Course Outline Options Metals 2017

Course Description	Within the framework of the course, students will aim to develop the knowledge, understandings and skills to ensure they, individually and collaboratively, investigate, design, plan, manage, create and evaluate solutions.	Skills Projects	Main Projects of Students Choice
		To teach the students the basic hand skills to operate hand and power tools safely in the workshop	Portfolio
Learning Outcomes	• Understands and implements safe working habits and procedures • Demonstrates understanding of technical terminology • Successfully implements the design process • Evaluates own work against set criteria • Follows directions to complete projects • Demonstrates skills in the use of equipment • Investigate how digital systems function • Design and create digital solutions to solve real world problems		
Work Practice Outcomes	• Works independently • Works cooperatively • Completes all set tasks		
Assessment Items	• Class work		

	• Tests • Portfolio of class work	**Projects**			
Place of Learning	WAGIN DISTRICT HIGH SCHOOL	Semester 1			
		Domino, log with Axe (Brazing & Welding)	Spinning Die (Lathe)	Personal Project	Portfolio
Knowledge and understanding Year 10		**Links to the Curriculum**			
Technologies and society	Social, ethical and sustainability considerations that impact on designed solutions, complexity of design, and production processes involved Impact of emerging technologies on design decisions, and/or economic, environmental and social sustainability	X	X	X	X
Technologies contexts	In Year 10, students will have opportunities to create designed solutions in at least one of the technologies contexts below	X	X	X	X
Engineering principles and systems	The process of materials being combined with force, motion and energy to create solutions		X	X	X
Materials and technologies specialisation	The combination of a range of characteristics and properties of materials, systems, components, tools and equipment to create designed solutions Designed solutions within a range of technologies specialisations, using combined technologies	X	X	X	X

Processes and production skills					
Investigating and defining	Identify the needs of the client/stakeholder to determine the basis for a solution Create and critique briefs to solutions Investigate components/resources to develop increasingly sophisticated solutions, identifying and considering associated constraints	X	X	X	X
Designing	pply design thinking, creativity, enterprise skills and innovation to develop, modify and communicate design ideas of increasing sophistication Design possible solutions, analysing designs against criteria, including functionality, accessibility, usability and aesthetics, using appropriate technical terms and technology	X	X	X	X
Producing and implementing	Select, justify, and safely implement and test appropriate technologies and processes, to make solutions	X	X	X	X
Evaluating	Analyse design processes and solutions against student-developed criteria	X	X	X	X
Collaborating and managing	Work independently, and collaboratively to manage projects, using digital technology and an iterative and collaborative approach. Considers time, cost, risk, safety, production processes, sustainability and legal responsibilities	X	X	X	X