CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data						
Module Title	**Make**					
Module Code	UADALJ-30-M		Level	M	Version	2
Owning Faculty	ACIE		Field	Design		
Contributes towards	Post Graduate Certificate in Design Post Graduate Diploma in Design MA Design Shell framework CPD					
UWE Credit Rating	30	ETCS Credit Rating	15	Module Type	Project	
Pre-requisites			Co- requisites			
Excluded Combinations			Module Entry requirements			
Valid From	September 2014		Valid to	September 2020		

CAP Approval Date	7 January 2014

Part 2: Learning and Teaching	
Learning Outcomes	On successful completion of this module students will be able to: • Creatively apply a variety of new and established prototyping techniques and methods of manufacture used in contemporary design. • Apply cohesive, critical and reflective analysis to their own design development • Demonstrate new and thorough knowledge of developments in materials innovations and associated technologies. • Apply a variety of creative methods appropriate to the project briefs. • To engage with the production values and debate between craft and new technology. • Work creatively in the production of a series of small scale practical projects that respond reflexively and critically to the module themes. • Undertake sustained, innovative, creative and independent scholarship and research.
Syllabus Outline	This module aims to develop and expand students' knowledge, skills and interest in the innovative application of materials and technologies that will enhance their practice as creative designers. In developing this knowledge students will begin to understand and plan for the full financial cost and time of using specialist materials, fabrication techniques and technical expertise. Students will be encouraged to critically and creatively engage with a broad range of materials and manufacturing processes. Students will be invited to challenge

the nature, role and cultural value of different approaches from 'making' and 'manufacture', to making by hand or mass manufacturing. From new and emerging digital fabrication processes to the contemporary application of craft.

Students will be introduced to the fabrication workshops, which include facilities for working in wood, metal, ceramics, plastics and textile materials. In addition to traditional materials and fabrication techniques, there will be opportunity to receive tuition in 3D Computer Aided Design, 3D printing, laser cutting and CNC machining, and also interactive electronics and programming (Arduino). Students will be encouraged to make contact with commercial fabrication companies to compliment the Faculty's facilities. In this module students will be encouraged to engage with and question current approaches to 'making' and 'manufacture' in design, and develop a critical and reflective approach within their own creative practice.

The development of students' awareness and application of appropriate research methods (literature review, case study methods and action research) will be implicit within this module and evidenced through a Critical Design Log. Students will be required to visit specialist libraries (notably materials libraries) as part of their research and development.

The module will provide opportunity for individual and collaborative group project work as well as offering students the opportunity to reflect critically upon this work. It will establish in students flexible and interdisciplinary approaches to problem solving through practical and theoretical design and research methods.

The key themes of this module include:

- o Materials, identification and selection
- o The creative application of materials, processes and technologies.
- o Economic planning of all project work.
- o The role of exploratory prototyping within the design process.
- o 3D computer aided design and fabrication technologies.
- o Electronics hardware and software for interactive art and design.
- o The appropriate selection and use of materials and technologies in response to a given design brief.
- o Novel intersections of art, technology, craft and design.
- o Practice-led action research.

Contact Hours/Scheduled Hours	Contact hours: 6 scheduled contact hours per week (full-time) or 3 scheduled contact hours per week (part-time), to include:
	Lectures, seminars, group and individual tutorials, technical workshops/training as appropriate.
Teaching and Learning Methods	**Teaching and learning methods:** The module delivery will have three main elements:
	• A lecture/seminar programme that develops the module themes, provides case studies and relevant critical and theoretical perspectives.
	• A series of practical workshops through which prototyping and manufacturing skills are explored and developed.
	• A series of short practical projects through which student work is developed, reviewed and critiqued.
	Students will receive group and individual tutorial support throughout the module.
	Scheduled learning includes lectures, seminars, tutorials, project supervision,

	demonstration, practical classes and workshops; supervised time in studio/workshop, presentation and critique. **Independent learning** includes hours engaged with essential reading, project work, assignment preparation, planning, completion, presentation.
Reading Strategy	All students will be encouraged to make full use of the printed and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information pathways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue.
Suggested Reading List	Aldersley-Williams, H., Hall, P., Sargent, T., Antonelli, P. (2008) *Design and the Elastic Mind,* MOMA, New York Archer, L. B. (2004) *Designerly Activity and Higher Degrees,* Loughborough University/DATA Buchanan, R. (2001) *Human Dignity and Human Rights: Thoughts on the Principles of Human-Centered Design,* Design Issues Vol 17 No 3 pp 35 – 39 Charny, E. ed. (2011) *Power of Making.* Victoria and Albert Museum catalogue. Chua, C. K., Leong, K. F., Lim, C. S**.** (2003) *Rapid Prototyping Principles and Applications*, World Scientific Cooley, M. (1980) *Architect or Bee? The Human – Technology Relationship* Hand and Brain/Langley Technical Services Dunne, A. (2008) *Hertzian Tales: Electronic Products, Aesthetic Experience, and Critical Design,* MIT Press Frayling, C. (2011) *On Craftsmanship: Towards a new Bauhaus.* Oberon Masters. Gershenfeld, N. (2005) *Fab: The Coming Revolution on Your Desktop - from Personal Computers to Personal Fabrication,* Basic Books Gordon, J .E. (1976) *The new science of strong materials or why you don't fall through the floor* Penguin Books Heidegger, M. (1954) *The Question Concerning Technology* in Lovitt, W (trans.) The Question Concerning Technology and Other Essays, Harper Perennial (1977) Heskett, J. (1980) *Industrial Design* Thames and Hudson Heskett, J. (2002) *Toothpicks and Logos: Design in Everyday Life* Oxford University Press Huxley, A. (1932) *Brave New World*, Vintage Edition (2004) Igoe, T. (2007) *Making Things Talk*, Make: Projects, O'Reilly Media Lefteri, C. (2007) *Making It: Manufacturing Techniques for Product Design*, Laurence King Publishing Manzini, E. (1992) *Prometheus of the Everyday: The Ecology of the Artificial and the Designer's Responsibility,* Design Issues Vol 9 No 1 pp 5 – 20 McCullough, M. (1998) *Abstracting Craft: The Practiced Digital Hand,* MIT Press Moggridge, B. (2007) *Designing Interactions*, MIT Press Moholy-Nagy, L. (1947) *Abstract of An Artist,* George Wittenborn Norman, D. (2005) *Emotional Design: Why we love (or hate) everyday things,* Basic Books Norman, D. (2002) *The Design of Everyday Things,* Basic Books Papanek, V. (1971) *Design for the Real World: Human Ecology and Social Change*, New York, Pantheon Books Petry, M. (2011) *The Art of Not Making. The New Artist / Artisan Relationship.* Pye, D. (1968) *The Nature and Art of Workmanship,* Cambridge University Press Pye, D. (1978) *The Nature and Aesthetics of Design*, Barrie and Jenkins Rust, C. (2004) *Design Enquiry: Tacit Knowledge and Invention in Science*, Design Issues Vol 20 No 4 pp 76 – 85 Walters, P and Thirkell, P (2007) *New Technologies for 3D Realization in Art and Design Practice.* Artifact Vol 1 Issue 4 Zaccai, G. (1995) *Art and Technology: Aesthetics Redefined*, in Buchanan, R and Margolin V (eds.) *Discovering Design: Explorations in Design Studies*. University of Chicago Press: Chicago

Part 3: Assessment		
Assessment Strategy	The assessment for this module will be through practical and written submission of set tasks to be completed independently. Assessment will be through submission of projects appertaining to realising learning outcomes. All work submitted should rigorously respond to the demands of the learning outcomes. If this module is taken as a CPD module, students will have the option not to be assessed.	
	Assessment criteria	**Threshold Standard**
	The level to which the work evidences new knowledge in: processes, technologies and materials.	The work demonstrates the acquisition of new practical skills and understanding, and shows that the student can synthesise these within their design methodologies.
	The level of holistic and reflective analysis evidenced in the students design development.	The work presented demonstrates awareness of the social, political cultural, theoretical, and practical impacts of their work and how these maybe applied in the future.
	The extent to which research has informed practice	The work demonstrates through the presentation of visual and theoretical research an understanding of research methods and has utilised a full range of resources to inform practice
	The extent to which the student has analysed their own skill set and its impact on individual practice.	The work demonstrates critical awareness of individual strengths and weaknesses within diverse working contexts, and identifies strategies for further development.
	The extent to which the student has managed their own learning and logistics of practice	The body of work demonstrates autonomy and sustained independent scholarship through the deployment of an individual working methodology.

Identify final assessment component and element	

	A:	**B**:
% weighting between components A and B (Standard modules only)	**100**	

First Sit - Component A

Element A **Description of each element**	**Element weighting** **(as % of component)**
1. A body of practical work, associated research and design development	80
Element B **Description of each element**	**Element weighting** **(as % of component)**
1. Critical Design Log	20

Resit (further attendance at taught classes is not required) - Component A

Element A **Description of each element**	**Element weighting** **(as % of component)**

1. A body of practical work, associated research and design development	80
Element B **Description of each element**	**Element weighting** **(as % of component)**
1. Critical Design Log	20

If a student is permitted an **EXCEPTIONAL RETAKE** of the module the assessment will be that indicated by the Module Description at the time that retake commences.