



# Semester Overview - Year 11 ESK 2022

Engineering Skills is a four-unit course of study.

Units 1 and 2 of the course are designed to allow students to begin their engagement with the course content, i.e. the knowledge, understandings and skills of the subject. Course content, learning experiences and assessment increase in complexity across the four units as students develop greater independence as learners.

Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
1	<p><b>Module 1: Introduction to the Engineering industry. Welding and Fabrication 1</b></p> <p>This module introduces students to the industry practices and production processes associated with manufacturing enterprises in the engineering industry. Engineering products are created safely at an appropriate quality in recognition of customer expectation of value at a particular price. Product quality depends on tradespeople understanding industry specific skills, procedures, tools, materials and specifications. Students develop knowledge of industry practices and production processes used to create quality products. The accurate interpretation of industry-specific technical drawings and specifications results in quality products.</p>	55	<ul style="list-style-type: none"> <li>• Sheet metal working</li> <li>• Welding and fabrication</li> </ul>	<p><b>Industry practices</b></p> <ul style="list-style-type: none"> <li>• C1.1 Manufacturing enterprises</li> <li>• C1.2 Workplace health and safety</li> <li>• C1.3 Personal and interpersonal skills</li> </ul> <p><b>Production processes</b></p> <ul style="list-style-type: none"> <li>• C2.1 Specifications</li> <li>• C2.2 Tools</li> <li>• C2.3 Materials</li> </ul>	1  2	<p><b>Practical demonstration</b> Students will manufacture a sheet metal tool box from specifications.</p> <p><b>Project</b> Brazier, tray and journal project</p> <ul style="list-style-type: none"> <li>• Multimodal component — non-presentation Students will document the manufacture of their brazier and tray in a journal. Maximum: 6 A4 pages (or equivalent)</li> <li>• Product component Students will manufacture a metal brazier and sheet metal tray from detailed specifications.</li> </ul>	<ul style="list-style-type: none"> <li>• Knowing and understanding</li> <li>• Analysing and applying</li> <li>• Producing and evaluating</li> <li>• Knowing and understanding</li> <li>• Analysing and applying</li> <li>• Producing and evaluating</li> </ul>

2	<p><b>Module 2: Fitting and machining 1</b>  Students will demonstrate knowledge and understanding of Engineering practices by consolidating skills in welding. They will learn new Engineering skills such as fitting and machining. Workplace health and safety is heavily covered through theoretical means and practical demonstration of safe working. Students will be engaging in a variety of interpersonal communication skills and to convey messages and safety information in the workshop with other students and teaching staff. Quality engineered products will be examined and produced by students using a wide range of specifications, tools and materials in an engineering context.</p>	55	<ul style="list-style-type: none"> <li>• Fitting and machining</li> <li>• Welding and fabrication</li> </ul>	<p><b>Industry practices</b></p> <ul style="list-style-type: none"> <li>• C1.2 Workplace health and safety</li> <li>• C1.4 Product quality</li> </ul> <p><b>Production processes</b></p> <ul style="list-style-type: none"> <li>• C2.1 Specifications</li> <li>• C2.2 Tools</li> <li>• C2.3 Materials</li> </ul>	3	<p><b>Practical demonstration</b>  Students will machine a plumb bob from detailed specifications.</p>	<ul style="list-style-type: none"> <li>• Knowing and understanding</li> <li>• Analysing and applying</li> <li>• Producing and evaluating</li> </ul>
					4	<p><b>Project</b>  Folding shovel and journal project.</p> <ul style="list-style-type: none"> <li>• Product component  Students will manufacture a folding shovel from detailed specifications.</li> <li>• Multimodal component — non-presentation  Student will document the manufacture of their folding shovel in a journal.  Maximum: 6 A4 pages (or equivalent)</li> </ul>	<ul style="list-style-type: none"> <li>• Knowing and understanding</li> <li>• Analysing and applying</li> <li>• Producing and evaluating</li> </ul>