**TEACHER GUIDANCE**

**INDICATORS**

**LEVEL 6**

**Demonstrate understanding of basic concepts and techniques related to human factors in design**

Students can:
- describe the human factors that need to be considered when designing products, systems and environments
- explain how personal preference, group preferences, style and trends may impact on the design of products, systems and/or environments
- explain how data gathering and analysis techniques may be used in the design of products, systems and environments
- discuss why human factors identified for the design of a product, system and/or environment need to be considered
- discuss the suitability of data gathering and analysis techniques that may be used in the design of a product, system and/or environment.

**LEVEL 7**

**Demonstrate understanding of advanced concepts and techniques related to human factors in design**

Students can:
- explain how statistics and probability are used to establish guiding ratios for anthropometric data and ergonomic aids
- explain how anthropometric data, user preference and ergonomic fit in a product, system or environment
- discuss the relationship between anthropometric data, user preference and ergonomic fit in a product, system or environment
- discuss customisation undertaken to address user preference and obtain ergonomic fit in a product, system or environment.

**LEVEL 8**

**Demonstrate understanding of advanced concepts and techniques related to human factors in design**

Students can:
- provide opportunities for students to explore the role of statistics and probability in establishing guiding ratios and ergonomic aids
- guide students to consider ethical and economic parameters as human factors
- support students to explore how socio-cultural considerations impact on personal preference, style and fashion
- support students to understand how customisation techniques are used to address user preferences. These include: using dressmakers mannequins, patterns, and ergonomes; using data from anthropometric, psychological and sensory data, focus groups and test subjects; using investigation and stimuli to establish personal preferences; and using functional modelling and prototypes
- support students to understand the relationships between anthropometric data, user preference and ergonomic fit across a range of products, systems and environments
- support students to identify the customisation undertaken to address personal preference and obtain ergonomic fit across a range of products, systems and environments.

**INDICATORS**

**LEVEL 6**

- **Demonstrate understanding of basic human factors in design**

**LEVEL 7**

- **Demonstrate understanding of advanced concepts related to human factors in design**

**LEVEL 8**

- **Undertake a critique of a technological outcome’s design**

**AS91054 Generic Technology 1.11**

Demonstrate understanding of basic human factors in design

**AS91363 Generic Technology 2.11**

Demonstrate understanding of advanced concepts related to human factors in design

**AS91617 Generic Technology 3.10**

Undertake a critique of a technological outcome’s design

**Level 1 Generic Technology standards & assessment resources**

**Level 2 Generic Technology standards & assessment resources**

**Level 3 Technology achievement standards & assessment resources DRAFT**