

When printed this becomes an uncontrolled document. Please access the Module Directory for the most up to date version by clicking [here](#).

Refer to guidance notes for completion of each section of the specification.

<b>Module Code:</b>	ARD467
---------------------	--------

<b>Module Title:</b>	User Centred Design 1.
----------------------	------------------------

<b>Level:</b>	4	<b>Credit Value:</b>	20
---------------	---	----------------------	----

<b>Cost Centre(s):</b>	GADC	<b>JACS3 code:</b>	W240/100050
		<b>HECoS code:</b>	

<b>Faculty</b>	FAST	<b>Module Leader:</b>	Steve Jarvis
----------------	------	-----------------------	--------------

Scheduled learning and teaching hours	18 hrs
Placement tutor support	0hrs
Supervised learning eg practical classes, workshops	18 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
<b>Total contact hours</b>	<b>36 hrs</b>
Placement / work-based learning	
Guided independent study	164 hrs
<b>Module duration (total hours)</b>	<b>200 hrs</b>

<b>Programme(s) in which to be offered (not including exit awards)</b>	Core	Option
BA(Hons) Product Design	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>Pre-requisites</b>
N/A

<b>Office use only</b>	
Initial approval: 08/09/2020	Version no:1
With effect from: 01/09/2021	
Date and details of revision:	Version no:

<b>Module Aims</b>	
	<ul style="list-style-type: none"> <li>• Enable students to design and develop solutions to everyday problems for a real person.</li> <li>• To introduce students to the application of conceptualising, generation of ideas and problem solving.</li> <li>• To enable students in the exploration of iterative designing, prototyping, decision making and critical thinking.</li> <li>• To develop the student's skills in layout, planning and professional presentation.</li> </ul>

<b>Module Learning Outcomes - at the end of this module, students will be able to</b>	
1	Demonstrate and evidence a solution or solutions to a to real world problem facing a person within the community.
2	Design, develop and produce a user centred multi component product as a result of solving a real-world problem.
3	Explore the iterative design process, produce prototypes, document decision making and apply critical thinking.

<b>Employability Skills The Wrexham Glyndŵr Graduate</b>	<b>I = included in module content A = included in module assessment N/A = not applicable</b>
<b>CORE ATTRIBUTES</b>	
Engaged	I
Creative	IA
Enterprising	IA
Ethical	IA
<b>KEY ATTITUDES</b>	
Commitment	I
Curiosity	IA
Resilient	IA
Confidence	IA
Adaptability	IA
<b>PRACTICAL SKILLSETS</b>	
Digital fluency	IA
Organisation	IA
Leadership and team working	IA
Critical thinking	IA
Emotional intelligence	A
Communication	A

## Derogations

None

## Assessment:

### Indicative Assessment Tasks:

Students will produce coursework that demonstrates their ability to identify, appreciate and apply user centred design methods and techniques with evidence of planning skills through layout studies.

Formative assessment will take place regularly within group critiques that occur during and at the end of each assignment. Students will also receive individual assessment and feedback at the end of the module period.

The module will be assessed through a practical community problem solving assignment. Emphasis will be placed on the recording and evaluation of the design process and the solution produced. Assessment criteria will include quality of design development, suitability of solution, depth of awareness of health and safety issues and self-critical personal evaluation

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1-3	Coursework	100

## Learning and Teaching Strategies:

- Lectures will allow students to identify, appreciate and apply design thinking, problem solving, sketching and CAD software methods and techniques.
- Assignments will enable students to design and produce a physical product applying iterative design techniques and focused on user centred design.
- Technical demonstrations will enable students to acquire the technical skills needed to complete the assignments.
- Tutorial guidance, group critique and student seminars will underpin the student's skill development and understanding of the design and creation process.

## Syllabus outline:

This module introduces students to user Centred design and the identification of a problem faced by a person within the community that can be fixed with the use of a product. The students will develop an appreciation of problem solving and the application of methods and techniques used in the design process as well as the physical skills of using equipment to produce products/prototype products with an emphasis on:

- presentation skills through design studies.
- Problem solving techniques
- Identification of a problem that can be solved with a multi component product  
Designing and developing a multi component product
- Producing a prototype or virtual representation of the product.
- Compiling a portfolio of the design process, including decisions made and reflections.

**Indicative Bibliography:****Essential reading:**

Manzini, E. and Coad, R. (2015), *Design, When Everybody Designs: An Introduction to Design for Social Innovation (Design Thinking, Design Theory)*. MIT Press.

LEWRICK, M. (2020), *DESIGN THINKING TOOLBOOK*. S.I.: JOHN WILEY & SONS.

**Other indicative reading**

Canizares, G. (2019), *Digital Fabrications: Designer Stories for a Software-Based Planet*. ORO Editions/Applied Research & Design.

Cagan, M. (2018), *Inspired: How to Create Tech Products Customers Love*. 2nd ed. John Wiley & Sons.

Hallgrimsson, B. (2019), *Prototyping and Model making For Product Design*. 2nd ed. London: Laurence King Publishing Ltd

Rodgers, P. and Milton, A. (2011), *Product Design*. 1st ed. London, UK: Laurence King Publishing Ltd.

Milton, A. (2013), *Research Methods for Product Design*. London: Laurence King Publishing.

SENESE, M. (2019), *MAKE: Volume 66*. O'REILLY MEDIA.

**Websites and Publications:**

<https://www.creativebloq.com/computer-arts-magazine>

<https://www.designcouncil.org.uk/>

<https://www.londondesignfestival.com/>

<https://www.creativereview.co.uk/>

<https://www.barbourproductsearch.info/>

<https://www.fabhub.io/>

<https://uxdesign.cc/>

Autodesk: Fusion 360

<https://www.solidworks.com/>

<https://www.vectric.com/>