



**Bournemouth  
University**

## Product Design BA/BSc (Hons)

### The School of Design, Engineering & Computing

What is Product Design?

Simply stated, it is concerned with the design of a complete "holistic" product.

But what sort of product?

Every product you touch (domestic, consumer, specialist, medical etc.) has probably been designed by a Product Designer. This course is influenced towards mass produced consumer products.

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#### Duration:

4 Years with 40 week industrial placement

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#### UCAS:

BA (Hons): W240

BSc (Hons): H101

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#### Entry Requirements:

For 2012 entry: 320 tariff points typically from 3 A-levels or equivalent. At least a DDM from a BTEC 18-unit Diploma.

We look at individual applications and make an offer based on your academic achievements, personal statement and relevant selection criteria. Offers may be subject and grade specific.

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#### Preferred subjects:

Art & Design, IT, Design & Technology, Science, Engineering, Manufacturing, Physics, Maths

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#### Recommended GCSEs:

4 at grade C minimum including Maths and English

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#### International Baccalaureate:

32 points for 2011 entry (including 5 points from each of the 3 Higher Level subjects).

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#### If English is not your first language:

IELTS (Academic) 6.0 or equivalent

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#### Contact askBU:

Tel: 08456 501501 (BU does not profit from this service)

Tel: +44 (0) 1202 961916 (UK and International/EU alternative number)

Email: [askBUenquiries@bournemouth.ac.uk](mailto:askBUenquiries@bournemouth.ac.uk)

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#### For more course information

[www.bournemouth.ac.uk/courses](http://www.bournemouth.ac.uk/courses)

The overall philosophy of the course is to produce graduates who, starting from an initial need, can design and develop well considered and potentially commercial products. The attainment of this goal requires students to be able to use technical analysis, creativity and innovation to solve problems whilst addressing the technical, functional, visual, social and economic needs of the market place.

#### So what has to be considered?

- who the product is for
- how it will work technically
- how it will be manufactured
- what it will be manufactured from
- how it will look
- how it fits with human body/ human interaction
- how much it will cost

This course has been accredited by the Institution of Engineering Designers (IED).



support  
inspire  
achieve

## Course content

### Year 1- Level C

#### **Design Projects and Prototypes 1 (40 credits)**

This unit will provide you with the ability to create creative and dynamic product designs in the form of fully functioning prototypes. You will be set a series of design projects throughout the year that require the ability to bring together your expertise from the other units of the programme. As a result, you will design and make products that are both attractive to the targeted market as well as being underpinned by good scientific and design for manufacture fundamentals.

#### **Materials and Processing (20 credits)**

You will gain the basic knowledge and skills necessary for the intelligent selection and specification of suitable materials and production techniques for design. You will learn about the important properties of various metals, plastics, ceramics and composites uncovering why and how they are important in selecting materials and processing methods in product design. Energy and other environmental issues related to materials and their processing will also be explored in this unit.

#### **Design Media (20 credits)**

You will learn to present two and three dimension drawings, renderings and designs using both manual and computer visualisation techniques. You will be shown how to present design media at a professional level in an industrial situation.

#### **Technological Principles (20 credits)**

You will learn how basic scientific fundamentals can help both in the generation of ideas and the proof of solutions, and gain a working knowledge and understanding of a range of mathematical, algebraic, physical and technological principles appropriate to the generation and development of realisable solutions of design problems.

#### **User Centred Design (20 credits)**

The psychological and physiological implications of your design and its effects on the user will be explored. This unit will take into account factors such as user capabilities and limitations, as well as their likes and dislikes, so your designs are made both usable and pleasurable for them

### Year 2- Level I

#### **Design Projects and Prototypes 2 (40 credits)**

This unit will build on the project experiences in the first year and will push you to create increasingly more complex and innovative design solutions that will be realised by you in the form of fully functioning prototypes.

You will expand your array of techniques and skills and develop a wider understanding of both good practise and responsibility of the decisions that you make when creating leading product designs.

Your projects will cover such needs as functionality, human interaction, branding, and design for manufacture.

#### **Design for Production (20 credits)**

You will further enhance your appreciation of manufacturing and production techniques. This unit covers a broad range of topics from processing considerations to the planning and optimisation of production, and is particularly significant in preparing you for your third year in industry.

#### **Design Visualisation (20 credits)**

You will develop further understanding and application of the principles of design visualisation and presentation and use applied 3-D modeling techniques to aid the visualisation, realisation and presentation of your designs.

You will also gain the knowledge to support areas of the design process by use of computer and/or physical modelling and presentation skills and be able to apply an integrated workflow using a balanced range of tools and techniques. Finally, you will develop an understanding and application of colour, texture and light through use of computer and/or manual techniques.

#### **Design Management and Commercialisation (20 credits)**

You will be introduced to the aspects of business and management and will conclude in the final year with the Business Development unit. You will gain an understanding of how they can identify and exploit the company's strengths and evaluate the external opportunities for competitive products.

#### **Applied Technology (20 credits)**

You will learn physical laws that govern the design and manufacturing of products. You will further develop a working knowledge, understanding and application of an increased range of physical and technological principles relevant to the design of components, structures, machines and products.

## Year 3- Level P

Mandatory Industrial Placement - (minimum 40 weeks)

## Year 4- Level H

### Design Projects 3 (60 credits)

The individual design project is the most important element for both the BA and BSc option and will result in the design of a product. You will solve product design problems creatively and present a well structured and professional project report. You will also use scientific, analytical and technological principles to achieve functional design solutions.

### Design Prototypes 3 (20 credits)

This unit links directly to the Design Projects 3 unit. You will manufacture a functioning prototype that is as accurate a representation of the individual design project production item as possible.

### Business Development (20 credits)

You will gain knowledge of the importance of strategic management and how it interacts with the business development process. Your approach to strategic management and thinking will be developed to heighten your entrepreneurial spirit and business acumen. This will enhance your capacity to recognise and capitalise on competitive and innovative opportunities in a changing business environment.

### Humanistic Design Studies (20 credits) – BA (Hons) option

You will study aesthetics in design, and will learn how to incorporate these and other human considerations in your designs.

You will learn how to do this via a user-centred design methodology, with its emphasis on user involvement - and the importance of evaluation - throughout the design lifecycle.

### Advanced Technology (20 credits) – BSc (Hons) option

This unit in the final year will provide you with an understanding and professional competence required for design of products for structural integrity and reliability, and the ability to predict the performance and reliability of products in service. It will enable you to critically analyse, evaluate and select new and upcoming materials and processing methods for products and, have a full understanding of the implications on global resources and the environment. Further, you learn how to design modern control and intelligent systems for products.

You will choose from a BA (Hons) or BSc (Hons) option during your industrial placement year. In the BSc option there is more emphasis on the technological areas of design, whereas the BA option develops a deeper understanding of the humanistic and contextual issues of product design.

## Course Structure and Content

The first two years of the course are common for BA and BSc options. By the end of the first year you will have developed an appropriate level of analytical, creative and presentation skills and you will be able to apply a structured approach to design. In the second year you will continue to develop a further understanding and mastery of the design process.

Second year modules also develop the application of the fundamental principles from the first year. During the second year you will receive support and guidance in making applications for an industrial placement.

The mandatory industrial placement will allow you to apply some of the knowledge, techniques and practices that you have learnt to real industrial situations. You will also use this experience to decide which of the two final year options will be most relevant to your chosen career in Product Design.

The final year has a different bias dependent on whether the BA or BSc option is taken. The Individual Design Project is the most important element for both and will result in the design of a product, the manufacture of a fully functioning prototype, a computer model and a Design Report.

You will also display your design project at the end of your final year at the Festival of Design & Innovation. Businesses, placement companies, general public, family and friends are all invited to the four day event. Many of our students have received job offers from the show.

Visit the festival website [www.bournemouth.ac.uk/festival](http://www.bournemouth.ac.uk/festival) to view the type of prototypes that our student's have developed.

## **For Product Design, we are looking for applicants who are creative, analytical and practical.**

The overall philosophy of the course is to produce graduates who, starting from an initial need, can design and develop well considered and potentially commercial products. Therefore, the ability of the applicant to think both laterally and logically, in both artistic and scientific domains is crucial in order to satisfy aesthetic, ergonomic, technological, manufacturing, standards and economic criteria.

In addition to the need for a broad basic knowledge and the ability to communicate in a wide range of disciplines, is the recognition that applicants must be able to think both creatively and analytically. The applicant must also have a desire to be able to learn about design by producing working prototypes of their solutions.

Experience of Computer Aided Design (CAD) would be beneficial although not essential.

### **Entry Requirements**

For 2012 entry; 320 tariff points.

#### **GCSEs**

This course requires a minimum of 4 GCSEs or equivalent at grades A\* to C, including English and Maths.

#### **Numeracy and literacy**

In order for you to contribute fully to your course and enjoy your learning experience with us, you'll need to have the right skills to study with us. For that reason, we need to be sure that you can express yourself in written English, have basic numeracy skills, and have an understanding of the subject area. We usually use Level 2 of the National Qualifications Framework as a demonstration of these skills. Level 2 includes GCSEs and Key Skills Level 2.

If you are a mature candidate who does not have formal qualifications to this level, we may still be able to consider your application – please contact the askBU enquiry service to find out more.

### **Advanced/Progression Diplomas**

The Advanced diploma is broadly equivalent to three and a half A levels and the progression diploma to two and a half A levels. The diplomas are available in just a few subject areas and only some of these are suitable to gain entry onto this course, please see the individual course entry on our website for further details.

### **BTEC National Diploma**

This course requires at least a Distinction, Distinction, Merit from the 18 unit diploma.

### **Access to Higher Education**

BU welcomes Access to HE applicants. This course requires Access to HE normally with 24 Level 3 credits achieved at Merit, and 12 Level 3 credits achieved at Distinction.

### **Interviews**

Applicants for this course are required to attend an informal interview, where you will be asked to show a portfolio of your work to support your application.

### **Excluded Subjects**

General Studies is accepted as one of your A or AS levels. The grade achieved for Critical Thinking however, may be taken into account when considering whether or not to accept a candidate who has marginally failed to meet the conditions of their offer.

### **Other qualifications**

If you are studying a qualification that is not listed please contact us it may be that we can still consider it.

### **International Students**

International students are very welcome at BU – we think that a bustling, cosmopolitan mix of students enhances the learning experience for everybody.

To find out more about how your qualifications relate to those in the UK, take a look at the NARIC website [www.naric.org.uk](http://www.naric.org.uk). Your application will be processed by our dedicated International Admissions Team that is familiar with a wide range of international qualifications. We look at your entire application to see how you would benefit from the course, and how able you are to complete it successfully.

You will find our country-specific information [www.bournemouth.ac.uk/international](http://www.bournemouth.ac.uk/international) gives you clear advice about the entry requirements from a particular country. If your country is not listed, then contact our askBU Enquiry Service for further information.

*Please note:*

*The University reserves the right to introduce changes to the information given, including the addition, withdrawal, re-location or restructuring of courses.*

*Last updated June 2011*