Career as a Civil Engineer

According to the Good Universities Guide*, Civil engineers plan, design, construct, operate and maintain roads, bridges, dams, water supply schemes, sewerage systems, transportation systems, harbours, canals, dockyards, airports, railways, factories and large buildings.

Civil engineers may perform some of the following tasks:

- investigate sites to work out the most suitable foundation for a proposed construction
- research and advise on the best engineering solution to meet a client’s needs and budget
- produce detailed designs and documentation for the construction and implementation of civil engineering projects
- organise the delivery of materials, plant machinery and equipment needed for the construction project and supervise labour
- supervise the testing and commissioning of completed works
- analyse and interpret reports on loading, labour, productivity, quality, materials and performance
- analyse risks associated with natural disasters including wind, earthquake, fire and floods, and design structures and services to meet appropriate standards
- arrange for geological and geophysical investigations and carry out feasibility studies

Civil engineers may choose specialise. Specialisations include:

- Airport Engineer
- Geotechnical/Soil Engineer
- Harbour Engineer
- Highway Engineer
- Hydraulic/Water Resources Engineer
- Irrigation/Drainage Engineer
- Local Government Engineer
- Materials and Testing Engineer
- Pipeline Engineer
- Railway Engineer
- Structural Engineer

Civil engineers may work in offices or spend much of their time on site. They may be required to work long hours and meet strict deadlines while working under minimal supervision.

Consulting and contracting engineers often travel interstate and some travel overseas. It may be necessary for some civil engineers to change residence every few years as their work takes them from one major engineering site to another.

Personal Requirements:

- able to identify, analyse and solve problems
- good oral and written communication skills
- aptitude for computing and design
- practical and creative
- able to work without supervision
- able to work as part of a team
- able to accept responsibility
- willing to contribute and adhere to the safety requirements of the operation

*Good Universities Guide - Civil Engineering
Universities in Victoria that offer undergraduate degrees in Civil Engineering include:

<table>
<thead>
<tr>
<th>Institution</th>
<th>VCE Requirements</th>
<th>ATAR 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deakin University</td>
<td>Units 3 and 4: a study score of at least 25 in English (EAL) or at least 20 in English other than EAL; and a study score of at least 20 in one of Maths: Mathematical Methods (CAS) or Maths: Specialist Mathematics</td>
<td>61.85+</td>
</tr>
<tr>
<td>Federation University</td>
<td>Units 3 and 4: a study score of at least 15 in any English; and a study score of at least 15 in one of Maths: Mathematical Methods (CAS) or Maths: Specialist Mathematics</td>
<td>Min 80</td>
</tr>
<tr>
<td>La Trobe University</td>
<td>Units 3 and 4: a study score of at least 25 in English (EAL) or at least 20 in English other than EAL; and a study score of at least 20 in one of Maths: Mathematical Methods (CAS) or Maths: Specialist Mathematics.</td>
<td>60.45+</td>
</tr>
<tr>
<td>Monash University</td>
<td>Units 3 and 4: a study score of at least 30 in English (EAL) or at least 25 in English other than EAL; and a study score of at least 25 in Maths: Mathematical Methods (CAS); and a study score of at least 25 in one of Chemistry or Physics.</td>
<td>91.10</td>
</tr>
<tr>
<td>RMIT University</td>
<td>Units 3 and 4: a study score of at least 30 in English (EAL) or at least 25 in English other than EAL; and a study score of at least 20 in one of Maths: Mathematical Methods (CAS) or Maths: Specialist Mathematics.</td>
<td>85.20</td>
</tr>
<tr>
<td>Swinburne University</td>
<td>Units 3 and 4: a study score of at least 30 in English (EAL) or at least 25 in English other than EAL; and a study score of at least 20 in Maths: Mathematical Methods (CAS).</td>
<td>75.00+</td>
</tr>
<tr>
<td>Victoria University</td>
<td>Units 3 and 4: a study score of at least 25 in English (EAL) or at least 20 in English other than EAL; and a study score of at least 20 in any Mathematics</td>
<td>n/a</td>
</tr>
</tbody>
</table>

ADF Gap Year 2017

Gap Year applications are now open. Students can now apply to experience their Gap Year in the Navy, Army or Air Force.

The ADF Gap Year program is an excellent way for students to experience military life and to gain a greater understanding of what is involved. On completion they can continue serving in the Navy, Army or Air Force, or offer the skills and experience they have acquired to an alternative career path.

In one action-packed year they will:

- Gain valuable skills and work experience,
- Enjoy a good salary package plus free healthcare,
- Live a varied, active and healthy lifestyle,
- Make friends with like-minded people.

In 2017 there are 11 roles to choose from ranging from admin to artillery, and flight crew to logistics. Places are strictly limited and will only be open for a limited time so interested students should act quickly on taking up this opportunity.

Important information:

- Employment commences early 2017
- Applicants must have completed Year 12 and be aged between 18 and 24 as of 1 April 2017 (Navy), 31 May 2017 (Army), or 7 April 2017 (Air Force).

Details of all the Gap Year roles and/or to apply are available at Defence Jobs - Gap Year
Chartered Accountants

Why accounting? Accounting can be regarded as the language of business. Accountants analyse, report and give advice about the financial dealings of organisations and individuals, and advise on associated record-keeping and compliance requirements*.

Chartered Accountants hold the highest professional qualifications available to accountants in Australia, and are valued for their commercial know-how, analytical thinking and leadership abilities. A career as a Chartered Accountant is a fantastic choice for those who want to:

- Earn good money
- Have the opportunity to travel and work overseas
- Have job security
- Enjoy a challenging, interesting and diverse career

Some of the potential roles for a Chartered Accountant include:
- Financial planner
- Forensic accountant
- Financial office
- Management accountant
- Tax specialist
- Stockbroker
- Business analyst
- Risk analyst
- Auditor

The Good Universities Guide - Accounting *

So, how does one become a Chartered Accountant?

**Step 1:** Choose an approved university business or commerce or finance degree

**Step 2:** Complete the degree with an accounting major

**Step 3:** Begin the Chartered Accountants Program - Chartered Accountants Program

**Step 4:** Complete the Chartered Accountants Program while accumulating three years of work experience with a Chartered Accountant mentor.

Students wanting to be kept informed about career events, etc. run by the Institute of Chartered Accountants should visit Chartered Accountants - High School Students

RMIT University’s My Brochure

RMIT has an exciting simple-to-use online tool allowing students to create their own personalised RMIT course brochure in minutes. International and local students can use My Brochure to explore RMIT’s vocational, undergraduate and postgraduate courses. Potential students can then add relevant extra information (from facilities to funding) before their personalised brochure is emailed to them.

For more information and to create a personalised brochure visit RMIT Personalised Brochure

Photographic Studies College (PSC)

Photography Studies College (Melbourne), is a leading contemporary tertiary photography college, located in Melbourne’s vibrant arts and cultural scene, only 5 minutes’ walk from Flinders St Station, close to a multitude of contemporary galleries and cafes. As a leading Australian multi award winning photography educator with over 40 years of specialised experience our focus is on providing a contemporary, high quality teaching and learning environment.

Find out more about this private college by visiting Photographic Studies College
Swinburne University

- Swinburne is student-focused and aims at students being engaged in their learning; be exposed to innovative teaching, and given thorough preparation for the workforce.
- Swinburne ranks in the top 3% of universities in the world - in the top 400 in the world.
- In 2015 for the first time Swinburne was also ranked in the Times Higher Education 100 Under 50 Rankings, an index of the world’s top universities under the age of 50.
- Swinburne ranks in the top 100 universities in the world in physics.
- Swinburne regularly receives a 5-star ranking for student satisfaction.
- Swinburne aims at producing job-ready students and Industry Based Learning (IBL) is offered to every commencing undergraduate student - IBL.
- Many industry partners have been connected to Swinburne for over 20 years.
- Swinburne is one of only a few universities in Australia with access to the Keck telescope in Hawaii - Keck.
- The Bachelor of Circus Arts offered at NICA - NICA - and accredited by Swinburne, not only offers elite sport training but also a sound business qualification.
- A number of NICA graduates are currently employed with Cirque Du Soleil.
- Swinburne has a campus in Malaysia with many of the courses offered in Australia offered there – many Australian students choose to study a semester or more at the campus in Malaysia - Sarawak Campus, Malaysia.
- Swinburne has partnerships with over 100 institutions overseas, allowing for Australian students to go and complete part of their studies at one of these institutions - Swinburne Global.
- Swinburne offers over 30 study tours and a great number of those are specific to students studying business - Study Tours.
- Swinburne recently launched its High Achievers Program, which includes a scholarship, for Year 12 students who attain an ATAR of 95 and above - High Achievers Program.
- Swinburne also has an emerging leaders program - Emerging Leaders.
- Swinburne offers an Aviation degree and part of the training in this course includes access to a Flight Simulator Laboratory with three simulators – Victoria’s only Redbird flight simulator, which is used to simulate a range of; Victoria’s only FlyIt Professional Helicopter Simulator, capable of simulating six types of helicopter; and a B737 procedural simulator - Flight Simulator Laboratory. Swinburne is also the only university in Victoria offering a bachelor degree designed specifically to train students as a commercial pilot aircraft - Aviation.
- Swinburne has the largest university Psychology Clinic in Australia, not only offering low-cost counselling, psychological assessment and group therapy treatment, but also quality teaching and research - Psychology Clinic.
- Swinburne is one of the few universities that make Capstone Projects (also referred to as Industry Linked Projects) a major assessment component of for students - Capstone.
- Swinburne’s Law School requires law students to complete 20 days of Industry Based Learning per year over three years - Bachelor of Laws.
Swinburne University’s Design Factory

**Swinburne Design Factory** is part of the Global Design Factory Network – a global network of universities offering innovative education, research and partnerships. This network brings together students, industry and researchers to co-create for extraordinary results. The aim is to turn ideas into reality. The projects offer students new and unique experiences, challenging team members to move outside of their comfort zone in order to create innovation and new thinking.

Over the course of a project, students gain valuable skills that can set them apart in the employment market, assisting with competencies such as:

- interdisciplinary team work
- communication and collaboration
- project management
- creative problem solving
- client interaction

The Global Design Factory Network includes:

- **Aalto Design Factory** at Aalto University, Helsinki, Finland
- **Aalto-Tongji Design Factory**, at Tongji University in Shanghai, China
- **Duoc Design Factory** at Duoc UC, Santiago, Chile
- **Frisian Design Factory**, NHL University of Applied Science, Netherlands
- **IdeaSquare** at CERN research centre, Switzerland
- **PACE University**, New York
- **Philadelphia University**, Philadelphia
- **Porto Design Factory** at Porto Polytechnic in Porto, Portugal
- **Riga Design Factory**, Riga Technical University, Latvia

Find out more about the Design Factory at [Design Factory](#)

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**Career as a Stunt Person**

The Good Universities Guide defines a stunt performer as someone who undertakes dangerous or difficult acts for the purpose of entertainment, including replacing film actors in dangerous scenes*. These might include activities such as high-speed car chases, or jumping off buildings, or performing stunts on horses, boats, trucks and water skis.

Successful stunt performers must -
- have quick reflexes and flexibility
- have good eyesight (may be corrected)
- have a sense of timing
- be able to cope with the physical demands of the job
- be responsible attitude towards safety

*Good Universities Guide - Stunt Person

**Australia has a Stunt Academy in Queensland, on the Gold Coast.** Watch an interesting YouTube clip on Stunt Performing at [YouTube - Stunt Performing](#)

Find out about its range of courses and training options by visiting [Stunt Academy](#).
Tractor - Specialist Design School

Tractor is a specialist design school run by industry leaders. It’s the new name for Grenadi School of Design, which had a 20-year history and a fantastic reputation. During the transition to Tractor, we were careful to keep the things that made Grenadi famous: small class sizes, and an attentive learning environment that helped students develop their creativity.

Tractor offers courses in graphic design, website development, digital media technologies, and photo imaging. Find out more by browsing Tractor.

SpotJobs.com is Australia’s fastest-growing online job board, focusing on permanent and flexible employment opportunities. Students looking for casual or part-time work are encouraged to spend some time searching this excellent resource.

Jobseekers can search and filter jobs by location and working conditions, including the time of day they would like to work and preferences such as working indoors or outdoors, or in a customer-facing role. For students, this means they can focus on study while learning new skills that will help build their careers for the future.

SpotJobs provides an easy-to-use platform that means no matter where you are, or what device you’re using, it’s simple to search, apply and get hired.

Snapshot of Deakin University

- An interesting article to read is Deakin at a Glance – all about Deakin’s history and vision, published in November 2015
- Deakin University is the 7th largest university in Australia with 53,000 across its four campuses – Burwood, Geelong Waterfront, Geelong Waurn Ponds and Warrnambool.
- Deakin has four faculties and a number of schools within each faculty - Faculties and Schools
- Deakin offers trimesters and also offers a significant number of its courses online - CloudDeakin
- Deakin is proud to be in the top 3 per cent of universities across all three of the major international university ranking systems (the Academic Ranking of World Universities, Times Higher Education World University Rankings and QS World University Rankings), assessed from 17,000 universities worldwide - Why Choose Deakin
- Deakin students have access to a hub or portal which provides them with everything they need to know about their course and life at university in order to succeed. In many ways, this is a personalised dashboard - DeakinSync
- Students can seek online advice via DeakinSync. So, while students are checking unit updates and emails in DeakinSync, they can seamlessly ask Watson questions 24/7 365 days
a year - **Watson powering Deakin.** Launched in February 2015, Watson focuses on new students to support their transition to university.

- Deakin has recently launched an excellent app for prospective students called **Explore.** Students can use this web app to either search for courses to find careers, or start with a career and find the courses that can lead to it - [Explore Deakin](#).
- Deakin invites its students to participate in study abroad and exchange programs as part of their course - [Study Abroad](#).
- Another excellent resource for Deakin students is **this Deakin** which is packed with inspiration for life, learning and career. Deakin believes the journey is as important as the destination, and whether students are curious about technology, innovation, culture or personal development, it is the perfect place to ignite imagination and fuel ambition - [this Deakin](#).

### Career as a Youth Worker

According to the Good Universities Guide*, Youth workers develop and facilitate programs to work with and support young people, either individually or in groups, in order to address social, behavioural, welfare, developmental and protection needs.

Tasks that youth workers often perform include:

- interview young people to identify problems and act as representatives for them, raising these issues with relevant government authorities
- assist with developing policies relating to young people
- provide support and advice to young people experiencing difficulties, such as family problems, unemployment, illness, drug abuse and homelessness
- arrange and provide counselling, food, shelter or clothing
- assess risks and provide intensive short-term crisis counselling for victims of domestic violence or child abuse
- provide information about community services and resources available for young people
- write reports and submissions requesting funding for continuing programs and new projects
- evaluate data relating to the effectiveness of community support services
- work closely with teachers, social and welfare workers, local authorities, health professionals, refuge workers, parents and, in some instances, the police.

Successful youth workers should have the following personal attributes:

- show initiative and leadership qualities
- have good interpersonal and communication skills
- be able to work independently
- have a non-judgmental attitude
- be able to plan and organise

Students can study Youth Work degrees at the following institutions in Victoria:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Course &amp; Prerequisite Subjects</th>
<th>ATAR 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Australian Catholic University</strong></td>
<td>Units 3 and 4: a study score of at least 30 in English (EAL) or at least 25 in English other than EAL.</td>
<td>59.00</td>
</tr>
<tr>
<td><strong>RMIT</strong></td>
<td>Units 3 and 4: a study score of at least 30 in English (EAL) or at least 25 in English other than EAL.</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Victoria University</strong></td>
<td>Units 3 and 4: a study score of at least 25 in English (EAL) or at least 20 in English other than EAL.</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Electrical Engineering

Electrical engineers design, develop and supervise the manufacture, installation, operation and maintenance of electrical systems. They work on systems for the generation, distribution, utilisation and control of electric power. They also work on electronic systems used for computing, communications and other industrial applications. (Job Guide 2014)

Electrical Engineering involves the design and study of electronics, power, and electrical systems. Electrical Engineering deals with the problems associated with large-scale electrical systems such as power transmission and motor control. So, Electrical Engineers are usually concerned with using electricity to transmit energy.

Electrical engineering degrees are offered at a number of Victorian institutions including:

<table>
<thead>
<tr>
<th>Institution</th>
<th>VCE Prerequisite Subjects</th>
<th>ATAR 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>La Trobe University</td>
<td>Units 3 and 4: a study score of at least 25 in English (EAL) or at least 20 in English other than EAL; and a study score of at least 20 in one of Maths: Mathematical Methods (CAS) or Maths: Specialist Mathematics.</td>
<td>73.40 (M)</td>
</tr>
<tr>
<td>Monash University</td>
<td>Units 3 and 4: a study score of at least 30 in English (EAL) or at least 25 in English other than EAL; and a study score of at least 25 in Maths: Mathematical Methods (CAS); and a study score of at least 25 in one of Chemistry or Physics.</td>
<td>91.10 (Cl)</td>
</tr>
<tr>
<td>RMIT University Electrical</td>
<td>Units 3 and 4: a study score of at least 30 in English (EAL) or at least 25 in English other than EAL; and a study score of at least 20 in one of Maths: Mathematical Methods (CAS) or Maths: Specialist Mathematics.</td>
<td>72.30 (C)</td>
</tr>
<tr>
<td>RMIT University Electronic &amp; Electronic</td>
<td>Units 3 and 4: a study score of at least 30 in English (EAL) or at least 25 in English other than EAL; and a study score of at least 20 in one of Maths: Mathematical Methods (CAS) or Maths: Specialist Mathematics.</td>
<td>72.15 (C)</td>
</tr>
<tr>
<td>RMIT University Electronic &amp; Communications</td>
<td>Units 3 and 4: a study score of at least 30 in English (EAL) or at least 25 in English other than EAL; and a study score of at least 20 in one of Maths: Mathematical Methods (CAS) or Maths: Specialist Mathematics.</td>
<td>n/a (C)</td>
</tr>
<tr>
<td>Swinburne University Professional Electrical &amp; Electronic</td>
<td>Units 3 and 4: a study score of at least 30 in English (EAL) or at least 25 in English other than EAL; and a study score of at least 20 in Maths: Mathematical Methods (CAS).</td>
<td>80.05</td>
</tr>
<tr>
<td>Swinburne University Electrical &amp; Electronic</td>
<td>Units 3 and 4: a study score of at least 30 in English (EAL) or at least 25 in English other than EAL; and a study score of at least 20 in Maths: Mathematical Methods (CAS).</td>
<td>75.00+</td>
</tr>
</tbody>
</table>

C – City, Cl – Clayton, H – Hawthorn, M – Melbourne

Save the date!

Jewish Schools Careers Expo

Sunday 15 May, 2016
11 am – 2 pm

Monash University – Caulfield Campus

Further details and a full program of events available soon.

All welcome. We hope to see you there.