



<b>Unit Title</b>	<b>Design Approaches 1</b>
<b>FHEQ Level</b>	Level 4
<b>Unit Code</b>	DPR18102
<b>Credit Value</b>	15 Credits
<b>Unit Type</b>	Subject

<b>Learning Hours</b>			
<b>Staff – Student Contact Hours</b>		<b>Independent Study Hours</b>	
<b>Classes</b>	43	Independent Study	60
<b>Supervised access to resources</b>	2	Preparation for Assessment	30
		Unsupervised Access to Resources	15
<b>Total</b>			<b>150</b>

### Unit Description

The aims of the unit will be achieved across multiple projects that contrast in nature and outcome; example problem / opportunity topics could include: material property, user problem, reaching a target market, exploiting a manufacturing process or technology.

On this unit we aim to help students cultivate the progressive skillset acquired in the Design Skills unit, this unit allows students to understand the context of the Design Process as a method to address a variety of design problems.

The projects in the Unit will need to inform and test the students understanding of materials, their properties and the various manufacturing processes used to manipulate materials in a range of volume appropriate outputs. Students are expected to experience the constraints of inherent limitations placed on a design when manipulated through a certain manufacturing process. Sustainability will also be introduced as a criteria for material specification, this will be reinforced through the sustainability criteria in the Material Library resource.

You will also be introduced to methods of communicating positioning of an artifact or idea. These methods will include the generation of Colour Material Finish (CMF) boards and understanding and communicating the target market and setting.

Each project will need to challenge students in a ‘close to real’ scenario integrating problems which are relatable to the cohort and current real life issues. Ideally the unit will conclude with a project where students will be able to originate new ideas which solve real problems, applying theory to real practice.

The Design Process - the overall series of steps taken to transform an initial idea into a completed solution.

User-Centred Design - the tools and techniques we use to understand the needs and behaviours of our intended user group

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 / Where creativity meets technology.

### Unit Indicative Content

Continued development of skills

- Material properties, research and understanding of, including an induction to the Materials Library.
- Manufacturing processes appropriate to a range of volume outputs
- Basic understanding of commercial constraints in design thinking summarising of skills taught
- Applying design manufacturing skills to a design process through application of a number of product design projects
- Communication of design intent through position inc. CMF's and target user and setting.

### Unit Aims

- Understand the concept of materials properties, why they are important to material specification
- Gain knowledge on numerous and contrasting manufacturing methods
- Basic understanding of manufacturing method specification
- Basic understanding of the design constraints placed on a designer relating to material and manufacture processes
- Experience the applications of design skills in a design process to a set timescale

### Unit Learning Outcomes

LO 2 Concept/Ideation

Generate first concept ideas or strategic project themes drawing upon reference to acquired research materials

Related Principle: ORIGINATE

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*

Assessment tasks	Weighting (%) ( <i>one grade or multi-grade unit</i> )
Portfolio of project work with supporting models and digital material, which could include: Research reports, Prototypes, Final models, Pitch presentations, Images of development and final work, Blog, Presentation sheets.	This unit is assessed holistically  100% of the unit

## 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.*

A design project(s) communicating the processes replicated from the principles demonstrated in the teaching sessions.

1. Demonstrating an ability to generate solutions to a defined design problem (LO2)
2. Demonstration of how to effectively articulate ideas and information to communicate a design approach (LO5)

3. Demonstrate an ability to respond to critical evaluation from others, and also to evaluate their own work (LO4)
4. Demonstrated an ability to experiment with concepts, analyse and progress an idea to a conclusion in 3D and 2D (LO2)
5. Demonstration of a basic iterative design process (LO3,4)
6. Demonstration of an understanding of material properties and manufacturing process (LO4)

### Essential Reading list

1. Bradbury, D, 2014, **Mid-century modern complete**, Thames and Hudson
2. Chapman, J, 2015, **Emotionally Durable Design: Objects, Experiences and Empathy**, Earthscan
3. Dent, A, 2014, **Product design**, Thames and Hudson
4. Griffiths, A, 2014, **21st century lighting design**, Bloomsbury

#### Infographics

- S Heller, 2014, **Raw data : infographic designers' sketchbooks**, Thames & Hudson  
S. Ehmman, 2012 **Cause and effect : visualizing sustainability**, Berlin : Gestalten

#### Ethnographics & Ergonomics

- Fulton Suri, J. 2005. **Thoughtless Acts?**, Chronicle Books  
Henry Dreyfuss Associates, 2002, **The measure of man and woman : human factors in design**, New York : Wiley

#### Online reference:

<https://www.isokonplus.com/pages/the-beginnings>

#### 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.ideo.com/post/method-cards>