

PRODUCT DESIGN & TECHNOLOGY - ENGINEERING

Unit 1 Design Practices

COURSE OUTLINE:

This unit focuses on the work of designers across relevant specialisations in product design. Students explore how designers collaborate and work in teams. In this unit, students analyse and evaluate existing products and current technological innovations in product design. They work in Design Teams to generate ideas and create a proof of concept using CAD. They use tools and processes typically found in an Engineering workshop to manufacture their designs.

AREAS OF STUDY:

- Developing and conceptualising designs
- Generating, designing and producing

OUTCOMES:

On completion of this unit, students should be able to:

1. Apply design thinking strategies to research, critique and communicate a response to a need or opportunity, and work collaboratively and in teams to develop and propose graphical product concepts that address a design brief.
2. Work collaboratively and in teams to trial and test, evaluate and use materials, tools and processes to determine their chosen product concept and produce a product through implementing a scheduled production plan, as well as reflect on and make suggestions for future improvements when working collaboratively as a team.

ASSESSMENT:

S or N based on the demonstrated achievement of the outcomes specified for the Unit.

* Students enrolled in VCE VM will complete Unit 1 in Year 11 and Unit 2 in Year 12.

Unit 2 Positive Impacts for End Users

COURSE OUTLINE:

In this unit, students examine social and/or physical influences on design. They formulate a profile of an end user(s), research and explore the specific needs or opportunities of the end user(s) and make an inclusive product that has a positive impact on belonging, access, usability and/or equity.

Students also explore cultural influences on design. They develop an awareness of how Aboriginal and Torres Strait Islander peoples design and produce products. Students also have opportunities to make connections to personal or other cultural heritages.

AREAS OF STUDY:

- Opportunities for positive impacts for end users
- Designing for positive impacts for end users
- Cultural influences on design

OUTCOMES:

On completion of this unit, students should be able to:

1. Investigate and critique products using the factors that influence design, to make judgments about the success or failure of the products to support positive impacts for end users.
2. Design and make an inclusive product that responds to a need or opportunity of an end user(s) that addresses positive impacts in relation to belonging, access, usability and/or equity.
3. Research and discuss how designers and end users are influenced by culture.

ASSESSMENT:

S or N based on the demonstrated achievement of the outcomes specified for the Unit.