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.

Module Code:	ARD557

Module Title:	User Centred Design 2

Level:	5	Credit Value:	20

Cost Centre(s):	GADC	JACS3 **code**: HECoS code:	W240/100050

Faculty	FAST	Module Leader:	Steve Jarvis

Scheduled learning and teaching hours	12 hrs
Placement tutor support	0hrs
Supervised learning eg practical classes, workshops	18 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total contact hours	**30** hrs
Placement / work-based learning	
Guided independent study	170 hrs
Module duration (total hours)	200 hrs

Programme(s) in which to be offered (not including exit awards)	Core	Option
BA(Hons) Product Design	✓	☐

Pre-requisites
N/A

Office use only
Initial approval: 08/09/2020   Version no:1
With effect from: 01/09/2022
Date and details of revision: Version no:

Module Aims
This module aims to extend and enhance skills and knowledge developed at Level 4 in User Centred Design 1 and provide a foundation for the degree project at Level 6. The module will also aim to deliver the following points: • Enable students to design and develop solutions to everyday problems for a real person. • To enhance student's ability in the application of conceptualising, generation of ideas and problem solving. • To develop students' abilities in the exploration of iterative designing, prototyping, decision making and critical thinking. • To expand the student's skills in layout, planning and professional presentation.

Module Learning Outcomes - at the end of this module, students will be able to	
1	Demonstrate and evidence to professional standards a solution or solutions to a to real world problem facing a person within the community
2	Design, develop and produce a user centred product as a result of solving a real-world problem that evidences experimentation, analysis and critical reflection..
3	Investigate and analyse the iterative design process, produce prototypes, document decision making and apply critical thinking.
4	Identify and document results to problems faced throughout the product design pipeline when creating a product for a consumer and critically analyse how the product created has made a difference to the end user.

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

Derogations
None

Assessment:

Indicative Assessment Tasks:

Formative assessment will take place regularly within group critiques that occur during and at the end of each assignment.

Students will produce coursework that demonstrates their ability to examine, analyse and apply user centred design methods and techniques to a professional standard.

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, the quality of the stakeholder pitch and self-critical personal evaluation.

In assessing the learning outcomes, a variety of factors will be taken into account, these include:
- Critical and theoretical Knowledge
- Conceptual ability
- Visual development skills
- Finished prototype/virtual representation
- Professional practice

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1-4	Coursework	100

Learning and Teaching Strategies:

- Lectures will allow students to examine, analyse 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:

Following a formal introduction to the module, the student will be aware of the parameters of the assignment and the time frame into which the activity must fit.

The expansion of terms of reference that will set the student new challenges for their development through the location of their practice within the context of producing satisfactory solutions to real-world problems for product design.

This module develops the student's ability to examine, experiment and apply user Centred design and the recognition 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 enhanced 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 to a professional standard.
- Advanced problem-solving skills
- Designing and developing a multi component product to a near professional standard.
- Analysis of a multi component product.
- Production of a prototype or virtual representation of the product that could be taken to market.
- Designing and developing a stakeholder pitch
- Compiling a portfolio of the design process

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).* Cambridge, Mass: MIT Press.

Lewrick, M., Link, P. and Leifer, L. (2020), *The Design Thinking Toolbox: A Guide to Mastering the Most Popular and Valuable Innovation Methods.* Hoboken, NJ: Wiley-Blackwelll

Other indicative reading

Ehn, P.(2014), *Making Futures: Marginal Notes on Innovation, Design, and Democracy.* Cambridge, Mass: The MIT Press.

Dunne, A. and Raby, F. (2014), *Speculative Everything: Design, Fiction, and Social Dreaming.* Cambridge, Mass: MIT Press.

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

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

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. Hoboken, NJ: John Wiley & Sons.

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

<u>Websites and Publications:</u>

https://www.creativeblog.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/