

<b>Unit Title</b>	Design Skills
<b>FHEQ Level</b>	Level 4
<b>Unit Code</b>	DPR18104
<b>Credit Value</b>	30 Credits
<b>Unit Type</b>	Subject

<b>Learning Hours</b>			
<b>Staff – Student Contact Hours</b>		<b>Independent Study Hours</b>	
Classes	80	Independent Study	120
Supervised access to resources	10	Preparation for Assessment	60
		Unsupervised Access to Resources	30
<b>Total</b>			<b>300</b>

### Unit Description

Product Designers follow a design process to help them create innovative solutions and solve problems within a timescale. A designer needs to be equipped with a set of core skills to help develop, communicate, and give others confidence in their ideas.

Product Designers use these skills in an iterative cycle to design, develop and evaluate their ideas and originate strong problem solving. This requires agile thinking and dexterity in creativity and the use of technology toolset.

This unit combines practical project work with skills-based exercises that will develop your ability in 2D and 3D design. These exercises will enable you to explore the relationship between image, form, material, and making of a designed object, working towards developing your own style and identity as a designer.

The unit aims to equip you with the ability to express design intent and support the ability to explore possibility, problem solve, iterate, and conclude a design project, working towards skills of a professional standard.

The Five Principles underpin the Mindsets and Skillsets Manifesto and are the foundation upon which all course curriculum frameworks and unit specifications are based. The relevant Principles as stated below have been mapped against the Learning Outcomes relevant to each course unit and at each level (see Programme Specifications for full description of the Five Principles):

1. Cultivate / Where the individual thrives.
2. Collaborate / Where disciplines evolve.
3. Integrate / Where education engages industry.
4. Advocate / Where purpose meets practice.
5. Originate / creativity meets technology.

## Unit Indicative Content

- Sketching, marker rendering and other design development and communication skills.
- Graphic design and layout
- 3D CAD softwares for modelling and rendering
- 2D design software for vector drawing, photo editing and graphic layout
- A range of prototyping and modelmaking skills including card modelling, blue foam modelling, 3d printing, and finishing
- Photography for designers
  - short projects set at interval deadlines in the project

## Unit Aims

- Understand the different forms of communication and presentation required to successfully work through a design process
- Develop improved proficiency with 2D and 3D design tools and techniques.
- Understand when to apply appropriate skills to successfully design, develop and evaluate iteratively in the design process.
- Understand the level of proficiency required to progress to professional level

## Unit Learning Outcomes

### LO 3 Development/Prototyping

Demonstrate a range of tests and solutions, informed by knowledge of the principles of the creative process.

**Related Principle: INTEGRATE**

### LO 4 (Pre) Production

Identify, select and apply an appropriate selection of processes, materials and methods that inform creative and academic practice.

**Related Principle: COLLABORATE**

### LO 5 Presentation /Storytelling For Influence

Evidence effective communication of projects, whether in visual, oral or written form.

**Related Principle: ADVOCATE**

## Learning and Teaching Methods

This unit will be delivered using a combination of:

- Project Briefing,
- Topic Lectures / Demonstrations,
- Project work,
- Group Tutorials,
- Individual and Group research work,
- Individual Presentations and critiques
- Self-directed independent study

## Assessment methods and tasks

*Brief description of assessment methods*

<b>Assessment tasks</b>	<b>Weighting (%) (one grade or multi-grade unit)</b>
Physical models	40%
Portfolio including work such as: Sketching CAD designs Research and development Rendering Graphic design Technical specifications	60%

## Indicative Assessment Criteria

*Assessment criteria are the basis on which the judgment of the adequacy of the work is made. A more detailed assessment criteria will be specified in the brief.*

1. Demonstrate a high quality of physical prototyping and modelmaking (LO4)
2. Demonstrate a high quality of sketching, form handling and visual design development (LO3)
3. Show development of the full range of design skills specified in the brief (LO3,4)
4. Demonstrate high quality of visual communication using appropriate software (LO5)

## Essential Reading list

1. British Standards Institution, 2007, **Drawing practice : a guide for schools and colleges to BS 8888:2006, technical product specification (TPS)**, BSI
- Bryden, D, 2014, **CAD and rapid prototyping for product design**, Laurence King Publishing
2. Hallgrimsson, B, 2012, **Prototyping and modelmaking for product design**, London : Laurence King
3. Koos E, 2014, **Sketching: Product Design Presentation 2014**, BIS Publications
4. Lefteri, C, 2012, **Making it : manufacturing techniques for product design**, London : Laurence King,  
Henry, K, 2012, **Drawing for product designers**, London : Laurence King
5. Terstiege, G, 2009, **Making of design : from the first model to the final product**, Basel : Birkhauser
6. Thompson, R, 2011, **Product and furniture design**, London : Thames & Hudson

Journals:

Designweek

Dezeen

Wallpaper

Site resources:

Material ConneXion physical and digital database

URLs

[www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond](http://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond)

<https://www.lynda.com/Design-Skills-tutorials/Sketching-Product-Design-AEC/197940-2.html>

<https://www.lynda.com/CAD-tutorials/Design-Foundation-3D-Shape-Form/612177-2.html>