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

Module Code:	ARD628

Module Title:	Manufacturing and the Marketplace

Level:	6	Credit Value:	20

Cost Centre(s):	GADC	JACS3 **code**: HECoS code:	H700/100209

Faculty	FAST	Module Leader:	Steve Jarvis

Scheduled learning and teaching hours	12 hrs
Placement tutor support	0hrs
Supervised learning eg practical classes, workshops	12 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total contact hours	**24** hrs
Placement / work-based learning	
Guided independent study	176 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: 01/09/2023	
Date and details of revision:	Version no:

Template updated: September 2019

Module Aims
- To develop the student's knowledge and understanding of the manufacturing process and the production pipeline that will turn ideas and prototypes into mass produce products.   - To assist students in the exploration of the marketplace and where their products will fit into the current world of consumerism.   - To develop the student's skills in planning and management in order to take their products to the marketplace.   - To introduce students to crowd funding, investors, and other funding streams that may or may not be available to enable a product to be taken to market.

Module Learning Outcomes - at the end of this module, students will be able to	
1	Critically evaluate the stages and efficiency gains when taking a product from concept/prototype through to the manufacturing process, .
2	Analyse and evaluate the current market place and the location of their products within it.
3	Provide evidence of planning, production, manufacture investigation and supply chain management in order to take a product to market.
4	Investigate and critically analyse the funding streams (crowdfunding, investors, grants, etc.) that are available to enable a product to be taken to market.

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	IA
Critical thinking	A
Emotional intelligence	A
Communication	A

Derogations
None

Assessment:
Indicative Assessment Tasks:
Students will produce coursework that demonstrates their ability to identify, appreciate and apply market research and manufacturing process methods and techniques. The assessment submission should include a competed 'funding' pitch suitable to show to investors.

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 identity, appreciate and apply methods and techniques that will enable them to take their products to market.   - Assignments will enable students to plan and produce strategic plans to enable their products to be manufactured and sold on mass at market.   - 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 fabrication process.

Syllabus outline:
This module introduces students to the identification, appreciation and application of strategic plans, market research and manufacturing methods and techniques used in the product design pipeline with an emphasis on: - Planning skills through layout studies   - The manufacturing pipeline.   - Concepting ideas and pitching ideas to stakeholders   - Market analysis and supply chain management   - Identification of funding streams

Indicative Bibliography:
Essential reading:
Thompson, R. (2015), *Manufacturing Processes for Design Professionals*. London: Thames & Hudson. Jacobs, F., Berry, W., Whybark, D. and Vollmann, T. (2018), *Manufacturing Planning and Control for Supply Chain Management*. 2nd ed. New York: McGraw-Hill Education.

Other indicative reading

Osterwalder, A., Pigneur, Y., Bernarda, G. and Smith, A. (2015), *Value Proposition Design: How to Create Products and Services Customers Want (Strategyzer).* Hoboken: Wiley.

Eyal, N. (2014), *Hooked: How to Build Habit-Forming Products.* London: Penguin Books.

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

Fast, L.(2015), *12 Principles of Manufacturing Excellence - A Lean Leaders Guide to Achieve..* Boca Raton, FL: CRC Press.

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/