

Industrial Technology Skills 2019

Study plan

Section 1: School statement

School:	Queensland Curriculum and Assessment Authority
Subject code:	6420
Combined class:	No
School contact:	SEO
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Section 2: Course and assessment overview

Industrial Technology 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.

QCAA approval

QCAA officer:	Date:
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Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
1	<p>Module 1: The manufacturing industry — Introduction to safety, drawing interpretation and quality products</p> <p>This module introduces students to industry practices and production processes associated with safety in the manufacturing industry. Students develop knowledge of industry practices and production processes used to create quality manufacturing products. The accurate interpretation of industry-specific technical drawings and specifications assists in the creation of quality products.</p>	55	<ul style="list-style-type: none"> Welding and fabrication Furniture-making Thermoplastics fabrication 	<p>Industry practices</p> <ul style="list-style-type: none"> C1.1 Manufacturing enterprises C1.2 Workplace health and safety C1.3 Personal and interpersonal skills C1.4 Product quality <p>Production processes</p> <ul style="list-style-type: none"> C2.1 Specifications C2.2 Tools C2.3 Materials 	1	<p>Examination</p> <p>Respond to questions about workplace health and safety legislation, rules and procedures in manufacturing industry workplaces. 60.0–90.0 minutes</p> <ul style="list-style-type: none"> Short response test <ul style="list-style-type: none"> Questions relating to employer and employee responsibilities, industry-specific requirements, risk assessments to identify hazards and safe working practices and procedures. Individual response, supervised. 50–150 words per item 	<ul style="list-style-type: none"> Knowing and understanding Analysing and applying
					2	<p>Project</p> <p>Manufacture a product from specifications that combines wood, metal and plastic materials, e.g. tablet/device stand.</p> <ul style="list-style-type: none"> Product component <ul style="list-style-type: none"> Tablet/device stand. Individual response. Multimodal component — non-presentation <ul style="list-style-type: none"> Digital portfolio (photographic production plan including sketches and annotations). Individual response. <p>Maximum: 6 A4 pages (or equivalent)</p>	<ul style="list-style-type: none"> Knowing and understanding Analysing and applying Producing and evaluating

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Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
2	<p>Module 2: Working cooperatively in furnishing workplaces</p> <p>This module introduces students to the industry practices associated with drafters, who work in teams and use drawing skills and procedures to create technical drawings (specifications) that facilitate the manufacture of quality products in furnishing enterprises. Students build on prior learning of industry practices and production processes used in the creation of quality products for the furnishing industry.</p>	55	<ul style="list-style-type: none"> • Tiling • Furniture finishing • Furniture-making • Furnishing drafting 	<p>Industry practices</p> <ul style="list-style-type: none"> • C1.1 Manufacturing enterprises • C1.2 Workplace health and safety • C1.3 Personal and interpersonal skills • C1.4 Product quality <p>Production processes</p> <ul style="list-style-type: none"> • C2.1 Specifications • C2.2 Tools • C2.3 Materials 	3	<p>Practical demonstration</p> <p>Manufacture, apply finishes and complete a mosaic-tiled tabletop for a coffee table to specifications. (Visual evidence is collected through annotated photographs or teacher observations annotated on the instrument-specific standards.) Individual response.</p>	<ul style="list-style-type: none"> • Knowing and understanding • Analysing and applying • Producing and evaluating
					4	<p>Project</p> <p>Produce a set of technical drawings for a kitchen island bench with a range of drawers and shelves.</p> <ul style="list-style-type: none"> • Multimodal component — non-presentation <p>Folio of technical drawings and planning sketches documenting the development of the drawings to indicate the use of industry practices and drafting processes. Individual response.</p> <p>Maximum: 6 A4 pages (or equivalent)</p> <ul style="list-style-type: none"> • Product component <p>Set of technical drawings to support manufacturing process. Individual response.</p>	<ul style="list-style-type: none"> • Knowing and understanding • Analysing and applying • Producing and evaluating

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Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
3	Module 3: Manufacturing enterprise — Retro furniture This module builds on prior learning, with a focus on retro furniture products. Product quality depends on tradespeople understanding industry-specific skills, procedures, tools, materials and specifications.	55	<ul style="list-style-type: none"> • Tiling • Welding and fabrication • Furniture finishing • Furniture-making 	Industry practices <ul style="list-style-type: none"> • C1.1 Manufacturing enterprises • C1.2 Workplace health and safety • C1.3 Personal and interpersonal skills • C1.4 Product quality Production processes <ul style="list-style-type: none"> • C2.1 Specifications • C2.2 Tools • C2.3 Materials 	5	Project In teams, develop and implement a production line to manufacture and apply finishes to a retro dresser/cabinet with a steel base and tiled doors from detailed drawings and technical information. <ul style="list-style-type: none"> • Multimodal component — non-presentation Digital portfolio (photographic production journal including sketches and annotations). Individual response. Maximum: 8 A4 pages (or equivalent) • Product component Retro dresser/cabinet. Scope of work assigned to individual students. 	<ul style="list-style-type: none"> • Knowing and understanding • Analysing and applying • Producing and evaluating
					6	Practical demonstration Produce a trivet using provided specifications. (Visual evidence is collected through annotated photographs or teacher observations annotated on the instrument-specific standards.) Individual response.	<ul style="list-style-type: none"> • Knowing and understanding • Analysing and applying • Producing and evaluating

Unit	Module number and description	Time in hours	Electives	Core concepts and ideas	Assess no.	Assessment technique, description and conditions	Dimensions
4	<p>Module 4: Manufacturing enterprise — Manufacturing products with composite materials</p> <p>This module builds on prior learning, with a focus on composite material products. Manufacturing enterprises require workers to be effective team members focused on the safe and efficient creation of quality products. This often takes the form of mass production processes.</p>	55	<ul style="list-style-type: none"> • Welding and fabrication • Furniture finishing • Furniture-making • Thermoplastics fabrication 	<p>Industry practices</p> <ul style="list-style-type: none"> • C1.1 Manufacturing enterprises • C1.2 Workplace health and safety • C1.3 Personal and interpersonal skills • C1.4 Product quality <p>Production processes</p> <ul style="list-style-type: none"> • C2.1 Specifications • C2.2 Tools • C2.3 Materials 	7	<p>Project</p> <p>In teams, use multiple materials to manufacture forming jigs for producing plastic products to specifications using a mass production process.</p> <ul style="list-style-type: none"> • Product component A team set of plastic products, e.g. serving platter, chips and dip tray. Scope of work assigned to individual students. • Multimodal component — non-presentation Digital portfolio (showing the development of the production line sequence, work roles and the use of industry practices and production processes). Individual response. Maximum: 8 A4 pages (or equivalent) 	<ul style="list-style-type: none"> • Knowing and understanding • Analysing and applying • Producing and evaluating
					8	<p>Practical demonstration</p> <p>Use timber and metal to manufacture and apply finishes to a lazy Susan from specifications. (Visual evidence is collected through annotated photographs or teacher observations annotated on the instrument-specific standards.) Individual response.</p>	<ul style="list-style-type: none"> • Knowing and understanding • Analysing and applying • Producing and evaluating

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Teacher:

Student name:

Class:

Year:

Unit	Module of work	Assessment Instrument No.	Assessment Instrument	Formative or Summative	Knowing and understanding	Analysing and applying	Producing and evaluating
1	Module one The manufacturing industry — Introduction to safety, drawing interpretation and quality products	1	Examination	F			
		2	Project	F			
2	Module two Working cooperatively in furnishing workplaces	3	Practical demonstration	F			
		4	Project	F			
Interim Standards							
Interim Result							
3	Module three Manufacturing enterprise — Retro furniture	5	Project	S			
		6	Practical demonstration	S			
4	Module four Manufacturing enterprise — Manufacturing products with composite materials	7	Project	S			
		8	Practical demonstration	S			
Exit Standards							
Exit Result							