

# PRODUCT DESIGN & TECHNOLOGY - ENGINEERING

## Unit 3

### Ethical Product Design & Development

#### COURSE OUTLINE:

In this unit students research a real personal, local or global need or opportunity with explicit links to ethical considerations. They conduct research to generate product concepts and a final proof of concept for a product solution that addresses the need(s) or opportunities of the end user(s).

#### AREAS OF STUDY:

- Influences on design, development and production of products
- Investigating opportunities for ethical design and production
- Developing a final proof of concept for ethical production

#### OUTCOMES:

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

1. Critique examples of ethical product design and innovation within industrial settings
2. Investigate a need or opportunity that relates to ethics and formulate a design brief, conduct research to analyse current market needs or opportunities and propose, evaluate and critique graphical product concepts.
3. Evaluate product concepts related to ethical design, synthesise and apply feedback to justify a final proof of concept, and plan to make the product safely.

#### ASSESSMENT:

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

## Unit 4

### Production & Evaluation of Ethical Designs

#### COURSE OUTLINE:

In this unit students continue to work as designers throughout the production process. They observe safe work practices in their chosen design specialisations by refining their production skills using a range of materials, tools and processes. Students collect, analyse, interpret and present data, use ethical research methods and engage with end user(s) to gain feedback and apply their research and findings to the production of their designed solution.

#### AREAS OF STUDY:

- Managing production for ethical designs
- Evaluation and speculative design

#### OUTCOMES:

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

1. Implement a scheduled production plan, using a range of materials, tools and processes and managing time and other resources effectively and efficiently to safely make the product designed in Unit 3.
2. Synthesise data to evaluate a range of products, including making judgments about the success of each product, and discuss product designs in regard to entrepreneurial activity, innovation and sustainability and/or other ethical considerations.

#### ASSESSMENT:

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