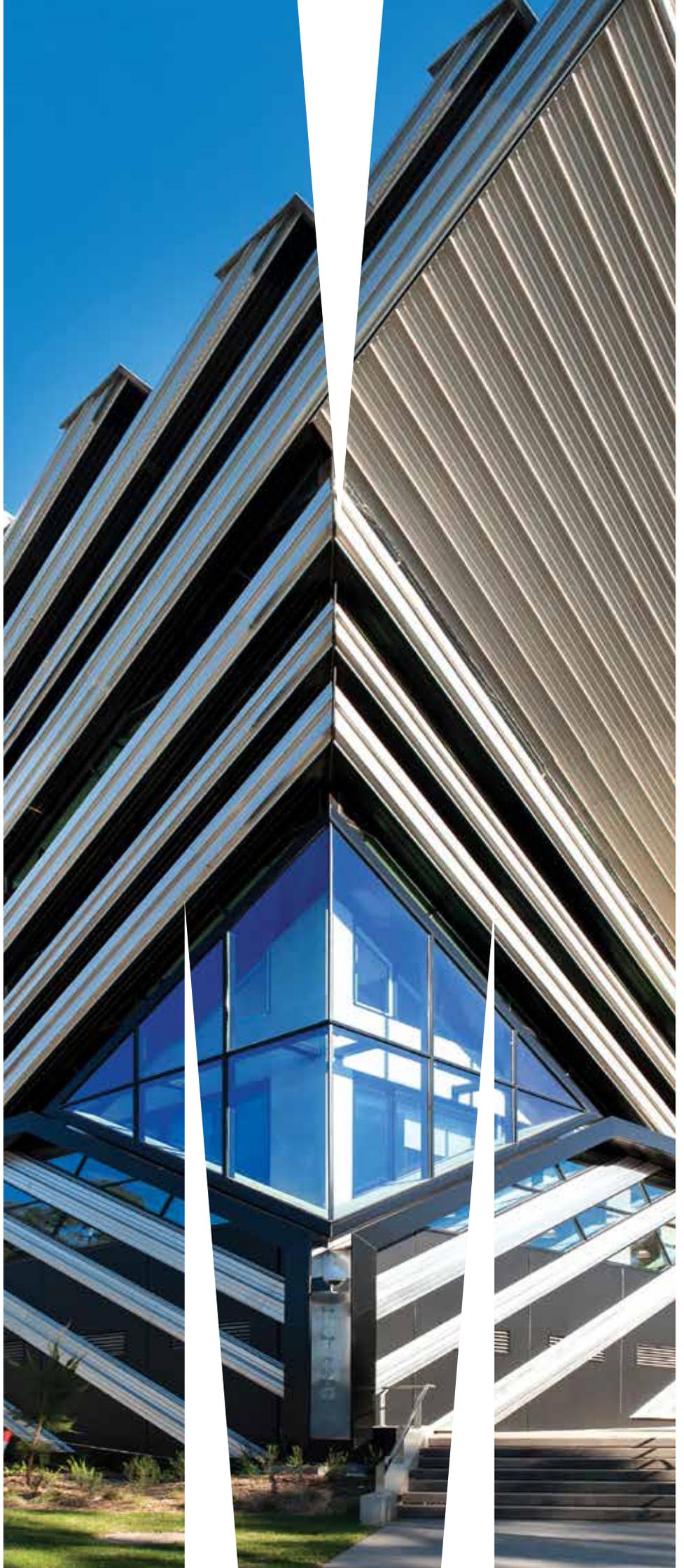




**MONASH**  
University

**MONASH**  
**CIVIL ENGINEERING**

[eng.monash.edu/civil](http://eng.monash.edu/civil)



# MAKING AN IMPACT

**Studying in Monash University's Department of Civil Engineering puts you alongside some of the country's best engineering minds.**

It's home to the Institute of Transport Studies (ITS), Monash Water for Liveability Centre, Cooperative Research Centre for Water Sensitive Cities, and Management and Prediction of Pipe Bursts (MAPPS).

The Monash Water for Liveability Centre consolidates Monash's research and development in advancing sustainable cities, and is researching best-practice methods of implementing water-sensitive urban design at government, industry and community levels.

Civil engineering encompasses five major fields of activity: structural, water, transport, geotechnical engineering, and mining and resources. It also recognises the importance of a solid educational environment that responds to individual students' needs, supporting and encouraging interaction between students and staff.

The latest education techniques, such as computer-assisted and project-based learning, are applied and developed by enthusiastic teachers. We emphasise a balanced approach between theory and practical studies.



## WHAT DO CIVIL ENGINEERS DO?

- Design a water supply system for a new city.
- Provide alternatives to relieve traffic congestion and to solve transport problems.
- Develop ways of treating and reusing stormwater and waste water to preserve precious resources.
- Manage the maintenance of the large bridges that link most cities' major arterials.
- Develop new ways of tackling climate change through geological sequestration of carbon dioxide.
- Prevent contamination of soil and ground water from industrial activities.
- Design systems to control erosion in rivers and protect people from the devastation of floods.
- Investigate, design and manage the construction of multi-storey buildings.
- Design a road, freeway or tunnel and manage its construction.
- Develop a mathematical or physical model of river and tidal currents to investigate the viability of a new port.
- Prevent contamination of soil and ground water from industrial activities.
- Develop the concept of a 'green building' that produces more electricity than it consumes and has a self-sufficient supply.
- Interpret and organise drawings, plans, construction methods and procedures for an innovative foundation system for unstable soils.
- Work with consortiums to design eco-tourism resorts.
- Run training courses for other engineers to keep them abreast of specialist skills.
- Work in mining extraction and processing of ores from the earth.

Established in 1961, the Department of Civil Engineering at Monash University has a solid reputation of teaching and leading research in civil engineering. It has a long and productive history in the areas of geomechanics, structures, transport and water engineering.

## A WORLD OF OPTIONS IN CIVIL ENGINEERING



**Local and international opportunities abound in private industry, government, construction engineering management, mining, marine and resort developments, property/land development, and consulting firms.**

You might start your own company. Recent graduates from the department have gone on to exciting positions in private industry with companies such as AECOM, Jacobs (previously SKM), GHD Pty Ltd, Hyder Consulting Pty Ltd and Thiess Pty Ltd. Major government bodies such as VicRoads and Melbourne Water have employed others, while many are working in international aid and on development projects.

# CIVIL ENGINEERING AT MONASH

**Civil engineering at Monash offers a common first-year program as part of the Bachelor of Engineering course, giving you time to develop an understanding of the engineering fields before choosing a discipline. At the end of first year, you can apply to enter civil engineering, based on your academic results.**

It's a four-year degree if undertaken full-time, or up to eight years as a part-time student.

You automatically qualify for a degree with honours for high academic achievement throughout the course as a whole – no additional time is required. If you achieve a final overall average of first-class honours, you're guaranteed a scholarship to undertake research studies after the final year of your undergraduate degree.

## COURSE OUTLINE

### 1

#### LEVEL 1

The first level of the course has units common across engineering disciplines. At the end of your first year, you can apply to specialise in civil engineering.

### 2

#### LEVEL 2

Specialisation in civil engineering begins. Study is project-based, linking theory and practical applications. Units are taught around major group projects in the areas of structures, transport, water and geomechanics. The project-based approach continues into later levels.

### 3

#### LEVEL 3

Develop professional skills. Specialise with technical electives in management, engineering investigation, transport engineering, structures, water, and geomechanics.

### 4

#### LEVEL 4

Continue your technical elective specialisation. Coursework includes an independent research project, a unit on civil engineering practice, and specialised electives from the Department of Civil Engineering.

## DOUBLE YOUR OPPORTUNITIES

In double degree programs, the units from each course are mixed in each year of study, allowing you to gain two degrees in five or six years.

Civil engineering can be combined with a number of complementary disciplines, allowing you to enhance your educational experience and career options. Why not combine language study through a double degree in arts? Or gain a business advantage with a double degree in commerce or law?

Double degrees are available with:

- architectural design
- biomedical science
- commerce
- commerce specialist
- arts
- laws
- science.

## COURSE RECOGNITION

All civil engineering programs offered by Monash University are fully accredited with Engineers Australia. Australia is a signatory to the Washington Accord, enabling Monash engineering graduates to work in any country in the world that is also a signatory, without needing to requalify.





## BUILD YOUR GLOBAL FUTURE

**Civil engineers are some of the most sought-after graduates in industry.**

You can find civil engineers in myriad areas, including designing, building and managing just about everything from a major freeway or railway, to a water storage reservoir, oil rig platform, harbour facility, or environmentally-friendly structure. Many civil engineers also work in the mining, oil, and gas industry.

# NEXT STEPS

## COURSE DETAILS

**Location:** Clayton

**Indicative ATAR:** 90+

**Indicative IB Score:** 33+

**Duration:** 4 years

**Degree awarded:** Bachelor of Civil Engineering (Honours)

VCE prerequisites (units 3 and 4)

**30**

English (EAL)

or

**25**

English other than EAL



**25**

Maths:  
Mathematical  
Methods (any)



**25**

Chemistry  
or  
Physics

International baccalaureate subject prerequisites

**4**

English SL

**3**

or English HL

**5**

or English B SL

**4**

or English B HL



**4**

Mathematics SL

**3**

or Mathematics HL

**3**

or Further Mathematics HL



**4**

Chemistry SL

**3**

or Chemistry HL

**4**

or Physics SL

**3**

or Physics HL

## ENTERING THE CIVIL ENGINEERING SPECIALISATION

After you have successfully completed your first year, you may apply for entry into the civil engineering specialisation.

## HOW TO APPLY

### DOMESTIC (AUSTRALIAN) AND ONSHORE INTERNATIONAL STUDENTS

If you are an Australian or New Zealand citizen, an Australian permanent resident, or you are an international student studying an Australian Year 12 or IB in Australia or New Zealand, apply through the Victorian Tertiary Admission Centre (VTAC)

Visit [vtac.edu.au](http://vtac.edu.au)

### INTERNATIONAL STUDENTS

International students not currently studying VCE or IB in Victoria should apply direct to Monash:

[monash.edu/study/international](http://monash.edu/study/international)

## ENQUIRIES

Contact Monash Engineering for a copy of our undergraduate programs brochure:

Phone: +61 3 9905 3404 or visit our Future Students website and download a copy: [eng.monash.edu/prospective/ug](http://eng.monash.edu/prospective/ug)

For more detailed information about the Bachelor of Engineering degree in the field of civil engineering, including double degrees and credit transfer possibilities, contact the course administration officer:

Ms Irene Sgouras

Phone: +61 3 9905 4971

Email: [irene.sgouras@monash.edu](mailto:irene.sgouras@monash.edu)

## Further information

[eng.monash.edu/civil](http://eng.monash.edu/civil)

**1800 MONASH (1800 666 274)**

The information in this brochure was correct at the time of publication (July 2016).  
Monash University reserves the right to alter this information should the need arise.  
You should always check with the relevant Faculty office when considering a course.

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