ALBANY CREEK STATE HIGH
INDUSTRIAL TECHNOLOGY & DESIGN

Semester Overview - Year 12 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.

Units 3 and 4 consolidate student learning.

Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
3	**Module 3: Welding and fabrication 2** Students will demonstrate knowledge and understanding of Engineering practices by consolidating skills in welding and fabrication. Work place 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 to convey messages and safety information in the workshop with other students and teaching staff.	55	• Welding and fabrication	**Industry practices** • C1.2 Workplace health and safety • C1.4 Product quality **Production processes** • C2.1 Specifications • C2.2 Tools • C2.3 Materials	5	**Project** Folding barbeque and journal project. • Multimodal component — non-presentation Students will document the manufacture of their folding barbecue in a journal. Maximum: 8 A4 pages (or equivalent) • Product component Students will manufacture a folding barbecue from detailed specifications.	• Knowing and understanding • Analysing and applying • Producing and evaluating
					6	**Practical demonstration** Students will manufacture a mechanics stool from specifications.	• Knowing and understanding • Analysing and applying • Producing and evaluating

4	**Module 4: Fitting and Machining 2** Students will demonstrate knowledge and understanding of Engineering practices by consolidating skills in Fitting and Machining. Workplace health and safety is heavily covered through theoretical means and practical demonstration of safe working.	55	• Fitting and machining	**Industry practices** • C1.1 Manufacturing enterprises • C1.2 Workplace health and safety • C1.3 Personal and interpersonal skills • C1.4 Product quality **Production processes** • C2.1 Specifications • C2.2 Tools • C2.3 Materials	7 8	**Practical demonstration** Students will machine a Vee block from detailed specifications. **Project** G Clamp and journal project. • Product component Students will manufacture a G Clamp from specifications. • Multimodal component — non-presentation Students will document their G Clamp in a journal. Maximum: 8 A4 pages (or equivalent)	• Knowing and understanding • Analysing and applying • Producing and evaluating • Knowing and understanding • Analysing and applying • Producing and evaluating