ACED
AUSTRALIAN COUNCIL OF ENGINEERING DEANS

ENGINEERS AUSTRALIA

# AUSTRALIAN ENGINEERING HIGHER EDUCATION STATISTICS 2013-2023

**GRADUATE NUMBERS AND QUALITY INDICATORS**

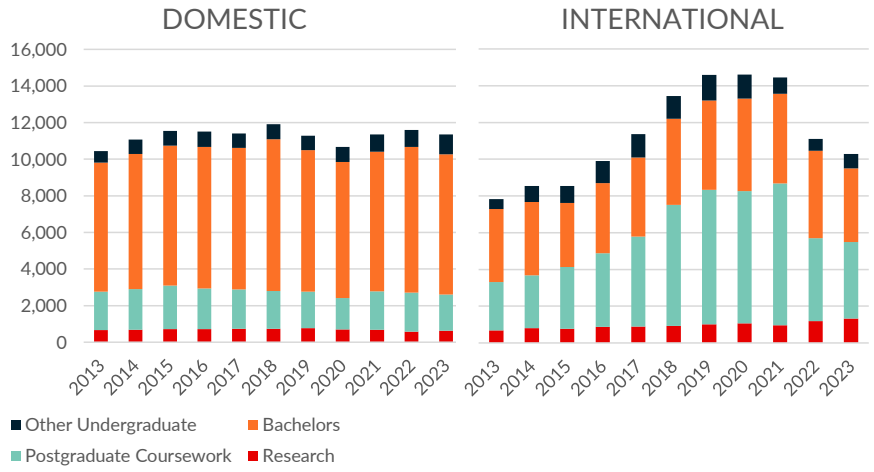
**STUDENT DATA**

**DIVERSITY AND INCLUSION**

**ACADEMIC STAFF**

**ACED MEMBER PROFILES**

HIGHER EDUCATION GRADUATIONS IN ENGINEERING & RELATED TECHNOLOGIES, 2013 - 2023




**AUGUST 2025**

# AUSTRALIAN ENGINEERING HIGHER EDUCATION STATISTICS 2013-2023

## SEPTEMBER 2025

Author: Peter Briggs


**Data Source**: Department of Education, Higher Education Student Statistical Collection. Bespoke request. Department of Education, Higher Education Staff Statistical Collection. Bespoke request.

**Author's Note**: The author takes responsibility for any errors in transcribing and interpreting data from the sources used in this report. This report builds on the previous work of the late Emeritus Professor Robin W King FTSE, FRSN, Hon FIEAust. The author thanks ACED members and others for their comments on the draft of this report. ACED members and other readers are encouraged to contact the author to clarify any pertinent matters.

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AUSTRALIAN COUNCIL OF ENGINEERING DEANS

ENGINEERS AUSTRALIA

# The Australian Council of Engineering Deans

The Australian Council of Engineering Deans Inc. (ACED) exists to promote and advance engineering education, research and scholarship on behalf of the Australian higher education system. The membership of ACED is a senior academic representative of each of the 35 Australian universities that provide professional engineering degrees accredited by Engineers Australia.

ACED's mission is to promote and advance engineering education, research and scholarship on behalf of the Australian higher education system.

ACED's member universities are each represented by a senior staff member from its Engineering Faculty or School. These provide 'formative' and advanced engineering qualifications, research, and consultancy services. The formative Masters, Bachelor (Honours), Bachelor degrees, Associate Degrees and Advanced Diplomas, that are accredited by Engineers Australia, qualify their graduates to enter practice as professional engineers, engineering technologists and engineering associates.

ACED supports its members, and the development of Australian engineering more generally, by making submissions to government inquiries, and undertaking projects aimed at improving the quality of engineering courses and research. Many of these activities are undertaken as collaborations of ACED members, and with other organisations, including Engineers Australia, the Australasian Association for Engineering Education (AAEE), and the Academy of Technological Sciences and Engineering (ATSE).

Position papers and other reports are on the ACED website: www.aced.edu.au

# Engineers Australia

Engineers Australia (EA) is the peak national professional association for engineering in Australia. As Australia's signatory to the International Engineering Alliance (IEA), Engineers Australia uphold standards for engineering education through accreditation of university engineering courses. and set and maintain standards for professional practice. Engineers Australia encourages the development of engineering knowledge and convene engineers and other stakeholders in various forums to facilitate the exchange of ideas and information. Engineers Australia inform community leaders and decision makers about engineers and engineering matters. Engineers Australia also ensure the engineering perspective is heard on a range of national policy matters. And Engineers Australia recognise and promote engineering excellence and achievements of individuals and teams.

Engineering skills and expertise are unique and have no substitutes. The training, skills, and experience of engineers are highly valued and the skillset and mindset that feature problem-solving, critical thinking, quantitative analysis and systems thinking, are transferable to many other fields of work. People with engineering qualifications contribute broadly to the Australian economy in every industry and sector.

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ENGINEERS AUSTRALIA

# Contents

# Summary numbers and facts for Australian higher education in engineering & related technologies

**SYSTEM SIZE IN 2023**

Commented [PB1]: Update - do last

**Total enrolment: 112,027 students,** 2,160 more than in 2022 and 9,953 less than in 2019

**Student load: 71934- 68,240 EFTSL** (effective full-time student load), 3,694 more than in 2022

The **36 public universities** (35 ACED members) had **95%** of these enrolments and approximately **4,067 full-time equivalent academic staff** (excluding casual staff)

| qualification levels | domestic | | international | |
|---|---|---|---|---|
| | number | % women | number | % women |
| Bachelor (mostly 4-year Hons) | 7,667 | 19.2 | 4,012 | 18.3 |
| Postgraduate coursework | 1980 | 21.1 | 4,172 | 23.2 |
| Research (PhD and Masters) | 620 | 24.6 | 1,322 | 28.6 |
| Associate Degree & Advanced Diploma | 430 | 9.8 | 130 | 20 |
| All award levels | 11,358 | 20.1 | 10,290 | 22.4 |

colours indicate up/down compared with 2022 figure

**Proportions of bachelors degree graduates by field of education in 2023**

| FoE Code | Name | Domestic | International |
|---|---|---|---|
| 0300 | Engineering | 43.3% | 42.8% |
| 0301 | Manufacturing | 1.5% | 1.0% |
| 0303 | Process and Resources | 2.2% | 2.3% |
| 0305 | Automotive | 0.1% | 0.3% |
| 0307 | Industrial | 6.7% | 8.3% |
| 0309 | Civil | 11.5% | 13.9% |
| 0311 | Geomatic | 2.2% | 0.2% |
| 0313 | Electrical & Electronic | 8.2% | 11.3% |
| 0315 | Aerospace | 6.8% | 6.5% |
| 0317 | Maritime | 0.9% | 1.7% |
| 0399 | Other Engineering | 23.3% | 12.3% |

Approximately six months after graduation, employed graduates of undergraduate awards had:

| measure surveyed in 2022-23 | engineering | all fields |
|---|---|---|
| median salary | $75,000 (ranked 4/21) | $71,109 |
| full-time employment rate | 89.2% (ranked 6/21) | 79.0% |
| graduate overall satisfaction | 72.3% (ranked 19/21) | 77.9% |
| employer overall satisfaction | 88.8% (ranked 2/10) | 83.7% |

50 percent of engineering students will have completed their qualification 5.5 years post-commencement of study.

Engineering enrolled 5.21 percent of all domestic commencing students starting bachelor degrees, up from 4.76 percent in 2022. Engineering was the field of education with the second highest proportion (46.6 percent) of commencers with ATAR 80.05 and above.

The number of international commencing students has increased by 42% in 2023 to 19,040.

## Overview

This report and supporting data tables are authoritative resources and commentary on the size and performance of engineering education in the Australian higher education system. Inclusive of the 2023 academic (calendar) year. The previous edition, published in November 2024, reported data from 2021 and 2022. This report covers the 2023 data released in September 2024 and additional bespoke data provided by the Department of Education.

There was a promising recovery in international student numbers in 2023, predominantly at the Masters level, with 5,632 additional commencing students. Domestic commencements increased in 2023 to their highest level at 21,416, only slightly below their all time high in 2014.

The continuing impacts of COVID-19 on engineering education will be better understand as additional data becomes available for 2024 and beyond. This report makes comparisons over the last decade (for long term trends), with 2013 and 2022 for short term trends.

The data cover the field of education 'FoE03 Engineering and Related Technologies'[1] The field of education includes programs in 'Engineering' as recognised by the engineering profession, and 'Related Technologies' in aviation, maritime, and spatial sciences, including surveying. These areas are commonly provided within engineering faculties and comprise a small proportion of the FoE 03 aggregates. All of FoE03 is inferred by the term 'Engineering' unless otherwise explained.

The data includes Australian Qualifications Framework (AQF) programs from Level 5 (diplomas) to Level 10 (doctorates).

The providers of engineering programs include the 35 public universities that are all members of the Australian Council of Engineering Deans (ACED). A small number of these offer programs overseas at their own campuses, or in partnership with others. Private higher education providers and the Vocational & Training (VET) sector contribute less than 5 percent of the higher education awards in Engineering completed in 2022.

The number of domestic graduations decreased slightly in 2023, reflecting the impacts of disrupted study between 2020 and 2022 to the higher education system (and with residual impacts lasting to the present).

Enrolment and graduation data are provided for the past ten years, with details on the participation of women[2] and Indigenous students. Overall, the Equivalent Full Time Student Load (EFTSL) for engineering students remains 10 percent below the student load undertaken in 2019 but has recovered along with commencements in 2023.

For bachelor degrees (including Bachelor Honours degrees), information is provided on commencing Engineering students' admission profiles, and their success, retention, and graduation (completion) rates. Selected data for some other fields of education and 'All field' aggregates are provided for comparison.

Engineering continues to perform well on student, graduate and graduate employer satisfaction, and graduate employment rates and median salaries.

These conclusions are drawn from the most recent national surveys run by the government's Quality Indicators for Learning & Teaching (QILT) program. The level of student and graduate satisfaction evident in the 2022 results has been largely maintained in 2023. Data on teaching loads, including research supervision[3], and academic staffing for Engineering are provided, in order to compute the

[1] The Australian Standard Classification of Education (ASCED) defines 11 Fields of Education, plus 'Mixed-Field' programs. See Appendix 1, Table 17 for the list of subfields in FoE 03 and FoE 02 Information Technology.
[2] The Department of Education data uses gender categories 'male', female, and 'indeterminate/intersex/ unspecified'. The body of this report adopts the term 'women' in the commentary on participation rates and diversity, on the basis that the Department of Education data classified as 'female' are aggregated from individuals' reporting on their gender identity.
[3] Other research performance data (such as competitive grants, publications, and engagement) are not included in this report.

average student-to-academic staff ratio. Data for 2024 was released shortly before publication of this report and will be analysed in the next edition.

A summary each ACED member's program profile, and its commencing student and graduation data is provided. A commentary on the engineering graduate profile of each of the established formal university groupings is also provided.

The paper concludes with a brief discussion of the outlook for engineering education in meeting the demand for engineers over the coming decades.

The Appendix contains detailed data purchased by ACED from the Department of Education. Higher Education Statistics data held by the Department are compiled from information supplied by education providers. While complying with the Department of Education's requirements, it is known that there is variation in how providers report some data (e.g. some providers do not provide the sub-field of graduations). Inconsistencies that impact on data accuracy and interpretation are noted in the text.

Aggregation of the data in this report is available from the public Australian Department of Education Higher Education Statistics collections, accessible at https://www.education.gov.au/higher-education-statistics/student-data.

## Award levels and external accreditation by Engineers Australia

Higher education programs in Engineering and Related Technologies are delivered at Level 5 (Diploma) through Level 10 (Doctorate) of the Australian Qualifications Framework (AQF), the national policy for regulated qualifications in Australian education and training[4].

Australian higher education providers are regulated by the Tertiary Education Standards and Quality Agency (TEQSA) and must align their programs with the level specifications and descriptors of AQF. All the Australian universities that are members of ACED are 'self-accrediting' institutions.

Providers of engineering programs in Australia typically align their programs to the expectations and needs of the engineering profession through professional accreditation. Engineers Australia accredits[5] programs that deliver the educational qualification for entry to supervised practice in three occupational categories: professional engineer, engineering technologist and engineering associate (senior technicians), as listed in this table:

| EA membership category | Award (minimum full-time equivalent academic years of study, post-secondary school) | AQF Level | International Accord |
|---|---|---|---|
| Professional Engineer | Master (coursework) (5 years)<br>Bachelor Honours (4 years) | 9<br>8 | Washington |
| Engineering Technologist | Bachelor (3 years) | 7 | Sydney |
| Engineering Associate | Associate Degree (2 years) Advanced Diploma (2 years) | 6 | Dublin |

Engineers Australia specifies accreditation standards as a set of 'graduate competencies' for each occupational category, known as the 'Entry-to-Practice Competency Standard[6]'. These competencies are in knowledge and skills, engineering application ability, and professional and personal attributes. They are benchmarked against the graduate attributes specified for the educational accords of the International Engineering Alliance (IEA)[7].

The Engineers Australia accreditation process evaluates programs for their delivery of the graduate competencies in the relevant branch of engineering against criteria covering the academic program design and implementation and the provider's operating environment and quality assurance processes. Accreditation covers programs for up to five years from the year of evaluation.

Graduates of Engineers Australia accredited programs are deemed to have met the Entry to Practice (formerly Stage 1 Competency) standard for the applicable occupational category, and the educational requirements for Engineers Australia graduate membership of that occupation. Their qualification is also recognised as equivalent (in terms of educational outcomes) to those of the other signatories of the corresponding IEA educational accord.

Three matters that impact on the interpretation of data in this report require further explanation:

i. Since 1980, Engineers Australia has required the accredited professional engineer qualification to be of **at least four full-time study years'** duration (or part-time equivalent) following completion of a Year 12 secondary school certificate or equivalent. From 1980

[4] Australian Qualifications Framework Council, The Australian Qualifications Framework, Second Edition January 2013, https://www.aqf.edu.au/framework/australian-qualifications-framework
[5] Engineers Australia's program accreditation process and criteria and the lists of accredited programs can be accessed at https://www.engineersaustralia.org.au/About-Us/Accreditation
[6] Available at https://www.engineersaustralia.org.au/about-engineering/occupational-categories
[7] The IEA is a self-governed international organisation of bodies that each has their jurisdiction's responsibility for accreditation of engineering qualifications and standards of engineering practice. Currently, the Washington Accord has 23 full signatories and 7 provisional signatories. The Sydney and Dublin Accords have 9 full signatories respectively. See http://www.ieagreements.org/

to 2013, the majority of graduates at many universities were awarded their 4-year degree 'with Honours', based on merit. Since 2014, providers have been required (for compliance with the Australian higher education standards) to configure their four-year degrees as 'Bachelor Honours Degrees' as defined in AQF Level 8. **The BEng(Hons) is therefore the 'standard' degree for entry to professional engineering practice in Australia**. Any class of level of Honours is awarded on merit. Most of the data provided in this report aggregates 'bachelor degree' numbers that cover awards at AQF Levels 7 and 8. The Appendix Tables 15 and 16 list ACED members' programs at these two levels.

ii. Until the mid-2000's, coursework Master degrees (AQF Level 9) in engineering were offered primarily to already-qualified professional engineers to **advance** their engineering and technical knowledge. **These degrees were not accredited by Engineers Australia**. Since the 2000's, most of the Australian university providers and some private providers have developed two-year '**entry-to-practice Master degree**' programs that are aimed at domestic[8] and international bachelors graduates with suitable engineering science degrees and other prior qualifications. These programs are eligible for accreditation by Engineers Australia to the Professional Engineer standard. The aggregated data for Master (coursework) graduates presented here includes numbers for both advanced and entry-to-practice types of Master degree programs. The Appendix Tables 15 and 16 provide data on the numbers of programs and branches of engineering provided by each ACED member.

iii. Research degrees (doctorates and Master degrees at AQF Levels 10 and 9, respectively) are not considered by Engineers Australia for external accreditation. Some summary data presented here for Master degree enrolments and graduations includes these Master degrees.

iv. Some higher education institutions classify their engineering programs to 'generic' field of education codes within the Australian Statistical Classification of Education which introduces an inexactness when providing statistics by field of education.

These overlaps in award designations and data classifications thus make it impossible to use the national data collections to provide **exact** answers to questions like:

i. 'How many domestic students were awarded an accredited Professional Engineer qualification in a given year?'
ii. 'How many of these graduates were in Civil Engineering?' and
iii. 'How many domestic engineering professionals are taking an advanced Master degree?'

Appendix Table 15 lists the ACED providers of accredited higher education programs at AQF levels 7 and 6, the latter mostly being Associate Degrees. AQF level 7 Bachelor degrees may be eligible for Engineers Australia accreditation for the Engineering Technologist occupational category. Some Advanced Diplomas may be eligible for accreditation for the Engineering Associate occupational category. The student enrolment and graduation data for these levels includes data for programs that are not aimed primarily at occupational outcomes, but are intended primarily as pathways to enrolment in BEng(Hons) degrees.

Vocational education and training (VET) providers, including TAFE institutions, offer awards in Engineering primarily at AQF Levels 3 to 6. The lower of these levels are qualifications for engineering trades, the higher ones are for engineering technicians. Most programs offered by the VET sector follow a competency-based education and training model, rather than the curriculum model used in higher education. Competency-based Advanced Diplomas in Engineering may be eligible for

[8] Notably, the University of Melbourne and The University of Western Australia ceased offering 4-year Bachelor degrees to commencing students in the 2000s, and adopted a '3yr BSc +2yr MEng' engineering qualification model. Their 2-year MEng degrees are also available on the open market to suitably qualified domestic and international candidates. Charles Sturt University educates its professional engineers via a BTech + MEng program.

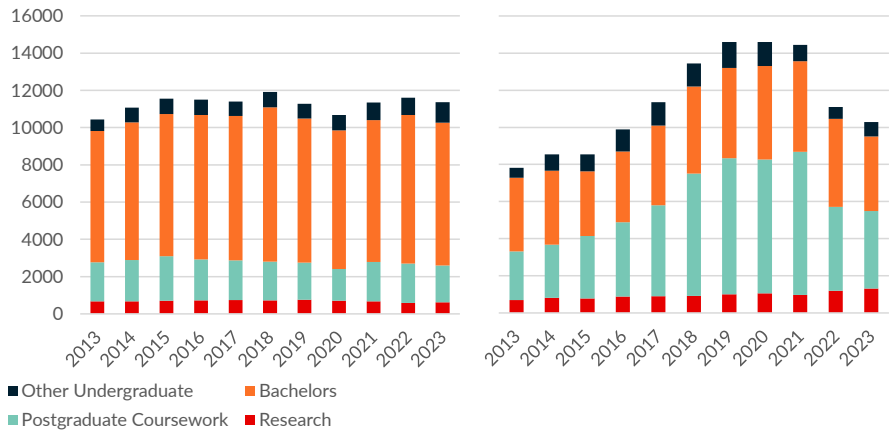
consideration by the Engineers Australia accreditation process at the level of Engineering Associate. Information on these awards is not provided in this report.

# Award course completions (graduations) in engineering and related technologies

## Graduations by award level

The total numbers of graduates by detailed award level over 2013-23 are provided in Appendix Table 1. Figure 1 summarises these numbers for four broad award levels: research (doctorate by research and research Master degree), postgraduate coursework, Bachelor, and other undergraduate awards (Associate Degrees, Advanced Diplomas and Diplomas).

FIGURE 1: AWARD COURSE COMPLETIONS IN ENGINEERING AND RELATED TECHNOLOGIES, DOMESTIC (LEFT) AND INTERNATIONAL STUDENTS (RIGHT) BETWEEN 2013 AND 2023




In 2023 the total number of completions by international students continued to fall, to below the number achieved in 2017. Domestic completions were also slightly lower than in 2022, with decreases at all levels aside from other undergraduate awards.

It is evident from the decline in completions that the effects of COVID-19 are ongoing in 2023, with students who commenced qualifications from 2016 onwards (4-year bachelors students, doctorates and part-time students) possibly impacted by disruption from 2020-2022 and less so thereafter.

The international figures include those from programs offered by Australian providers at offshore campuses or in partnerships with local institutions. The offshore programs that are offered by ACED member universities and are accredited by Engineers Australia are listed in Appendix Table 16(b).

## Graduations 2023: key points and trends

**PhDs and Research Master degrees (domestic: 620; international: 1,322)**

Graduations from research degrees have increased by around 96 percent over the decade, with 80 percent more international graduates offset by a small drop in domestic graduates of around 2 percent since 2013. In 2023 domestic completions of Doctorates were slightly higher than in 2013, with Research Master degrees being 24% lower, while international student completions are up 360% for doctorates and 55% for Research Master degrees over the same period.

The proportion of domestic women graduating from Doctorates has increased to 31.5% percent in 2023 and 28.4% for Research Master degrees from 24.8 and 22% since 2013. The proportion of

women international students completing doctorates has similarly increased to 31.5% from 23% over the same period, although they have decreased for Research Masters degrees, to 19.9% in 2023 from 26.5% in 2013.

In 2023 Engineering had 9.5 percent of the total domestic research degree graduations across all fields of education, and 27 percent of the international research degree graduations.

**Postgraduate coursework (domestic 1980; international: 4,172)**

International student graduations from Master degrees dropped a further 10 percent in 2023 compared to 2022 to 4,062, with a lingering impact arising from COVID-19 evident. There has been a small shift in domestic postgraduate coursework completions away from Masters degrees to other coursework postgraduate degrees, although the number commencing in each decreased again in 2023.

In 2023 the number of postgraduate coursework completions had fallen to 6,152, below the total recorded in 2017, although 50 percent higher than a decade ago in 2013.

The participation rate of women domestic students remains steady at approximately 21 percent, with international women completions of coursework Master degrees decreasing to 25% in 2023 ( and with reduced numbers overall). Domestic coursework Master degree completions have decreased to 1,252 in 2023 and are now slightly below the 2013 figure of 1,335.

The number of Graduate Certificates and Graduate Diplomas awarded to domestic students fell by 10 percent to 705, likely due to the cessation of Commonwealth support for these places that arose with COVID-19 stimulatory measures. These awards are most likely to have been made to practising professionals.

**Bachelor degrees (domestic: 7,667; international: 4,012)**

In 2023 the domestic total completions decreased by 4 percent compared to 2022 and remain below the 2018 peak of 8,295. International completions decreased a further 16 percent in 2023 to 4,012, the lowest level since 2016.

In 2023 there were 554 domestic and 513 international graduates of 3-year degree programs (see Appendix Table 2). This represents a 13 and 17 percentage decline in the number of completions respectively. Some of the engineering graduates at this level are likely to use their 3-year qualification as credit in articulating to a professional engineering degree.

**Commented [PB2]:** 634 domestic and 617 international in 2022, for reference

Approximately 59 percent of the domestic bachelor degree graduates, and 78 percent of international students, respectively, graduated from programs of 4-years duration (Appendix Table 2) being the length of a standard Bachelors (Honours) award program. There are 2,151 domestic and 259 international students graduating from 'dual', 'double' or 'combined' degree programs from which graduates gain an additional bachelor degree award for study in another discipline (typically science or business), a co-op program in which students gain an additional award for industry-based study, or a BEng(Hons), MEng combination.

The participation rate of Australian women graduating with a bachelor degree increased to 20.8 percent, while the proportion of international women graduates has stayed steady, at 18.3 percent.

**Other undergraduate (domestic: 1,091; international: 782)**

Associate Degrees and Advanced Diplomas were awarded to 560 students in 2023, 14 fewer than in 2022. There were 52 fewer domestic student completions, this has been offset by the number of international students completing these qualifications, with 40 percent more in 2023. Many of the engineering graduates at this level use this qualification to articulate into professional engineering degrees.

There has been an increase in the number of domestic and international students completing Diplomas in 2023, with 46 and 20 percent more respectively compared to 2022, to 661 and 650 for each.

Many of these graduates will articulate to enrolments in bachelor degrees as discussed in the Commencing Enrolments section below. There may be more students on enabling (foundation) pathways, but who are not assigned by their provider to the Engineering field of education.

**Professional Engineer qualifications**

From these data, and other information, it is estimated that approximately 7,900 domestic students and 7,500 international students graduated from an accredited BEng(Hons) or an entry-to-practice Master degree in 2023. Some Master degree graduates may already hold an undergraduate Professional Engineer qualification and therefore are not necessarily newly available to enter engineering practice (for example if they were undertaking study in a new area of practice). These numbers are elaborated in the award course completions section.

**Commented [PB3]:** 8,370 is the sum of bachelors plus coursework masters minus 3 year completions, this is an estimate, if we know the precise number of masters that are entry-to-practice we can revise, 7,900 seemed a reasonable guess

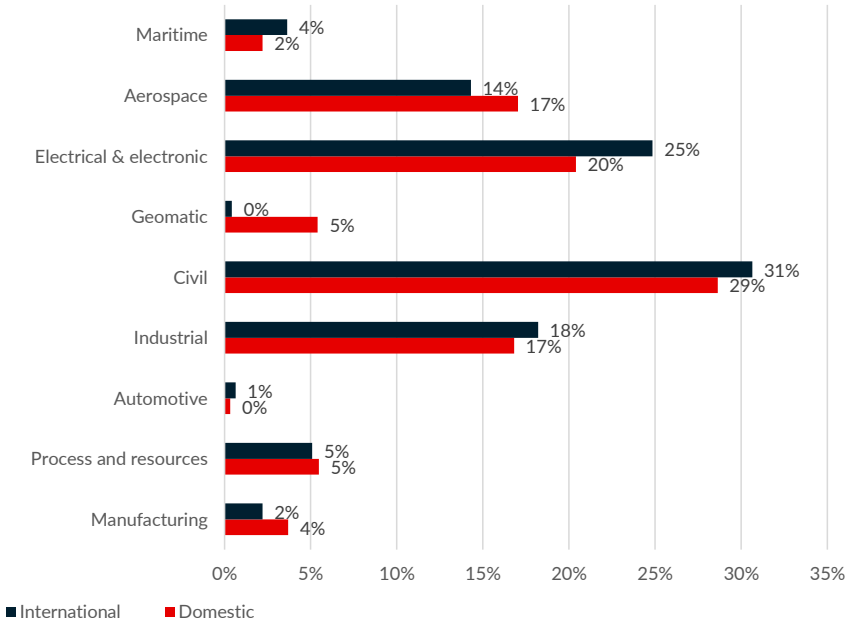
**Commented [PB4R3]:** Same for international, some proportion of masters students will have a B(Hons)

## Undergraduate completions by area of engineering

Appendix Table 2 provides details of undergraduate (AQF levels 8, 7 and 6) award completions for 2023, by duration and 4-digit ASCED code sub-classification of Engineering & Related Technologies (see Appendix Table 17). As the higher education system currently allows for students to freely choose their engineering discipline these data also provide insights into the relative attractiveness of the main areas of the field taken by domestic and international students. Figure 2 presents indicative trends[9].

Note that figure 2 below represents only 33,3 and 45 percent of the domestic and international student undergraduate totals, with fields 0300 and 0399 (Engineering and Other Engineering) excluded.

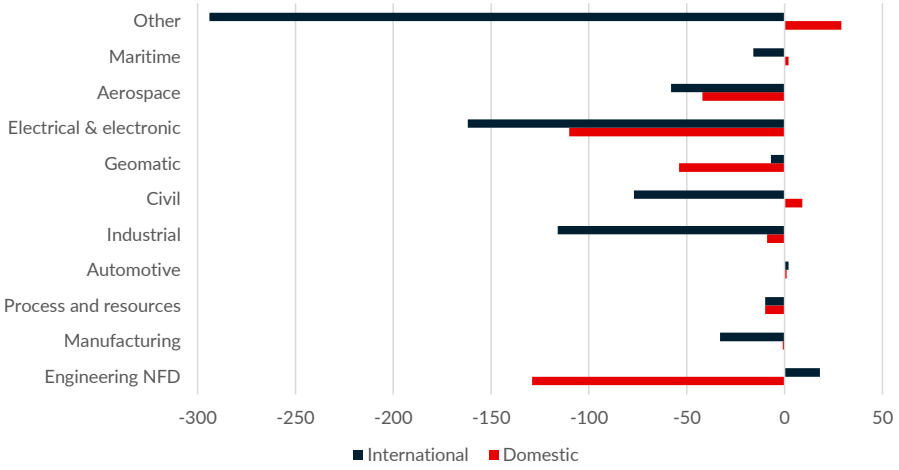
FIGURE 2: UNDERGRADUATE COMPLETIONS BY AREA OF ENGINEERING




[9] These data are not definitive because several universities report their graduations against two generic ASCED codes (0300 and 0399). The proportions and trends reported here assume that the universities that do report against the 4-digit codes are, collectively, representative of all. See Appendix Table 2. Table 15 and 16 list the branches of engineering offered by ACED members.

Figure 3 below shows the change for international and domestic undergraduate completions by field of study, comparing 2022 to 2023, inclusive of ASCED codes 0300 and 0399. Note the relatively small number and proportion of students overall when examining the shifts between years.

FIGURE 3: PERCENTAGE CHANGE IN COMPLETIONS BY FIELD OF STUDY




Both domestic and international undergraduate student completions reduced by 352 and 661 in 2023 compared to the 2022 totals.

For domestic students there were reductions in many fields, with 129 fewer completions in FoE 0300, 42 in Aerospace (0315) and 110 in 301, and 54 fewer completions in Geomatic Engineering. There were small increases in Other Engineering, being 29 more and 9 additional completions in Civil Engineering.

For international students there were increases Engineering NFD and Automotive, with 18 and 2 additional. All other fields declined, with Other, Electrical and Electronic and Industrial Engineering having the largest declines, with 294, 162 and 116 less respectively.

Around 56 percent of domestic graduates and over 80 percent of international graduates in the aerospace category were from 3-year degrees, predominantly in civil aviation.[10]), taken alongside qualification for a commercial pilot licence. One provider offers its civil aviation degree program offshore.

## International comparison of graduates by discipline

**Commented [PB5]:** Checked again this year - no better sources found online.

In the previous edition of this publication statistics were provided for Australian graduates by narrow field of education for international comparison, which was supplied by ACED members. Updated data is not available for this edition.

The table below provides the number and proportion of engineering bachelors graduates in the United States in 2019[11], totalling 154,212 graduates. We see that in contrast to Australia Mechanical Engineering graduates are the highest proportion of graduates and the United States has approximately one-third the proportion of Civil engineering graduates as does Australia.

[10] Separate HE Stats data for 2022 reported 76 women (22%) amongst the 334 domestic graduates from the undergraduate qualifications in aviation. There were 60 women amongst the 270 international graduates from these programs.
[11] Engineering and Engineering Technology by the numbers, American Society for Engineering Education, 2020, https://ira.asee.org/wp-content/uploads/2021/02/Engineering-by-the-Numbers-FINAL-2021.pdf

| Discipline Name | Degrees Awarded | % of total | Discipline Name | Degrees Awarded | % of total |
|---|---|---|---|---|---|
| Mechanical | 35,094 | 22.8% | Engineering (General) | 2,252 | 1.5% |
| Computer Sci. (inside Eng.) | 19,963 | 12.9% | Metallurgical and Matrls. | 2,083 | 1.4% |
| Electrical | 14,221 | 9.2% | Petroleum | 1,563 | 1.0% |
| Civil | 13,774 | 8.9% | Biological and Agricultural | 1,406 | 0.9% |
| Chemical | 11,148 | 7.2% | Envr. Eng | 1,231 | 0.8% |
| Other | 9,472 | 6.1% | Civil/Environmental | 935 | 0.6% |
| Computer Sci. (outside Engr.) | 9,394 | 6.1% | Engr. Science and Engr. Physics | 831 | 0.5% |
| Computer | 7,493 | 4.9% | Architectural | 658 | 0.4% |
| Biomedical | 7,328 | 4.8% | Nuclear | 489 | 0.3% |
| Industrial/Manufacturing/ Systems | 6,800 | 4.4% | Engineering Management | 438 | 0.3% |
| Aerospace | 4,533 | 2.9% | Mining | 167 | 0.1% |
| Electrical/ Computer | 2,939 | 1.9% | Total | 154,212 | 100.0% |

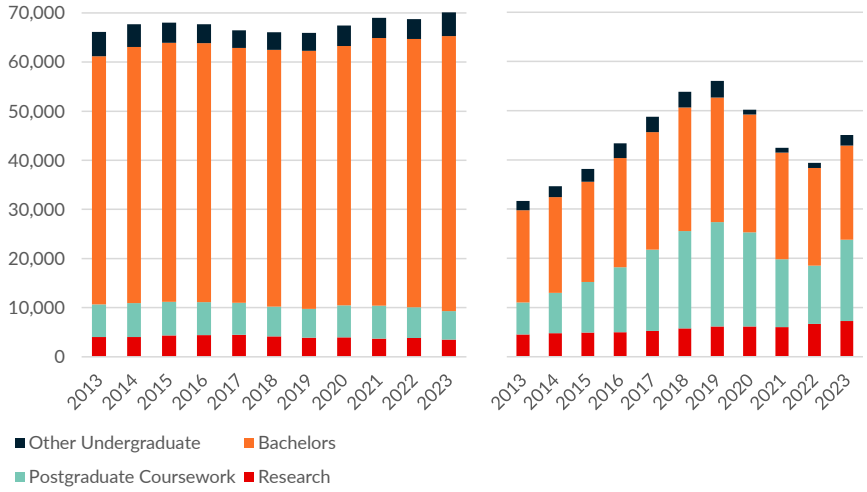
# Total enrolments and student load

## Total Enrolments

The enrolment data by detailed award level provided in Appendix Table 3, are summarised in Figure 4 for the broad award level categories. Total enrolments are the cumulative result of student commencements and successful progression and retention in their programs.

The number of international enrolments remains below the peak recorded in 2019, although their population has returned to growth in 2023, increasing by 4,873. Compared to the peak in 2019 there are still 11,001 fewer international students enrolled in engineering programs in 2023, a lingering impact of the COVID-19 pandemic and associated disruption from 2020 onwards.

FIGURE: 4 TOTAL ENROLMENTS IN ENGINEERING AND RELATED TECHNOLOGIES, DOMESTIC STUDENTS (LEFT) AND INTERNATIONAL STUDENTS (RIGHT), 2013 - 2023



The increased numbers of international student enrolments in 2023 were most prominent in Diplomas and Masters degrees, with 1,683 and 4,714, although the number of enrolled bachelor students decreased by 700. There has been a nearly 10 percent increase in the number of international students enrolled in Doctorate programs in 2023 compared to 2022. Enrolments in bachelors degree programs by international students have fallen consistently each year since 2020, falling 700 in 2023 to 19,146 the lowest number of international enrolments since 2014.

Domestic student enrolments in postgraduate research programs have decreased again in 2023 for all levels, with nearly 50 percent fewer Research Master degree enrolments. Bachelors enrolments have increased slightly by 1,306 compared to 2022.

## Student load

A full-time student (taking 8 courses per academic year or undertaking research training) accounts for one unit of "effective full-time student load" (EFTSL). The following table[12] summarises the taught load in Engineering & Related Technologies field for domestic and total enrolments. The taught load for the international students is the difference between the total and domestic load, for each corresponding cell.

| | Doctorates | Master | other p-grad | Bachelors | other u-grad | Enab | Non-award | Total |
|---|---|---|---|---|---|---|---|---|
| Domestic total 2018 | 2,514 | 2,888 | 457 | 33,545 | 1,390 | 3 | 45 | 40,839 |
| Domestic total 2019 | 2,257 | 2,700 | 515 | 33,969 | 1,420 | 17 | 59 | 40,936 |
| Domestic total 2020 | 2,322 | 2,694 | 608 | 35,028 | 1,686 | 15 | 52 | 42,401 |
| Domestic total 2021 | 2,275 | 2,726 | 708 | 35,220 | 1,841 | 19 | 73 | 42,863 |
| Domestic total 2022 | 2,304 | 2,475 | 672 | 34,158 | 1,874 | 13 | 71 | 41,567 |
| Domestic total 2023 | 2,249 | 2,735 | np | 35,052 | 1,793 | 3 | 68 | 41,900 |
| % Change from 2022 | -2.4% | 10.5% | - | 2.6% | -4.3% | -76.9% | -4.2% | 0.8% |
| All students 2018 | 6,786 | 17,813 | 563 | 52,055 | 2,512 | 3 | 358 | 80,089 |
| All students 2019 | 6,721 | 18,351 | 664 | 52,597 | 2,639 | 17 | 420 | 81,406 |
| All students 2020 | 6,866 | 16,296 | 753 | 51,980 | 2,656 | 15 | 213 | 78,778 |
| All students 2021 | 6,657 | 12,789 | 839 | 50,496 | 2,555 | 19 | 113 | 73,471 |
| All students 2022 | 7,284 | 11,021 | 804 | 47,833 | 2,610 | 13 | 249 | 69,819 |
| All students total 2023 | 7,854 | 14,391 | np | 48,104 | 2,640 | 3 | 363 | 73,354 |
| % Change from 2022 | 7.8% | 30.6% | - | 0.6% | 1.1% | -76.9% | 45.8% | 5.1% |

The load attributed to non-university providers in 2023 was 1,649 EFTSL[13], a little over 2 percent of the total load, roughly in line with previous years. In Engineering, this component of load is mostly for undergraduate or enabling programs.

The total student load has increased by 5.1 percent in 2023, although it remains roughly 10 percent below it's peak in 2019, with 8,052 fewer. The increase in student load arises predominantly from international students, with over 90% of the increase in 2023 attributable to them. Domestic student load grew by 0.8 percent over the last year and is around 3 percent lower than in 2021.

Bachelor degree student load is the largest component again in 2023, with all of the growth attributable to domestic students, with a decline of 700 international students. Research training remains dominated by international load. The growth in international load in 2023 is predominantly at the Masters level.

[12] Table 4.4, 4.5, 2023 Section 4 – All Student Load, Department of Education, September 2024
[13] Table 4.6, 2023 Section 4 – All Student Load, Department of Education, September 2024, Includes Private Universities (Table C) and Non-University Higher Education Institutions

The breakdown of domestic student load in 2023 by narrow discipline and level of award is shown in the table below. This provides further insight into the engineering disciplines in which students are studying, as the classification of student load is less ambiguous than attributing a field of education to student completions which match individual program titles as with Table 2.

| Narorow Discipline | Postgraduate by Research | Postgraduate by Coursework | Bachelor | Sub-Bachelor | TOTAL EFTSL | % of Total EFTSL |
|---|---|---|---|---|---|---|
| Manufacturing Engineering and Technology | 12 | 66 | 977 | 128 | 1,186 | 2.8 |
| Process and Resources Engineering | 378 | 336 | 2,069 | 132 | 2,926 | 7.0 |
| Automotive Engineering and Technology | 0 | 3 | 56 | 0 | 60 | 0.1 |
| Mechanical and Industrial Engineering and Technology | 335 | 300 | 5,752 | 247 | 6,635 | 15.8 |
| Civil Engineering | 364 | 429 | 6,684 | 234 | 7,722 | 18.4 |
| Geomatic Engineering | 42 | 111 | 976 | 106 | 1,236 | 2.9 |
| Electrical and Electronic Engineering and Technology | 499 | 445 | 7,218 | 301 | 8,475 | 20.2 |
| Aerospace Engineering and Technology | 73 | 176 | 1,421 | 140 | 1,811 | 4.3 |
| Maritime Engineering and Technology | 11 | 19 | 155 | 1 | 188 | 0.4 |
| Other Engineering and Related Technologies | 535 | 850 | 9,744 | 504 | 11,661 | 27.8 |
| Total (Engineering and Related Technologies) | 2,249 | 2,735 | 35,052 | 1,793 | 41,900 | |

Earlier year load totals, and the 2023 detailed data for 4-digit ASCED sub-codes (corresponding to the major branches of engineering) are provided in Appendix Table 4.

On the assumption that 2023 load is attributed to teaching and supervising Engineering students[14], the 73,354 EFTSL is generated by the 112,027 enrolled students. As in previous years, each Engineering student represents approximately two-thirds (65.5 percent) of one EFTSL of teaching load. For domestic students this figure is 62.3 percent and for international students it is 69.8 percent.

The difference between this number and parity is due largely to two factors: part-time student enrolment and the contribution of teaching load from other academic areas into engineering programs. Most of the latter load is 'service teaching' of mathematics, science and computing into the first two years of undergraduate engineering programs.

In 2025 UAC surveyed 70,000 Australian school leavers and reported[15] a declining proportion of students who were being funded by their parents during their studies, with a corresponding increase in the proportion looking for work (nearly one in four students) and a considerable increase in the proportion who reported their biggest concern as finding a job (rising from 41 percent in 2022 to 50 percent in 2025). ACED members have reported similar patterns, with the number of students working and working longer hours increasing over recent years.

In the Academic Staff section, the load data are combined with staff data to estimate the overall student-staff ratio for engineering teaching and research training undertaken by the ACED members' faculties and schools.

**Commented [PB6]:** This and the table below are new to this years addition. It provides the breakdown by detailed field for ⅔ of students - quite a bit more than the 35 and 44% in table 2.

**Commented [PB7]:** This was a topic of discussion at ACED meetings throughout 2024 - I would be surprised if the situation had changed, given ongoing cost of living reporting.

[14] This is a reasonable assumption, since few engineering course units are taken by students enrolled in other fields of education.
[15] Student Lifestyle and Learning Report 2025, 5 year trends, p7-8, Universities Admission Centre, 2025, https://www.uac.edu.au/assets/documents/submissions/lifestyle-learning-report-2025.pdf

# Commencing enrolments

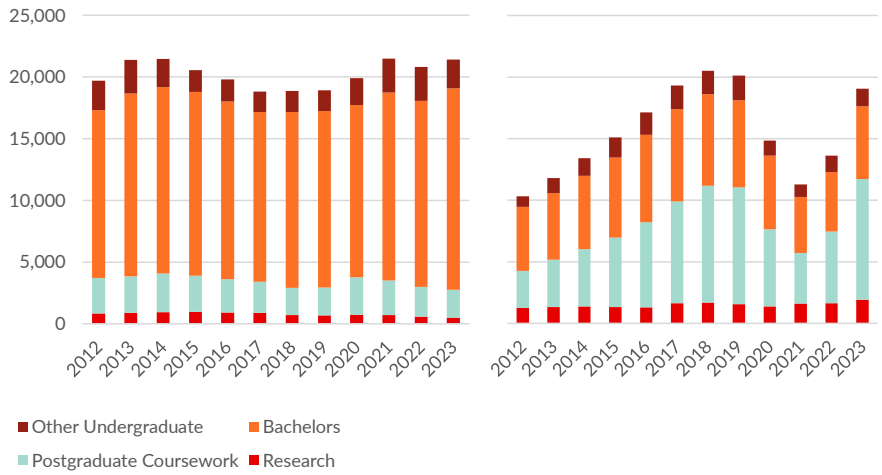
## Commencements by award level

Each graduation is preceded by a commencing enrolment. Figure 5 shows these numbers for the broad award categories over the past decade to 2023. More details are in Appendix Table 5. While most students commence their enrolment into the first study-year of the program, some will commence with advanced standing into a later study year.

The rapid growth of international student commencements underpinned the overall growth of engineering enrolments up to 2018. The significant decline of commencing international enrolments in 2020 and 2022 arose from the COVID-19 border closures, with the Australian border re-opening in February 2022 international students were able resume travel to commence their studies in Australia.

In 2023 the number of commencing enrolments increased for international students considerably and the number of domestic students increased to 21,416. The recovery for international students has largely been at the postgraduate level, with undergraduate qualifications populations less so.

FIGURE 5: COMMENCING ENROLMENTS IN ENGINEERING & RELATED TECHNOLOGIES 2013-2023, DOMESTIC STUDENTS LEFT, INTERNATIONAL STUDENTS RIGHT




Further observations on 2023 data and trends:

**PhDs and research Master degrees (domestic: 510; international: 1,933)1642**

Domestic PhD and research Master commencements declined further in 2023, being 42 percent below their peak in 2015 and down 36 percent over the decade, with a 20 percent decline between 2021 and 2022 followed by a further decerase of 10 percent in 2023.

International research commencements grew 17 percent in 2023 to their highest number recorded, with the majority of this growth coming from PhD commencements, being 23 percent higher in 2023 with a decline of 15% in the number of research Master commencements compared to 2022, with 35 fewer.

**Postgraduate coursework (domestic: 2,247; international: 9,788)**

Domestic commencements have decreased further in 2023, by 7 percent, with 206 fewer undertaking other postgraduate qualifications and 33 additional students commencing Masters coursework degrees.

There were approximately 596 enrolments into the entry-to-practice professional engineering degrees at the University of Melbourne, The University of Western Australia and the University of Southern Queesnland, although this is an estimate based on the data available. In 2023 there were 703 domestic commencing enrolments into Graduate Diplomas and Graduate Certificates, around 23 percent less than in 2023, with decreased enrolments into postgraduate awards aimed at practicing engineers, and graduates of other areas included in the FoE3 category.

Commented [PB8]: ACED / EA to advise please

Commencing enrolments of international students in coursework Masters degrees surged in 2023 by 70 percent to 9,630 , to the highest level on record, eclipsing the total in 2018. Almost all of these enrolments were into entry-to-practice Master degrees that are eligible for accreditation by Engineers Australia.

Commented [PB9]: Is this accurate? It is the original wording, would simply Master degrees be better?

**Bachelor degrees (domestic: 16317; international: 5902)**

In 2023 domestic commencing enrolments in bachelor degrees increased beyond their previous all-time peak in 2022, have grown 8 percent in a single year. The proportion of women commencing bachelors degrees has increased slightly to 21.2 percent, in 2013 it was 14.4 percent, there continues to be a significant gender imbalnce which requires sustained effort to resolve.

International student commencments in bachelor degrees increased by 1,065 or 22 percent in 2023, although they remain 20 percent below the peak recorded in 2017.

While this growth is positive, sustained increases like this are unlikely, with and underlying trend of increased local provision of bachelor degrees in countries from which Australia previously drew enrolments and that are now Washington Accord signatories, and the increasing preferences of international students with local non-accredited degrees to take the 2-year entry-to-practice coursework Master degree pathway to a professional engineering qualification.

**Other undergraduate (domestic: 2332 2,727; international: 1429 1,338)**

Commencing domestic enrolments in Associate Degrees and Advanced Diplomas decreased by 10 percent to 1,087 in 2023, following a decline in 2022. The number of international commencements of these qualifications has decreased by 18 in 2023. Over the decade there has been a decline of 42 percent and 23 percent for domerstic and international students respectively.

Domestic commencing enrolments into 'Enabling and Other' programs in 2023 reversed the 20 percent growth recorded in 2022.

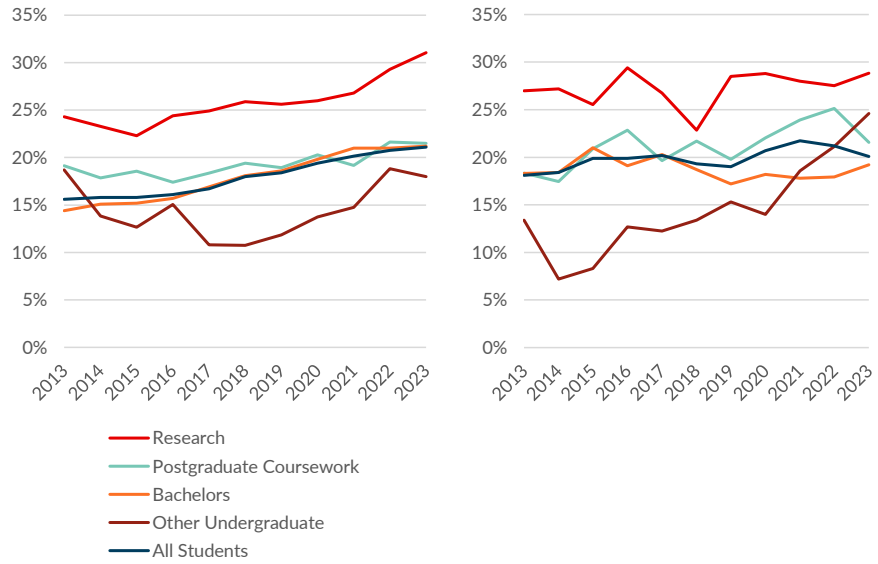
The number of international enrolments in this category (1273) in 2023 increased by 9 percent compared to 2023, but remain over 25 percent lower than their peak in 2019. These programs are intended to provide pathways into higher level awards.

## Participation of women commencing engineering awards

Overall, 2023 saw the proportion of women in the domestic commencing cohort increase to 21.1 percent, the highest figure recorded, while the international commencing cohort decreased further to 20.1 percent, down from 21.7 percent in 2021 (the highest figure recorded for the international commencing cohort).

The recent participation trends for the broad award categories and all students are shown in Figure 6 below, for domestic and international commencing students.

FIGURE 6: PROPORTION OF WOMEN BY AWARD CATEGORY FOR DOMESTIC STUDENTS (LEFT) AND INTERNATIONAL STUDENTS (RIGHT)




The participation of women in domestic bachelor degrees had trended steadily (slowly) up, by nearly another 0.2 percent in 2023 compared to 2022. The proportion commencing study in research degrees has increased to 31.1 percent in 2023.There has been no change in 2023 in the proportion of women commencing other undergraduate study.

The proportion of women in international student commencements peaked in 2021 at 21.7 percent and decreased in further in 2023 to 20.1 percent, down from to 21.2 percent in 2022.

The proportion of female international student commencements in research bachelors qualifications increased to 28.9 and 19 percent respectively in 2023. The proportion of them declined in postgraduate coursework to 21 percent from 25 percent in 2022.

The participation rates of women in postgraduate coursework and research awards are higher than those in undergraduate awards for both international and domestic students. Having a large cohort of women with research degrees may provide good role models for undergraduate engineering students and may be employed as university tutors during their study.

The participation rates of women commencing undergraduate study across the branches of engineering cannot be deduced reliably from any commencing enrolment data, partly because many institutions do not require bachelor degree students to confirm their choice until second year.

The relative attractiveness of each major branch to women may however be deduced from graduation data, provided earlier. As reported there, women are less likely to participate in Geomatic Engineering (4.7 percent), electrical and electronics (13 percent), and Industrial Engineering (14.6 percent) and more likely to participate in Other Engineering (19.8 percent). Aerospace (20.5 percent) Process and Resources (25.4 percent) and Engineering NFD (20.8 percent).

These national participation rates conceal considerable variations between provider institutions, reflecting their program mix (in terms of branches of engineering offered), location, history, and size.

Appendix Table 14 records the proportions of women in the commencing domestic and international cohorts for ACED members. For institutions with at least 200 commencing students in either citizenship category, the participation rates of women range from 11.4 to 33 percent (domestic) and 8.4 to 38.5 percent (international).

The higher rates are found in universities that offer programs in biomedical, chemical and environmental engineering, and that admit high proportions of school leavers. From ACED member's reports, Environmental Engineering (which links to both chemical and civil engineering) and Biomedical Engineering are likely to attract approximately 30% and 50% women.

Commented [PB10]: Please advise if any updates

## Domestic commencements in engineering compared with other fields of education

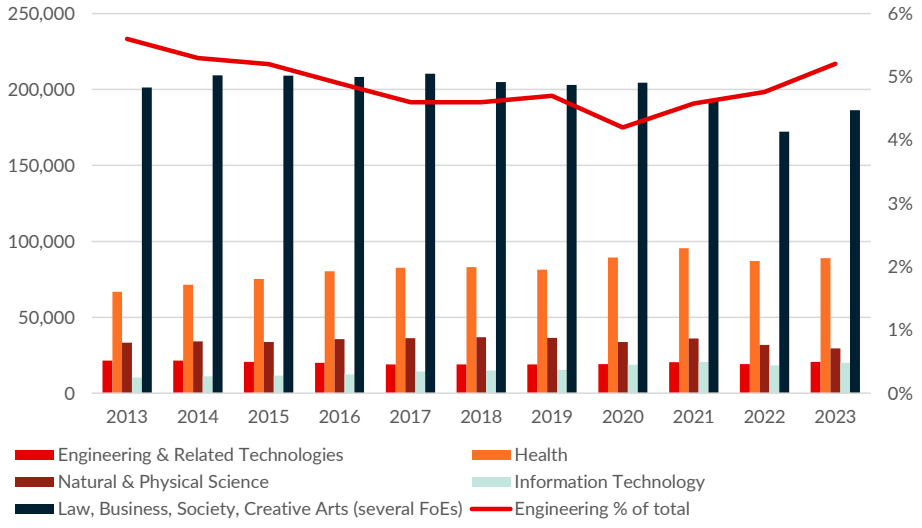
Figure 7 (from data in Appendix Table 6) shows the numbers of domestic students commencing higher education awards in several fields, for all award levels.

The total of all fields commencements was decreased by 1.05 percent to 396,122 in 2023 and remains 12 percent below the peak of 449,723 in 2021.

The share of domestic bachelor degree commencements in Engineering amongst all fields of education increased to 5.2 percent in 2023, up from 4.76 percent in 2022, rising from it's lowest value on record in 2020 at 4.2 percent (see Appendix Table 7).

The share of commencing bachelor degree enrolments in Information Technology and Architecture and Building increased, while all other fields decreased (considerably in Society & Culture, with around 4,000 fewer).

FIGURE 7: DOMESTIC COMMENCING ENROLMENTS (ALL AWARD LEVELS) IN SELECTED FIELDS OF EDUCATION, 2013 - 2023




## Domestic student entry paths into bachelor degrees and ATAR bands

Detailed data on domestic commencing Engineering students' 'basis of admission' are provided in Appendix Table 8(a). The last four years' data are provided below, with the 2023 distributions shown for 'All students' and for women:

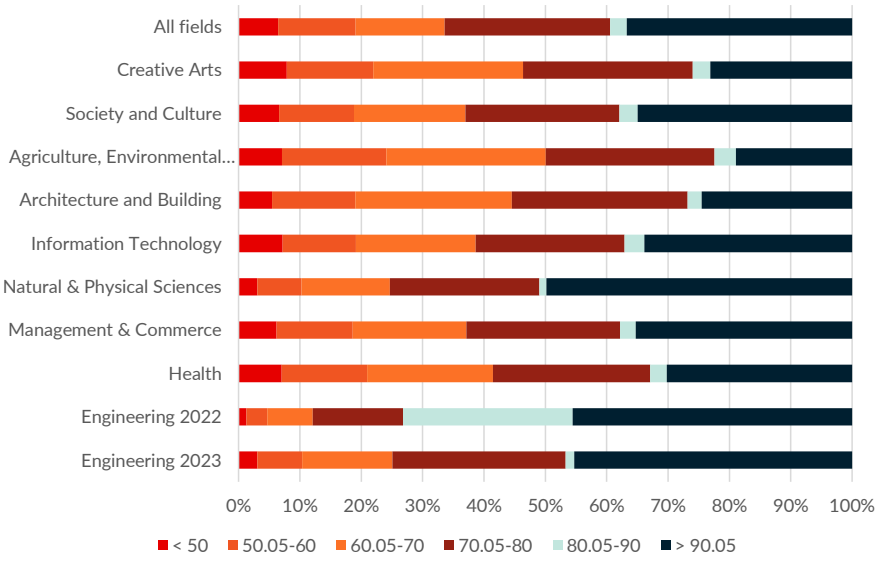
| | 2019 | 2020 | 2021 | 2022 | 2023 (all students) | 2023 (women) |
|---|---|---|---|---|---|---|
| completed secondary school | 63.1% | 61.7% | 62.9% | 67.0% | 68.3% | 72.2% |
| VET/TAFE | 6.3% | 5.5% | 4.9% | 3.6% | 3.2% | 2.1% |
| higher education | 20.5% | 22.1% | 23.5% | 22.1% | 22.1% | 21.8% |
| other | 10.0% | 10.7% | 8.0% | 6.2% | 6.07% | 3.99% |

The longer term trends are the decrease in the proportion of domestic students entering via VET and other pathways, with a 9 percent increase via direct entry from secondary education since 2019.

The final column in the Table above shows that relatively more women enter on the basis of completing secondary school, and nearly 35 percent fewer have a VET qualification. Given the low participation of women in VET engineering qualifications, it is possible that a quite high proportion of those who complete VET choose to progress to higher education.

The published data on undergraduate admissions and offers shows the distribution of offers by ATAR band for the applicant student cohorts for all fields of education. The 2023 shares are presented for Engineering and selected other fields in Appendix Table 8(b) and in Figure 8.

FIGURE 8: PROPORTIONS OF OFFERS IN DECADAL ATAR BANDS MADE TO SCHOOL LEAVERS IN ALL FIELDS, 2023




In 2023 Engineering had the second strongest ATAR profile of all fields[16] (including those not shown), on the basis that it is the field with the second highest proportion (46.6 percent) after Natural and Physical Sciences (51.0 percent), of offers to candidates with ATAR greater than 80.05. This is a substantial decline from 2022 at 73.2 percent, potentially reflecting those whose final years of secondary schooling were subject to the severe disruption of COVID-19 on the education system. Other fields of education had a similarly changed distribution in 2023.

**Commented [PB11]:** For noting - there was a big shift in 2023 vs 2022, far fewer 80-90, expansion of 70-80 and 60-70 - there was a similar pattern with natural sciences, but a big jump in a single year.

[16] The sub-fields of Medical Studies, Dental Studies and Veterinary Studies within Health have stronger ATAR profiles, but much smaller enrolments than Engineering.

Engineering also has the second lowest proportion ( 10.4 percent) of entrants with ATAR less than 60.05, behind Natural and Physical Sciences again (10.2 percent).

## Countries of origin of commencing onshore international students

In 2020, the Tertiary Education Quality and Standards Agency (TEQSA) and the Australian Skills Quality Authority (ASQA) announced regulatory flexibility for the mode of delivery to overseas students of Australian qualifications, in recognition of the significant impact of the COVID-19 pandemic, including domestic lockdowns and international border closures. The flexibility allowed impacted overseas students to continue their studies fully online.

With international borders re-opening and overseas students once again able to travel to Australia for study, TEQSA and ASQA announced in October 2022 that providers are expected to return to full compliance with the National Code of Practice for Providers of Education and Training to Overseas Students 2018 (National Code) by 30 June 2023, where it is safe and practical to do so.

From 30 June 2023, registered providers must not deliver more than one-third of the units in a course for overseas students by online or distance learning and must ensure that overseas students study at least one unit that is not by distance or online learning in each study period, with the exception of the last unit of their course.[17]. This requirement applies only to those who wish to study in Australia on a student visa[18]. This requirement has influence the 2023 higher education data, evident with significant increases in international student load discussed earlier.

The top sixteen countries that provided commencing on-shore international students in both 2023 and 2022 are detailed in Appendix Table 9.

The 2023 figures reflect a return to growth in commencements. Compared to 2022, Pakistan has eclipsed the United States in the number of students who study on-shore in Australia and Hong Kong has risen to 11th place from 14th. Interestingly the number of international students commencing a bachelors program in engineering on-shore has increased from to 86.4 percent, up from 83.3 percent in 2022, to 5,101.

In 2023 India, China, England, New Zealand and the Philippines remain the top source countries for commencing international students as they were in 2022. England, New Zealand and the Philippines were ranked 3rd, 4th and 5th respectively for on-shore commencing student enrolments, with none of these three countries featuring in the top 16 countries in 2019 or 2020.

# Commencements and completions by Aboriginal and Torres Strait Islander students

Indigenous students enrol and graduate from Engineering & Related Technologies in small numbers. The following table shows the national figures for commencements and completions in broad award categories over 2016-23.[19]:

| | Post graduates | Bachelor (inc Hons) | Other | | Total | |
|---|---|---|---|---|---|---|
| | Persons | Persons | Persons | Male | Female | Persons |
| Commencements | | | | | | |
| 2016 | 12 | 102 | 20 | 115 | 19 | 134 |
| 2017 | 21 | 143 | 18 | 146 | 36 | 182 |
| 2018 | 17 | 120 | 22 | 128 | 31 | 159 |

[17] ESOS Act and the return to compliance – frequently asked questions (FAQs), Tertiary Education Quality and Standards Agency, 7 July 2023, https://www.teqsa.gov.au/how-we-regulate/acts-and-standards/esos-act/esos-act-and-return-compliance-frequently-asked-questions-faqs

[18] There is no requirement for international students studying an Australian qualification who are not seeking a study visa in Australia to undertake any portion of study on-shore, beyond individual institutions requirements.

[19] *Female bachelors completions not published in 2021/22, cells with a '<' indicate addition of a subtotal of '<5'.

| | | | | | | |
|---|---|---|---|---|---|---|
| 2019 | 16 | 137 | 38 | 156 | 35 | 191 |
| 2020 | 33 | 151 | 49 | 188 | 45 | 233 |
| 2021 | 23 | 144 | 48 | np | np | 215 |
| 2022 | 17 | 143 | 69 | np | np | 229 |
| 2023 | 24 | 181 | 35 | 202 | 58 | 260 |
| Completions | | | | | | |
| 2016 | 7 | 38 | 10 | 51 | <5 | 55 |
| 2017 | 8 | 34 | 8 | 45 | 5 | 50 |
| 2018 | 6 | 52 | <5 | 53 | 8 | 61 |
| 2019 | 8 | 37 | 13 | 46 | 12 | 58 |
| 2020 | 14 | 47 | 7 | 57 | 11 | 68 |
| 2021 | < 21 | 51 | < 16 | 71 | 11 | 82 |
| 2022 | 6 | *46 | < 19 | 66 | 12 | 78 |
| 2023 | 13 | 49 | 16 | 66 | 12 | 78 |

Commencing Indigenous student numbers reached a new high of 260 in 2023, up 13 percent since 2022.

In 2023[20] the participation rate in engineering was 1.21 percent, contrasting with a participation rate of 2.56 percent for all fields of education, ranging from 1.11 percent in Information Technology, 1.57 percent in Natural and Physical Sciences, to 9.18 percent for 'mixed fields' commencements.

Evidently, all areas of STEM have much catching-up to do. The inclusion challenge is also evident in terms of gender, given the male bias of most STEM disciplines, with only 15 percent of completions by Aboriginal and Torres Strait Islander women in 2023, below the average for all domestic students and all students.

Completion numbers for Indigenous students in Engineering indicate relatively high attrition, with completion rates of around 50%. The 2023 graduates from bachelor degrees would have commenced study during between 2013-19.

Appendix Table 10 elaborates the Indigenous commencements and completion data by State and Territory. Queensland, NSW and Victoria have consistently enrolled and graduated the largest numbers of Indigenous students.

# Bachelor degrees: Success, retention, attrition and completion rates

This section provides detail on educational outcomes on an annual and cohort basis, in terms of success, retention and completion rates for engineering students.

**Commented [PB12]:** No new data, what is written below stands - do you want to omit, or perhaps make a point of asking for it to be published again? Please advise.

## Annual success, retention and attrition rates

The Department of Education ceased publishing annual success, retention and completion rates by field of education with the release of 2021 data and this section will cover the final year of data released.

**Success rates**

The annual success rate is defined as the proportion of courses (units of study) passed by a cohort of enrolled students in a given year[21]. The following table adds detailed 2021 success rates for domestic

[20] 2023 Section 6 - First Nations students, Department of Education, 2024
[21] https://www.tcsisupport.gov.au/glossary/glossaryterm/Success%20rate

and international students enrolled in bachelor degrees in Engineering, to data for the three previous years, and 2005 as a baseline. The success rates are averaged over all years of study.

| | Engineering - Domestic | Engineering - International | All Students - Domestic | All Students - Overseas |
|---|---|---|---|---|
| 2005 | 82.98 | 84.8 | 85.72 | 82.06 |
| 2018 | 85.55 | 84.22 | 84.34 | 86.22 |
| 2019 | 85.93 | 85.12 | 84.86 | 86.02 |
| 2020 | 86.27 | 87.42 | 85.79 | 88.75 |
| 2021 | 85.35 | 85.81 | 84.97 | 88.62 |

Over the preceding 16 years the success rate for domestic and international students in engineering has trended up slightly, with relative stability over the last four years. The success rate for all domestic students has remained relatively stable, while for all overseas students it has increased by 7 percent since 2005.

The visual analytics tool enables inspection of the success rates of each provider. Differences in average success rates reflect provider location (regional/metropolitan) and history, and the educational background, cohort size and the typical patterns of study (full-time/part-time) of their Engineering cohorts:

- amongst ACED members, the average 2021 success rates for domestic bachelor degree students in Engineering ranged from >90 percent (four providers) to <65 percent (one provider).
- for international students this range was from >90% (eight providers) to <65% (one provider).

The data allows for comparison with other fields of education:

The average success rate of 85.35 percent for domestic students in Engineering in 2021 was slightly higher than the average of 84.97 for 'All Fields'. Engineering again placed 5$^{th}$ in 11 fields of education, after Health, Creative Arts, Agriculture & Environment and Education. The average success rates ranged from 76.19 percent (Food, Hospitality and Personal Services) to 89.2 percent (Health).

For internationals students the average success rate in 2021 was 85.81 percent, placing engineering 9$^{th}$ among 11 fields of education. Average success rates varied from 84.2 percent (Information Technology) to 100 percent (Food, Hospitality and Personal Services).

**Retention and retention rates**

Retention rates[22] record the progression outcome for the identified year as 'retained' for either continuing to the subsequent year of study or for graduating in the year of study or the following year. (The retention rates reported in 2021 therefore record the student outcomes from 2020. Attrition is the corresponding loss of students from their degree program.)

The visual analytics tool reports only on retention for commencing students, (i.e. those in their first year of enrolment in a course of study) in two ways. Put simply, the 'normal' rate applies to retention within an institution (using StudentID), while 'adjusted' rates allow for following year transfer to another higher education provider, using the StudentID and CHESSN (national) identifiers. The following year enrolment may be in a different program or field of education.

[22] For further details on how Retention and Attrition are defined, see https://www.tcsisupport.gov.au/glossary/glossaryterm/Retention%20rate and https://www.tcsisupport.gov.au/glossary/glossaryterm/Attrition%20rate

The following shows the last four years of retention rate data for bachelor degree students in Engineering & Related Technologies at Table A Providers (public universities), compared with All Fields, and comparable 2005 baseline data:

| | | Retention Rates (%) | | | | Attrition Rates (%) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Domestic | | International | | Domestic | | International | |
| | | Normal | Adjusted | Normal | Adjusted | Normal | Adjusted | Normal | Adjusted |
| 2005 | Engineering | 85.42 | 88.87 | 88.62 | 88.62 | 14.48 | 11.00 | 11.20 | 11.20 |
| | All Students | 80.95 | 84.89 | 88.24 | 88.24 | 18.71 | 14.84 | 11.30 | 11.30 |
| 2017 | Engineering | 86.21 | 91.12 | 92.84 | 92.84 | 13.69 | 8.80 | 7.05 | 7.05 |
| | All Students | 78.84 | 84.77 | 90.98 | 90.98 | 20.76 | 14.97 | 8.77 | 8.76 |
| 2018 | Engineering | 86.37 | 91.40 | 91.77 | 91.78 | 13.52 | 8.50 | 8.12 | 8.11 |
| | All Students | 79.15 | 85.13 | 90.09 | 90.10 | 20.45 | 14.61 | 9.66 | 9.65 |
| 2019 | Engineering | 87.02 | 92.18 | 89.68 | 89.68 | 12.87 | 7.70 | 10.20 | 10.20 |
| | All Students | 79.93 | 86.55 | 87.28 | 87.29 | 19.71 | 13.24 | 12.37 | 12.37 |
| 2020 | Engineering | 85.79 | 91.32 | 90.31 | 90.71 | 14.08 | 8.60 | 9.55 | 9.16 |
| | All Students | 81.11 | 87.09 | 88.58 | 89.00 | 18.57 | 12.72 | 11.23 | 10.82 |

The adjusted rates show that more than 91 percent of domestic commencing bachelor degree students in Engineering return to study in the following year or graduate (although these would be very few in number). This figure compares favourably with the adjusted retention rate of about 87 percent across all fields of education.

The differences between the adjusted and normal rates imply that about 4 – 6% of domestic students in Engineering transfer between institutions after their commencing year of study. International students have comparable retention rates and apparently zero transfer rates, as is to be expected from their student visa conditions. Average retention rates have been quite stable over several years.

Regrettably new data remains unavailable in 2025.

Commented [PB13]: Retain if leaving this section in.

Commented [PB14]: QILT has not published any new data since last time, I kept it to 2022 in the last edition for consistency, I have added 2023's.

# Student satisfaction and graduate outcomes

All student-related data analysed so far has been aggregated from data submitted to the Department of Education by provider institutions. To understand how students, graduates and employers rate the quality and value of higher education, the Department runs sample surveys under its Quality Indicators for Learning and Teaching (QILT) program[23].

Regrettably at the time of writing in 2025, new data has not been released for the 2024 calendar year.

## Student satisfaction

The most recent QILT Student Experience Survey (SES) report was published in February 2024, based on survey collections in August to September of 2023. Comparisons with 2019 data therefore provide the students' view of the impact of COVID-19 on their educational experiences.

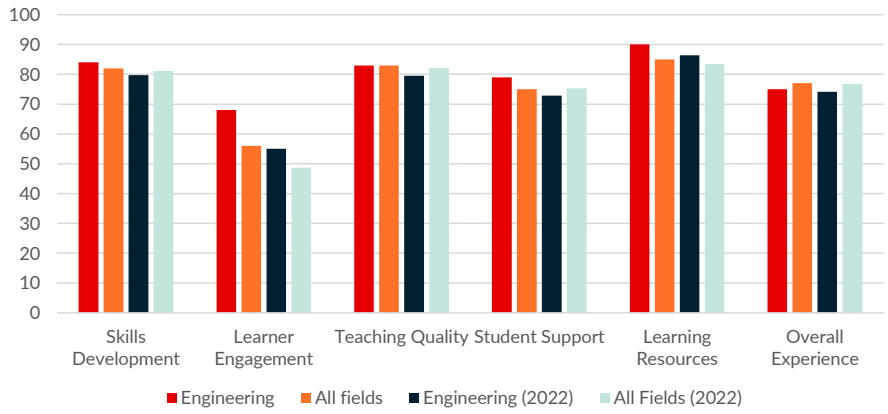
Appendix Table 11(a) provides undergraduate student satisfaction ratings for Engineering and the other STEM fields, for 2019 to 2023. Figure 12 compares the Engineering and 'All fields' averages for the six components of satisfaction for these two years. For 'All Fields', satisfaction ratings have been quite stable since the introduction of the survey in 2012.

There was a considerable dip in learner engagement, teaching quality, student support and learning resources, leading to lower overall satisfaction ratings in 2020 and 2021, years both heavily impacted

[23] The QILT reports and data for all reports referred to here can be accessed at www.qilt.edu.au

by COVID-19. The 2022 student satisfaction results indicate a return to 2019 levels of satisfaction, this has continued in 2023.

FIGURE 9: PERCENTAGE OF UNDERGRADUATES EXPRESSING 'SATISFACTION' WITH EACH INDICATOR, ENGINEERING AND 'ALL FIELDS' AVERAGES, 2022 AND 2023




In 2023 Engineering students' responses are slightly higher than the 'All fields' ratings in 'learner engagement' and 'learning resources', but lower in the overall experience. The higher rate of satisfaction in learner engagement expressed by Engineering students may be attributed to project and studio work throughout their program and the overall satisfaction in 2023 has taken a slight dip for both Engineering and 'All fields'.

A notable ongoing impact of COVID-19 has been the decrease in learner engagement and social interaction between students, QILT report discusses findings for 'All Fields', with students reporting that they had interacted with students outside study requirements remained 7.9 percentage points below pre-COVID levels which indicate ongoing reductions in social activity centred around physical higher education institution campuses even in 2023. This is also the item which scored the lowest positive response in 2022, with only 35.0 per cent indicating that they were interacting with students outside study requirements.[24] In 2023 there was a considerable jump for learner engagement for Engineering and a smaller jump for 'all fields'.

The return of student satisfaction levels to their largely pre-COVID rates are testament to the enormous efforts made by academic and support staff to adapt their teaching to changed circumstances over the last four years, and their efforts to ensure the highest possible quality of learning outcomes.

The satisfaction survey of 2023 Engineering postgraduate coursework students provided similar ratings and recovery in satisfaction levels (see Appendix Table 11(b)).

## Graduate satisfaction

Graduates are surveyed for the QILT Graduate Outcomes Survey (GOS) during the first six months of each calendar year, following qualification for graduation. Appendix Table 11(c) provides the satisfaction ratings for Engineering and selected other fields from graduate surveys conducted in late 2022 and 2023 (thereby applying to 2021 and 2022 graduates), and the comparable figures from the 2020 graduating cohort. Note that from 2021 onwards the survey did not include core questions on satisfaction 'teaching quality' and 'generic skills'.

[24] P78, Appendix 6, SES 2023 National Report

Engineering undergraduates and postgraduates via research and coursework surveyed in 2023 are slightly more satisfied than in 2022.

Graduates of higher degrees by research (HDR) rate their experience in against seven category areas, as shown in Appendix Table 11(c). Engineering research graduates rated all five of the categories higher than their 'All fields' average.

In absolute terms, most category satisfaction rates are high, and only 12 percent of graduates of Engineering and 16 percent of 'All field' graduates are not satisfied with the HDR experience. The Engineering HDRs rate 'infrastructure' and 'goals and expectations' highly.

The two areas of the Australian HDR experience (Engineering and 'All fields') that clearly need attention and received satisfaction ratings below 70%, are the 'intellectual climate', and 'industry and external engagement', although Engineering HDR graduates report their satisfaction with industry engagement as 11 percent higher than 'All fields'.

## Employer satisfaction survey

The most recent QILT Employer Satisfaction Survey (ESS) was published on data collected during in during November 2022 – May 2023, published in May 2024. Data from the 2022-2024 reports are included in Appendix Table 11(d) and Table 11(e), along with earlier years results for comparison.

Until the 2023 ESS was published Engineering was the field of education with the highest overall employer (supervisor) satisfaction, in the latest survey it has taken second place at 88.8 percent, to graduates of Agriculture and Environmental Studies at 90.8 percent, both of which rank considerably higher than the overall satisfaction for 'all fields' at 83.7 percent.

Employers rate engineering graduates clearly above the 'All field' averages in 'foundation', 'collaborative', 'technical' and 'employability' skills, as well as in 'overall satisfaction'. Engineering graduates are marginally above the 'All field' rate for 'adaptive skills'.

Graduates' supervisors rate the importance of the graduates' qualification somewhat higher than the graduates themselves (this difference applies to all fields). However, the 67% of supervisors of Engineering graduates rating this measure as 'important or very important', is a lower figure than that for Health graduates (78%), whose education is invariably more specifically focused to well-defined (and regulated) employer needs. About 10% fewer graduates (across all fields) that their supervisors express similar ratings of the importance of their qualification.

The majority (94%) of graduates' supervisors across all fields of education rated as 'well' or 'very well' the extent to which the graduates' qualification prepared them for their current role. Engineering graduates were rated marginally higher than this 96.8%) and higher than those in Health (94.8%). About 12% fewer Engineering graduates themselves expressed the equivalent confidence in the 'fit' of their qualification.

## Graduate employment outcomes – short term

The GOS survey also reports on employment and remuneration outcomes for the Engineering & Related Technologies field of education, compared with selected and 'All' fields are provided in Appendix Tables 12(a)(b)(c). 'Short-term' refers to graduates surveyed in the six months of the calendar year following graduation.

**Graduates of Undergraduate Programs**

The following table shows (as in previous years) that recent Engineering graduates from undergraduate programs have gained full-time employment and received higher median salaries at higher rates than other fields, as represented by the 'All field' values:

| Undergradautes | % in full-time employment | median salary | | % in any employment | % in further FT study |
|---|---|---|---|---|---|
| | | men | women | | |
| 2020 Engineering | 83.0 | $69,400 | $70,000 | 87.6 | 11.1 |
| 2020 All fields | 68.7 | $65,000 | $63,400 | 85.1 | 18.5 |
| 2021 Engineering | 80.3 | $70,000 | $70,000 | 86.6 | 14.3 |
| 2021 All fields | 68.9 | $66,800 | $64,200 | 84.8 | 21.1 |
| 2022 Engineering | 87.5 | $71,900 | $71,000 | 90.8 | 13.6 |
| 2022 All fields | 78.5 | $69,400 | $67,400 | 88.3 | 18.6 |
| 2023 Engineering | 87.5 | $75,300 | $75,000 | 91.7 | 11.4 |
| 2023 All fields | 79.0 | $70,000 | $73,100 | 88.9 | 18.0 |

The full time rate of employment for engineering graduates rose by nearly ten percent between 2020 and 2023, and is around 10 percent higher than All fields and is indicative of the strong ongoing demand for engineering skills in the post-COVID period. Median salaries for engineering students have kept ahead of 'all fields' and the salary disparity between genders is lower than for that of all fields.

As in previous years, the median salaries received by Engineering graduates have been higher than the surveyed population as a whole, and third after Dentistry and Medicine (see Appendix Table 12(c)).

The matches between graduate employment and skill utilisation are also surveyed. The following table shows that in 2023 (and generally in the preceding years), fewer employed graduate Engineers report that their skills are not being fully used, in general, than the 'All field' populations, irrespective of the status of their employment.

This difference can be taken to indicate that Engineering degrees provide their graduates with a broad range of skills, even if they are not fully utilised. Relatively more non-engineers are in (some) employment that does not use their skills. All undergraduates should be pleased at the reduction in the proportion reporting skills underuse due to a 'lack of jobs in area of expertise', with the proportion falling by 75 percent for engineers since 2018 and 65 percent for 'All fields' for both those employed full time and by around 70 and 55 percent for engineering and all fields graduates in any employment.

An apparent lack of availability of jobs that do not use expertise is reported by about 8.5 percent of all graduates who are in work. There are generally lower levels of skill underutilisation for those in full-time employment compared to any employment, indicating that those in full-time roles have found roles which are more aligned with their qualifications.

| Year of completion of undergraduate qualification | % of FT employed reporting skills not fully used | | % of all employed reporting skills not fully used | |
|---|---|---|---|---|
| | in general | because of lack of jobs in area of expertise | in general | because of lack of jobs in area of expertise |
| 2018 Engineering | 19.8 | 22.0 | 26.6 | 19.8 |
| 2018 All fields | 28.3 | 20.8 | 40.4 | 19.6 |
| 2019 Engineering | 21 | 18 | 27 | 21 |
| 2019 All fields | 28.1 | 20.1 | 40.9 | 19.5 |
| 2020 Engineering | 22 | 9 | 30 | 10 |
| 2020 All fields | 29.3 | 10.2 | 42.3 | 11.4 |
| 2021 Engineering | 22.1 | 8 | 28.5 | 9.6 |
| 2021 All fields | 28.3 | 8.1 | 38.5 | 8.7 |
| 2022 Engineering | 20.9 | 5.1 | 26.7 | 6 |
| 2022 All fields | 27.8 | 7.2 | 38 | 8.5 |

| | | | | |
|---|---|---|---|---|
| 2023 Engineering | 19.3 | 20.1 | 24.7 | 6.7 |
| 2023 All fields | 27.9 | 19.8 | 40.6 | 10.2 |

**Graduates of Postgraduate Coursework Programs and Research**

Relevant data from Appendix Table 12(a) are reproduced in this table:

| HDR Graduates | % in work, of all avail-able for any work | % in FT work, of all available for FT work | % of FT employed reporting skills not fully used | | % of all employed reporting skills not fully used | |
|---|---|---|---|---|---|---|
| | | | in general | because of lack of jobs in area of expertise | in general | because of lack of jobs in area of expertise |
| 2019 Engineering | 86 | 81 | 26 | 32 | 27 | 32 |
| 2019 All fields | 90 | 80.1 | 25.6 | 30 | 28.2 | 32.2 |
| 2020 Engineering | 7.8 | 80.6 | 22 | 20 | 22 | 19 |
| 2020 All fields | 6.8 | 88.1 | 26.9 | 25.1 | 29.9 | 27.9 |
| 2021 Engineering | 92.2 | 84.9 | 27 | 15.8 | 29.5 | 19.4 |
| 2021 All fields | 91.9 | 84.7 | 26.7 | 19.3 | 29.5 | 24.2 |
| 2022 Engineering | 89.2 | 85.5 | 36.8 | 7.1 | 37.6 | 9.4 |
| 2022 All fields | 91.4 | 85.3 | 27.8 | 19.1 | 30 | 20.7 |
| 2023 Engineering | 97.7 | 97.9 | 24.8 | 32.0 | 27.0 | np |
| 2023 All fields | 96.1 | 95.7 | 27.3 | 30.5 | 29.0 | 22.6 |

The employment outcomes for postgraduates are generally stronger than those of first-degree graduates, but do not display any systematic 'Engineering advantage' over the 'All field' averages.

There was a significant drop (around 50 percent) in the number of HDR Engineering graduates reporting a lack of jobs in areas of expertise since 2019 and 2020, for both full-time employed and those in any employment, this accords with reporting over the last few years of shortages of engineering skills, although this has risen slightly in 2023.

HDR graduates are still reporting high (although declining) rates for underutilised skills. Curiously, despite a decrease in the proportion reporting a lack of suitable jobs, the proportion of HDR Engineering graduates in both full time and any employment recorded a general increase in underutilisation of skills, with the proportion reporting that their skills were not fully used increasing considerably for those who graduated in 2023 compared to 2022.

The high rates of 'skills not being fully used' for both full-time and 'all-employed' Engineering postgraduate coursework graduates in and relatively low shortage of jobs does not obviously align with the apparent shortages of engineers.

Appendix Table 12(b) shows that the median salaries earned by postgraduates of Engineering and 'All fields' are significantly higher than those of first-degree graduates. Postgraduate Engineers do not, however, have any advantage over those in other fields. Women Engineers in this category are earning several $',000 less than their male peers, which may be an artefact of the data coverage of both 'entry-to-practice graduates, and established professional engineers taking advanced programs.

Women and men with research degrees (of both Engineering and 'All fields') experience smaller median salary differences than postgraduate coursework graduates, presumably because of the public service conditions of most of the positions in which they are working.

## Graduate employment outcomes – medium term

A medium-term QILT Longitudinal Survey (GOS-L) graduates is also undertaken each year, to report changes in employment, remuneration and occupational roles, over three years from graduation.

Details for Engineering and 'All fields' from the survey conducted in 2023 are provided in Appendix Table 12(d), for graduates of undergraduate programs, postgraduate coursework and research degrees. The individuals were first surveyed in 2020 after their graduation in the previous year.

The 3-year changes for Engineering graduates reported in the 2023 survey, and for 'All fields', are shown in the following table:

| | undergraduate | | postgraduate coursework | | postgraduate research | |
|---|---|---|---|---|---|---|
| measure | Engineering | All fields | Engineering | All fields | Engineering | All Fields |
| **F/T employment** | 8.3% | 10.2% | 9.6% | 10.2% | 8.1% | 12.6% |
| **Overall Employment** | 7.2% | 3.7% | 7.2% | 3.7% | 4.8% | 2.6% |
| **Median Salary** | $ 30,000 | $ 18,500 | $ 19,200 | $ 19,300 | $ 19,600 | $ 17,000 |
| **Roles (of Overall Employed)** | | | | | | |
| managers | 67.7% | 40.8% | -4.3% | 26.4% | 416.0% | 59.7% |
| professionals | 7.7% | 25.2% | 13.8% | 3.3% | -9.1% | -4.7% |
| other | -42.6% | -37.5% | -39.3% | -29.6% | -25.0% | -1.3% |

The GOS-L shows good 3-year increases in employment rates and median remuneration outcomes, especially for undergraduates in engineering. For them, the median salary increase (42 percent over three years) is well ahead of recent (and elevated) CPI, and they move from 'other' roles into professional and managerial roles.

Trends for graduates in the most recent longitudinal survey have departed from their longer term stability. In contrast to graduates in 2017, undergraduate engineering graduates received the largest medium term increase, of $30,000, considerably higher than postgraduates and undergraduates of 'All fields' and their median salary increase of 42 percent over three years is far ahead of undergraduates of 'all fields' (28 percent increase), postgraduate coursework engineering graduates (19 percent) and HDR engineering graduates (21 percent).

Graduates of engineering undergraduate programs move from 'other' occupations into professional roles and both undergraduates and graduates of HDR programs move into management roles (with considerable growth in medium-term outcomes for HDR graduates), while postgraduate coursework engineering graduates had a small decrease in the number moving into management roles over the medium term.

While student quality is a significant factor in determining graduate outcomes, broader economic conditions can heavily influence the job market and the opportunities available to new graduates in any given year, which complicates the comparison of graduating cohorts over the long term.

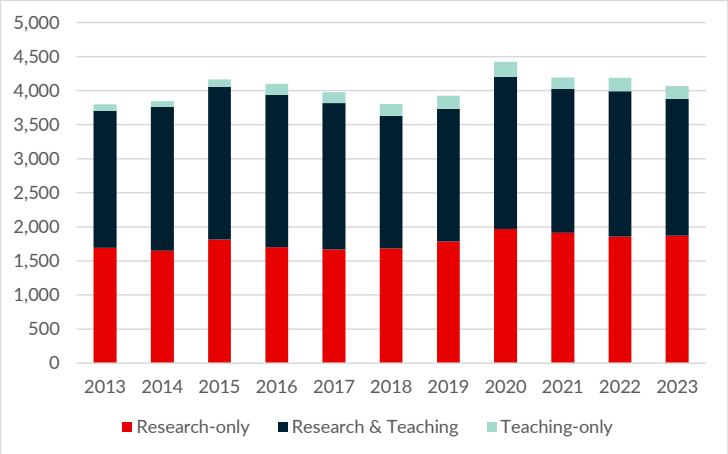
# Academic staff data and student-staff ratios for ACED members

## Academic staff numbers

From Departmental higher education statistics sources, in 2023, there were 4,067 academic staff (full time equivalent) in non- casual positions in Engineering in 26 of the ACED member universities (see Appendix Table 13, and Figure 14). Of these 1,873 were research only positions, with 2,005 teaching and research positions and 189 full time staff in teaching-only positions.

There has been a minor reduction in staffing levels since 2022, with decreases in full-time teaching and teaching and research positions, with a small increase in research only positions.

FIGURE 10 ACADEMIC STAFF (FTE) IN ENGINEERING & RELATED TECHNOLOGIES FOR 2013-2023, 27 ACED UNIVERSITIES IN 2020, 26 UNIVERSITIES FROM 2021.




Nine universities did not report any academic staff in Engineering [25], in 2023, but it is estimated that collectively, they employed approximately around 350 FTE academic staff in teaching positions.

Accordingly, the total number of total number of FTE teaching staff (in Teaching-only and Teaching & Research positions) is accordingly estimated to be 2,550. The number of FTE Research-only staff is estimated to be 2000 (with an estimate of around 100 research only-positions for non-reporting providers). The number of Teaching-only positions in 2023 was at least 190.

Commented [PB15]: Have updated based on 2023 figures - if better estimates known please advise

Data for 2023 is not available at the time of publication. According to 2022 higher education statistics data[26], Engineering also employed 420 FTE casual staff in 2022 in Teaching and Teaching & Research roles, down from 505 in 2021. Adding estimates for the eight non-reporting providers, a more accurate figure is likely to be around 460 in 2022 and around 550 in 2021. That figure is 54 percent less than the 990 estimate for 2019, a decrease that correlates with the staff reductions arising from the COVID-19 pandemic and the ongoing recovery in onshore international student enrolments, which may not be guaranteed.

Commented [PB16]: They ceased publishing table A.1.12 this year

## Women in academic positions

The contribution of women (in FTE) in Teaching & Research and Research-only academic positions Engineering has been fairly constant over the last five years. Their contribution to Teaching-only positions in the reporting institutions increased from 43 FTE in 2018 to 64 FTE in 2023. This rate of over the same period the number of teaching-only male staff has declined from 130 to 125 FTE.

Overall, the proportion of FTE in academic positions increased to 24 percent in 2023, the highest on record, driven by a decline in the number of male academics and simultaneous (albeit smaller) increase in the number of women academics since 2022.

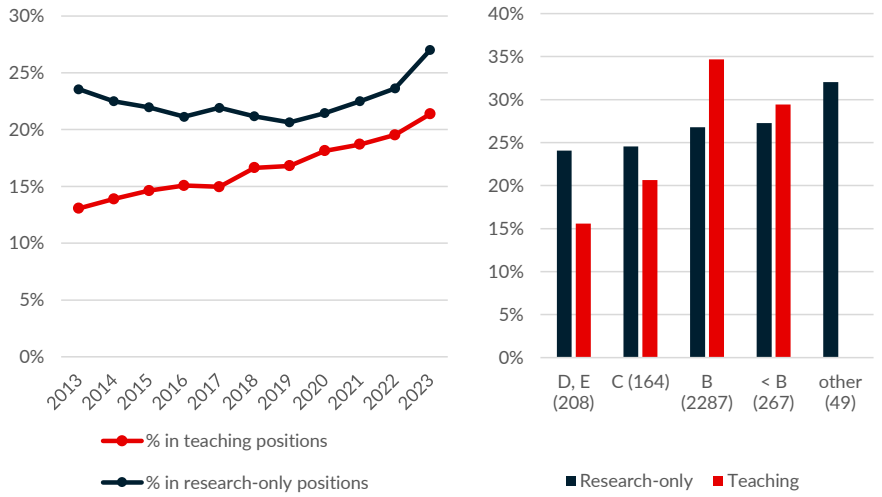
Figure 15(a) shows that this increase has been in both Teaching & Research and Teaching-only positions and research only positions.

Figure 15(b) shows that the proportions of women are highest (>30%) in academic Level B teaching roles, and in 'other' academic roles assigned here to research. Women make up only 13.7 percent of

[25] Most of these universities operate a multi-field academic structure and would have reported their engineering staff in Science.
[26] Table A1.12, 2023 Staff A1 Actual Staff Full-time Equivalence, Higher Education Statistical Collection, Department of Education Staff Data 2023.

non- research staffing at levels C and above, lending numeric weight to the many initiatives to rapidly promote Engineering women into higher level academic positions.

FIGURE 11: PROPORTIONS OF WOMEN ACADEMIC STAFF (FTE) IN ENGINEERING & RELATED TECHNOLOGIES: (A) PROPORTIONS BY ROLE, 2010-22, AND (B) PROPORTIONS AND NUMBER AT EACH ACADEMIC LEVEL, 2022.




## Student-academic-staff ratios (SSR)

The aggregate ratio of Engineering student load to academic teaching staff (including the estimated figure for casual staff), calculated from 2023 data is estimated as 71,616 EFTSL / (2,550 + 550) FTE = 23.10.

The national average SSR for on-shore teaching for all providers and fields of study is 22.1 in 2023[27], with individual institutions ranging between 11.74 and 36.63 for universities that provide engineering programs, most have an SSR between 16 and 25.

# ACED member profiles and graduations by university groupings

Appendix 1 Table 14 provides summary data for 2023 on the commencing and total enrolments and graduation and student load of all the ACED member universities, listed alphabetically. The University of New South Wales (including its Canberra campus which is a member of ACED in its own right) has the largest number of enrolments and graduations, followed by Monash University and RMIT.

Commented [PB17]: Update

Appendix Table 15 provides a tabulation of the coursework awards offered by each ACED member as of May 2024. For each member, the table shows the number of engineering branches covered by Engineers Australia accredited awards (including entry-to-practice Master degrees). Aggregated, there are 17, 17 and 429 fully accredited programs at the Engineer Associate, Engineering Technologist and Professional Engineer levels, respectively, and 7, 12 and 143 provisionally accredited at each corresponding level.

Commented [PB18]: update

Commented [PB19]: Update

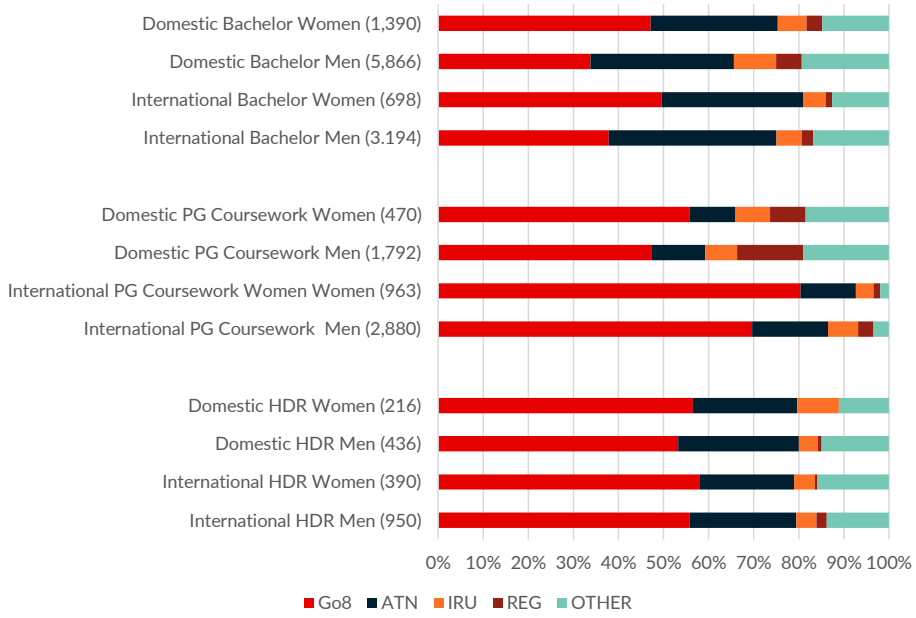
[27] Table A2.1, Appendix 2.1, Student-Staff Ratios for Table A and B Institutions, 2013 to 2022, Staff Data 2023, Department of Education

Table 16 (a) elaborates the branches of engineering in which the professional engineering degrees accredited programs are offered onshore, and Table 16(b) the corresponding data for the accredited program offered offshore by six universities.

Australian universities operate in a four formal groupings, according to their focus, history and location. The ACED members of the formal groups[28] are listed below Table 14, together with the 'other' ACED members that are not members of the groups.

Figure 16 shows the distributions of Engineering graduates for 2023, by graduate citizenship, program level and gender across the formal groups, and 'others'. The numbers of graduates in each sub-category are shown.

**FIGURE 12: DISTRIBUTION OF ENGINEERING GRADUATES BY AWARD COURSE LEVEL, CITIZENSHIP AND GENDER ACROSS UNIVERSITY GROUPS, 2023**




We can observe from Figure 15 that:

- The Group of Eight (Go8) universities award almost half of all higher degrees by research (HDR) for domestic and international students, although their share has decreased slightly in 2023.
- The Go8 universities also graduate more than 50 percent of postgraduate coursework awards, with UNSW, the University of Melbourne and the University of Western Australia graduating the majority of domestic students.
- the Go8 universities graduate higher proportions of women than men in all awards for both domestic and international students.
- the Go8 group awards the highest proportion of international Bachelor graduates, and similar proportions of Bachelor degrees as the ATN group.

[28] In addition, the 11-member Group of Eight Deans of Engineering and Associates, includes the Go8 members plus The Universities of Newcastle, Wollongong and Auckland.

- together, the Go8 and ATN group (14 universities, all of which are in Australia's capital cities or largest regional cities) graduate about two-thirds of the domestic Bachelors graduates, and about 80 percent of the postgraduate coursework and research degrees;
- the 'other' category (of 7 universities) has several large providers in major cities, and contributes a further 10-20% of graduates in most categories
- the smaller contributions of the Innovative Research Universities (8 in number) and the 6 Regional Universities Network to the graduate supply of Engineers are significant in terms of their provision of programs of special interest to their communities. For many regional universities, Engineering is one of their highest prestige professional programs.

# Conclusion

The central purpose of this document is to inform ACED members and stakeholders of the state of engineering education in Australian universities, in terms of graduations, enrolments and admissions, graduate outcomes and staffing, from national data compiled by the Commonwealth Department of Education.

This edition has provided detailed data on the numbers of graduates from accredited programs designed to prepare students to enter the professional engineering workforce. The commentary on the changes in student populations since COVID-19 to engineering higher education and provides some comparisons with other fields, for context. The data in the report and commentary are intended to be resources for the higher education and professional engineering communities.

Australian engineering graduates have sound employment outcomes and have been rated highly by their employers on a consistent basis over the last few years. Furthermore, the ACED members have published their public proposal for the implementation of the Engineering 2035 project on the required directions of future engineering education to satisfy employers' needs, and those of increased numbers of prospective students[29].

In 2023 the recovery in international student numbers is evident, it is also evident that it will be a few more years before they exceed previous peaks.

The demand and supply of future engineering graduates and engineers are the subjects of current national debate within the faculties and the profession. The solutions are complex and required sustained attention and resources over the long term.

The impacts of reduced international student commencements will have an impact on the engineering workforce over the medium term, as while most international students return to their home countries, many utilised their Australian study as a pathway to stay in Australia permanently. At a time of considerable national action to address climate change and meet Australia's 2050 net-zero commitments, there will be an ongoing and elevated need for engineers to ensure that these commitments can be met.

[29] Australian Council of Engineering Deans, March 2023 Engineering 2035 Implementation Proposal Public, March 2023 https://www.aced.edu.au/downloads/March%202023%20Engineering%202035%20Implementation%20Proposal%20Public.pdf

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Table C.1Timeline of key events in Australian Government response to COVID-19, Parliament of Australia, https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Public_Accounts_and_Audit/DFATcrisismanagement/Report_494_Inquiry_into_the_Department_of_Foreign_Affairs_and_Trades_crisis_management_arrangem/C_Timeline_of_key_events

Quality Indicators for Learning and Teaching, https://www.qilt.edu.au/ (Inclusive of the Student Experience Survey (SES), Graduate Outcomes Survey (GOS), Graduate Outcomes Survey – Longitudinal (GOS-L), Employer Satisfaction Survey (ESS), National Reports and Supporting Tables 2021, 2022 and 2023

Student Lifestyle and Learning Report 2025, 5 year trends, p7-8, Universities Admission Centre, 2025, https://www.uac.edu.au/assets/documents/submissions/lifestyle-learning-report-2025.pdf

# Appendix 1 – supporting tables

## Table 1 - completions in engineering & related technologies 2013-2023

| COURSE LEVEL | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **DOCTORATES** | 1,113 | 1,268 | 1,259 | 1,358 | 1,417 | 1,437 | 1,542 | 1,556 | 1,451 | 1,554 | 1,717 |
| domestic total | 536 | 572 | 603 | 603 | 637 | 641 | 674 | 628 | 609 | 523 | 546 |
| % domestic female | 24.80% | 27.30% | 23.20% | 27.00% | 25.00% | 28.70% | 27.70% | 24.80% | 28.24% | 30.78% | 31.5% |
| international total | 577 | 696 | 656 | 755 | 780 | 796 | 868 | 928 | 842 | 1,031 | 1171 |
| % international female | 27.00% | 24.30% | 26.70% | 23.00% | 27.40% | 22.90% | 25.50% | 26.80% | 28.15% | 27.64% | 30.70% |
| % international | 51.80% | 54.90% | 52.10% | 55.60% | 55.00% | 55.40% | 56.30% | 59.60% | 58.03% | 66.34% | 68.20% |
| **RESEARCH MASTER** | 245 | 218 | 229 | 244 | 226 | 222 | 235 | 207 | 196 | 221 | 225 |
| domestic total | 132 | 103 | 108 | 116 | 105 | 93 | 93 | 76 | 67 | 60 | 74 |
| % domestic female | 22.00% | 22.30% | 31.50% | 31.00% | 21.90% | 32.30% | 22.60% | 27.60% | 20.90% | 18.33% | 28.4% |
| international total | 113 | 115 | 121 | 128 | 121 | 129 | 142 | 131 | 129 | 161 | 151 |
| % international female | 26.50% | 24.30% | 41.30% | 27.30% | 23.10% | 26.40% | 25.40% | 21.40% | 19.38% | 26.09% | 19.90% |
| % international | 46.10% | 52.80% | 52.80% | 52.50% | 53.50% | 58.10% | 60.40% | 63.30% | 65.82% | 72.85% | 67.1% |
| **COURSEWORK MASTER** | 3,758 | 4,138 | 4,748 | 5,431 | 6,348 | 8,074 | 8,662 | 8,267 | 9,043* | 5757* | 5,337 |
| domestic total | 1,335 | 1,426 | 1,543 | 1,567 | 1,590 | 1,601 | 1,477 | 1,149 | 1,412 | 1,352 | 1,275 |
| % domestic female | 17.90% | 18.80% | 19.40% | 17.70% | 17.60% | 18.30% | 19.20% | 22.90% | 21.10%^ | 20.12% | 21.1% |
| international total | 2,403 | 2,712 | 3,205 | 3,864 | 4,758 | 6,473 | 7,185 | 7,118 | 7,631* | 4,405 | 4,062 |
| % international female | 19.50% | 19.10% | 19.50% | 20.70% | 22.40% | 22.10% | 20.50% | 20.50% | 22.78% | 30.69% | 25.0% |
| % international | 64.30% | 65.50% | 67.50% | 71.10% | 75.00% | 80.20% | 82.90% | 86.10% | 84.39% | 76.52% | 76.1% |
| **OTHER POSTGRADUATE** | 945 | 958 | 1,008 | 774 | 681 | 577 | 646 | 652 | 771 | 886 | 815 |
| domestic total | 763 | 794 | 848 | 643 | 545 | 466 | 513 | 563 | 694 | 775 | 705 |
| % domestic female | 17.60% | 21.80% | 18.40% | 17.90% | 16.90% | 17.20% | 19.70% | 20.80% | 20.31%^ | 19.61%^ | 22.0% |
| international total | 219 | 164 | 160 | 137 | 136 | 111 | 133 | 89 | 77 | 111 | 110 |
| % international female | 16.00% | 18.90% | 21.30% | 18.20% | 19.30% | 21.60% | 15.80% | 20.20% | 20.78% | 21.62% | 17.3% |
| % international | 22.30% | 20.70% | 18.90% | 17.70% | 25.00% | 19.20% | 20.60% | 13.70% | 9.99% | 12.53% | 13.5% |
| **BACHELOR** | 11,018 | 11,373 | 11,117 | 11,561 | 12,043 | 12,987 | 12,597 | 12,458 | 12,505 | 12,717 | 11,679 |
| domestic total | 7,044 | 7,392 | 7,634 | 7,743 | 7,742 | 8,295 | 7,729 | 7,428 | 7,626 | 7,960 | 7,667 |

| COURSE LEVEL | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| % domestic female | 14.60% | 15.30% | 14.30% | 14.60% | 14.90% | 15.30% | 16.00% | 17.10% | 17.88%^ | 18.42% | 19.20% |
| international total | 3,974 | 3,981 | 3,483 | 3,818 | 4,301 | 4,692 | 4,868 | 5,030 | 4,879 | 4,757 | 4,012 |
| % international female | 18.20% | 19.90% | 19.40% | 19.60% | 20.30% | 22.20% | 21.70% | 21.90% | 20.02% | 18.88% | 18.3% |
| % international | 36.10% | 35.00% | 31.30% | 33.00% | 33.00% | 36.10% | 38.60% | 40.40% | 39.02% | 37.41% | 34.4% |
| **ASSOC DEG & ADV DIPL** | 617 | 620 | 699 | 670 | 670 | 699 | 634 | 667 | 562 | 574 | 560 |
| domestic total | 479 | 523 | 570 | 543 | 493 | 541 | 472 | 475 | 435 | 482 | 430 |
| % domestic female | 8.10% | 9.60% | 9.50% | 10.10% | 7.30% | 8.90% | 10.00% | 9.70% | 9.25%^ | 8.54% | 9.80% |
| international total | 138 | 97 | 129 | 127 | 165 | 158 | 162 | 192 | 127 | 92 | 130 |
| % international female | 8.00% | 12.40% | 12.40% | 3.90% | 13.90% | 16.50% | 12.30% | 17.70% | 22.83%^ | 15.22% | 20.00% |
| % international | 22.40% | 15.60% | 18.50% | 19.00% | 19.00% | 22.60% | 25.60% | 28.80% | 22.60% | 16.37% | 23.2% |
| **OTHER UNDERGRAD** | 551 | 1,035 | 1,029 | 1,350 | 1,350 | 1,364 | 1,555 | 1,469 | 1,263 | 997 | 1,313 |
| domestic total | 152 | 264 | 239 | 285 | 291 | 278 | 319 | 358 | 507 | 451 | 661 |
| % domestic female | 13.20% | 7.60% | 7.50% | 7.40% | 10.30% | 8.60% | 11.60% | 12.80% | 10.65% | 10.64%^ | 23.80% |
| international total | 399 | 771 | 790 | 1,065 | 1,099 | 1086 | 1,236 | 1,111 | 756 | 546 | 652 |
| % international female | 8.00% | 10.00% | 14.10% | 12.00% | 13.90% | 15.50% | 14.00% | 14.70% | 15.74% | 14.10% | 19.60% |
| % international | 72.40% | 74.50% | 76.80% | 78.80% | 81.40% | 79.60% | 79.50% | 75.60% | 59.86% | 54.76% | 49.7% |
| **ALL GRADUATES** | 18,286 | 19,550 | 20,089 | 21,394 | 22,735 | 25,360 | 25,871 | 25,276 | 25,838 | 22,776 | 21,648 |
| domestic total | 10,461 | 11,074 | 11,545 | 11,500 | 11,403 | 11,915 | 11,277 | 10,677 | 11,422 | 11,671 | 11,358 |
| % domestic female | 15.50% | 16.50% | 15.50% | 15.70% | 15.60% | 14.90% | 17.00% | 18.00% | 18.54%^ | 18.42% | 20.1% |
| international total | 7,825 | 8,476 | 8,544 | 9,894 | 11,360 | 13,445 | 14,594 | 14,599 | 14,416 | 11,105 | 10,290 |
| % international female | 18.60% | 19.20% | 19.70% | 19.30% | 20.90% | 21.60% | 20.50% | 20.90% | 21.78% | 21.63% | 22.4% |
| % international | 42.80% | 43.40% | 42.50% | 46.20% | 50.00% | 53.00% | 56.40% | 57.80% | 55.79% | 48.76% | 47.5% |

^Please note that some percentage values in this table have been calculated based on available data and totals, the derived values should be interpreted with caution and are not exact figures. Certain award level completions data is not published by the Department of Education. These calculated values are indicated where appropriate.

*Includes 27 Masters (Extended) Completions by overseas students in 2021, 5 in 2022

## Table 2 - undergraduate completions 2023, by award, duration and 4-digit foe code

| CITIZENSHIP/LEVEL | TOTAL | 300 | 301 | 303 | 305 | 307 | 309 | 311 | 313 | 315 | 317 | 399 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **DOMESTIC** | | | | | | | | | | | | |
| Assoc. Deg./Adv. Dip | 430 | 79 | <5 | <5 | 0 | 0 | 41 | 21 | <5 | 42 | 0 | 242 |
| 3-year Bach | 554 | 35 | 16 | 0 | < 5 | 11 | < 5 | 15 | 29 | 296 | 38 | 111 |
| 4-year Bach | 4572 | 1629 | 86 | 108 | 10 | 391 | 665 | 119 | 472 | 141 | 22 | 943 |
| > 4-year Bach | 2151 | 1596 | 12 | 61 | < 5 | 117 | 178 | 12 | 129 | 47 | 8 | 503 |
| TOTAL DOMESTIC | 7,707 | 3,339 | 114 | 169 | 10 | 519 | 884 | 167 | 630 | 526 | 68 | 1,799 |
| % female | 18.33% | 20.81% | 18.42% | 25.44% | 0.00% | 14.64% | 17.08% | 4.79% | 13.02% | 21.48% | 11.76% | 19.79% |
| ~ % of total (ex 300/399) | 2,569 | - | 4.44% | 6.58% | 0.39% | 20.20% | 34.41% | 6.50% | 24.52% | 20.47% | 2.65% | - |
| **INTERNATIONAL** | | | | | | | | | | | | |
| Assoc. Deg./Adv. Dip | 130 | <5 | 0 | 0 | 0 | 0 | 68 | 0 | 8 | <5 | 7 | 42 |
| 3-year Bach | 513 | 66 | < 5 | 0 | < 5 | 43 | < 5 | < 5 | 24 | 219 | 55 | 99 |
| 4-year Bach | 3210 | 1486 | 41 | 90 | 12 | 297 | 499 | 8 | 424 | 48 | 0 | 312 |
| > 4-year Bach | 259 | 207 | 0 | 5 | 0 | < 5 | 5 | < 5 | 8 | 0 | 6 | 54 |
| TOTAL INTERNATIONAL | 4,112 | 1,759 | 41 | 95 | 12 | 340 | 572 | 8 | 464 | 267 | 68 | 507 |
| % female | 18.34% | 29.11% | 4.88% | 41.05% | 8.33% | 10.29% | 20.63% | 25.00% | 15.09% | 18.73% | 10.29% | 27.81% |
| ~ % of total (ex 300/399) | 1,846 | - | 1.84% | 4.26% | 0.54% | 15.24% | 25.64% | 0.36% | 20.80% | 11.97% | 3.05% | - |
| % INTERNATIONAL | 34.79% | 34.50% | 26.45% | 35.98% | 54.55% | 39.58% | 39.29% | 4.57% | 42.41% | 33.67% | 50.00% | 21.99% |

**ASCED 4-digit codes**

0300 Engineering & Related Technologies 0301 Manufacturing Eng. & Tech.
0303 Process & Resources Engineering 0305 Automotive Eng. & Tech.
0307 Mechanical & Industrial Eng & Tech. 0309 Civil Engineering
0311 Geomatic Eng. & Tech
0313 Electrical & Electronic Eng. & Tech, 0315 Aerospace Eng. & Tech.
0317 Maritime Eng. & Tech
0399 Other Engineering & Related Tech's
6-digit ASCED codes are shown in Table 20

**Notes:**

Low numbers (<5) are suppressed in providers' returns to avoid identification of individuals and are not included in calculated totals per FoE. Overseas graduations are excluded (hence the lower totals compared to Table 1).

ANU, Curtin, CQUni, JCU, Murdoch, UNSW, UTS, UWA and WSU use code 0300 for most Bachelor degree graduates. CDU, Griffith, Monash, QUT, USQ and UTas use code 0399 for most Bachelor graduates. Monash uses codes 300 and 399 for most Bachelor degree graduates.

"Software engineering" does not appear specifically in the ASCED codes for either engineering or Information Technology (ASCED FOE code 02), so may be classified in the universities' returns in different ways. See Table 19.

The 0301 Manufacturing sub-code includes "printing", "textile/garment/furniture making", that are likely to be more relevant to qualifications offered by the VET sector.

0315 Aerospace Eng. and Technology includes 3-year civil aviation degrees, taken primarily by students aiming towards the aviation industry. Many of these programs offer commercial pilot training in parallel with the academic award, some of these are overseas programs.

The full set of ASCED codes is available at: https://www.abs.gov.au/statistics/classifications/australian-standard-classification-education-asced/latest-release

## Table 3 - total enrolments (students) in engineering & related technologies 2013-23

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **DOCTORATES** | 7,427 | 7,668 | 8,035 | 8,338 | 8,718 | 8,971 | 9,117 | 9,120 | 8,704 | 9,353 | 9,808 |
| domestic total | 3,389 | 3,372 | 3,617 | 3,788 | 3,877 | 3,664 | 3,456 | 3,561 | 3,267 | 3,238 | 3143 |
| % domestic female | 24.90% | 25.50% | 25.50% | 26.10% | 26.30% | 26.20% | 26.80% | 27.90% | 27.95%^ | 28.57% | 28.7% |
| international total | 4,038 | 4,296 | 4,418 | 4,550 | 4,841 | 5,307 | 5,661 | 5,559 | 5,437 | 6,115 | 6,665 |
| % international female | 25.70% | 25.90% | 25.90% | 26.00% | 26.80% | 27.50% | 27.60% | 28.50% | 29.3% | 41.4% | 30.30% |
| % international | 54.40% | 56.00% | 55.00% | 54.60% | 55.50% | 59.20% | 62.10% | 61.00% | 62.5% | 65.4% | 67.95% |
| **RESEARCH MASTER** | 1,148 | 1,191 | 1,182 | 1,070 | 1,017 | 933 | 909 | 961 | 966^ | 1,160^ | 897 |
| domestic total | 662 | 684 | 712 | 660 | 590 | 493 | 431 | 400 | 410^ | 604^ | 337 |
| % domestic female | 22.40% | 21.80% | 21.50% | 21.40% | 21.50% | 18.20% | 19.00% | 20.30% | 20.5%^ | 13.9%^ | 26.7% |
| international total | 486 | 507 | 470 | 410 | 427 | 440 | 478 | 561 | 556^ | 556^ | 560 |
| % international female | 29.80% | 27.60% | 26.60% | 28.80% | 26.70% | 22.50% | 25.50% | 25.80% | 29.7%^ | 34.0%^ | 25.50% |
| % international | 42.30% | 42.60% | 39.80% | 38.30% | 42.00% | 47.20% | 52.60% | 58.40% | 57.6%^ | 47.9%^ | 62.4% |
| **COURSEWORK MASTER** | 10,566 | 12,776 | 15,237 | 18,381 | 21,605 | 24,663 | 25,722 | 23,892 | 18,711 | 16,279 | 20,792 |
| domestic total | 4,434 | 4,822 | 5,159 | 5,358 | 5,342 | 5,014 | 4,743 | 4,949 | 5,050 | 4,638 | 4,437 |
| % domestic female | 17.70% | 18.60% | 18.80% | 17.90% | 17.80% | 19.20% | 19.40% | 19.70% | 19.8% | 21.2% | 21.5% |
| international total | 6,132 | 7,954 | 10,078 | 13,023 | 16,263 | 19,649 | 20,979 | 18,943 | 13,661 | 11,641 | 16,355 |
| % international female | 17.60% | 17.70% | 18.90% | 20.20% | 20.40% | 19.40% | 19.40% | 20.60% | 22.1% | 22.2% | 20.0% |
| % international | 58.00% | 62.30% | 66.10% | 70.90% | 75.30% | 79.70% | 81.60% | 79.30% | 73.0% | 71.5% | 78.7% |
| **OTHER POSTGRADUATE** | 2,525 | 2,286 | 1,924 | 1,533 | 1,390 | 1,221 | 1,371 | 1,762 | 1,838 | 1,812 | 1,612 |
| domestic total | 2,177 | 2,051 | 1,698 | 1,328 | 1,175 | 1,059 | 1,155 | 1,557 | 1,672 | 1,622 | 1411 |
| % domestic female | 19.40% | 17.80% | 17.40% | 17.10% | 18.60% | 18.20% | 18.00% | 19.90% | 18.9% | 10.2% | 20.8% |
| international total | 348 | 235 | 226 | 205 | 215 | 162 | 216 | 205 | 166 | 190 | 201 |
| % international female | 19.50% | 20.00% | 21.20% | 21.50% | 17.20% | 23.40% | 20.80% | 19.00% | 19.3% | 25.8% | 22.4% |
| % international | 13.80% | 10.30% | 11.70% | 13.40% | 15.50% | 13.30% | 15.80% | 11.60% | 9.0% | 10.5% | 12.5% |
| **BACHELOR** | 69,342 | 71,560 | 73,138 | 74,874 | 75,767 | 77,365 | 77,851 | 76,755 | 76,172 | 74,477 | 75,083 |
| domestic total | 50,547 | 52,135 | 52,755 | 52,722 | 51,885 | 52,254 | 52,491 | 52,831 | 54,509 | 54,631 | 55,937 |
| % domestic female | 13.70% | 14.10% | 14.40% | 14.90% | 15.50% | 16.40% | 17.30% | 18.10% | 18.8% | 19.2% | 19.90% |
| international total | 18,795 | 19,425 | 20,383 | 22,152 | 23,882 | 25,111 | 25,360 | 23,924 | 21,663 | 19,846 | 19,146 |
| % international female | 17.70% | 18.10% | 19.00% | 19.30% | 20.00% | 19.90% | 19.10% | 18.90% | 18.2% | 17.9% | 18.6% |

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| % international | 27.10% | 27.10% | 27.90% | 29.60% | 31.50% | 32.50% | 32.60% | 31.20% | 28.4% | 26.6% | 25.5% |
| **ASSOC DEG & AQF DIPL** | 4,199 | 3,746 | 3,654 | 3,400 | 3,233 | 3,218 | 3,192 | 3,284 | 3,545 | 3,078 | 3,232 |
| domestic total | 3,752 | 3,401 | 3,240 | 2,937 | 2,719 | 2,715 | 2,612 | 2,768 | 3,180 | 3,078 | 2833 |
| % domestic female | 9.50% | 9.10% | 9.50% | 9.40% | 9.50% | 10.00% | 10.60% | 12.00% | 11.8% | 12.9% | 14.60% |
| international total | 447 | 345 | 414 | 463 | 514 | 503 | 580 | 516 | 365 | 382 | 399 |
| % international female | 11.90% | 9.00% | 6.80% | 8.00% | 10.30% | 12.10% | 14.50% | 15.50% | 18.36% | 20.94% | 25.80% |
| % international | 10.60% | 9.20% | 11.30% | 13.60% | 15.90% | 15.60% | 18.20% | 15.70% | 10.3% | 0.0% | 12.3% |
| **OTHER UNDERGRAD** | 2,609 | 3,077 | 3,040 | 3,463 | 3,500 | 3,529 | 3,818 | 1,876 | 1,509 | 1,595 | 3,771 |
| domestic total | 1,175 | 1,206 | 847 | 918 | 869 | 876 | 1,027 | 1,360 | 913 | 943 | 2016 |
| % domestic female | 24.00% | 18.30% | 14.50% | 17.00% | 8.90% | 10.00% | 12.40% | 12.70% | 19.1% | 20.0% | 23.80% |
| international total | 1,434 | 1,871 | 2,193 | 2,545 | 2,631 | 2,653 | 2,791 | 516 | 596 | 652 | 1,755 |
| % international female | 8.50% | 9.20% | 10.20% | 11.30% | 13.00% | 13.40% | 12.10% | 15.50% | 27.0% | 25.3% | 17.20% |
| % international | 55.00% | 60.80% | 72.10% | 73.50% | 75.20% | 75.20% | 73.10% | 27.50% | 39.5% | 40.9% | 46.5% |
| **ALL ENROLMENTS** | 97,816 | 102,304 | 106,210 | 111,059 | 115,420 | 119,433 | 121,980 | 117,650 | 112,931 | 109,811 | 112,027 |
| domestic total | 66,136 | 67,671 | 68,028 | 67,711 | 66,647 | 66,075 | 65,915 | 67,426 | 69,702 | 69,620 | 66,963 |
| % domestic female | 14.80% | 15.00% | 14.90% | 15.60% | 16.00% | 16.90% | 17.60% | 18.40% | 23.3% | 19.6% | 20.4% |
| international total | 31,680 | 34,633 | 38,182 | 43,348 | 48,773 | 53,358 | 56,065 | 50,224 | 43,229 | 40,191 | 45,064 |
| % international female | 18.40% | 18.60% | 16.90% | 19.80% | 14.90% | 20.20% | 19.70% | 20.60% | 20.8% | 20.9% | 20.1% |
| % international | 32.40% | 33.90% | 35.90% | 39.00% | 42.30% | 44.70% | 46.00% | 42.70% | 38.3% | 36.6% | 40.2% |

**Notes**

^Please note that some percentage values in this table have been calculated based on available data and totals, the derived values should be interpreted with caution and are not exact figures. Certain award level completions data is not published by the Department of Education. These calculated values are indicated where appropriate.

Doctorates do not include doctorate by coursework, <13 in 2021, 26 in 2022.

Masters by coursework includes Masters (Extended).

## Table 4 - domestic and all student load (EFT) in engineering and related technologies 2023, by sub-field and program level, and summary eft load totals from 2013

**(a ) Domestic student load (2013 - 2023)**

| Sub-field of education | Doctorates | Master | other p-grad | Bachelors | other u-grad | Enab | Non-award | TOTAL |
|---|---|---|---|---|---|---|---|---|
| Manufacturing Engineering & Technology | 12 | 54 | 13 | 977 | 68 | 0 | 2 | 1,126 |
| Process and Resources Engineering | 348 | 229 | 138 | 2,069 | 43 | 0 | 11 | 2,838 |
| Automotive Engineering & Technology | 0 | 3 | 0 | 56 | 0 | 0 | 0 | 60 |
| Mech/Industrial Eng & Technology | 307 | 272 | 56 | 5,752 | 73 | 0 | 1 | 6,461 |
| Civil Engineering | 336 | 403 | 55 | 6,684 | 92 | 0 | 12 | 7,582 |
| Geomatic Engineering | 38 | 84 | 31 | 976 | 4 | 0 | 1 | 1,134 |
| Electrical/Electronic Eng & Technology | 459 | 441 | 44 | 7,218 | 103 | 0 | 12 | 8,277 |
| Aerospace Engineering & Technology | 65 | 70 | 114 | 1,421 | 8 | 0 | 2 | 1,680 |
| Maritime Engineering & Technology | 11 | 12 | 7 | 155 | 1 | 0 | 2 | 188 |
| Other Engineering & Related Tech's | 493 | 771 | 121 | 9,744 | 237 | 3 | 26 | 11,395 |
| DOMESTIC TOTAL 2023 | 2,070 | 2,340 | 579 | 35,052 | 629 | 3 | 69 | 40,741 |
| DOMESTIC TOTAL 2022 | 2,304 | 2,475 | 672 | 34,158 | 1,874 | 13 | 71 | 41,567 |
| DOMESTIC TOTAL 2021 | 2,275 | 2,726 | 708 | 35,220 | 1,841 | 19 | 73 | 42,863 |
| DOMESTIC TOTAL 2020 | 2,322 | 2,694 | 608 | 35,028 | 1,686 | 15 | 52 | 42,401 |
| DOMESTIC TOTAL 2019 | 2,257 | 2,700 | 515 | 33,969 | 1,420 | 17 | 59 | 40,936 |
| DOMESTIC TOTAL 2018 | 2,514 | 2,888 | 457 | 33,545 | 1,390 | 3 | 45 | 40,839 |
| DOMESTIC TOTAL 2017 | 2,721 | 3,164 | 469 | 33,730 | 1,437 | 5 | 61 | 41,587 |
| DOMESTIC TOTAL 2016 | 2,695 | 3,249 | 546 | 34,783 | 1,455 | 7 | 51 | 42,787 |
| DOMESTIC TOTAL 2015 | 2,588 | 3,114 | 629 | 35,134 | 1,521 | 46 | 58 | 43,087 |
| DOMESTIC TOTAL 2014 | 2,378 | 2,730 | 746 | 34,681 | 1,609 | 55 | 69 | 42,267 |
| DOMESTIC TOTAL 2013 | 2,225 | 2,399 | 756 | 33,571 | 1,608 | 62 | 49 | 40,856 |

**(b) All student load (2013-2023)**

| Sub-field of education | Doctorates | Master | other p-grad | Bachelors | other u-grad | Enab | Non-award | TOTAL |
|---|---|---|---|---|---|---|---|---|
| Manufacturing Engineering & Technology | 47 | 607 | 13 | 1,330 | 96 | 0 | 12 | 2,105 |
| Process and Resources Engineering | 1,446 | 1,120 | 156 | 2,942 | 92 | 0 | 43 | 5,798 |
| Automotive Engineering & Technology | 0 | 23 | 0 | 83 | 0 | 0 | 1 | 106 |
| Mech/Industrial Eng & Technology | 938 | 1,616 | 69 | 7,774 | 157 | 0 | 43 | 10,597 |
| Civil Engineering | 1,423 | 3,036 | 83 | 8,907 | 154 | 0 | 64 | 13,667 |
| Geomatic Engineering | 71 | 392 | 33 | 1,113 | 4 | 0 | 5 | 1,618 |
| Electrical/Electronic Eng & Technology | 1,590 | 3,265 | 100 | 10,780 | 254 | 0 | 105 | 16,095 |
| Aerospace Engineering & Technology | 126 | 134 | 124 | 2,006 | 34 | 0 | 9 | 2,433 |
| Maritime Engineering & Technology | 25 | 31 | 8 | 240 | 1 | 0 | 2 | 307 |
| Other Engineering & Related Tech's | 1,572 | 4,040 | 138 | 12,929 | 446 | 3 | 79 | 19,207 |
| TOTAL (ALL STUDENTS) 2023 | 7,238 | 14,265 | 725 | 48,103 | 1,239 | 3 | 362 | 71,934 |
| TOTAL (ALL STUDENTS) 2022 | 7284 | 11021 | 804 | 47833 | 2610 | 13 | 249 | 69,819 |
| TOTAL (ALL STUDENTS) 2021 | 6,657 | 12,789 | 839 | 50,496 | 2,555 | 19 | 113 | 73,471 |
| TOTAL (ALL STUDENTS) 2020 | 6,866 | 16,296 | 753 | 51,980 | 2,656 | 15 | 213 | 78,778 |
| TOTAL (ALL STUDENTS) 2019 | 6,721 | 18,351 | 664 | 52,597 | 2,639 | 17 | 420 | 81,406 |
| TOTAL (ALL STUDENTS) 2018 | 6,786 | 17,813 | 563 | 52,055 | 2,512 | 3 | 358 | 80,089 |
| TOTAL (ALL STUDENTS) 2017 | 6,661 | 15,714 | 594 | 51,272 | 2,659 | 5 | 378 | 77,284 |
| TOTAL (ALL STUDENTS) 2016 | 6,440 | 13,264 | 662 | 50,828 | 2,600 | 7 | 723 | 74,525 |
| TOTAL (ALL STUDENTS) 2015 | 6,207 | 10,931 | 749 | 49,765 | 2,529 | 46 | 975 | 71,201 |
| TOTAL (ALL STUDENTS) 2014 | 5,904 | 9,025 | 876 | 48,503 | 2,511 | 55 | 1,058 | 67,931 |
| TOTAL (ALL STUDENTS) 2013 | 5,640 | 7,192 | 914 | 47,220 | 2,408 | 62 | 395 | 63,999 |

## Table 5 - commencing enrolments (students) in engineering & related technologies 2013-23

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | **2023** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **DOCTORATES** | 1,789 | 1,834 | 1,870 | 1,833 | 2,140 | 2,080 | 1,919 | 1,726 | 1,978 | 1,899 | 2,165 |
| domestic number | 662 | 673 | 718 | 701 | 712 | 589 | 562 | 597 | 580 | 480 | 420 |
| % domestic female | 25.10% | 27.20% | 25.20% | 24.50% | 25.40% | 27.50% | 29.50% | 26.30% | 28.79% | 27.50% | 31.00% |
| international number | 1,127 | 1,161 | 1,152 | 1,132 | 1,428 | 1,491 | 1,357 | 1,129 | 1,406 | 1,419 | 1,745 |
| % international female | 26.40% | 28.30% | 24.70% | 27.70% | 27.50% | 29.20% | 27.30% | 31.20% | 30.26% | 29.95% | 32.70% |
| % international | 63.00% | 63.30% | 61.60% | 61.80% | 66.70% | 71.70% | 70.70% | 65.40% | 71.08% | 74.72% | 80.60% |
| **RESEARCH MASTERS** | 433 | 469 | 416 | 375 | 380 | 316 | 329 | 382 | 327 | 313 | 278 |
| domestic number | 234 | 258 | 253 | 214 | 176 | 128 | 120 | 140 | 121 | 90 | 90 |
| % domestic female | 23.50% | 19.40% | 19.40% | 24.30% | 24.40% | 24.30% | 21.70% | 25.70% | 24.79% | 31.11% | 31.10% |
| international number | 199 | 211 | 163 | 161 | 204 | 188 | 209 | 242 | 206 | 223 | 188 |
| % international female | 27.60% | 26.10% | 26.40% | 31.10% | 26.00% | 16.50% | 29.70% | 26.40% | 25.73% | 25.11% | 25.00% |
| % international | 46.00% | 45.00% | 39.20% | 42.90% | 53.70% | 59.50% | 63.50% | 63.40% | 63.00% | 71.25% | 67.63% |
| **COURSEWORK MASTER** | 5,372 | 6,560 | 7,564 | 8,787 | 10,032 | 11,035 | 10,949 | 8,106 | 5,837 | 7,154 | 11,174 |
| domestic number | 1,780 | 2,043 | 2,091 | 2,023 | 1,931 | 1,671 | 1,646 | 2,003 | 1,866 | 1,511 | 1,544 |
| % domestic female | 18.70% | 19.20% | 18.70% | 17.50% | 17.30% | 20.70% | 20.70% | 19.00% | 19.51% | 23.69% | 21.10% |
| international number | 3,592 | 4,517 | 5,473 | 6,764 | 8,101 | 9,364 | 9,303 | 6,103 | 3,971 | 5,643 | 9,630 |
| % international female | 17.40% | 18.60% | 20.30% | 20.90% | 20.20% | 19.20% | 20.20% | 22.50% | 24.63% | 21.87% | 18.40% |
| % international | 66.90% | 68.90% | 72.40% | 77.00% | 80.80% | 84.90% | 85.00% | 75.30% | 68.03% | 78.88% | 86.18% |
| **OTHER POSTGRADUATE** | 1,416 | 1,247 | 1,021 | 835 | 772 | 639 | 789 | 1,193 | 1076 | 1071 | 861 |
| domestic number | 1,167 | 1,118 | 844 | 682 | 594 | 519 | 609 | 1,040 | 951 | 909 | 703 |
| % domestic female | 19.60% | 16.50% | 18.40% | 17.30% | 19.40% | 18.10% | 17.20% | 21.60% | 18.82% | 19.58% | 21.90% |
| international number | 249 | 129 | 177 | 153 | 178 | 120 | 180 | 153 | 125 | 162 | 158 |
| % international female | 19.30% | 16.30% | 21.50% | 24.80% | 19.10% | 24.20% | 19.40% | 21.60% | 23.20% | 28.40% | 24.70% |
| % international | 17.60% | 10.30% | 17.30% | 18.30% | 23.10% | 18.80% | 22.80% | 12.80% | 11.62% | 15.13% | 18.35% |
| **BACHELOR** | 20,234 | 21,048 | 21,406 | 21,484 | 21,218 | 21,685 | 21,349 | 19,935 | 19,776 | 19,924 | 22,219 |
| domestic number | 14,817 | 15,085 | 14,896 | 14,390 | 13,736 | 14,238 | 14,291 | 13,938 | 15,224 | 15,087 | 16,317 |
| % domestic female | 14.40% | 15.10% | 15.20% | 15.70% | 16.90% | 18.10% | 18.60% | 19.80% | 20.99% | 20.98% | 21.20% |
| international number | 5,417 | 5,963 | 6,510 | 7,094 | 7482 | 7,447 | 7,058 | 5,997 | 4,552 | 4,837 | 5,902 |
| % international female | 18.30% | 18.40% | 21.00% | 19.10% | 20.30% | 18.70% | 17.20% | 18.20% | 17.79% | 17.92% | 19.20% |

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | **2023** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| % international | 26.80% | 28.30% | 30.40% | 33.00% | 35.30% | 34.30% | 33.10% | 30.10% | 23.02% | 24.28% | 26.56% |
| **ASSOC DEG & ADV DIP** | 2,094 | 1,562 | 1,374 | 1,372 | 1,275 | 1,342 | 1,302 | 1,445 | 1,607 | 1,386 | 1243 |
| domestic number | 1,890 | 1,370 | 1,178 | 1,136 | 1,031 | 1,095 | 995 | 1,239 | 1,488 | 1,212 | 1,087 |
| % domestic female | 9.30% | 8.30% | 10.80% | 10.10% | 10.80% | 10.90% | 11.60% | 14.20% | 11.90% | 13.76% | 16.00% |
| international number | 204 | 192 | 196 | 236 | 244 | 247 | 307 | 206 | 119 | 174 | 156 |
| % international female | 18.60% | 4.70% | 6.10% | 12.70% | 10.70% | 14.20% | 17.90% | 15.00% | 20.17% | 24.14% | 31.40% |
| % international | 54.60% | 12.30% | 14.30% | 17.20% | 19.10% | 18.40% | 23.60% | 14.30% | 7.41% | 12.55% | 12.55% |
| **ENABLING & OTHER** | 1,841 | 2,144 | 1,988 | 2,249 | 2,304 | 2,263 | 2,393 | 1,943 | 1,820 | 2,371 | 2,518 |
| domestic number | 836 | 909 | 564 | 655 | 631 | 616 | 687 | 943 | 1,257 | 1,515 | 1,245 |
| % domestic female | 28.10% | 19.40% | 14.50% | 20.00% | n/a | 10.60% | 12.10% | 13.30% | 17.58% | 23.89% | 20.00% |
| international number | 1,005 | 1,235 | 1,424 | 1,594 | 1,673 | 1,647 | 1,706 | 1,000 | 890 | 1,164 | 1,273 |
| % international female | 8.20% | 9.70% | 10.50% | 12.70% | 13.80% | 12.60% | 12.70% | 13.00% | 16.97% | 18.13% | 17.80% |
| % international | 0.00% | 57.60% | 71.60% | 70.90% | 72.60% | 72.80% | 71.30% | 51.50% | 48.90% | 49.09% | 50.56% |
| **ALL COMMENCEMENTS** | 33,179 | 34,864 | 35,639 | 36,935 | 38,121 | 39,360 | 39,030 | 34,730 | 32,419 | 34,127 | 40,456 |
| domestic number | 21,386 | 21,456 | 20,544 | 19,801 | 18,811 | 18,856 | 18,910 | 19,900 | 21,353 | 20,719 | 21,416 |
| % domestic female | 15.60% | 15.80% | 15.80% | 16.10% | 16.70% | 18.00% | 18.40% | 19.40% | 20.17% | 20.77% | 21.10% |
| international number | 11,793 | 13,408 | 15,095 | 17,134 | 19,310 | 20,504 | 20,120 | 14,830 | 11,066 | 13,408 | 19,040 |
| % international female | 18.10% | 18.40% | 19.90% | 19.90% | 20.20% | 19.30% | 19.00% | 20.70% | 21.73% | 21.20% | 20.10% |
| % international | 35.50% | 38.50% | 42.40% | 46.40% | 50.70% | 52.10% | 51.60% | 42.70% | 34.13% | 39.29% | 47.06% |

## Table 6 - domestic commencing enrolments (all award levels) in engineering & related technologies and other selected fields, 2013-23

| Year | Engineering & Related Technologies | % of total | Health | Natural & Physical Science | Information Technology | Law, Business, Society, Creative Arts (several FoEs) | total commencing award programs |
|---|---|---|---|---|---|---|---|
| 2013 | 21,433 | 5.60% | 66,827 | 33,163 | 10,292 | 201,234 | 384,251 |
| 2014 | 21,456 | 5.30% | 71,419 | 34,064 | 11,187 | 209,246 | 401,356 |
| 2015 | 20,544 | 5.20% | 75,170 | 33,639 | 11,488 | 209,164 | 397,296 |
| 2016 | 19,902 | 4.90% | 80,364 | 35,682 | 12,347 | 208,351 | 405,085 |
| 2017 | 18,816 | 4.60% | 82,657 | 36,235 | 14,223 | 210,302 | 410,167 |
| 2018 | 18,941 | 4.60% | 82,995 | 36,828 | 14,902 | 204,902 | 409,594 |
| 2019 | 19,005 | 4.70% | 81,390 | 36,521 | 15,365 | 202,993 | 408,222 |
| 2020 | 19,070 | 4.20% | 89,383 | 33,676 | 18,638 | 204,421 | 449,723 |
| 2021 | 20,462 | 4.58% | 95,485 | 36,015 | 20,577 | 192,896 | 446,701 |
| 2022 | 19,070 | 4.76% | 87,115 | 31,687 | 18,251 | 172,191 | 400,332 |
| 2023 | 20,638 | 5.21% | 88,898 | 29,447 | 19,990 | 186,448 | 396,229 |

## Table 7 - domestic bachelor degree commencing enrolments, all fields of education, 2013-23

| Field of Education | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Natural & Physical Sciences | 28,220 | 29,088 | 28,380 | 30,289 | 30,815 | 31,045 | 30,665 | 30,104 | 29,142 | 25,378 | 23,610 |
| Information Technology | 7,541 | 8,502 | 8,866 | 9,169 | 10,567 | 10,851 | 10,898 | 12,092 | 10,954 | 11,038 | 12,434 |
| Engineering & Rel'd Technologies | 14,837 | 15,074 | 14,914 | 14,375 | 13,726 | 14,283 | 14,272 | 13,938 | 14,308 | 14,211 | 15,472 |
| Architecture & Building | 5,953 | 5,878 | 6,350 | 6,692 | 6,727 | 7,337 | 7,647 | 7,999 | 8,065 | 7,558 | 7,592 |
| Agriculture, Envir'l &Related Studies | 3,900 | 3,584 | 3,370 | 3,481 | 3,098 | 3,096 | 3,187 | 3,881 | 3,366 | 3,130 | 2,868 |
| Health | 46,584 | 49,394 | 52,901 | 55,450 | 56,843 | 57,838 | 55,052 | 55,993 | 56,972 | 50,983 | 50,597 |
| Education | 25,225 | 26,466 | 25,382 | 23,845 | 23,708 | 21,553 | 21,326 | 22,192 | 22,608 | 21,878 | 20,623 |
| Management & Commerce | 42,792 | 47,200 | 45,968 | 45,395 | 44,943 | 43,838 | 41,003 | 39,083 | 31,355 | 30,478 | 29,692 |
| Society & Culture | 67,588 | 69,204 | 70,416 | 69,953 | 70,937 | 69,322 | 67,852 | 70,847 | 63,107 | 54,885 | 50,886 |
| Creative Arts | 24,794 | 24,739 | 24,861 | 24,171 | 23,711 | 22,388 | 22,258 | 21,742 | 19,631 | 17,550 | 17,077 |
| Food. Hospitality & Personal Services | 19 | 15 | 16 | 9 | 4 |  | 3 | 2 | 0 | 0 | 15 |
| TOTAL | 248,747 | 259,107 | 260,486 | 261,287 | 262,698 | 259,495 | 252,179 | 256,728 | 259,508 | 237,089 | 230,866 |
| Proportion in Engineering, % | 6.00 | 5.80 | 5.70 | 5.50 | 5.20 | 5.50 | 5.70 | 5.40 | 5.51 | 5.99 | 6.70% |

## Table 8 - admission profiles of domestic students commencing undergraduate award programs in engineering & related technologies 2013-23

### (a) Basis of Admission into Bachelor Degrees, 2013- 23

| Year | Total | Higher Ed completed/in-complete in Aus. or o/s | TAFE/VET award completed or incompleted | Completion of final year of secondary schooling, in school or TAFE (Aus or o/s) | Other |
|---|---|---|---|---|---|
| 2013 | 14,817 | 2,989 | 1,184 | 9,119 | 1,525 |
| 2014 | 15,085 | 3,665 | 1,013 | 8,791 | 1,534 |
| 2015 | 14,896 | 3,357 | 964 | 8,686 | 1,889 |
| 2016 | 14,390 | 3,323 | 1,046 | 8,332 | 1,689 |
| 2017 | 13,736 | 2,978 | 897 | 8,461 | 1,400 |
| 2018 | 14,228 | 2,989 | 872 | 9,027 | 1,340 |
| 2019 | 14,291 | 2,936 | 907 | 9,024 | 1,424 |
| 2020 | 13,993 | 3,074 | 772 | 8,592 | 1,495 |
| 2021 total | 15,214 | 3581 | 740 | 9567 | 1,223 |
| 2021 females | 3,097 | 720 | 90 | 2,098 | 137 |
| 2022 total | 15,087 | 3,331 | 549 | 10,112 | 929 |
| 2022 females | 3,063 | 698 | 87 | 2,130 | 107 |
| 2023 total | 16,315 | 2848 | 515 | 11136 | 991 |
| | | **AS PERCENTAGES** | | | |
| 2013 | | 20.20% | 8.00% | 61.50% | 10.30% |
| 2014 | | 24.30% | 6.70% | 58.30% | 10.20% |
| 2015 | | 22.50% | 6.50% | 58.30% | 12.70% |
| 2016 | | 23.10% | 7.30% | 57.90% | 11.70% |
| 2017 | | 21.70% | 6.50% | 61.60% | 10.20% |
| 2018 | | 21.00% | 6.10% | 63.40% | 9.40% |
| 2019 | | 20.50% | 6.30% | 63.10% | 10.00% |
| 2020 | | 22.10% | 5.50% | 61.70% | 10.70% |
| 2021 | | 23.54% | 4.86% | 62.88% | 8.04% |
| 2022 total | | 22.08% | 3.64% | 67.02% | 6.16% |
| 2022 females | | | 22.79% | 2.84% | 69.54% |
| 2023 total | | 17.46% | 3.16% | 68.26% | 6.07% |
| 2023 females | | | 21.78% | 2.05% | 72.18% |

'**Other**' covers admission on the basis of 'mature age special provisions', 'professional qualifications', and 'other', 'not specified' are excluded.

### (b) Distributions of Undergraduate Offers in ATAR bands to school leavers in Engineering and other selected fields, 2023 (and previous year for Engineering)

| field of education | < 50 | 50.05-60 | 60.05-70 | 70.05-80 | 80.05-90 | > 90.05 | Number of ATAR offers | % of ATAR offers |
|---|---|---|---|---|---|---|---|---|
| Engineering 2023 | 3.1% | 7.3% | 14.7% | 28.2% | 1.4% | 45.3% | 10,050 | 10.1% |
| Engineering 2022 | 1.3% | 3.4% | 7.4% | 14.7% | 27.7% | 45.5% | 9,215 | 10.6% |
| Health | 7.0% | 13.9% | 20.5% | 25.6% | 2.7% | 30.2% | 16,364 | 16.4% |
| Management & Commerce | 6.2% | 12.4% | 18.6% | 25.0% | 2.6% | 35.3% | 15,972 | 16.0% |
| Natural & Physical Sciences | 3.1% | 7.2% | 14.4% | 24.3% | 1.2% | 49.8% | 14,341 | 14.4% |
| Information Technology | 7.2% | 11.9% | 19.5% | 24.3% | 3.2% | 33.9% | 6,443 | 6.4% |
| Architecture and Building | 5.5% | 13.6% | 25.5% | 28.7% | 2.3% | 24.5% | 3,759 | 3.8% |
| "Agriculture, Environmental and Related Studies" | 7.1% | 17.1% | 26.0% | 27.5% | 3.5% | 18.9% | 1,120 | 1.1% |
| Society and Culture | 6.6% | 12.2% | 18.2% | 25.1% | 2.9% | 35.0% | 19,996 | 20.0% |
| Creative Arts | 7.9% | 14.1% | 24.4% | 27.6% | 2.9% | 23.1% | 7,075 | 7.1% |

## Table 9 - top 16 countries of origin of onshore commencing enrolments in engineering & related technologies, 2023 and 2022, by broad program level

**A) Top 16 countries of origin of onshore commencing enrolments in engineering & related technologies 2023 by broad program level**

| 2023 | P/G Research & Coursew'k | Bachelors (inc Hons) | Other | Total | P/G Research & Coursew'k | Bachelor s (inc Hons) | Other | Total | overall rank |
|---|---|---|---|---|---|---|---|---|---|
| India | 132 | 757 | < 5 | 889 | 17.6% | 100.9% | 1.0% | 14.0% | 1 |
| China (excludes SARs and Taiwan) | 161 | 341 | < 5 | 502 | 32.9% | 69.6% | 1.0% | 7.9% | 2 |
| England | 52 | 392 | < 5 | 444 | 11.6% | 87.3% | 1.0% | 7.0% | 3 |
| New Zealand | 55 | 343 | 6 | 404 | 14.9% | 93.0% | 1.6% | 6.4% | 4 |
| Philippines | 29 | 259 | < 5 | 288 | 8.7% | 77.5% | 1.0% | 4.5% | 5 |
| South Africa | 50 | 235 | < 5 | 285 | 18.2% | 85.8% | 1.0% | 4.5% | 6 |
| Sri Lanka | 50 | 204 | < 5 | 254 | 20.0% | 81.6% | 1.0% | 4.0% | 7 |
| Pakistan | 43 | 142 | 0 | 185 | 23.9% | 78.9% | 0.0% | 2.9% | 8 |
| United States of America | 18 | 159 | < 5 | 177 | 10.4% | 91.9% | 1.0% | 2.8% | 9 |
| Malaysia | 33 | 138 | 0 | 171 | 20.2% | 84.7% | 0.0% | 2.7% | 10 |
| Hong Kong (SAR of China) | 21 | 119 | 0 | 140 | 13.5% | 76.3% | 0.0% | 2.2% | 11 |
| Iran | 62 | 63 | 0 | 125 | 48.8% | 49.6% | 0.0% | 2.0% | 12 |
| Bangladesh | 34 | 80 | 0 | 114 | 29.3% | 69.0% | 0.0% | 1.8% | 13 |
| Iraq | 12 | 95 | 0 | 107 | 10.3% | 81.9% | 0.0% | 1.7% | 14 |
| Zimbabwe | 36 | 65 | 0 | 101 | 34.6% | 62.5% | 0.0% | 1.6% | 15 |
| Vietnam | 11 | 84 | 0 | 95 | 10.8% | 82.4% | 0.0% | 1.5% | 16 |
| All other Countries | 397 | 1,554 | 18 | 1,969 | | | | | |
| Total on-shore | 1,219 | 5,101 | 24 | 6,344 | | | | | |
| Total international (from Table 5) | 5,494 | 11,721 | 1,273 | 19,040 | | | | | |
| % commencing onshore | 22.2% | 43.5% | 1.9% | 33.3% | | | | | |

**B) top 16 countries of origin of onshore commencing enrolments in engineering & related technologies, 2022, by broad program level**

| 2022 | P/G Research & Coursew'k | Bachelors (inc Hons) | Other | Total | P/G Research & Coursew'k | Bachelor s (inc Hons) | Other | Total | overall rank |
|---|---|---|---|---|---|---|---|---|---|
| India | 138 | 549 | 63 | 750 | 18.4% | 73.2% | 8.4% | 12.3% | 1 |
| China (excludes SARs and Taiwan Province) | 180 | 283 | 27 | 490 | 36.7% | 57.8% | 5.5% | 8.0% | 2 |
| England | 66 | 327 | 56 | 449 | 14.7% | 72.8% | 12.5% | 7.3% | 3 |
| New Zealand | 53 | 263 | 53 | 369 | 14.4% | 71.3% | 14.4% | 6.0% | 4 |
| Philippines | 48 | 228 | 58 | 334 | 14.4% | 68.3% | 17.4% | 5.5% | 5 |
| South Africa | 46 | 190 | 38 | 274 | 16.8% | 69.3% | 13.9% | 4.5% | 6 |
| Sri Lanka | 59 | 161 | 30 | 250 | 23.6% | 64.4% | 12.0% | 4.1% | 7 |
| United States of America | 21 | 142 | 17 | 180 | 11.7% | 78.9% | 9.4% | 2.9% | 8 |
| Not provided | 32 | 106 | 35 | 173 | 18.5% | 61.3% | 20.2% | 2.8% | NA |
| Pakistan | 48 | 99 | 16 | 163 | 29.4% | 60.7% | 9.8% | 2.7% | 9 |
| Malaysia | 37 | 113 | 6 | 156 | 23.7% | 72.4% | 3.8% | 2.6% | 10 |
| Iran | 72 | 45 | 10 | 127 | 56.7% | 35.4% | 7.9% | 2.1% | 11 |
| Bangladesh | 53 | 56 | 7 | 116 | 45.7% | 48.3% | 6.0% | 1.9% | 12 |
| Iraq | 16 | 79 | 21 | 116 | 13.8% | 68.1% | 18.1% | 1.9% | 13 |
| Hong Kong (SAR of China) | 22 | 73 | 9 | 104 | 21.2% | 70.2% | 8.7% | 1.7% | 14 |
| Viet Nam | 19 | 73 | 10 | 102 | 18.6% | 71.6% | 9.8% | 1.7% | 15 |
| Zimbabwe | 42 | 36 | 23 | 101 | 41.6% | 35.6% | 22.8% | 1.7% | 16 |
| All other Countries | 400 | 1,201 | 255 | 1,856 | 21.6% | 64.7% | 13.7% | 30.4% | |
| Total on-shore | 1,352 | 4,024 | 734 | 6,110 | | | | | |
| Total international (from Table 5) | 7,447 | 4,837 | 1,338 | 13,408 | | | | | |

## Table 10 – Aboriginal and Torres Strait Islander commencements and completions in engineering & related technologies, 2023 and 2022

### A) Commencements

| 2023 | PG research and course work | Bachelor | Other | Total |
|---|---|---|---|---|
| ACT | < 5 | < 5 | 0 | 0 |
| NSW | 7 | 60 | 5 | 8 |
| NT | 0 | 5 | 0 | < 5 |
| QLD | 6 | 69 | 22 | < 5 |
| SA | < 5 | 11 | 7 | < 5 |
| TAS | 0 | 5 | 0 | < 5 |
| VIC | 8 | 16 | < 5 | 0 |
| WA | 0 | 11 | 0 | < 5 |
| Total | 24 | 181 | 35 | 20 |
| Multi-state | np | np | np | np |
| **2022** | **PG research and course work** | **Bachelor** | **Other** | **Total** |
| ACT | 7 | 50 | 21 | 78 |
| NSW | <5 | 10 | <5 | 10 |
| NT | 5 | 51 | 22 | 78 |
| QLD | <5 | 11 | <5 | 11 |
| SA | . | <5 | 13 | 13 |
| TAS | <5 | 8 | <5 | 8 |
| VIC | . | 6 | 6 | 12 |
| WA | . | <5 | . | 0 |
| Multi-state | . | <5 | . | 0 |
| Totals | 17 | 143 | 69 | 229 |

### B) Completions

| 2023 | Females | | | | Males | | | |
|---|---|---|---|---|---|---|---|---|
| | Bachelor | Other | PG research and course work | Subtotal: Females | Bachelor | Other | PG research and course work | Subtotal: Males |
| ACT | 0 | 0 | 0 | 0 | < 5 | 0 | 0 | < 5 |
| NSW | < 5 | 0 | 0 | < 5 | 15 | 0 | < 5 | 21 |
| NT | 0 | 0 | 0 | 0 | < 5 | < 5 | 0 | < 5 |
| QLD | < 5 | < 5 | < 5 | < 5 | 13 | 5 | < 5 | 22 |
| SA | < 5 | < 5 | 0 | < 5 | < 5 | 0 | 0 | < 5 |
| TAS | 0 | < 5 | 0 | < 5 | < 5 | 0 | 0 | < 5 |
| VIC | 0 | 0 | < 5 | < 5 | 7 | 0 | < 5 | 11 |
| WA | 0 | 0 | < 5 | < 5 | < 5 | 0 | 0 | < 5 |
| Total | < 5 | < 5 | < 5 | 12 | 45 | 6 | 9 | 66 |
| **2022** | **Females** | | | | **Males** | | | |
| | Bachelor | Other | PG research and course work | Subtotal: Females | Bachelor | Other | PG research and course work | Subtotal: Males |
| NSW | <5 | <5 | . | 5 | 16 | 9 | . | 25 |
| VIC | <5 | . | . | <5 | 7 | <5 | <5 | 12 |
| QLD | <5 | <5 | . | <5 | 15 | <5 | <5 | 17 |
| WA | <5 | . | . | <5 | <5 | <5 | . | 6 |
| SA | . | . | . | . | <5 | <5 | . | <5 |
| TAS | . | . | . | . | <5 | . | . | <5 |
| NT | . | . | . | . | . | . | . | . |
| ACT | . | . | . | . | <5 | . | <5 | <5 |
| Total | np | <5 | . | 12 | 46 | 14 | 6 | 66 |

## Table 11 - student, graduate, and employer satisfaction

### (a) Undergraduate student satisfaction surveys, 2019 - 2023

| Year of graduation / field of education | Skills Development | Learner Engagement | Teaching Quality | Student Support | Learning Resources | Overall Experience |
|---|---|---|---|---|---|---|
| **2019** | | | | | | |
| Science & mathematics | 80 | 61 | 83 | 75 | 88 | 80 |
| Computing & Info Syst. | 74 | 58 | 74 | 73 | 81 | 72 |
| Engineering | 78 | 65 | 75 | 71 | 84 | 73 |
| All fields | 81 | 60 | 81 | 74 | 84 | 78 |
| **2020** | | | | | | |
| Science & mathematics | 75 | 42 | 79 | 73 | 78 | 67 |
| Computing & Info Syst. | 72 | 46 | 71 | 70 | 70 | 62 |
| Engineering | 75 | 48 | 71 | 69 | 72 | 61 |
| All Fields | 78 | 44 | 78 | 74 | 76 | 69 |
| **2021** | | | | | | |
| Science & mathematics | 77.5 | 47.8 | 81 | 72.1 | 84 | 77.2 |
| Computing & Info Syst. | 72.2 | 46.4 | 72.5 | 69.6 | 73.6 | 65.5 |
| Engineering | 75.7 | 52.4 | 73.4 | 68.8 | 76.9 | 66.8 |
| All fields | 79.3 | 48.7 | 79.4 | 72.6 | 88 | 73.1 |
| **2022** | | | | | | |
| Science & mathematics | 79 | 56 | 82.1 | 72.3 | 87.2 | 77.2 |
| Computing & Info Syst. | 74.4 | 53.8 | 74.9 | 72.7 | 80.8 | 70.4 |
| Engineering | 77 | 60 | 75.1 | 70.7 | 83.6 | 70.9 |
| All Fields | 80.5 | 55.2 | 80.1 | 72.9 | 83.6 | 75.9 |
| **2023** | | | | | | |
| Science & mathematics | 79 | 60 | 82 | 70 | 88 | 77 |
| Computing & Info Syst. | 74 | 58 | 75 | 71 | 82 | 69 |
| Engineering | 79 | 63 | 77 | 69 | 84 | 73 |
| All fields | 81 | 59 | 81 | 71 | 84 | 77 |

## (b) Postgraduate coursework student satisfaction surveys, 2019 -2023

| Year | Skills Development | Learner Engagement | Teaching Quality | Student Support | Learning Resources | Overall Experience |
|---|---|---|---|---|---|---|
| 2019 | | | | | | |
| Engineering | 80 | 59 | 78 | 75 | 88 | 74 |
| All fields | 81 | 54 | 81 | 73 | 83 | 76 |
| 2020 | | | | | | |
| Engineering | 76 | 45 | 72 | 72 | 70 | 62 |
| All Fields | 78 | 42 | 78 | 74 | 73 | 69 |
| 2021 | | | | | | |
| Engineering | 76 | 44 | 74 | 70 | 75 | 66 |
| All fields | 79 | 42 | 80 | 74 | 77 | 73 |
| 2022 | | | | | | |
| Engineering | 79.7 | 55 | 79.5 | 72.9 | 86.4 | 74.2 |
| All Fields | 81.1 | 48.7 | 82.1 | 75.3 | 83.5 | 76.7 |
| 2023 | | | | | | |
| Engineering | 84 | 68 | 83 | 79 | 90 | 75 |
| All fields | 82 | 56 | 83 | 75 | 85 | 77 |

## (c) Graduate satisfaction surveys, 2019 - 2022 graduates

**Note** From 2021 onwards Good Teaching and Generic skills were removed from the Core GOS and are not available.

| 2019 (year of graduation) | Overall satisfaction | Good teaching | Generic skills | Super-vision | Intellect'l climate | Skills develop't | Infra-structre | Thesis examin'n | Goals & expect's | Ind. & ext. eng |
|---|---|---|---|---|---|---|---|---|---|---|
| U/G Engineering | 75.3 | 49.4 | 83.8 | | | | | | | |
| Science & Mathematics | 84.1 | 67.5 | 85.7 | | | | | | | |
| Computing & Info Syst. | 74.2 | 59.7 | 77.6 | | | | | | | |
| Pharmacy | 83.7 | 64.6 | 80.8 | | | | | | | |
| Business & Management | 78.6 | 58.6 | 79.7 | | | | | | | |
| U/G All fields | 80.7 | 63.7 | 82.4 | | | | | | | |
| P/G Coursework Eng. | 76.9 | 63 | 82 | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| P/G Coursework All fields | 81.7 | 69.4 | 79.7 | | | | | | | |
| P/G Research Eng. | 87.5 | | | 79.9 | 69.3 | 93.2 | 81.9 | 82.3 | 92.2 | 66.7 |
| P/G Research All fields | 85.8 | | | 82.3 | 64.4 | 92.5 | 76.8 | 81.5 | 91.3 | 57.9 |
| 2020 (year of graduation) | Overall satisfaction | Good teaching | Generic skills | Super-vision | Intellect'l climate | Skills develop't | Infra-structre | Thesis examin'n | Goals & expect's | Ind. & ext. eng |
| U/G Engineering | 72.3 | | | | | | | | | |
| Science & Mathematics | 82.6 | | | | | | | | | |
| Computing & Info Syst. | 72.5 | | | | | | | | | |
| Pharmacy | 84.2 | | | | | | | | | |
| Business & Management | 76.5 | | | | | | | | | |
| U/G All fields | 77.9 | | | | | | | | | |
| P/G Coursework Eng. | 74.6 | | | | | | | | | |
| P/G Coursework All fields | 79.8 | | | | | | | | | |
| P/G Research Eng. | 84.7 | | | 81.5 | 68.7 | 93.1 | 83.1 | 82.2 | 93.1 | 64.6 |
| P/G Research All fields | 84.8 | | | 83.1 | 64.4 | 94.5 | 78.8 | 82.4 | 93 | 57.1 |
| 2021 (year of graduation) | Overall satisfaction | Good teaching | Generic skills | Super-vision | Intellect'l climate | Skills develop't | Infra-structre | Thesis examin'n | Goals & expect's | Ind. & ext. eng |
| U/G Engineering | 71.9 | | | | | | | | | |
| Science & Mathematics | 81.2 | | | | | | | | | |
| Computing & Info Syst. | 72.2 | | | | | | | | | |
| Pharmacy | 80.4 | | | | | | | | | |
| Business & Management | 75.7 | | | | | | | | | |
| U/G All fields | 77.4 | | | | | | | | | |
| P/G Coursework Eng. | 74.6 | | | | | | | | | |
| P/G Coursework All fields | 80 | | | | | | | | | |
| P/G Research Eng. | 89.4 | | | 85 | 67.3 | 95.4 | 84.8 | 85.3 | 94.1 | 65.8 |
| P/G Research All fields | 86.5 | | | 84.2 | 63.5 | 94.2 | 78.2 | 83 | 93.6 | 57.7 |
| 2022 (year of graduation) | Overall satisfaction | Good teaching | Generic skills | Super-vision | Intellect'l climate | Skills develop't | Infra-structre | Thesis examin'n | Goals & expect's | Ind. & ext. eng |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| U/G Engineering | 72.3 | | | | | | | | | |
| Science & Mathematics | 79.9 | | | | | | | | | |
| Computing & Info Syst. | 72.3 | | | | | | | | | |
| Pharmacy | 81.3 | | | | | | | | | |
| Business & Management | 75.3 | | | | | | | | | |
| U/G All fields | 76 | | | | | | | | | |
| P/G Coursework Eng. | 77.6 | | | | | | | | | |
| P/G Coursework All fields | 80.9 | | | | | | | | | |
| P/G Research Eng. | 87.7 | | | 83.5 | 67.7 | 94.5 | 82.9 | 82.7 | 94.4 | 63.4 |
| P/G Research All fields | 84.1 | | | 83.4 | 61.7 | 94 | 75.5 | 81 | 92.7 | 56 |
| 2023 (year of graduation) | Overall satisfaction | Good teaching | Generic skills | Super-vision | Intellect'l climate | Skills develop't | Infra-structre | Thesis examin'n | Goals & expect's | Ind. & ext. eng |
| U/G Engineering | 72.3 | | | | | | | | | |
| Science & Mathematics | 79.9 | | | | | | | | | |
| Computing & Info Syst. | 72.3 | | | | | | | | | |
| Pharmacy | 81.3 | | | | | | | | | |
| Business & Management | 75.3 | | | | | | | | | |
| U/G All fields | 76 | | | | | | | | | |
| P/G Coursework Eng. | 77.6 | | | | | | | | | |
| P/G Coursework All fields | 80.9 | | | | | | | | | |
| P/G Research Eng. | 87.7 | | | 83.5 | 67.7 | 94.5 | 82.9 | 82.7 | 94.4 | 63.4 |
| P/G Research All fields | 86.5 | | | 83.4 | 61.7 | 94 | 75.5 | 81 | 92.7 | 56 |

**(d) Employer Satisfaction Surveys, for graduates from 2017-23 – skills areas, selected fields of education. Percentages of employers expressing agreement or strong agreement with a relevant statement on graduate skills. Previous year data in parentheses.**

| Field of education | Foundation | Adaptive | Collaborative | Technical | Employability | Overall satisfaction |
|---|---|---|---|---|---|---|
| Engineering & Related Technologies | 95.0 | 90.9 | 86.6 | 95.3 | 87.3 | 88.8 |
| Natural & Physical Sciences | 92.0 | 87.8 | 86.4 | 91.9 | 84.0 | 84.8 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Information Technology | 89.5 | 87.0 | 83.9 | 86.0 | 80.0 | 80.8 |
| Health | 91.3 | 86.6 | 87.0 | 92.2 | 82.0 | 85.8 |
| Management & Commerce | 90.1 | 88.3 | 85.5 | 90.8 | 87.1 | 78.7 |
| Agriculture and Environmental Studies | 96.6 | 96.4 | 90.7 | 96.5 | 90.4 | 90.8 |
| 2017 All fields | 93.4 | 90.1 | 85.9 | 93.3 | 85.0 | 83.6 |
| 2018 All fields | 93.5 | 89.9 | 88.7 | 93.8 | 86.5 | 84.8 |
| 2019 All fields | 92.7 | 89.3 | 87.8 | 92.7 | 85.4 | 84.0 |
| 2020 All fields | 93.5 | 90.3 | 89.3 | 93.7 | 86.6 | 85.3 |
| 2021 All fields | 93.5 | 90.3 | 89.3 | 93.7 | 86.6 | 85.3 |
| 2022 All fields | 93.0 | 90.1 | 88.2 | 92.7 | 86.8 | 84.1 |
| 2023 All fields | 91.2 | 88.7 | 86.0 | 92.2 | 84.1 | 83.7 |

### (e) Employer Satisfaction Survey, for 2021, 2022 and 2023 graduates, selected fields of education

| 2022/2021 (2021 in parenthesis) | % of respondents rating qualification 'important' or 'very important' for current employment | | % of respondents rating 'well' or 'very well' the extent to which qualification prepared graduates for current employment | |
|---|---|---|---|---|
| **Field of education** | **Graduates** | **Supervisors** | **Graduates** | **Supervisors** |
| All fields | 53.7 (51) | 61.7 (60.4) | 87.6 (84.6) | 94.3 (92.1) |
| Engineering & Related Technologies | 60.1 (54.1) | 62.4 (66.0) | 90.2 (82.3) | 96.2 (91.8) |
| Natural & Physical Sciences | 44.8 (43.3) | 62.3 (43.3) | 81.9 (78.4) | 94.7 (88.4) |
| Information Technology | 41.6 (42.3) | 46.1 (42.3) | 82.4 (80.5) | 93.5 (87.2) |
| Health | 68.3 (65.0) | 76.3 (65.0) | 92.6 (91.6) | 93.5 (95.2) |
| Management & Commerce | 40.4 (37.2) | 40.4 (45.9) | 86.2 (83.6) | 94.5 (90.9) |

| 2023/2022 (2022 in parenthesis) | % of respondents rating qualification 'important' or 'very important' for current employment | | % of respondents rating 'well' or 'very well' the extent to which qualification prepared graduates for current employment | |
|---|---|---|---|---|
| **Field of education** | **Graduates** | **Supervisors** | **Graduates** | **Supervisors** |
| All fields | 53.6 (53.7) | 62.9 (61.7) | 86.9 (87.6) | 94.0 (94.3) |

| | | | | |
|---|---|---|---|---|
| Engineering & Related Technologies | 57.5 (60.1) | 67.1 (62.4) | 87.9 (90.2) | 96.8 (96.2) |
| Natural & Physical Sciences | 43.2 (44.8) | 52.6 (62.3) | 80.3 (81.9) | 92.1 (94.7) |
| Information Technology | 36.6 (41.6) | 48.9 (46.1) | 78.9 (82.4) | 89.6 (93.5) |
| Health | 69.8 (68.3) | 78.2 (76.3) | 92.3 (92.6) | 94.8 (93.5) |
| Management & Commerce | 41.5 (40.4) | 48.0 (40.4) | 87.5 (86.2) | 95.2 (94.5) |

## Table 12 - graduate outcomes: employment status and median salaries

### (a) Short-term employment status, short-term surveys of graduates from 2021-2023

| Year of Graduation Level and field | % in full-time study | % in work, of all avail- able for any work | % in FT work, of all avail-able for FT work | % in PT work, of all employed | % in PT work seeking more hours | % in PT work not seeking more hours | % of FT employed reporting skills not fully used - in general | % of FT employed reporting skills not fully used - because of lack of jobs in area of expertise | % of all employed reporting skills not fully used - in general | % of all employed reporting skills not fully used - because of lack of jobs in area of expertise |
|---|---|---|---|---|---|---|---|---|---|---|
| **2020** | | | | | | | | | | |
| U/G Engineering | 14.3 | 86.6 | 80.3 | 18 | 9 | 7 | 22 | 9 | 30 | 10 |
| ALL U/G | 21.1 | 84.8 | 68.9 | 40.5 | 19.3 | 16.1 | 29.3 | 10.2 | 42.3 | 11.4 |
| P/G C'swk Engin'g | 6.1 | 88.6 | 86.6 | | | | 36 | 16 | 43 | 17 |
| ALL P/G Coursew'k | 7.6 | 90.8 | 84.9 | | | | 28.7 | 10.8 | 31.5 | 11.6 |
| P/G Res'ch Engin'g | 7.8 | 80.6 | 74.3 | | | | 22 | 20 | 22 | 19 |
| All Research | 6.8 | 88.1 | 77.7 | | | | 26.9 | 25.1 | 29.9 | 27.9 |
| **2021** | | | | | | | | | | |
| U/G Engineering | 13.6 | 90.8 | 87.5 | 14.9 | 6.4 | 6.6 | 22.1 | 8 | 28.5 | 9.6 |
| ALL U/G | 18.6 | 88.3 | 78.5 | 35.3 | 13.9 | 16.6 | 28.3 | 8.1 | 38.5 | 8.7 |
| P/G C'swk Engin'g | 5.7 | 92.6 | 91.9 | | | | 35 | 9.5 | 37 | 10.9 |
| ALL P/G Coursew'k | 7.5 | 93.3 | 89.4 | | | | 28.3 | 8.6 | 30.3 | 9.1 |
| P/G Res'ch Engin'g | 5.1 | 92.2 | 84.9 | | | | 27 | 15.8 | 29.5 | 19.4 |
| All Research | 6.7 | 91.9 | 84.7 | | | | 26.7 | 19.3 | 29.5 | 24.2 |
| **2022** | | | | | | | | | | |
| U/G Engineering | 11.4 | 91.7 | 87.5 | 13.1 | 5.6 | 5.6 | 20.9 | 5.1 | 26.7 | 6.0 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ALL U/G | 18.0 | 88.9 | 79.0 | 35.5 | 15.0 | 15.7 | 27.8 | 7.2 | 38.0 | 8.5 |
| P/G C'swk Engin'g | 6.9 | 90.9 | 92.6 | | | | 32.7 | 6.4 | 34.0 | 7.1 |
| ALL P/G Coursew'k | 7.1 | 90.3 | 93.9 | | | | 28.9 | 8.6 | 30.5 | 9.0 |
| P/G Res'ch Engin'g | 7.2 | 89.2 | 85.5 | | | | 36.8 | 7.1 | 37.6 | 9.4 |
| All Research | 6.9 | 91.4 | 85.3 | | | | 27.8 | 19.1 | 30.0 | 20.7 |
| | | | | | **2023** | | | | | |
| U/G Engineering | 3.2 | 96.0 | 84.7 | np | np | np | 19.3 | 20.1 | 24.7 | 6.7 |
| ALL U/G | | 92.2 | 70.3 | np | np | np | 27.9 | 19.8 | 40.6 | 10.2 |
| P/G C'swk Engin'g | | 97.7 | 87.7 | | | | 32.1 | 16.7 | 34.8 | 17.2 |
| ALL P/G Coursew'k | | 96.1 | 86.0 | | | | 28.7 | 16.5 | 31.0 | 17.5 |
| P/G Res'ch Engin'g | | 97.9 | 84.0 | | | | 24.8 | 32.0 | 27.0 | np |
| All Research | | 95.7 | 81.0 | | | | 27.3 | 30.5 | 29.0 | 22.6 |

Note – survey results for part-time employed not published in 2023.

**"(b) Short-term graduate salaries (medians) for full-time work by broad course level, engineering and all fields, graduates from 2017-22"**

| Program level and field | 2018 | 2018 | 2019 | 2019 | 2020 | 2020 | 2021 | 2021 | 2022 | 2022 | 2023 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | male | female | male | female | male | female | male | female | male | female | male | female |
| U/G Engineering | $65,000 | $65,000 | $67,800 | $67,000 | $69,400 | $70,000 | $70,000 | $70,000 | $71,900 | $71,000 | $75,300 | $75,000 |
| ALL U/G | $63,000 | $60,000 | $64,700 | $61,500 | $65,000 | $63,400 | $66,800 | $64,200 | $69,400 | $67,400 | $70,000 | $73,100 |
| P/G Coursework Engineering | $90,000 | $79,100 | $87,500 | $ 80, 000 | $100,000 | $93,000 | $100,000 | $78,000 | $104,400 | $88,000 | $114,700 | $98,500 |
| ALL P/G | $92,500 | $79,000 | $95,000 | $81,300 | $96,000 | $85,300 | $99,000 | $85,000 | $100,000 | $89,200 | $105,000 | $92,000 |
| P/G Research Engineering | $90,000 | $83,000 | $90,000 | $90,500 | $93,900 | $90,800 | $89,600 | $90,000 | $91,600 | $95,000 | $100,000 | $92,300 |
| ALL P/G Research | $90,200 | $90,000 | $92,000 | $90,000 | $95,000 | $91,900 | $96,000 | $93,900 | $97,000 | $96,000 | $100,000 | $98,000 |

**"(c) Short-term median salary comparisons for engineering and other fields, undergraduate degrees, graduates form 2014-22 (year of graduation)"**

| Program field | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|
| Dentistry | $80,000 | $83,500 | $78,300 | $83,700 | $88,200 | $84,000 | $100,000 | $100,000 | $94,400 |
| Medicine | $65,000 | $69,200 | $70,300 | $73,000 | $73,100 | $75,000 | $76,000 | $79,800 | $85,000 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Engineering | $60,000 | $62,600 | $64,000 | $65,000 | $67,500 | $69,500 | $70,000 | $71,500 | $75,000 |
| Computing & Information Systems | $54,000 | $60,000 | $59,900 | $60,000 | $64,000 | $65,000 | $65,500 | $69,000 | $74,400 |
| Science & Mathematics | $60,000 | $55,200 | $57,500 | $61,000 | $60,000 | $64,000 | $63,000 | $66,000 | $69,000 |
| Business & Management | $50,000 | $55,000 | $55,200 | $58,000 | $59,500 | $60,000 | $60,700 | $65,000 | $69,200 |

## "(d) Longitudinal employment surveys, 2019 graduates surveyed in 2020 and resurveyed in 2023"

| Level | Engineering, 2020-23 | | All fields, 2020-23 | | gain for Engineering | gain for All fields |
|---|---|---|---|---|---|---|
| **measure** | **short** | **medium** | **short** | **medium** | **(2020-23)** | **(2020-23)** |
| Undergraduate | | | | | | |
| F/T employment | 87.70% | 95.00% | 86.00% | 94.80% | 8.32% | 10.23% |
| Overall Employment | 91.10% | 97.70% | 92% | 96% | 7.24% | 3.68% |
| Median Salary | $70,000 | $100,000 | $65,000 | $83,500 | 42.86% | 28.46% |
| *Roles (of Overall Employed)* | | | | | | |
| managers | 3.10% | 5.20% | 4.90% | 6.90% | 67.74% | 40.82% |
| professionals | 77.90% | 83.90% | 54.30% | 68.00% | 7.70% | 25.23% |
| other | 19.00% | 10.90% | 40.80% | 25.50% | -42.63% | -37.50% |
| Postgraduate Coursework | | | | | | |
| F/T employment | 87.70% | 96.10% | 86.00% | 94.80% | 9.58% | 10.23% |
| Overall Employment | 91.10% | 97.70% | 92.30% | 95.70% | 7.24% | 3.68% |
| Median Salary | $97,500 | $116,700 | $88,700 | $108,000 | 19.69% | 21.76% |
| *Roles (of Overall Employed)* | | | | | | |
| managers | 14.10% | 13.50% | 12.90% | 16.30% | -4.26% | 26.36% |
| professionals | 64.60% | 73.50% | 70.00% | 72.30% | 13.78% | 3.29% |
| other | 21.40% | 13.00% | 16.20% | 11.40% | -39.25% | -29.63% |
| Postgraduate Research | | | | | | |
| F/T employment | 84.00% | 90.80% | 81.10% | 91.30% | 8.10% | 12.58% |
| Overall Employment | 87.90% | 92.10% | 91.10% | 93.50% | 4.78% | 2.63% |
| Median Salary | $94,000 | $113,600 | $93,000 | $110,000 | 20.85% | 18.28% |
| *Roles (of Overall Employed)* | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| managers | 2.50% | 12.90% | 6.70% | 10.70% | 416.00% | 59.70% |
| professionals | 88.20% | 80.20% | 85.30% | 81.30% | -9.07% | -4.69% |
| other | 9.20% | 6.90% | 8.00% | 7.90% | -25.00% | -1.25% |

Table 13 - "academic staff (FTE) in engineering & related technologies, majority of ACED members (see note), 2013-23 (not including casual staffing)"

**"(a) Academic staff (FTE) by gender and function"**

| staff categories | 2013 | 2014* | 2015 | 2016 | 2017 | 2018 | 2019 | 2020* | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **academics, male** | | | | | | | | | | | |
| teaching-only | 100 | 98 | 76 | 67 | 88 | 127 | 121 | 130 | 135 | 158 | 125 |
| research –only | 1,194 | 1,194 | 1,295 | 1,279 | 1,417 | 1,344 | 1,304 | 1,326 | 1,419 | 1,546 | 1,367 |
| teaching & research | 1,747 | 1,759 | 1,755 | 1,824 | 1,919 | 1,907 | 1,839 | 1,639 | 1,642 | 1,851 | 1,600 |
| sub-total, male | 3,040 | 3,052 | 3,126 | 3,170 | 3,424 | 3,378 | 3,264 | 3,095 | 3,196 | 3,555 | 3092 |
| **academics, female** | | | | | | | | | | | |
| teaching-only | 16 | 20 | 18 | 17 | 24 | 33 | 38 | 43 | 55 | 60 | 64 |
| research –only | 387 | 383 | 399 | 371 | 399 | 360 | 366 | 356 | 369 | 422 | 506 |
| teaching & research | 252 | 248 | 257 | 288 | 320 | 328 | 307 | 310 | 304 | 385 | 405 |
| sub-total, female | 656 | 652 | 675 | 676 | 743 | 721 | 711 | 709 | 728 | 867 | 975 |
| **total academics** | 3,696 | 3,704 | 3,801 | 3,846 | 4,167 | 4,099 | 3,975 | 3,804 | 3,924 | 4,422 | 4067 |
| % research-only | 42.8% | 42.6% | 44.6% | 42.9% | 43.6% | 41.6% | 42.0% | 44.2% | 45.6% | 44.5% | 46.1% |
| % female | 17.7% | 17.6% | 17.8% | 17.6% | 17.8% | 17.6% | 17.9% | 18.6% | 18.6% | 19.6% | 24.0% |
| total teaching | 2,115 | 2,125 | 2,106 | 2,196 | 2,351 | 2,395 | 2,305 | 2,122 | 2,136 | 2,454 | 2,194 |

* Up to 2019, 26 of the 35 ACED member universities provided staff data for FoE3 to the Higher Education Statistics Unit.

**"(b) Academic staff (FTE) by gender and level of appointment for ACED member universities*, 2013-23"**

| Year, gender and role | D, E | C | B | < B | other | Total |
|---|---|---|---|---|---|---|
| T2013 Men | 907 | 692 | 796 | 553 | 178 | 3,126 |
| Women | 104 | 104 | 204 | 169 | 95 | 676 |
| 2014 Men | 951 | 675 | 826 | 537 | 184 | 3,173 |
| Women | 115 | 111 | 201 | 156 | 85 | 668 |
| 2015 Men | 1031 | 751 | 908 | 636 | 99 | 3,425 |
| Women | 127 | 132 | 212 | 201 | 61 | 733 |
| 2016 Men | 1078 | 735 | 867 | 618 | 80 | 3,378 |
| Women | 145 | 132 | 198 | 191 | 56 | 722 |
| 2017 Men | 1061 | 693 | 764 | 663 | 83 | 3,264 |
| Women | 132 | 129 | 195 | 208 | 47 | 711 |
| 2018 Men | 989 | 651 | 696 | 689 | 73 | 3,098 |
| Women | 132 | 127 | 215 | 196 | 38 | 708 |
| 2019 Men | 1026 | 657 | 708 | 735 | 69 | 3,195 |
| Women | 148 | 117 | 222 | 202 | 38 | 727 |
| 2020 Men | 1136 | 724 | 805 | 804 | 86 | 3,555 |
| Women | 191 | 141 | 268 | 222 | 45 | 867 |
| 2021 Men | 1043 | 670 | 794 | 739 | 91 | 3,337 |
| Women | 178 | 142 | 263 | 231 | 43 | 857 |
| 2022 Men, Total | 1,067 | 658 | 746 | 721 | 103 | 1,485 |
| Women, Total | 197 | 154 | 257 | 246 | 39 | 431 |
| Men, Research | 124 | 128 | 436 | 629 | 103 | 3,295 |
| Women, Research | 30 | 38 | 118 | 214 | 39 | 893 |
| 2023 Men, Total | 1033 | 594 | 659 | 703 | 104 | 1,420 |
| Women, Total | 208 | 164 | 287 | 267 | 49 | 439 |
| Men, Research | 123 | 129 | 380 | 632 | 104 | 3,093 |
| Women, Research | 39 | 42 | 139 | 237 | 49 | 975 |

## Table 14 - summary enrolments, completions and load data for ACED members, 2023

| | Commencing students | | | | | Completions | | | Total enrolled students | | | Load |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | domestic | | international | | total | dom | int'nat | total | dom | int'nat | total | EFTSL |
| | # | % fem | # | % fem | | | | | | | | |
| The Australian National University | 228 | 27.2% | 199 | 26.6% | 427 | 137 | 141 | 278 | 900 | 590 | 1,490 | 742 |
| University of Canberra | 67 | 22.4% | 9 | 33.3% | 76 | 39 | 5 | 44 | 201 | 39 | 240 | 295 |
| Charles Sturt University | 52 | 26.9% | 0 | na | 52 | 31 | 0 | 31 | 169 | 0 | 169 | 87 |
| Macquarie University | 379 | 10.3% | 447 | 16.6% | 826 | 167 | 113 | 280 | 1,196 | 763 | 1,959 | 888 |
| Southern Cross University | 224 | 23.2% | 38 | 15.8% | 262 | 73 | 28 | 101 | 407 | 90 | 497 | 137 |
| The University of Newcastle | 583 | 18.5% | 133 | 20.3% | 716 | 355 | 123 | 478 | 2,096 | 497 | 2,593 | 1,935 |
| The University of Sydney | 879 | 33.0% | 1,433 | 32.7% | 2,312 | 471 | 994 | 1,465 | 3,328 | 3,622 | 6,950 | 5,335 |
| University of New South Wales | 1,967 | 23.2% | 2,122 | 20.6% | 4,089 | 1,230 | 1,356 | 2,586 | 6,037 | 4,995 | 11,032 | 7,265 |
| University of Technology Sydney | 1,296 | 25.2% | 903 | 17.2% | 2,199 | 519 | 365 | 884 | 4,974 | 1,853 | 6,827 | 5,431 |
| University of Wollongong | 497 | 12.9% | 910 | 14.9% | 1,407 | 245 | 290 | 535 | 1,557 | 1,870 | 3,427 | 2,149 |
| Western Sydney University | 571 | 11.6% | 333 | 20.4% | 904 | 323 | 169 | 492 | 1,758 | 785 | 2,543 | 2,245 |
| Charles Darwin University | 208 | 21.2% | 236 | 12.3% | 444 | 44 | 54 | 98 | 413 | 420 | 833 | 459 |
| CQUniversity | 332 | 22.9% | 83 | 8.4% | 415 | 197 | 55 | 252 | 1,089 | 230 | 1,319 | 704 |
| Griffith University | 451 | 18.6% | 366 | 15.3% | 817 | 268 | 155 | 423 | 1,491 | 757 | 2,248 | 1,357 |
| James Cook University | 110 | 19.1% | 88 | 19.3% | 198 | 60 | 18 | 78 | 390 | 154 | 544 | 344 |
| Queensland University of Technology | 1,236 | 19.5% | 555 | 16.9% | 1,791 | 549 | 165 | 714 | 3,904 | 992 | 4,896 | 2,936 |
| The University of Queensland | 1,316 | 28.4% | 629 | 25.6% | 1,945 | 657 | 466 | 1,123 | 4,470 | 1,726 | 6,196 | 4,279 |
| University of Southern Queensland | 755 | 16.4% | 123 | 19.5% | 878 | 452 | 64 | 516 | 2,870 | 328 | 3,198 | 1,286 |
| University of the Sunshine Coast | 201 | 11.4% | 26 | 38.5% | 227 | 51 | 1 | 52 | 525 | 42 | 567 | 294 |
| Flinders University | 362 | 30.1% | 308 | 11.7% | 670 | 146 | 34 | 180 | 1,011 | 483 | 1,494 | 953 |
| The University of Adelaide | 707 | 20.7% | 611 | 22.3% | 1,318 | 361 | 358 | 719 | 2,250 | 1,435 | 3,685 | 2,270 |
| University of South Australia | 484 | 20.5% | 399 | 18.8% | 883 | 205 | 245 | 450 | 1,441 | 939 | 2,380 | 1,311 |
| University of Tasmania | 234 | 10.7% | 214 | 9.8% | 448 | 200 | 143 | 343 | 761 | 433 | 1,194 | 861 |
| Deakin University | 262 | 19.1% | 506 | 19.8% | 768 | 168 | 193 | 361 | 1,073 | 1,226 | 2,299 | 1,427 |

| | Commencing students | | | | | Completions | | | Total enrolled students | | | Load |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | domestic | | international | | total | dom | int'nat | total | dom | int'nat | total | EFTSL |
| | # | % fem | # | % fem | | | | | | | | |
| Federation University Australia | 127 | 7.1% | 302 | 6.6% | 429 | 72 | 84 | 156 | 327 | 517 | 844 | 448 |
| La Trobe University | 68 | 25.0% | 340 | 16.8% | 408 | 45 | 43 | 88 | 213 | 558 | 771 | 608 |
| Monash University | 1,272 | 22.2% | 929 | 24.1% | 2,201 | 653 | 1,077 | 1,730 | 4,941 | 3,803 | 8,744 | 5,393 |
| RMIT University | 2,084 | 17.2% | 1,331 | 18.6% | 3,415 | 1,179 | 914 | 2,093 | 6,365 | 3,999 | 10,364 | 6,901 |
| Swinburne University of Technology | 596 | 18.1% | 1,109 | 19.0% | 1,705 | 509 | 475 | 984 | 2,385 | 2,595 | 4,980 | 3,217 |
| The University of Melbourne | 317 | 26.5% | 577 | 29.6% | 894 | 327 | 598 | 925 | 1,065 | 1,706 | 2,771 | 2,725 |
| Victoria University | 119 | 18.5% | 37 | 24.3% | 156 | 70 | 81 | 151 | 355 | 153 | 508 | 612 |
| Curtin University | 1,026 | 17.1% | 765 | 20.1% | 1,791 | 525 | 511 | 1,036 | 3,390 | 2,180 | 5,570 | 3,531 |
| Edith Cowan University | 213 | 14.1% | 633 | 16.3% | 846 | 76 | 220 | 296 | 603 | 1,333 | 1,936 | 1,201 |
| Murdoch University | 78 | 16.6% | 389 | 16.9% | 467 | 68 | 34 | 102 | 256 | 449 | 705 | 256 |
| The University of Western Australia | 757 | 24.7% | 419 | 23.1% | 1,176 | 273 | 164 | 437 | 1,841 | 827 | 2,668 | 1,732 |
| Total | 20,058 | | 17,502 | | 37,560 | 10,745 | 9,736 | 20,481 | 66,052 | 42,389 | 108,441 | 71,616 |

**Notes**

Data source: Higher Education Statistics pivot tables for FoE03 Engineering and Related Technologies.

Engineering and Related Technologies includes surveying, maritime, and civil aviation, but may not include software engineering. UNSW Sydney and UNSW Canberra are separate ACED members, but their DESE data are combined.

Totals are a few percent less than those in Tables 1, 3 and 6 because of non-inclusion of private higher education and VET/TAFE providers.

University Group members of ACED (referred to in Section 10)

Group of Eight: Adelaide U, ANU, Monash U, Uni of Melbourne, Uni of Queensland, Uni of Sydney, UNSW, UWA

Australian Technology Network: Curtin U, Deakin U, RMIT U, Uni of Newcastle, Uni of SA, Uni of Tech Sydney

Innovative Research Universities: Charles Darwin U, Flinders U, Griffith U, James Cook U, La Trobe U, Murdoch U, Uni of Canberra, Wester Sydney U. Regional Universities Network: Charles Sturt U, CQ University, Federation U, Southern Cross U, Uni of Southern Queensland, Uni of Sunshine Coast Other: Edith Cowan U, Macquarie U, Queensland Uni of Tech, Swinburne Uni of Tech, Uni of Tasmania, Victoria U, Uni of Wollongong

## Table 15 - number of coursework programs offered in Australia by ACED members, June 2025

| Education Provider | BEng Tech | Associate Degree / Adv. Dip | Bachelor | Bachelor & Diploma | Bachelor & Master | Master |
|---|---|---|---|---|---|---|
| AUSTRALIAN MARITIME COLLEGE | | | 6F | | | 1F |
| AUSTRALIAN NATIONAL UNIVERSITY | | | 7F, 6P | | | |
| CENTRAL QUEENSLAND UNIVERSITY | 3F | 4F | 4F, 6P | 4F, 6P | | 3F |
| CHARLES DARWIN UNIVERSITY | 3F | | 3F | | | 3F |
| CHARLES STURT UNIVERSITY | 1F | | 1P | | 1F | 1P |
| CURTIN UNIVERSITY OF TECHNOLOGY | 1F | | 8F, 1P | | | 2F, 9P |
| DEAKIN UNIVERSITY | | | 6F, 5P | | | |
| EDITH COWAN UNIVERSITY | 1F | | 12F, 2P | | | 12F, 1P |
| FEDERATION UNIVERSITY | | | 4F, 1P | | | 3F, 2P |
| FLINDERS UNIVERSITY | | | 6F, 1P | | | 3F, 2P |
| GRIFFITH UNIVERSITY | | | 7F, 3P | | | 3P |
| JAMES COOK UNIVERSITY | | | 5F, 1P | | | 2F, 6P |
| LA TROBE UNIVERSITY | | | 2F | | | 6F, 1P |
| MACQUARIE UNIVERSITY | | | 6F | | | 1F, 5P |
| MONASH UNIVERSITY | | | 9F, 1P | | | 3F, 2P |
| MURDOCH UNIVERSITY | | | 3F | | | 3P |
| QUEENSLAND UNIVERSITY OF TECHNOLOGY | | | 8F, 1P | | | 2F, 5P |
| RMIT UNIVERSITY | | 6F | 10F, 1P | | | 10F, 1P |
| SWINBURNE UNIVERSITY OF TECHNOLOGY | | 3F, 2P | 17F, 2P | | | 6F |
| UNIVERSITY OF ADELAIDE | | | 13F | | | 9F, 1P |
| UNIVERSITY OF CANBERRA | | | 1F, 1P | | | |
| UNIVERSITY OF MELBOURNE | | | | | | 10F, 1P |
| UNSW AUSTRALIA | | | 23F, 2P | | 1F | 5F, 4P |
| UNSW CANBERRA | 2F | | 8F, 2P | | | |
| UNIVERSITY OF NEWCASTLE | | | 10F, 1P | | | 3P |
| UNIVERSITY OF QUEENSLAND | | | 6F | | 15F, 1P | 5F, 3P |
| UNIVERSITY OF SOUTH AUSTRALIA | | | 8F, 1P | | | 4F |
| UNIVERSITY OF SOUTHERN QUEENSLAND | 6F, 3P | 4F, 4P | 9F, 3P | | | 13F, 1P |
| UNIVERSITY OF THE SUNSHINE COAST | | | 2F, 4P | | | |
| UNIVERSITY OF SYDNEY | | | 8F, 1P | | | 7F, 1P |
| UNIVERSITY OF TASMANIA | | | 5F | | | 2F, 3P |
| UNIVERSITY OF TECHNOLOGY SYDNEY | | | 11F, 3P | 11F, 3P | | 4F, 3P |
| UNIVERSITY OF WESTERN AUSTRALIA | | | 9P | | | 8F |
| UNIVERSITY OF WOLLONGONG | | | 16F, 3P | | | 6F, 3P |
| VICTORIA UNIVERSITY | | | 4F | | | 2F, 1P |
| WESTERN SYDNEY UNIVERSITY | | | 10F, 6P | | | 6F |
| TOTAL | 17F, 12P | 17F, 7P | 257F, 68P | 15F, 9P | 17F, 7P | 138F, 66P |

## Table 16 - accredited BEng(hons) and MEng programs offered by branch of engineering, ACED members, June 2025

### (A) Offered in Australia - Fully Accredited BEng(Hons) and MEng Programs by branch of engineering, ACED members, June 2025

| Discipline | Biomedical | Chemical | Civil | Communication Systems | Computer | Control | Electrical | Electrical and Electronic | Electronic | Electronic and Energy | Environmental | Industrial | Marine | Maritime | Naval | Ocean | Materials | Mechanical | Mechatronic | Metallurgical | Mining | Petroleum | Renewable Energy | Robotics | Software | Telecommunications |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AUSTRALIAN MARITIME COLLEGE | | | | | | | | | | | | | 2B | 6B, 1M | 2B | 2B | | | | | | | | | | |
| AUSTRALIAN NATIONAL UNIVERSITY | | | | 2B | | | | | 2B | | | | | | | | | | 2B | | | | 2B | | 1B | |
| CENTRAL QUEENSLAND UNIVERSITY | | | 2B, 1M | | | | 2B, 1M | | | | | | | | | | | 2B, 1M | 2B | | | | | | | |
| CHARLES DARWIN UNIVERSITY | | | 1B, 1M | | | | 1B, 1M | 1B, 1M | 1B, 1M | | | | | | | | | 1B, 1M | | | | | | | | |
| CHARLES STURT UNIVERSITY | | | 1B, 1M | | | | | | | | | | | | | | | | | | | | | | | |
| CURTIN UNIVERSITY OF TECHNOLOGY | | 1B | 1B | | | | 1B, 1M | 1B | 1B | | | | | | | | | 1B | 1B | 1B | 1B | 1B, 1M | | | | |
| DEAKIN UNIVERSITY | | | 1B | | | | 1B | 1B | 1B | | 1B | | | | | | | 1B | 1B | | | | | | 1B | |
| EDITH COWAN UNIVERSITY | | 1B, 1M | 2B, 1M | | 1B, 1M | 1B, 1M | 2B, 2M | | 1B, 1M | | 1B | | 1B | 1B, 2M | 1M | 1M | | 1B, 1M | 1B, 1M | | | 1B, 1M | 1B, 1M | | | |
| FEDERATION UNIVERSITY | | | 1B, 1M | | | | | | | | | | | | | | | 1B, 1M | 1B | | 1B, 1M | | | 1B | | |
| FLINDERS UNIVERSITY | 1B, 1M | | 1B, 1M | | | | 1B, 1M | 1B, 1M | 1B, 1M | | | | | | | | | 1B | | | | | | 1B | 1B | |
| GRIFFITH UNIVERSITY | | | 1B | | | | 1B | 1B | 3B | 1B | 1B | | | | | | | 1B | | | | | | | 1B | |
| JAMES COOK UNIVERSITY | | 1B | 1B | | | | 1B, 1M | 1B | 2B | | | | | | | | | 1B | | | | | 1M | | | |
| LA TROBE UNIVERSITY | | | 1B, 2M | | | | | | 1M | | | 1B | | | | | | | | | | | | | | 1M |
| MACQUARIE UNIVERSITY | | | | | | | | | | | | | | | | | | 1B | 1B | | | | | | 1B | |
| MONASH UNIVERSITY | | 1B, 1M | 1B, 1M | | 1B | | 1B | | | | 1B | | | | | | 1B | 1B, 1M | 1B | | | | | 1B | 1B | |
| MURDOCH UNIVERSITY | | 1B | | | 1B | 1B | 1B | | | | 1B | 1B | | | | | | | | 1B | | | 1B | | | |
| QUEENSLAND UNIVERSITY OF TECHNOLOGY | | 1B | 1B | | 1B | | 2B | | | | | | | | | | | 1B | 1B | | | | | | 1B | |
| RMIT UNIVERSITY | 1B | 1B | 1B, 1M | | 2B | | 1B, 1M | 1M | 3B, 1M | | 1B, 1M | | | | | | | 1B, 1M | 1B, 1M | | | | | 1M | | 1B |
| SOUTHERN CROSS UNIVERSITY | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SWINBURNE UNIVERSITY OF TECHNOLOGY | 2B | | 3B, 1M | | | | 2B, 1M | 2B | 2B, 1M | | | | | | | | | 2B, 1M | 2B | | | | | 2B | 2B | 1M |
| UNIVERSITY OF ADELAIDE | | 2B, 1M | 2B, 2M | | | | 1B, 1M | 1B | 1B, 1M | | 1B, 1M | | | | | | | 2B, 1M | 1M | | 2B, 1M | 3B | | | 1B | |
| UNIVERSITY OF CANBERRA | | | | 1B* | | | | | | | | | | | | | | | | | | | | | | |
| UNIVERSITY OF MELBOURNE | 1M | 1M | 1M | | | | 1M | | | | 1M | 1M | | | | | | 1M | 1M | | | | | | 1M | |
| UNSW AUSTRALIA | | 2B | 2B, 1M | | 1B | | 2B, 2M | | | | 1B, 1M | | | | | | 4B | 2B, 1M | 1B | | 1B | 1B | 1B | | 1B | 1B, 1M |
| UNSW CANBERRA | | | 2B | | | | 2B | | | | | | | | | | | 2B | | | | | | | | |
| UNIVERSITY OF NEWCASTLE | | 1B | 1B | | 1B | | 1B | 1B | 1B | | 1B | | | | | | | 1B | 1B | | | | 1B | | 1B | |
| UNIVERSITY OF QUEENSLAND | 2B, 2M | 7B, 7M | 2B, 2M | | 1B, 1M | | 4B, 4M | | | | 1B, 1M | | | | | | 2B, 2M | 4B, 4M | 2B, 1M | 1B, 1M | | | | | 2B, 1M | |
| UNIVERSITY OF SOUTH AUSTRALIA | | | 3B | | | | 2B | 1B | 1B | | | | | | | | | 3B | 2B | | | | | | | |
| UNIVERSITY OF SOUTHERN QUEENSLAND | | | 1B, 2M | | 1B | 1B | 1B, 2M | 1B, 2M | 1B, 2M | | 1B, 2M | | | | | | | 1B, 2M | 1B | | | | | | | |
| UNIVERSITY OF THE SUNSHINE COAST | | | 1B | | | | | | | | | | | | | | | 1B | | | | | | | | |
| UNIVERSITY OF SYDNEY | 1B, 1M | 1B, 1M | 1B, 1M | | | | 1B, 1M | | | | | | | | | | | 1B, 1M | 1B | | | | | | 1B, 1M | 1M |
| UNIVERSITY OF TASMANIA | | | 1B, 1M | | | | 2B | 1B | 2B | | | | | | | | | 1B, 1M | | | | | | | | |
| UNIVERSITY OF TECHNOLOGY SYDNEY | 2B, 1M | | 4B, 1M | | | | 2B | | 2B | | 2B | | | | | | | 4B, 1M | 4B | | | | | | 2B | |

*One program titled 'Network Engineering'

## A) Offered in Australia - Provisionally Accredited BEng(Hons) and MEng Programs by branch of engineering, ACED members, June 2025

| Discipline | Biomedical | Chemical | Civil | Coastal | Communication Systems | Computer | Control | Electrical | Electrical and Electronic | Electronic | Electronic and Energy | Environmental | Industrial | Marine | Maritime | Naval | Ocean | Materials | Mechanical | Mechatronic | Metallurgical | Microelectronic | Mining | Petroleum | Renewable Energy | Resource Systems | Robotics | Software | Telecommunications |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AUSTRALIAN MARITIME COLLEGE | | | | | | | | 1M | | | | 2B | | | | | | | | | | | | | | | | | |
| AUSTRALIAN NATIONAL UNIVERSITY | | | 7B, 2M | | | | 1B | 5B, 1M | | | | | | | | | | | 1B, 1M | 1B, 1M | | | | | | 3B, 1M | | | |
| CENTRAL QUEENSLAND UNIVERSITY | | | 1B, 1M | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHARLES DARWIN UNIVERSITY | | 1M | 1M | | | | | 1M | | | | | 1B | | | | | | 1M | | 1M | | 1M | | | | | 1M | 1M |
| CHARLES STURT UNIVERSITY | | | 1B | | | | | 1B | | | | 1B | | | | | | | 1B | 1B | | | | | 1B | | | | |
| CURTIN UNIVERSITY OF TECHNOLOGY | | | | | | | | 1B, 1M | | | | | 1M | | | | | | | 1M | | | | | 1M | | | | |
| DEAKIN UNIVERSITY | | | | | | | | | | | | 1B | | | | | | 1M | 1M | | | | | | | | | | |
| EDITH COWAN UNIVERSITY | | | 1M | | | | | | | 1B, 1M | | 1M | | | | | | | | 1B | | | | | | | | 1B | |
| FEDERATION UNIVERSITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FLINDERS UNIVERSITY | | | 1M | | | | | 1M | | | | 1M | | | | | | | 1M | 1M | | | | | | | | | |
| GRIFFITH UNIVERSITY | 1B | | | | | | | 1M | | | | | | | | | | 1M | | | | | | | | | | | |
| JAMES COOK UNIVERSITY | | | | | | | 1M | 1M | | | | 1M | | | | | | | | | | | | | | | | | |
| LA TROBE UNIVERSITY | | | 3M | | | | | 1B, 1M | | | | | | | | | | | 1M | | | | | | | | | | |
| MACQUARIE UNIVERSITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1B | |
| MELBOURNE INSTITUTE OF TECHNOLOGY | | | 1B | | | | | | | | | | | | | | | | 1B | | | | | | | | | | |
| MONASH UNIVERSITY | | | | | | | | | | | | | | | | | | | | | | | | | | | 1B | | |
| MURDOCH UNIVERSITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| QUEENSLAND UNIVERSITY OF TECHNOLOGY | | | | | | | | | | | | | | | | 2B | | | | | | | | | | | | | |
| RMIT UNIVERSITY | | | 1M | | | | | 1M | 1M | 1M | | | | | | | | | 1M | | | | | | | | | | |
| SOUTHERN CROSS UNIVERSITY | | | 1B, 1M | | | | | | | | | 1B, 1M | | | | | | 1M | | | | | | | | | | 1M | |
| SWINBURNE UNIVERSITY OF TECHNOLOGY | | | | | | | | 1B | 1B | 1B | | | | | | | | | 1B | 1B | | | | | | | | | |
| UNIVERSITY OF ADELAIDE | | 2B | | | | | | 2B, 1M | 2B | 2B, 1M | | | | | | | | | | | | | | | 2B | | 1M | | 1M |
| UNIVERSITY OF CANBERRA | | | 1B | | | 1M | | | | | | 1B | | | | | | | | 1M | | | 1M | | | | | | |
| UNIVERSITY OF MELBOURNE | | | 1M | | | | | | | | | | | | | | | | | | | | | | | | | | |

## B – Offered Off-Shore, June 2025

| | | Civil, Construction | Environmental | Chemical | Petroleum | Electrical | Electronic, Comp Syst, Telecoms | Software | Mechanical | Mechatronics, Robotics |
|---|---|---|---|---|---|---|---|---|---|---|
| CURTIN UNIVERSITY | Sarawak Malaysia | 1B | 1B | 1B | 1B | 1B^ | | | 1B | 1B(P) |
| | SLIIT/Malabe | 1B | | | | 1B^ | | | 1B | 1B |
| | Dubai | | | | | | | | 1B | |
| MONASH UNIVERSITY | Malaysia | 1B | | 1B | | | 1B | 1B | 1B | 1B |
| RMIT UNIVERSITY | Saigon South, Vietnam | | | | | 1B^ (P) | | 1B (P) | | 1B (P) |
| | Hkive Tsing Yi Campus, Hong Kong | 1B | | | | 1B | | | 1B | |
| | Kaplan, Singapore | | | | | | | | 1B (P) | |
| SWINBURNE UNIVERSITY OF TECHNOLOGY | Sarawak Malaysia | 1B | | 1B | | 1B^ | | 1B (P) | 1B | 1B |
| UNIVERSITY OF NEWCASTLE | Singapore | | | | | 1B^ | | | 1B | |
| | Singapore BCAA | 1B | | | | | | | | |
| UNIVERSITY OF WOLLONGONG | Dubai | 1B (P) | | | | 1B | 2B | | 1B (P) | |

^ Electrical and Electronic
(P) denotes Provisional Accreditation, all others have Full Accreditation.

https://www.engineersaustralia.org.au/sites/default/files/2025-06/engineers-australia-accredited-tertiary-programs-june-25.pdf

## Table 17 - subfields in ASCED fields of education 03 engineering and related technologies and 02 information technology

**03 - Engineering and Related Technologies**

| | | | |
|---|---|---|---|
| 301 | MANUFACTURING ENGINEERING AND TECHNOL'Y | 309 | CIVIL ENGINEERING |
| 30101 | Manufacturing Engineering | 30901 | Construction Engineering |
| 30103 | Printing | 30903 | Structural Engineering |
| 30105 | Textile Making | 30905 | Building Services Engineering |
| 30107 | Garment Making | 30907 | Water and Sanitary Engineering |
| 30109 | Footwear Making | 30909 | Transport Engineering |
| 30111 | Wood Machining and Turning | 30911 | Geotechnical Engineering |
| 30113 | Cabinet Making | 30913 | Ocean Engineering |
| 30115 | Furniture Upholstery and Renovation | 30999 | Civil Engineering, n.e.c. |
| 30117 | Furniture Polishing | 311 | GEOMATIC ENGINEERING |
| 30199 | Manufacturing Engineering and Technology, n.e.c. | 31101 | Surveying |
| 303 | PROCESS AND RESOURCES ENGINEERING | 31103 | Mapping Science |
| 30301 | Chemical Engineering | 31199 | Geomatic Engineering, n.e.c. |
| 30303 | Mining Engineering | 313 | ELECTRICAL & ELECTRONIC ENG'G AND TECHNOL'Y |
| 30305 | Materials Engineering | 31301 | Electrical Engineering |
| 30307 | Food Processing Technology | 31303 | Electronic Engineering |
| 30399 | Process and Resources Engineering, n.e.c. | 31305 | Computer Engineering |
| 305 | AUTOMOTIVE ENGINEERING AND TECHNOLOGY | 31307 | Communications Technologies |
| 30501 | Automotive Engineering | 31309 | Communications Equip't Installation & Mainten'ce |
| 30503 | Vehicle Mechanics | 31311 | Powerline Installation and Maintenance |
| 30505 | Automotive Electrics and Electronics | 31313 | Electrical Fitting, Electrical Mechanics |
| 30507 | Automotive Vehicle Refinishing | 31315 | Refrigeration and Air Conditioning Mechanics |
| 30509 | Automotive Body Construction | 315 | AEROSPACE ENGINEERING AND TECHNOLOGY |
| 30511 | Panel Beating | 31501 | Aerospace Engineering |
| 30513 | Upholstery and Vehicle Trimming | 31503 | Aircraft Maintenance Engineering |
| 30515 | Automotive Vehicle Operations | 31505 | Aircraft Operation |
| 30599 | Automotive Engineering and Technology, n.e.c. | 31507 | Air Traffic Control |
| 307 | INDUSTRIAL ENGINEERING AND TECHNOLOGY | 31599 | Aerospace Engineering and Technology, n.e.c. |
| 30701 | Mechanical Engineering | 317 | MARITIME ENGINEERING AND TECHNOLOGY |
| 30703 | Industrial Engineering | 31701 | Maritime Engineering |
| 30705 | Toolmaking | 31703 | Marine Construction |
| 30707 | Metal Fitting, Turning and Machining | 31705 | Marine Craft Operation |
| 30709 | Sheetmetal Working | 31799 | Maritime Engineering and Technology, n.e.c. |
| 30711 | Boilermaking and Welding | 399 | OTHER ENGINEERING AND RELATED TECHNOLOGIES |

| | | | |
|---|---|---|---|
| 30713 | Metal Casting and Patternmaking | 39901 | Environmental Engineering |
| 30715 | Precision Metalworking | 39903 | Biomedical Engineering |
| 30717 | Plant and Machine Operations | 39905 | Fire Technology |
| 30799 | Mechanical and Industrial Eng'g and Tech'y, n.e.c. | 39907 | Rail Operations |
| | | 39909 | Cleaning |
| | | 39999 | Engineering and Related Technologies, n.e.c. |

## 02 – INFORMATION TECHNOLOGY

| 201 | COMPUTER SCIENCE | 203 | INFORMATION SYSTEMS |
|---|---|---|---|
| 20101 | Formal Language Theory | 20301 | Conceptual Modelling |
| 20103 | Programming | 20303 | Database Management |
| 20105 | Computational Theory | 20305 | Systems Analysis and Design |
| 20107 | Compiler Construction | 20307 | Decision Support Systems |
| 20109 | Algorithms | 20399 | Information Systems, n.e.c. |
| 20111 | Data Structures | 299 | OTHER INFORMATION TECHNOLOGY |
| 20113 | Networks and Communications | 29901 | Security Science |
| 20115 | Computer Graphics | 29999 | Information Technology, n.e.c |
| 20117 | Operating Systems | | |
| 20119 | Artificial Intelligence | | |
| 20199 | Computer Science, n.e.c. | | |