

Erindale College

Assessment Period:	2021 S2
Course:	METAL PRODUCTS
Unit:	Metal Project (1.0)
Accreditation:	A
Year:	12

Unit Goals

- analyse and apply workshop organisation and procedures including the safety risks and hazards associated with the project
- develop project management skills manufacture a project from a design brief to meet a particular need
- explore and apply communication skills including interpretation of information workshop engineering drawings

Content Description

Industry practices, processes and procedures

- applies metal manufacturing techniques, for example, machining and welding
- apply ethical environmental and sustainable work practices complying with industry standards
- design and fabricate a project to a design brief
- investigate fastener, fittings and hardware in relation to the project
- produce and/or interpret design solutions in response to a brief in preparation for the production of a project

Technical information

- apply fabrication skills in the completion of a project
- apply techniques to modify corrosion in the application of finishes and coatings
- apply industry standards when preparing a product(s)
- demonstrate skills in measuring and marking out to suit job requirements
- investigate the maintenance requirements of a variety of equipment

Work, health and safety (WHS)

- identify personal health and safety hazards in the workshop environment and apply personal hazard reduction in relation to industrial process such as machining and welding equipment
- analyse risk hazards, seek appropriate assistance and apply personal hazard reduction
- apply risk mitigation techniques in the form of students creating a Job Safety Analysis (JSA)
- understand material dangers and using safety data sheets

Problem solving

- identify and define problems, analyse different possible solutions and select the best option for the project
- interact with others in solving problems, proposing solutions and justifying ideas

Industry literacy and numeracy

- analyse and apply processes for writing, editing and recording of work procedures
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- interpret simple numerical information in materials, construction procedures, and equipment
- demonstrate accurate use of numeracy in practical activities, for example, measuring, calculating, costing and minimising waste

Behaviour and attitudes in the workplace

- analyse and apply interpersonal skills required in working with a diverse range of people
- understand how self-management skills contribute to positive outcomes
- demonstrate organisation of self, materials and work to achieve deadlines
- understand, communicate with and effectively interact with people across cultures

Reflection on own learning

- reflect on own learning and needs
- self-assess and reflect on whether own work meets industry standards and on ways of improving

Communication

- use graphical and technical information in the production of plans
- use terminology correctly both orally and writing
- analyse and present documented evidence of process, decision making and evaluation of product
- articulate ideas, seek assistance, clarify, offer suggestions or justify approaches

Assessment Tasks

Name	Due Date	Weighting
Safety assignment	Thursday Week 3: 29 July	10%
Design folio 1	Thursday Week 8: 2 September	15%
Project 1	Thursday Week 8: 2 September	30%
Design folio 2	Thursday Week 16: 11 November	15%
Project 2	Thursday Week 16: 11 November	30%

Specific Unit Information

COST OF MATERIALS

There are costs associated with this unit of study, and they are as follows:

A **\$30.00** contribution is asked per semester. This covers the cost of metals, hardware, finishes and consumables.

School Assessment Information

For penalties for late and non-submission of work

See [BSSS Policy and Procedure Manual 4.3.10](#) for further information.

For academic integrity

See [BSSS Policy and Procedure Manual 4.3.12](#) for further information.

For appeals processes

See [BSSS Policy and Procedure Manual 7.2](#) for further information.

For moderation procedures (internal and external)

See [BSSS Policy and Procedure Manual 5](#) for further information.

Achievement Standards for METAL PRODUCTS A - Year 12

	<i>A student who achieves an A grade typically</i>	<i>A student who achieves a B grade typically</i>	<i>A student who achieves a C grade typically</i>	<i>A student who achieves a D grade typically</i>	<i>A student who achieves an E grade typically</i>
Knowledge and understanding	<ul style="list-style-type: none"> analyses industry practices, processes and procedures and explains their significance in the application to workplace and/or work related contexts analyses technical information and specifications and evaluates a wide range of materials and equipment evaluates work, health and safety practices and analyses how they apply to the workplace and/or work related contexts 	<ul style="list-style-type: none"> explains industry practices, processes and procedures and describes their significance in the application to workplace and/or work related contexts explains technical information and specifications and describes a range of materials and equipment analyses work, health and safety practices and explains how they apply to the workplace and/or work related contexts 	<ul style="list-style-type: none"> describes industry practices, processes and procedures and identifies their significance in the application to workplace and/or work related contexts describes technical information and specifications and identifies a range of materials and equipment describes work, health and safety practices and identifies how they apply to the workplace and/or work related contexts 	<ul style="list-style-type: none"> identifies industry practices, processes and procedures with some reference to their significance in the application to workplace and/or work related contexts identifies technical information and specifications and identifies some materials and equipment identifies work, health and safety practices, with some reference to how they apply to the workplace and/or work related contexts 	<ul style="list-style-type: none"> identifies industry practices, processes and procedures with little or no reference to their significance in the application to workplace and/or work related contexts identifies some technical information with little or no reference to materials and equipment identifies work, health and safety practices, with little or no reference to how they apply to the workplace and/or work related contexts
Skills	<ul style="list-style-type: none"> applies with high proficiency, industry practices, processes and procedures to deliver a service and/or create a product applies with high proficiency, technical information and specifications to create high quality products and/or services solves problems, proposes solutions and justifies decisions in completing a task demonstrates with high proficiency, industry specific literacy and numeracy skills to a wide range of tasks demonstrates highly developed behaviours and attitudes and contributes positively to learning and work reflects with insight on own learning processes and needs related to industry and the workplace communicates with high proficiency, using industry terminology and effectively organises materials and resources 	<ul style="list-style-type: none"> applies with proficiency, industry practices, processes and procedures to deliver a service and/or create a product applies with proficiency, technical information and specifications to create quality products and/or services solves problems, proposes solutions and explains decisions in completing a task demonstrates with proficiency, industry specific literacy and numeracy skills to a range of tasks demonstrates developed behaviours and attitudes and contributes positively to learning and work explains own learning processes and needs related to industry and the workplace communicates with proficiency, using industry terminology and competently organises materials and resources 	<ul style="list-style-type: none"> applies effectively industry practices, processes and procedures to deliver a service and/or create a product applies effectively technical information and specifications to create quality products and/or services solves problems, proposes solutions and describes decisions in completing a task demonstrates effectively industry specific literacy and numeracy skills to tasks demonstrates appropriate behaviours and attitudes and contributes positively to learning and work describes own learning processes and needs related to industry and the workplace communicates effectively, using industry terminology and organises materials and resources 	<ul style="list-style-type: none"> applies some industry practices, processes and procedures to deliver a service and/or create a product applies some technical information and specifications to create products and/or services follows instructions, guidelines and procedures demonstrates some industry specific literacy and numeracy skills to tasks demonstrates some appropriate behaviours and attitudes and mainly contributes positively to learning and work describes some learning processes and needs related to industry and the workplace communicates using some industry terminology and demonstrates some ability to organise materials and resources 	<ul style="list-style-type: none"> applies little or no industry practices, processes and procedures to deliver a service and/or create a product applies little or no technical information and specifications to create products and/or services follows simple instructions, guidelines and procedures demonstrates little or no industry specific literacy and numeracy skills to tasks demonstrates limited appropriate behaviours and attitudes describes limited learning processes and needs related to industry and the workplace communicates using little or no industry terminology and demonstrates little or no ability to organise materials and resources