

## Industrial Design and Technology

Junior units of study Years 7 – 10			
Year level	Subject		Duration
7	Design and Technology	Students investigate, design, produce and evaluate a functional item for a purpose using sustainable or recycled timber.	1 term
9	Industrial Technology and Design ITD	Product design and manufacture. Students develop their design, problem solving, decision making, task management, creative and practical skills through technology challenges using timber materials.	Semester 1
9	Industrial Technology and Design ITD		Semester 2
9	Engineering Technology and Design ETD	Students manage projects independently and collaboratively from conception to realisation. They apply design and systems thinking and design processes to investigate ideas, generate designs, plan, produce and evaluate designed solutions using a range of STEM initiatives and materials.	Semester 1
9	Engineering Technology and Design ETD		Semester 2
9	Graphic Design	Communicating via drawing, graphical communication techniques, sketching and the introduction of computer aided drafting and 3D printing modelling. Introducing STEM strategies.	Semester 1 & 2
10	Industrial Technology and Design ITD	Foundation workshop skills: Furniture design and technology usage to process and produce designed furniture.	Semester 1 only
10	Engineering Technology and Design ETD	Students develop an understanding of real world product design and production processes using a range a STEM initiatives and materials. Students solve real world engineering problems and apply engineering design concepts.	Semester 1 only
10	Graphic Design	Students draft sketches, working drawings and 3D representations that enable the construction of built environment structures. Drawings are used to communicate details to clients.	Semester 1 only

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Preparatory subjects Year 10 Semester 2			
10	Design	Design focuses on the application of design thinking to envisage creative products, services and environments in response to human needs, wants and opportunities.	General
10	Industrial Graphic Skills	Industrial Graphics Skills focuses on the underpinning industry practices and production processes required to produce the technical drawings used in a variety of industries, including building and construction, engineering and furnishing.	Applied
10	Furnishing Skills	Furnishing Skills focuses on the underpinning industry practices and production processes required to manufacture furnishing products with high aesthetic qualities.	Applied
10	Engineering Pathways	Engineering Boot camp and the introduction to the Certificate II in Engineering Pathways program.	VET

Senior subjects Year 11 and 12		
Design	Studying Design can lead to: <ul style="list-style-type: none"> <li>• architecture</li> <li>• digital media design</li> <li>• fashion design</li> <li>• graphic design</li> <li>• industrial design</li> <li>• interior design</li> <li>• landscape architecture</li> </ul>	General
Industrial Graphics Skills	Studying Industrial Graphics Skills can lead to: <ul style="list-style-type: none"> <li>• roles and trades in the manufacturing industries.</li> <li>• focus areas include industrial design, architecture and furniture manufacturing industries</li> </ul>	Applied
Furnishing Skills	Studying Furnishing can lead to: <ul style="list-style-type: none"> <li>• furnishing trades such as furniture-maker, wood machinist, cabinet-maker, polisher, shopfitter, upholsterer, furniture restorer, picture framer, floor finisher or glazier.</li> </ul>	Applied
Engineering Pathways MEM20413 Certificate II in Engineering Pathways	Learning engineering skills through Motorsport. Students build a race car from the ground up engaging in real life industry focussed learning. Students develop a familiarity with the engineering discourse, from the language used, to the processes and methods.	VET (External RTO – Formula Student)