



Course Information Form

This Course Information Form provides the definitive record of the designated course

General Course Information

Course Title	Product Design Product Design (with Professional Practice Year)
Qualification	BSc (Honours)
FHEQ Level	6
Intermediate Qualification(s)	
Awarding Institution	University of Bedfordshire
Location of Delivery	AA
Mode(s) of Study and Duration	Three years Full Time (FT) Four years full-time (with professional practice year) up to six years Part Time (PT)
Professional, Statutory or Regulatory Body (PSRB) accreditation or endorsement	N/A
UCAS Course Code	W240
External Benchmarking	<p>QAA FHEQ level 6 descriptor http://www2.le.ac.uk/offices/sas2/courses/create/documents/fheq-level6.pdf</p> <p>QAA Subject Benchmark Statement for Engineering http://www.qaa.ac.uk/en/Publications/Documents/SBS-engineering-15.pdf</p> <p>QAA Subject Benchmark Statement for Art and Design http://www.qaa.ac.uk/en/Publications/Documents/SBS-Art-and-Design-17.pdf</p> <p>Engineering Council - UK-SPEC UK STANDARD FOR PROFESSIONAL ENGINEERING COMPETENCE 2014 http://www.engc.org.uk/engcdocuments/internet/Website/UK-SPEC%20third%20edition%20(1).pdf</p>

Entry Month(s)	October
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Why study this course

This dynamic course is a collaborative development by the School of Computer Science and Technology and the School of Art and Design and it is delivered jointly. The National Student Survey (2016) rates the School of Art and Design as in the top 15 for student satisfaction. Product Design provides you with essential skills that the current industry is expecting from graduates and instils the work ethic as well as transferable skills necessary to function effectively in the creative environment.

The course comprises eleven units, which cover the areas of product design and its progressive influence on society and environment through innovation. You will be designing breakthrough products and services using STEAM (Science, Technology, Engineering, Art and Maths) and conceptual understanding to improve the environment and society. Many of the units incorporate “disruptive technologies” as defined by the New Engineering Foundation, including Smart Materials, IoT, 3D design and 3D printing.

A core element of the Honours degree is project-based learning. You will undertake a self-selected project at the final year of the course, practically combining conceptual and STEAM understanding.

Educational Aims

This course will prepare you to function as a competitive product designer, whilst equipped with the necessary technical, practical and creative skills. The teaching on the course involves both engineering and design, aiming to make you flexible and well prepared as a product designer in the future. We aim not only for you to be able to envisage form and function, but to be able to understand society, economy and technology and to innovate products and services.

Enquiry: We encourage research to develop novel products and services using STEAM and societal and economical factors.

Contextual understanding: we support you in:

Understanding the role of the product designer and how to practise as a professional in the field locally and internationally.

Awareness of the product design subject and the core role of the product designer in environmental, social and political issues and ethical practice in the field.

Understanding of creative methods, visualization skills and science that enable you to function in complex, technology rich, multi-cultural and multi-professional environments.

Collaboration: You will learn and collaborate with tutors, demonstrators and technicians, peers and the larger student community at the university and external industry experts. You will also participate in live projects, enabling you to gain industry-related experience.

Enterprise Designers on this course will be innovators and as such this course aims to instil entrepreneurial skills enabling you to realise your products and ideas.

Course Structure

The Units which make up the course (including the Professional Practice Year as applicable) are:

Unit Code	Semester	Level	Credits	Unit Name	Core or option
xx001-1	1	4	30	Introduction to Product Design	Core
xx002-1	1	4	30	Design Representation	Core
xx003-1	2	4	30	Technology and Manufacturing Principles	Core
xx004-1	2	4	30	Materials and Tools	Core
xx001-2	1	5	30	Conceptual Design	Core
xx002-2	1	5	30	Design, and Application of Materials	Core
xx003-2	2	5	30	Design and Human Interfacing	Core
xx004-2	2	5	30	Technology of Production Cycle	Core
CIS097-2		5	0	Professional Practice Year	Optional
xx001-3	1	6	30	Innovation and Entrepreneurship	Core
xx002-3	1	6	30	Project Management, Society and Ethics	Core
xx003-3	2	6	60	Final Major Project	Core

Course-Specific Regulations

Not applicable

Additional Course Costs

You will need to purchase sketchbooks, pens, pencils, markers and other art materials, prototype/project materials/components, computer/laptop i5 or preferably i7 (you will have the opportunity to download and install Autodesk products for free as students of the University, these require powerful processors specially when texturing, rendering and lighting within 3D environments); the library at University has the Autodesk products installed on designated computers. Please refer to student handbook for this and for latest updates of expected costs (Laptop i7 £350-500, A3 portfolio with sleeves £50, Graphical materials; Artist brush pens x12 £35, Technical pen x3 £10, artists precision knife £5, sketchbooks A5, A4 and A3 £100, consumables acrylic, filament, illustration board, resin, film, etc.)

Entry requirements

Standard entry requirements

Graduate Impact Statements

The course has been designed to develop graduates who are able to:

- demonstrate technical competence in the production of portfolios and reports backed by research as applicable in the industry in the UK and internationally
- contribute to team work at a number of levels, setting group aims, allocating roles and responsibilities, working to a common purpose, negotiating and effective problem solving
- create products and services that benefit the environmental, cultural, social, political, economic and ethical aspects of society.

Course Learning Outcomes

By the end of this course the graduates will be able to:

1. Employ both convergent and divergent thinking in the generation of ideas, concepts, proposals and solutions in product design, incorporating analysis of relevant technological and societal trends
2. Demonstrate skill in solving design problems by applying scientific knowledge and relevant computational, analytical and technical skills.
3. Research, select, experiment with and make appropriate use of materials, processes and technologies for product development, applying knowledge of science, quality standards and sustainability
4. Evidence knowledge and systematic understanding of product design and take a logical approach to design and realisation, synthesising aesthetic and technical elements.
5. Be self-critical, entrepreneurial, resourceful and ethical in their approach to product design, understanding the influence of risk, cost and value on their work.
6. Undertake the diverse roles of a product designer, adopting a professional approach and operating within appropriate codes of conduct when faced with ethical issues

PSRB details

N/A

Learning and Teaching

Design studies combine theory with practice, which means that much of the course centres on studio work where you will be expected to apply learned theory to the actual material and processes. Your tutors will be your facilitators to develop your knowledge and skills at various levels, hence you will encounter different tutors with different knowledge, experience, skills and abilities. You should seek advice and when you are undertaking specialised work, seek out cooperation of specialists to develop your product.

You will learn by participating in various workshops and labs, where you will gain experience of a range of ways of manufacturing and processing materials to achieve the required end result. You will learn how to test the prototypes that you have developed, analyse the results and prepare the products for economic production.

You will have the opportunity of working with students of other disciplines on collaboratively developing projects. You will have the opportunity to work with “live” projects and industry, such as Innovation Bridges and Knowledge Transfer Partnerships (KTP).

Assessment

Design is a process of developing, hence most units will require you to develop a portfolio which demonstrates your understanding of the design process, whilst demonstrating your communication and graphic skills, application of materials and processing in the development of the products. Various stages will be assessed as you progress through the three years and develop a comprehensive portfolio of work in various media, recording experimentation as well as key breakthrough points in your own personal development.

You will prepare technical reports and present them on the Virtual Learning Environment; you will be asked to develop a continuous on line journal blog (which forms part of your continuous personal and professional development).

Assessment Map

Unit Code	Sem 1	5	6	7	8	9	10	11	12	13	14	15	Sem 2	6	7	8	9	10	11	12	13	14	15			
xx001-1		WR-I			F								CW-Port	W3F												
xx002-1													CW-Port	W3F												
xx003-1																							CW-Port	W3F		
xx004-1																							CW-Port	W3F		
xx001-2			WR-I			F							CW-Port	W3F												
xx002-2													CW-port	W3F												
xx003-2																							CW-port	W3F		
xx004-2																							CW-port	W3F		
xx001-3			PR-oral			F							CW-port	W3F												
xx002-3							PR-oral				F		CW-port	W3F												
xx003-3																							PJ-Diss	CW-Port	PR-viva, F	W3F

Developing your employability

Employability is understood widely as encompassing knowledge, skills and a professional attitude which your tutors expect you to display in all your units. All University of Bedfordshire courses aim to help you to be prepared for the world of work, specifically as designers you need to disseminate your design to others, present the novelty of your proposals in a professional manner, this is what the course will assist you to do. The Careers Service is there to support you throughout the three years of your study. Our curriculum gives you skills that are valuable for a career within various industries, but is also relevant for a much wider range of applications such as media, fashion and applied art. The course also offers the opportunity of a Professional Practice Year for those that choose to develop more hands on experience.

This course is taught by experienced professionals with a focus on pragmatism and industry requirements. Guest lecturers are also invited to share their current experience with students. The course specifically encourages the students to attend specialist seminars and trade shows to further their exposure to the current developments in the industry. Currently the School of Art and Design has scheduled 'Industry Fridays', where professionals from industry present and share their work and experience with students, providing them with invaluable tips and stimulating different ways of thinking.

By presenting your portfolios and analysis as part of your assessment, you will also develop your presentation and communication skills, deemed to be essential transferable skills by the industry. Furthermore, the course has a strong vocational and employment related focus; this is exemplified in collaborations with professionals from the related creative industries. We aim to have assignments each year that are linked to a 'live' client. Representatives set a brief and give feedback on your 'pitches' or presentations, just as is common in the industry.

After Graduation

On completing this course students are likely to progress to work as a:

- Design Technologist
- Product Designer
- Interaction Designer
- Design Researcher
- Production Developer and Supervisor
- Computer Aided Design Technologist
- Materials Test Technologist
- Service Designer

These opportunities are available across many sectors, generally referred to as the Creative Sector. Students may also progress to many available Post Graduate courses.

Additional Information

We will also arrange visits to various relevant organisations and exhibitions in addition to inviting a range of industry speakers and guest lecturers to speak to you. You will also be encouraged to engage with London Design Festival and all internal events run by the Computing Science and Technology as well as Art and Design Schools. You will be supported in participating in design competitions.

Go Global is an award winning outstanding international experience run by the University of Bedfordshire and offers opportunities for students to travel for their own personal development.

At the end of your study you will exhibit your Final Major Project work at the Degree Show to which relevant industry representatives and organizations will be invited.

Student Support during the course

Course Equality Impact Assessment

Question	Y/N	Anticipatory adjustments/actions
The promotion of the course is open and inclusive in terms of language, images and location?	y	All documents and learning resources will be made available on the Virtual Learning Environment
Are there any aspects of the curriculum that might present difficulties for disabled students? For example, skills and practical tests, use of equipment, use of e-learning, placements, field trips etc.	y	There are elements of workshops and studio work that may require specialist training and induction for all students and may be challenging for students with restricted mobility. Reasonable adjustments will be made in conjunction with the student
Are there any elements of the content of the course that might have an adverse impact on any of the other groups with protected characteristics ¹ ?	n	
If the admission process involves interviews, performances or portfolios indicate how you demonstrate fairness and avoid practices that could lead to unlawful discrimination?	y	The tutors will conduct interviews in a manner suited to all and allow the students to be themselves with full consideration of safeguarding training.
Confirm that you have considered that the course learning outcomes and Graduate Impact Statements are framed in a non-discriminatory way.	y	
Confirm that the course handbook makes appropriate reference to the support of disabled students.	y	

Administrative Information – Faculty completion	
Faculty	CATS
Portfolio	UG Art and Design
Department/School	School of Art and Design
Course Coordinator	Dr Sylvia Tzvetanova Yung

¹ Age, Gender reassignment, Marriage and civil partnership, Pregnancy and maternity, Race, Religion and belief, Sex, Sexual orientation

Trimester pattern of operation	Trimesters 1 and 2
PSRB renewal date (where recognised)	
Version number	1/2017
Approved by (c.f. Quality Handbook ch.2)	University Approval Panel
Date of approval (dd/mm/yyyy)	15/06/2017
Implementation start-date of this version (plus any identified end-date)	October 2017
Study model type (e.g. study centre)	

Form completed by:

Name: David Jazani & Dr Sylvia Tzvetanova Yung

Date: 280417

Authorisation on behalf of the Faculty Teaching Quality and Standards Committee (FTQSC)

Chair:

Date:

Course Updates		
Date (dd/mm/yyyy)	Nature of Update	FTQSC Minute Ref:

Administrative Information – Academic Registry completion	
Route code (post approval)	
JACS / HECoS code (KIS)	
SLC code (post approval)	
Qualification aim (based on HESA coding framework)	



Annexes to the Course Information Form

These annexes will be used as part of the approval and review process and **peer academics** are the target audience.

General course information

Course Title	<i>Product Design</i> <i>Product Design (with Professional Practice Year)</i>
Qualification	<i>BSc (Honours)</i>
Route Code (SITS)	BSPRDAAF BSPDPAAF
Faculty	CATS
Department/School/Division	<i>School of Art and Design</i>
Version Number	<i>1/2017</i>

Annex A: Course mapping of unit learning outcomes to course learning outcomes

Unit code	xx001	xx002	xx003	xx004	xx001	xx002	xx003	xx004	xx001	xx002	xx003
	-1	-1	-1	-1	-2	-2	-2	-2	-3	-3	-3
Level	4	4	4	4	5	5	5	5	6	6	6

Credits	30	30	30	30	30	30	30	30	30	30	60
Core or option	core	core	core	core	core	core	core	core	core	core	core
Course Learning Outcome (number)	<i>Insert LO1 and/or LO2 for each unit into cell corresponding to the course learning outcome</i>										
1	LO2	LO1	LO1	LO1	LO1	LO1	LO1&2	LO1	LO1	LO2	LO1
2	LO1			LO2	LO2	LO1	LO1	LO2		LO2	LO1
3			LO1	LO1		LO2		LO1,2			LO2
4		LO2				LO2	LO2	LO2			LO1
5			LO2	LO2	LO2		LO2	LO2	LO2	LO1 & 2	LO2
6	LO2				LO2	LO2	LO2		LO2	LO1 & 2	LO1 & 2
* Only if the student is working collaboratively with another student from other schools/disciplines towards a product development											

Annex C: Course mapping to FHEQ level descriptor, subject benchmark(s) and professional body or other external reference points

One set of mapping tables to be produced for the course and each named intermediate qualification

Course (or intermediate) qualification and title	BSc Hons Product Design
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FHEQ Descriptor for a higher education qualification	Frameworks for Higher Education Qualifications in England Wales and Northern Ireland level 6	Course Learning Outcome(s)					
		1	2	3	4	5	6
a systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline		x	x		x		
an ability to deploy accurately established techniques of analysis and enquiry within a discipline		x	x	x	x		
Conceptual understanding that enables the student:							
to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline		x	x	x	x	x	
to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline		x	x	x	x	x	
an appreciation of the uncertainty, ambiguity and limits of knowledge		x	x	x	x		x
the ability to manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to the discipline).		x	x	x	x		x
Typically, holders of the qualification will be able to:							
apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects		x	x		x	x	x
critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions - to a problem		x	x		x	x	x
communicate information, ideas, problems and solutions to both specialist and non-							

specialist audiences.	x	x		x	x	x
And holders will have: the qualities and transferable skills necessary for employment requiring:						
the exercise of initiative and personal responsibility	x	x		x	x	x
decision-making in complex and unpredictable contexts	x	x		x	x	x
the learning ability needed to undertake appropriate further training of a professional or equivalent nature	x	x	x	x	x	x

Subject Benchmark Statement(s)	<i>To align with the QAA descriptors for Engineering (2015) the course's objectives are also to equip students with ability to:</i>	Evidence and/or Course Learning Outcome(s) <i>How the course takes account of relevant subject benchmark statements</i>
be pragmatic, taking a systematic approach and the logical and practical steps necessary for, often complex, concepts to become reality		CLO4
seek to achieve sustainable solutions to problems and have strategies for being creative, innovative and overcoming difficulties by employing their skills, knowledge and understanding in a flexible manner		CLO3
be skilled at solving problems by applying their numerical, computational, analytical and technical skills, using appropriate tools		CLO2
be risk, cost and value-conscious, and aware of their ethical, social, cultural, environmental, health and safety, and wider professional responsibilities		CLO5
be familiar with the nature of business and enterprise in the creation of economic and social value		CLO5,6
appreciate the global dimensions of engineering, commerce and communication		
be able to formulate and operate within appropriate codes of conduct, when faced with an ethical issue		CLO6
be professional in their outlook, be capable of team working, be effective communicators, and be able to exercise responsibility and sound management approaches		CLO6

Subject Benchmark Statement(s)	<i>To align with the QAA descriptors for Art and Design (2017) (typical standard for honours degrees):</i>	Evidence and/or Course Learning Outcome(s) <i>How the course takes account of relevant subject benchmark statements</i>
generate ideas, concepts, proposals, solutions or arguments independently and/or collaboratively as self-initiated activity and/or in response to set briefs		CLO1
employ both convergent and divergent thinking in the processes of observation, investigation, speculative enquiry, visualisation and/or making		CLO1
select, experiment with and make appropriate use of materials, processes, technologies and environments showing understanding of quality standards and attention to detail		CLO3
show judgement and self-critique in the development ideas through to outcomes, for example images, artefacts, environments, products, systems and processes, or texts		CLO5
manage and make appropriate use of the interaction between intention, process, outcome, context, and the methods of dissemination		CLO4
be resourceful, ethical and entrepreneurial.		CLO5