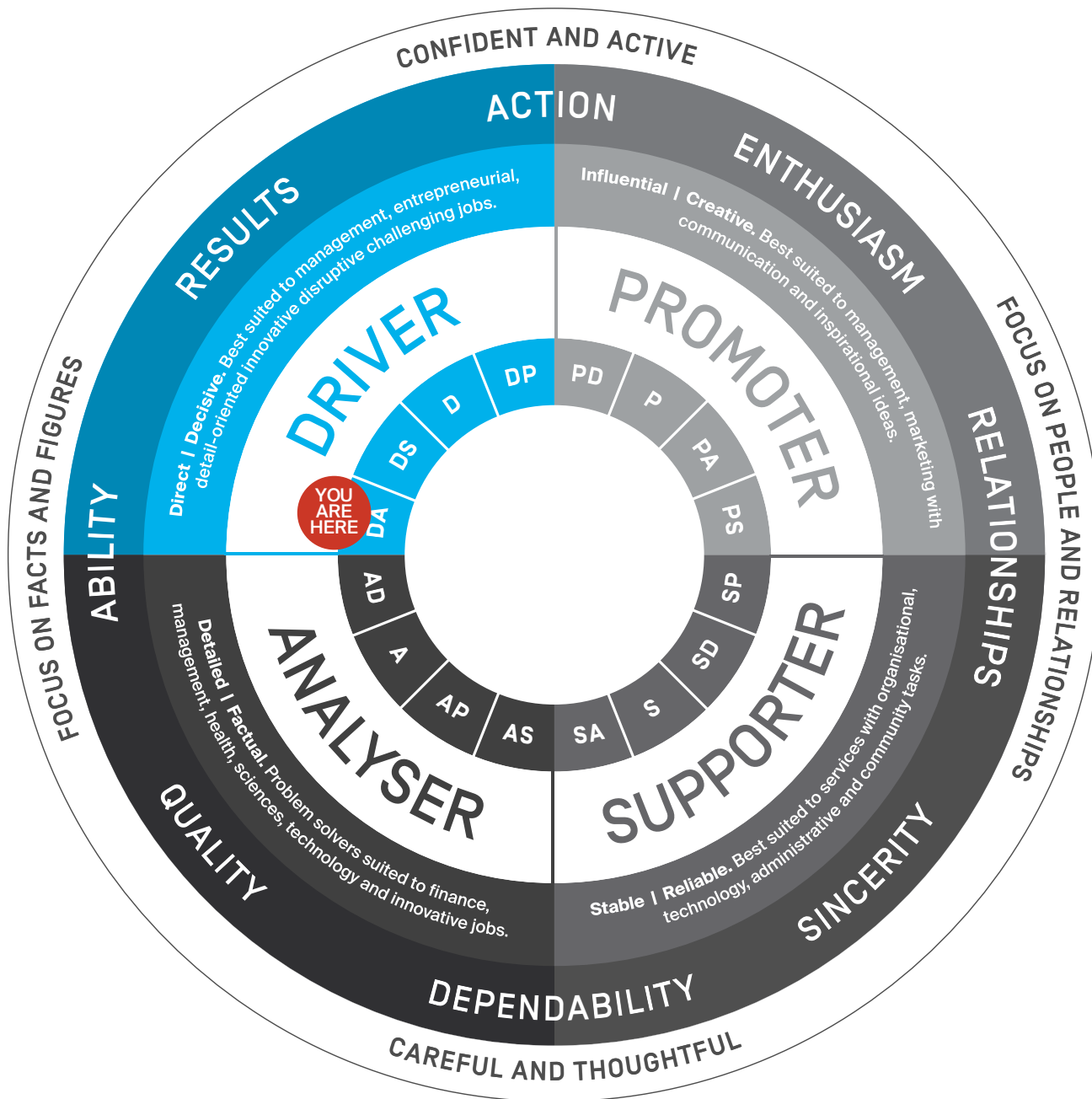
Meeting Deadlines

You are realistic and strive for results such as getting things done on time, or saving money or figuring out how to be more productive. You want to see tasks completed efficiently. You make a difference by ensuring that things are done correctly and deadlines are met.

Your Personality Map

The circular personality map shows four quadrants:

DRIVER (top left, blue) — ACTION / RESULTS / ABILITY
- Direct | Decisive. Best suited to management, entrepreneurial, detail-oriented innovative disruptive challenging jobs.
- Inner segments: DP, D, DS, DA
- YOU ARE HERE (at DA)

PROMOTER (top right) — ACTION / ENTHUSIASM / RELATIONSHIPS
- Influential | Creative. Best suited to management, marketing with communication and inspirational ideas.
- Inner segments: PD, P, PA, PS

ANALYSER (bottom left) — ABILITY / QUALITY / DEPENDABILITY
- Detailed | Factual. Problem solvers suited to finance, management, health, sciences, technology and innovative jobs.
- Inner segments: AD, A, AP, AS

SUPPORTER (bottom right) — RELATIONSHIPS / SINCERITY / DEPENDABILITY
- Stable | Reliable. Best suited to services with organisational, technology, administrative and community tasks.
- Inner segments: SP, SD, S, SA

Outer ring labels:
- CONFIDENT AND ACTIVE (top)
- FOCUS ON FACTS AND FIGURES (left)
- FOCUS ON PEOPLE AND RELATIONSHIPS (right)
- CAREFUL AND THOUGHTFUL (bottom)

How To Interpret Your Personality Map

The Map is divided into the four MyCareerMatch styles, DRIVER | PROMOTER | SUPPORTER | ANALYSER and combinations of each style (DA, DP, DS etc.). Your style is shown as 'YOU ARE HERE'. The outer circle represents what you focus on and how you approach life. Drivers and Analysers focus on facts and figures, Promoters and Supporters focus on people and relationships. The middle circle represents what's important to you - for Drivers it's results for Promoters it's enthusiasm for Supporters it's sincerity and for Analysers, quality.

6

Choose A Career That Matches Your Personality

There is significant research on the connection between personality and career success.

Once you understand what your strengths and talents are you have the confidence to make the right career choices.

The more you connect with your job, the more passionate you become and the greater personal reward, purpose and career satisfaction you achieve.

Engineering Career Industries to Explore

Amazing Careers in Engineering

Engineers are creative, imaginative, analytical and technical, with excellent teamwork skills. As an engineer, you'll apply science and mathematics in a practical way to design and develop new technologies and improve existing ones.

What do Engineers do?

Consider a career in engineering if you:

- are curious about how things work
- have an interest in improving the quality of human life
- enjoy designing and building things
- like analysing and solving problems
- are interested in maths and science
- enjoy challenges
- are goal-oriented
- like working with lots of different people in multidisciplinary teams

Engineers solve problems, figure out how things work and create solutions. They're key to the development of society and solving the challenges faced by our world, such as climate change, natural resource depletion, food shortages, supply of clean drinking water and increased demands on energy. Engineers possess a rare combination of skills and qualities that place them in demand in many industries. An engineer's career is diverse, interesting and can be anywhere in the world.

As a qualified engineer, you'll also be equipped to work in many areas outside of engineering, such as management, banking and consulting. 34 of the top 100 CEOs in the world are engineers^. Problem-solving and planning skills, combined with a focus on the future and continuous improvement, make engineers excellent business leaders.

Unlimited career options

Engineers design, build and test everything we use to create a liveable and sustainable world. Their unique skills are needed in nearly every industry. With hundreds of different types of engineering jobs the possibilities are endless.

Some of our graduates have gone on to successful careers as a:

- Biomaterials or nanotechnology engineer in a medical development company
- Global development engineer for a non-governmental organisation (NGO)
- Chemical process engineer in the food and agriculture industry
- Project manager, consultant or industrial designer in building and construction
- Computer scientist or wireless network engineer in telecommunications
- Artificial Intelligence or software engineer in the defence force
- Capital works engineer in sustainability, water and energy field
- Executive Director of access and operations in a global mining company
- Robotics or avionics engineer for an international space agency
- Director of transport modelling and mapping for a government infrastructure authority
- Entrepreneur and business owner in a start-up tech company
- CEO or Chief Engineer in the automotive industry

STRONG JOBS GROWTH IS PROJECTED IN MOST ENGINEERING FIELDS OVER THE NEXT FIVE YEARS
Job outlook, Australian Government 2019

81.4%

ENGINEERING GRADUATES ARE IN FULL-TIME EMPLOYMENT WITHIN FOUR MONTHS
2019 Graduate Outcome Survey (GOS) report, Quality Indicators for Learning and Teaching (QLT)

$114K

AVERAGE AUSTRALIAN ENGINEERING SALARY
Adzuna Job Report, 2020

34

OF THE TOP 100 CEOS IN THE WORLD ARE ENGINEERS
Harvard Business Review, The Best-Performing CEOs in the World 2018

Aerospace Engineering

Working in both aeronautics (planes) and astronautics (space), aerospace engineers conduct research and design and develop vehicles and systems for air, space, or any fluid environment. Aerospace engineers focus on aerodynamics and propulsion, dynamics and controls, or materials and structures.

They are also responsible for planning thorough maintenance programs for aircraft and exercising strict safety and environmental controls. They use their knowledge of electrical, electronic and computer systems for automatic control and communication systems for the operation of aircraft.

Aerospace Engineers may be responsible for investigating faulty engines or other components, and for developing repair systems. They may be involved in designing improved air conditioning or fuel systems for aircraft or ground based systems for operations such as flight control.

LEARN MORE

Discover jobs in Aerospace Engineering

- ✈ Aerospace Manufacturing
- ✈ Aircraft Fleet Management
- ⚙ Airport Operations And Management
- ((•)) Avionics And Control Systems
- 🖥 Aircraft Design And Testing

- 🛡 Defence Industries
- 🌀 Renewable Energy
- 🔍 Research and Development
- ✈ Transportation Aerodynamics
- 🗔 Building And Structure Design And Testing

FIND A COURSE
IN AEROSPACE ENGINEERING

UNIVERSITY   **VOCATIONAL**

Biomedical Engineering

Biomedical Engineers work with doctors and medical scientists, researching and designing ways to improve health care and medical services.

They use microcomputers, lasers, and other materials to develop and improve medical research equipment that is used to diagnose health problems. They may be involved in the development of medical products and different types of equipment used to monitor and treat patients and in designing and improving equipment for disabled people.

Biomedical Engineers may be involved in designing artificial joints and limbs and assisting the surgical team in fitting these to the patient. They design and deliver technology to improve the quality of life of people with disabilities. For example, they may develop equipment to assist people who have difficulty walking, communicating or carrying out simple daily tasks.

LEARN MORE

Discover jobs in Biomedical Engineering

Employment opportunities exist in the biotechnology, biomedical, pharmaceutical, and medical device and equipment industries, as well as in research and innovation, the health services and hospitals, and government and consulting.

- Chief Technical Officer
- Clinical Support Specialist
- Design Engineer
- Field Service Engineer
- Forensic Engineer
- Instrumentation Engineer
- Medical Device Assessor
- Patent Examiner

- Product Support Engineer
- Prosthetist
- Quality or Regulatory Manager
- Rehabilitation Engineer
- Sports Biomechanical
- Engineer
- Test Engineer
- Tissue Engineer

FIND A COURSE
IN BIOMEDICAL ENGINEERING

UNIVERSITY　　**VOCATIONAL**

Computer Engineering

Computer engineers design computers and/or computer systems, hardware and software to control sensors, embedded devices and manufacturing or industrial plants. This field of engineering not only focuses on how computer systems themselves work, but how they integrate into the larger picture.

They work across a wide range of sectors including manufacturing, medical, transport, telecommunication, government, mining and finance, any industry which requires personnel with expertise in the design and applications of computer hardware, especially the interfacing of computers with other machinery.

Demand for computer engineering graduates is strong and you may pursue a career in embedded microprocessor systems, digital control systems, image processing, digital signal processing, tracking and surveillance, measurement and sensing, data processing systems, software engineering, biomedical engineering and power systems.

LEARN MORE

Discover jobs in Computer Engineering

- Big Data Developer
- Chief Technology Officer
- Computer Programmer
- Data Scientist
- App Developer

- Software Project Manager
- Systems Analyst
- Web Developer
- Information Security Analyst
- Network And Database Administrator

FIND A COURSE
IN COMPUTER ENGINEERING

UNIVERSITY   VOCATIONAL

Civil Engineering

Civil engineers plan, design, construct, operate, maintain, inspect and manage public facilities. These facilities include bridges, buildings, offshore structures, airports, seaports, railroads, highways, waterways, dams and water treatment plants. Civil engineers work to reduce air, water and soil pollution, develop alternative energy sources and improve congested transportation systems. They also work to prevent or minimize damage due to natural disasters.

A Civil Engineer will work from an architect's drawings and consider whether the chosen materials for a particular building will be strong enough to hold a structure of that height or design.

At the same time, they would also think about how the structure might affect its surroundings. It is the responsibility of the civil engineer to produce safe, economical and environmentally-sound structures.

LEARN MORE

Discover jobs in Civil Engineering

When you graduate as a civil engineer, you'll find challenging and rewarding opportunities in the following areas:

- Aid Worker
- Construction Manager
- Construction Project Manager
- Emergency Management Specialist
- Façade Drafter
- Foundation And Piling Design Specialist
- Geotechnical Consultant
- Humanitarian Architect

- Principal Transport Planner
- Senior Structural Engineer
- Road Network System Planner
- Senior Environmental Consultant
- Sustainability Specialist
- Transport Operations Planner
- Town Planner

FIND A COURSE
IN CIVIL ENGINEERING

UNIVERSITY   **VOCATIONAL**

Mechatronics & Robotics Engineering

Robotics and mechatronics are where mechanical and electrical engineering meet, employing computer control systems to make devices smarter and more efficient. As a robotics and mechatronics engineer you could create planetary exploration rovers or robots for precision manufacturing. Alternatively, you might take a household product and turn it into a truly clever device, or design the programs that control those devices combining robotics with computer science and taking artificial intelligence to the next level.

Robotic systems are already good at performing menial repetitive tasks that don't require the dexterity and attention to detail however, with constant advances in computing, energy storage and materials, robots are beginning to move from single arm welding and assembly robots to complex humanoid machines. Engineers are needed in the advanced manufacturing and aerospace.

LEARN MORE in ROBOTICS

LEARN MORE in MECHATRONICS

Discover jobs in Mechatronics & Robotics Engineering

You'll be equipped with the knowledge and skills to design, develop, manufacture and operate the intelligent products and complex systems of today and tomorrow. Opportunities exist in:

- Artificial Intelligence
- Automobile Manufacturer
- Bioengineering
- Mechatronic Engineer
- Medical Systems
- Nanotechnology

- Plant Systems Engineer
- Telecommunications
- Software Engineering
- Mining Systems and Processes
- Aerospace Systems and Flight Control
- Software Designer

- Software Development Consultant
- Robotics and Automation Engineer
- Intelligent Systems For Motor Vehicles
- Manufacturing Systems and Processes
- Process Monitoring and Renewable Energy Systems Engineer

There are also opportunities in consulting, management and finance. You may also pursue a career in research and development, in academia, research institutions or advanced industry sectors.

FIND A COURSE IN MECHATRONICS & ROBOTICS ENGINEERING

UNIVERSITY

VOCATIONAL

Software Engineering

The need for engineers to create and maintain this digital world increases year by year. Software Engineers design and modify complex software systems to support the society we live in. This includes the business we conduct, the transport we take and the games we play.

Software Engineering is about creating high-quality software in a systematic, controlled, and efficient manner. It is an approach to designing software to maximise quality and reliability by treating it as a formal engineering process. In a software engineering approach to building software there is important emphasis on analysis and design, specification and evaluation of software. As an engineer in this area, your skills will be critical across many functions, from dispensing life-saving medicine to controlling flight paths.

LEARN MORE

Discover jobs in Software Engineering

In the age of digital transformation, new roles are constantly emerging and software engineering graduates are highly sought-after around the world. You could pursue a career as:

- Software engineer or developer building products, games and network systems

- Software architect or data engineer designing specific systems and databases

- Block chain developer or engineer building software for digital identity, workforce management and data storage

- Front end engineer writing the code for a website or app

- Machine learning engineer writing personalised and predictive software

- Network administrator or security engineer making systems secure and protect from threats

FIND A COURSE
IN SOFTWARE ENGINEERING

UNIVERSITY

VOCATIONAL

Your Engineering Pathway

Based on interests and career goals, this chart will help you decide on the course to reach your destination.

IM INTERESTED IN	MY CAREER GOALS	HOW TO GET THERE
Biology, health and maths	A biomedical engineer in biotechnology, hospitals and start-ups	Start with the Bioengineering Systems major in the Bachelor of Biomedicine or Science, followed by the Master of Engineering (Biomedical) or (Biomedical with Business) to become an accredited engineer
Chemistry and maths	A chemical or biochemical engineer in bioremediation, food and beverage, oil, gas and water treatment.	Choose the Chemical Systems major in the Bachelor of Science, then complete a Master of Engineering (Chemical), (Chemical with Business) or (Biochemical) to become an accredited engineer.
Chemistry and maths	A materials engineer in industrial design, manufacturing, aerospace and biotechnology.	Choose the Chemical Systems major in the Bachelor of Science, followed by the Master of Engineering (Materials) to become an accredited engineer.
Environmental studies, physics and maths	An environmental engineer in conservation, renewable energy, mining, resource planning and water resources.	Start with the Environmental Engineering Systems major in the Bachelor of Science, then complete the Master of Engineering (Environmental) to become an accredited engineer.
Geography and maths	A spatial engineer in aeronautics, mining, property, transport and urban planning	Choose the Spatial Systems major in the Bachelor of Science or Design. Then complete a Master of Engineering (Spatial) to become an accredited engineer. If IT is your focus, choose the Master of Information Technology (Spatial).
Physics and maths	A civil or structural engineer in construction, oil and gas, transport and water resources	Study the Civil Systems major in the Bachelor of Design or Science. Then choose between a Master of Envineering (Civil), (Civil with Business) or (Structural) to become an accredited engineer
Physics and maths	An electrical engineer in automation, aviation, power generation and telecommunications.	Choose the Electrical Systems major in the Bachelor of Science, followed by the Master of Engineering (Electrical) or (Electrical with Business) to become an accredited engineer.
Physics and maths	A mechanical engineer in aerospace, biomechanics, manufacturing, minerals, energy, robotics and transport.	Start with the Mechanical Systems major in the Bachelor of Science or Design. Then complete the Master of Engineering (Mechanical), (Mechanical with Business) or (Mechanical with Aerospace) to become an accredited engineer.
Physics, programming and maths	A mechatronics engineer in aeronautics, automotive, computing, robotics and transport.	Study the Mechatronics Systems major in the Bachelor of Science, followed by the Master of Engineering (Mechatronics) to become an accredited engineer.
Programming and maths	A software engineer in cybersecurity, disaster management, financial services, healthcare, telecommunications and transport.	Start with an undergraduate degree, choosing the Computing and Software Systems major in the Bachelor of Science or the Computing major in the Bachelor of Design. Then complete the Master of Engineering (Software) or (Software with Business) to become an accredited engineer.

Engaging Bright Curious Minds

 SMART & TALENTED

As an engineer, your career can be super flexible to suit your skills and interests.

Even if you aren't sure what type of engineer you want to be, the great thing is many of the skills you learn are transferable across all engineering types.

Click here to download a PDF with all Engineering Career options.