



Engineering and Manufacturing

If you enjoy creative solutions, solving problems and working with machines and technology, then engineering and mechanical engineering could be for you. With developments in mechanical technologies, now is the time to get skilled for the future. Opportunities are opening up across a vast range of industries, from aerospace through to energy generation. So build your career in a clean and high tech environment, while helping to build a sustainable future.



Job opportunities¹

Employment for engineering trades and technicians is anticipated to rise moderately in the future.

Qualifications you can earn at TAFE NSW

A reliable and rewarding career in the field of engineering and manufacturing, begins by building professional skills and knowledge in a course designed by industry experts. When you study at TAFE NSW, not only can you earn an industry-recognised TAFE NSW qualification from a wide range of course areas, but you will build the hands-on skills and professional connections that will ensure your career gets off to the best start possible.

Course	Code	Duration
Certificate I in Engineering	MEM10119	0.5 years
Certificate II in Engineering - Production Technology	MEM20219	2 years
Certificate II in Engineering Pathways	MEM20413	1 year
Certificate III in Engineering - Mechanical Trade	MEM30219	3 years
Certificate III in Engineering - Fabrication Trade	MEM30319	3 years
Certificate III in Engineering - Technical	MEM30505	0.5 year FT
Certificate III in Jewellery Manufacture	MEM30619	3 years
Certificate III in Locksmithing	MEM30819	3 years

Course	Code	Duration
Certificate III in Marine Craft Construction	MEM30719	3 years
Certificate III in Watch and Clock Service and Repair	MEM31010	3 years
Certificate IV in Engineering Drafting	MEM40412	1 year FT
Certificate IV in Engineering	MEM40119	4 years
Diploma of Engineering - Advanced Trade	MEM50119	4 years
Diploma of Engineering - Technical	MEM50212	1 year FT
Advanced Diploma of Engineering	MEM60112	1.5 years FT

PT = part time, FT = full time

Fees for your course

A range of criteria apply for course fees, access to government subsidised training, student loans, payment by instalment, fee concessions and fee exemptions that are available to eligible students. The training for all/some of the courses listed is subsidised by the NSW Government under Smart and Skilled funding. Visit tafensw.edu.au/enrol/fees.

¹ Source: LMI 2022, <https://labourmarketinsights.gov.au/media/jlyh5cnz/2021-nsc-employment-projections.xlsx>

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Short courses you can study at TAFE NSW

If you're looking to get a taste of the industry, want to expand your expertise to give you the edge when pursuing employment, or you're simply looking to gain a new set of skills, TAFE NSW has an engineering and manufacturing short course that can suit your needs.

Short Course	Code	Duration	Included Units of Study
Statement of Attainment in Introduction to Welding Oxy-Cutting, GMAW, MMAW and GTAW	900-81058	42 hours	MEM05007 Perform manual heating and thermal cutting MEM05012 Perform routine manual metal arc welding MEM05049 Perform routine gas tungsten arc welding MEM05050 Perform routine gas metal arc welding
Statement of Attainment in Apply Welding Principles to meet AS1796 Theory	900-80042	49 hours	MEM05026 Apply welding principles
TAFE Statement in Basic Welding	800-000030	21 Hours	Non-Nationally Recognised (NNR)
TAFE Statement in AS1796 Welding Certificates 1-9 (Exam Only)	800-000298	4 Hours	Non-Nationally Recognised (NNR)
TAFE Statement in Advanced Welding to AS1554	800-000646	63 Hours	Non-Nationally Recognised (NNR)
TAFE Statement in Pressure Welding to AS1796	800-000690	63 Hours	Non-Nationally Recognised (NNR)
TAFE Statement in Basic Fabrication	800-000730	21 Hours	Non-Nationally Recognised (NNR)
Statement of Attainment in CNC Programming	900-80587	42 hours	MEM07015* Set computer controlled machines/processes MEM07016* Set and edit computer controlled machines/processes MEM07018* Write basic NC/CNC programs MEM07024* Operate and monitor machine/process MEM07028* Operate computer controlled machines/processes
Statement of Attainment in Fluid Power 1 - Fluid Power Component Maintenance	900-82167	48 hours	MEM18018* Maintain pneumatic system components MEM18020* Maintain hydraulic system components MEM09003* Prepare basic engineering drawing
Statement of Attainment in Fluid Power 2 - Fluid Power Component Maintenance	900-81941	48 hours	MEM18019* Maintain pneumatic systems MEM18021* Maintain hydraulic systems MEM09003* Prepare basic engineering drawings
Statement of Attainment in Dye Penetrant and Magnetic Particle Testing	900-80642	84 hours	MEM18001* Use hand tools MEM24001 Perform basic penetrant testing MEM24002 Perform penetrant testing MEM24003 Perform basic magnetic particle testing MEM24004 Perform magnetic particle testing MEM24012 Apply metallurgy principles
Statement of Attainment in Mechatronics (Intermediate) [^]	SG00007625	60 hours	MEM23004 Apply technical mathematics MEM23111 Select electrical equipment and components for engineering applications
Statement of Attainment in Mechatronics (Advanced) [^]	SG00007624	60 hours	MEM14090 Integrate mechatronic fundamentals into an engineering task MEM23112 Investigate electrical and electronic controllers in engineering applications
Statement of Attainment in Supervisory Control and Data Acquisition (SCADA) [^]	SG00007960	120 hours	MEM30031 Operate computer-aided design (CAD) system to produce basic drawing elements MEM30033 Use computer-aided design (CAD) to create and display 3-D models MSS402061 Use SCADA systems in operations VU21994 Perform basic cyber security data analysis

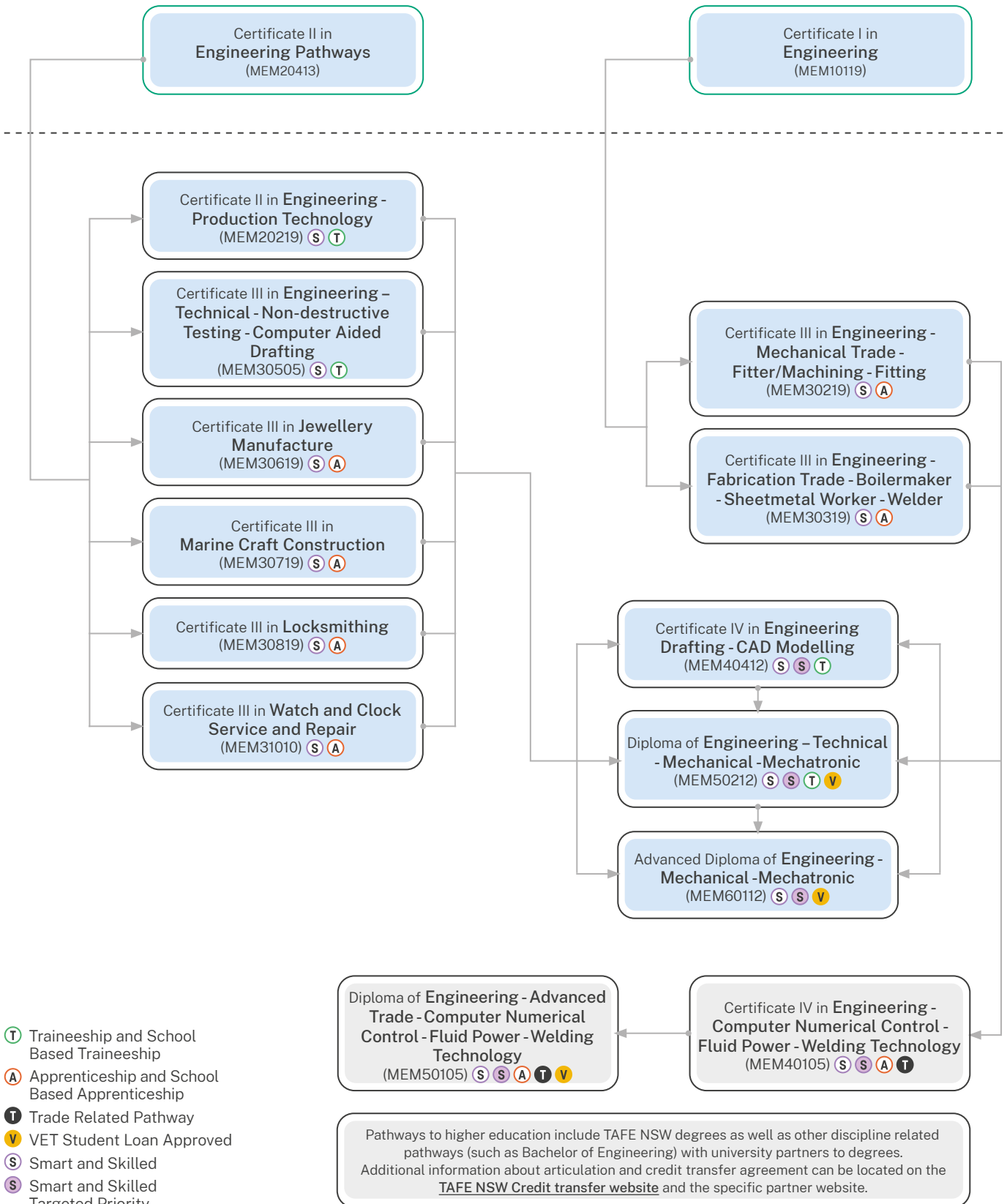
[Visit our website for more short courses.](#)

[^] This is a fully government-subsidised JobTrainer course. Eligibility criteria apply.

* This course is superseded. You can still enrol in this course, and you will be contacted if you need to transition into the next version when it is available.

How you can grow your career

When you study with TAFE NSW, there are any number of courses that lead to an even greater number of career opportunities. However, before you can earn certain qualifications, you may have to complete some pre-requisite courses. Below are some examples of career progression pathways you could follow.



For more information contact 131 601

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