

School administrators and Heads of Learning Area – Technologies and teachers of Materials Design and Technology ATAR Year 12 are requested to note for 2025 the following minor syllabus changes. The syllabus is labelled ‘For teaching from 2025’.

Materials Design and Technology | ATAR Year 12 | Summary of minor syllabus changes for 2025

The content identified by ~~strike through~~ has been deleted from the syllabus and the content identified in *italics* has been revised in the syllabus for teaching from 2025.

Organisation of content

Common content

The Wood, Metal and Textiles learning contexts in the Materials Design and Technology ATAR course have common content in:

- Design fundamentals and skills
- Skills and techniques
 - ICT
 - drawing
- Safety
- Production management

Students may use any material as a means through which they approach the course content, or teachers may choose to restrict the choice. Students will explore ways to use the nature and properties of the materials towards the completion of a product.

In design fundamentals and skills, students learn about the elements and principles of design, while developing a common understanding of the design process and variations that can apply to design tasks during the design cycle.

As student safety is a high priority in all activities, a common understanding of safe working practices, risk management and an awareness of ~~occupational safety and health~~ *work health and safety* standards is achieved in each unit through coverage of common content under the safety heading.

Use of technology

Safety

Knowledge and information related to working safely is critical in any technology context. It is important to exercise a duty of care and operate in a safe and responsible manner, including the application of ~~occupational safety and health~~ *work health and safety* legislation and codes of practice.

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Unit 3

Common content

Use of technology

Safety

- demonstrate occupational safety and health (OSH) work health and safety practices appropriate to tasks being undertaken in workshops

Unit 4

Common content

Use of technology

Safety

- occupational safety and health (OSH) work health and safety practices appropriate to tasks being undertaken in workshops
- examine OSH work health and safety issues and legal implications associated with designing and producing material products for the consumer market

Appendix 1 – Grade descriptions Year 12

A	<p>Design</p> <p>Independently investigates the interlinked relationships between selected design criteria, the principles and fundamentals of design, and factors that affect the design.</p> <p>Completes each stage of the design process to devise and generate solutions and processes to the specifications of end user or client.</p> <p>Presents documentation displaying accurate terminology, and accurate and detailed information about the topic/s under investigation; draws from a target audience/market, an established performance criteria, and sources of inspiration.</p> <p>Investigates and thoroughly analyses design considerations.</p> <p>Prepares fully-developed, dimensioned working drawings, including the use of 2D and 3D illustrations where applicable in the context.</p> <p>Selects materials appropriate to design considerations, justifying choices against an analysis of materials’ properties, as appropriate in context.</p> <p>Provides a detailed and accurate production plan that includes time management and production management strategies.</p> <p>Presents a comprehensive evaluation of the final design product against design criteria.</p>
	<p>Production</p> <p>Independently implements a detailed set of plans using correct operational procedures to complete a product.</p>

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	<p>Uses complex production techniques, including appropriate workplace behaviours and practices, fine adjustment of equipment to suit purpose and the application of relevant production management to manipulate materials.</p> <p>Provides documentary evidence of regular, ongoing evaluation of processes and implements changes and modifications derived from this evaluation.</p> <p>Effectively manages time and the working environment while independently undertaking production procedures.</p> <p>Independently organises and uses tools and equipment to achieve the requirements of production with concern for the safety of self and others.</p> <p>Presents a completed product achieving an excellent evaluation against the selected design criteria.</p>
	<p>Response</p> <p>Independently researches, selects and presents information using a variety of formats.</p> <p>Uses appropriate technical language and terminology to provide accurate, detailed explanations of major issues within a task.</p> <p>Presents a clear, accurate and extensive analysis of materials, displaying understandings of classifications, properties and interpretations of new materials, referring to relevant data.</p> <p>Uses detailed examples or case studies to demonstrate a clear understanding of technologies through analysis of the impacts that materials and technologies have had on society and the environment.</p> <p>Identifies a range of societal impacts and benefits of sustainable systems and includes comprehensive conclusions and personal interpretations, referencing all sourced data.</p> <p>Exhibits a highly competent understanding of personal safety by applying and consistently demonstrating occupational safety and health <i>work health and safety</i> practices.</p>

B	<p>Design</p> <p>Independently completes the investigation of each stage of the design process, the principles and fundamentals of design, and factors that affect the design, to devise and generate solutions and processes to the specifications of end user or client.</p> <p>Uses appropriate terminology to present documentation displaying accurate information of the subject area and to investigate target audience/market, established performance criteria and other sources of inspiration.</p> <p>Analyses design considerations.</p> <p>Prepares fully-developed, dimensioned working drawings, including the use of 2D and 3D illustrations where applicable in the context.</p> <p>Tests and compares materials, and selects suitable materials after consideration of the design needs.</p> <p>Provides a detailed production plan that includes time and production management strategies.</p> <p>Presents an evaluation of the final design product against design criteria.</p>
	<p>Production</p>

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Implements a detailed set of plans and uses correct operational procedures to complete a product.

Uses complex production techniques, including appropriate workplace practices, adjustment of equipment to suit purpose and the application of production management to manipulate materials.

Provides documentary evidence of ongoing evaluation of processes and, with minimal assistance, implements changes and modifications derived from this evaluation.

Manages time and the working environment while undertaking production procedures.

Requires minimal guidance to organise tools and equipment, and uses them with concern for the requirements of production and the safety of self and others.

Presents a completed product achieving a high evaluation against the selected design criteria.

Response

Independently researches, selects and presents information using a variety of formats.

Uses technical language and terminology for descriptions of the major issues within a task.

Presents a clear analysis of materials, displaying an awareness of classifications, properties and interpretations of new materials, referring to relevant data.

Demonstrates an understanding of technologies, describing the impacts that materials and technologies have had on society and the environment, and includes conclusions with explanations, while clearly referencing sourced data.

Exhibits a competent understanding of personal safety by applying and demonstrating ~~occupational safety and health~~ *work health and safety* practices.