

**KEY PROGRAMME INFORMATION**

<b>Originating institution(s)</b> Bournemouth University	<b>Faculty responsible for the programme</b> Faculty of Science and Technology
<b>Final award(s), title(s) and credits</b> MDes (Hons) Product Design – 120 (60 ECTS) Level 4 / 120 (60 ECTS) Level 5 / 120 (60 ECTS) Level 6 credits / 120 (60 ECTS) Level 7 credits	
<b>Intermediate award(s), title(s) and credits</b> BSc (Hons) Product Design – 120 (60 ECTS) Level 4 / 120 (60 ECTS) Level 5 credits / 120 (60 ECTS) Level 6 credits BA (Hons) Product Design – 120 (60 ECTS) Level 4 / 120 (60 ECTS) Level 5 credits / 120 (60 ECTS) Level 6 credits Dip HE Product Design – 120 (60 ECTS) Level 4 / 120 (60 ECTS) Level 5 credits Cert HE Design – 120 (60 ECTS) Level 4 credits	
<b>UCAS Programme Code(s) (where applicable and if known)</b> 3LD4	<b>HECoS (Higher Education Classification of Subjects) Code and balanced or major/minor load.</b> 100050 (100%)
<b>External reference points</b> UK Quality Code for Higher Education; Part A: Part A: Setting and Maintaining Academic Standards; Chapter A1: UK and European reference points for academic standards (October 2013) - incorporates the Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (Qualification Frameworks), Foundation Degree qualification benchmark, Master's Degree Characteristics and Subject Benchmark Statements; Subject benchmark statements – Art and Design (2016); Subject benchmark statements - Engineering (2015); Subject benchmark statements - Business and Management (2015); Product Design Specific Learning Outcomes for Accredited Degree Programmes from the Institution of Engineering Designers.	
<b>Professional, Statutory and Regulatory Body (PSRB) links</b> Accreditation by the Institution of Engineering Designers to fully meet the requirements for Chartered Technological Product Designer (CTPD) registration.	
<b>Places of delivery</b> Bournemouth University, Talbot Campus	
<b>Mode(s) of delivery</b> Full-time/Full-time sandwich	<b>Language of delivery</b> English
<b>Typical duration</b> Programme duration: 4 years full-time / 5 years full-time sandwich Level 4: 1 year Level 5: 1 year Optional sandwich placement: 1 year Level 6: 1 year Level 7: 1 year	
<b>Date of first intake</b> September 2019	<b>Expected start dates</b> September
<b>Maximum student numbers</b> Not applicable	<b>Placements</b> Optional sandwich placement in industry between level 5 and 6 (30 weeks minimum). Students are expected to search for suitable placement opportunities, with the support of the Faculty placements team.
<b>Partner(s)</b> Not applicable	<b>Partnership model</b> Not applicable
<b>Date of this Programme Specification</b> March 2020	
<b>Version number</b> Version 1.2-0920	

## Programme Specification – Section 1

<b>Approval, review or modification reference numbers</b>
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## Programme Specification – Section 1

### PROGRAMME STRUCTURE

Programme Award and Title: MDes (Hons) Product Design								
Year 1/Level 4								
Students are required to complete all 6 core units								
Unit Name	Core/ Option	No of credits	Assessment Element Weightings			Expecte d contact hours per unit	Unit version no.	HECoS Subject Code
			Exam 1	Cwk 1	Cwk 2			
Team Project	Core	20		100		60	v1.1	100050
Design Communication	Core	20		100		60	v1.1	100048 (major) 100632 (minor)
Materials and Technology A	Core	20		80	20	60	v1.1	100203 (balanced) 100184 (balanced)
Materials and Technology B	Core	20		80	20	60	v1.1	100203 (balanced) 100184 (balanced)
Design Projects 1	Core	20		Pass/ Fail	100	60	v1.1	100050
Design Studies 1	Core	20		50	50	48	v1.1	100048
<b>Progression requirements:</b> Requires 120 credits at Level 4								
<b>Exit qualification:</b> Cert HE Design (requires 120 credits at Level 4)								

## Programme Specification – Section 1

<b>Year 2/Level 5</b> Students are required to complete all 6 core units								
Unit Name	Core/ Option	No of credits	Assessment Element Weightings			Expecte d contact hours per unit	Unit version no.	HECoS Subject Code
			Exam 1	Cwk 1	Cwk 2			
Manufacturing and Technology	Core	20	50	50		48	v1.1	100184 (balanced) 100209 (balanced)
Product Design Tools	Core	20		50	50	48	v1.1	100048
Product Design Projects 2A	Core	20		Pass/ Fail	100	60	v1.1	100050
Product Design Projects 2B	Core	20		100		60	v1.1	100050
Management and Commercialisation	Core	20		100		48	v1.1	101221
Design Studies 2	Core	20		50	50	48	v1.1	100048
<b>Progression requirements:</b> Requires 120 credits at Level 5								
<b>Exit qualification:</b> Dip HE Product Design (requires 120 credits at Level 4 and 120 credits at Level 5)								
<b>Year 3/Level P - Optional placement year in industry/business</b> The optional sandwich placement is taken between levels 5 and 6.								
<b>Progression requirements:</b> Satisfactory completion of a minimum 30-week placement in industry/business. Students who do not choose to undertake the optional sandwich placement may progress directly from Level 5 to Level 6.								

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<b>Year 3 or 4/Level 6</b>								
BA (Hons) Product Design students are required to complete 4 units (Product Design Projects, Product Design Prototypes 3, Business Development and Design Studies 3).								
BSc (Hons) Product Design students are required to complete 4 units (Product Design Projects, Product Design Prototypes 3, Business Development and Advanced Technology).								
Unit Name	Core/ Option	No of credits	Assessment Element Weightings			Expected contact hours per unit	Unit version no.	HECoS Subject Code
			Exam 1	Cwk 1	Cwk 2			
Advanced Technology	Core	20	100			48	v2.1	100184 (balanced) 100163 (balanced)
Design Studies 3	Core	20	100			48	v1.1	100048
Business Development	Core	20		100		36	v2.1	101221
Product Design Projects 3	Core	60		100		96	v2.1	100050
Product Design Prototypes	Core	20		100		200	v2.1	100050
<b>Progression requirements:</b> Requires 120 credits at Level 6								
<b>Exit qualification:</b> BA (Hons) Product Design or BSc (Hons) Product Design								
<b>Sandwich UG award:</b> Requires 120 credits at Level 4, 120 credits at Level 5, 120 credits at Level 6 and successful completion of a placement year.								
<b>Full-time UG award:</b> Requires 120 credits at Level 4, 120 credits at Level 5 and 120 credits at Level 6.								

## Programme Specification – Section 1

Year 4 or 5/Level 7 Students are required to complete all 5 core units.								
Unit Name	Core/ Option	No of credits	Assessment Element Weightings			Expected contact hours per unit	Unit version no.	HECoS Subject Code
			Exam 1	Cwk 1	Cwk 2			
Interdisciplinary Group Project	Core	20		100		31	v1.1	100182
Competitive Product Development	Core	20		100		31	v2.0	100048
MDes Project	Core	40		100		12	v2.0	100050
Design Thinking	Core	20		100		31	v1.0	100048
Life Cycle Management	Core	20		100		31	v1.0	100048 (balanced) 100180 (balanced)
<b>Exit qualification:</b> MDes (Hons) Product Design <b>Sandwich UG award:</b> Requires 120 credits at Level 4, 120 credits at Level 5, 120 credits at Level 6, 120 credits at Level 7 and successful completion of a placement year. <b>Full-time UG award:</b> Requires 120 credits at Level 4, 120 credits at Level 5, 120 credits at Level 6 and 120 credits at Level 7.								

### AIMS OF THE DOCUMENT

The aims of this document are to:

- define the structure of the programme;
- specify the programme award titles;
- identify programme and level learning outcomes;
- articulate the regulations governing the awards defined within the document.

### AIMS OF THE PROGRAMME

This programme aims to develop creative, innovative and resourceful graduates, who:

- have a balanced educational experience that encompasses the appropriate integration of design processes, technology, materials, production techniques, aesthetics, ergonomics, design methods, computer tools, professional practice and prototype manufacture in the industrial aspects of product design.
- have creativity, analytical ability, knowledge, understanding, and the broad based skills necessary to practice design of industrially manufactured products.
- can evaluate solutions to design problems against conflicting constraints and challenge conventional solutions.
- can demonstrate complex visual literacy and have an ability to synthesise a broad range of design aspects.

Products are sophisticated solutions to complex and diverse problems, not just a novel idea or elaborate solution. The designer must arrive at a product that is a considered compromise between many different and varied fields of study that at times results in conflicting constraints. The ability 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.

Design is the result of a considerable amount of unseen concurrent effort by multi-disciplinary design teams. Product designers are the product champions and design team leaders directing the product development process. Product Design is a difficult process which requires dedication, commitment and attention to both "the big picture" and details.

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 designers must be able to think both creatively and analytically. For example, arriving at a detailed technical answer is the result of a clear and uncluttered analytical approach. However, generating an appropriate visual image requires a creative approach. This programme will develop both analytical and creative abilities.

The designer has to be realistic. To develop a sense of design realism means designing the whole product to answer the essential problem. For many students, the production of a working prototype is an essential part of the educational process required to produce realistic designers. The course therefore develops the practical skills of designers who learn real lessons about design by producing working prototype of their solutions.

Well-developed hand/eye/mind co-ordination, spatial awareness and manual sketching techniques are essential in design practice. Designers need to be able to develop and communicate their ideas rapidly and effectively. Discussion and debate are crucial elements of the product development process so written and oral presentation are also important.

Whilst they cannot replace manual techniques, it is important that a Product Designer gains experience in using CAD systems ranging from 2D drafting, to 3D solid modelling, to sophisticated analysis tools. It is an intention to educate designers who are able to utilise CAD technology appropriately and effectively to assist in the design of a product.

The key academic elements of research, understanding, analysis, assimilation, creativity, development and presentation are implicit within the process of product design making this course a highly suitable area of study for a first degree.

## **Programme Specification - Section 2**

Essentially, this programme covers a very broad area of study preparing students for careers and continuing personal development in the field of Product Design. Students are able to develop a level of specialist approach by choosing to study for a BA or BSc at Level 6 before broadening and deepening their knowledge at Level 7.

### **ALIGNMENT WITH THE UNIVERSITY'S STRATEGIC PLAN**

The MDes (Hons) Product Design programme is informed by and aligned with Bournemouth University's 2012-18 strategic plan and the fusion of excellent teaching, world-class research and professional practice that is at the heart of the institution's visions and values. Students are supported by academics with a wealth of industry experience, many of whom are actively engaged with national professional institutions. Academics delivering the programme are actively engaged in cutting edge research and consultancy projects, while students are encouraged to participate in a range of co-creation and co-publication projects. The programme's innovative pedagogic approach offers students the opportunity to learn by engaging in a series of practical, industry focused projects. These projects are aimed at equipping students with the full range of skills necessary to succeed in an innovative design environment, and are informed by the academic team's own industrial experience as well as by a network of industry contacts, who may also contribute directly to the programme by delivering guest lectures and providing opportunities for industrial visits.

### **LEARNING HOURS AND ASSESSMENT**

Bournemouth University taught programmes are composed of units of study, which are assigned a credit value indicating the amount of learning undertaken. The minimum credit value of a unit is normally 20 credits, above which credit values normally increase at 20-point intervals. 20 credits is the equivalent of 200 study hours required of the student, including lectures, seminars, assessment and independent study. 20 University credits are equivalent to 10 European Credit Transfer System (ECTS) credits.

The assessment workload for a unit should consider the total time devoted to study, including the assessment workload (i.e. formative and summative assessment) and the taught elements and independent study workload (i.e. lectures, seminars, preparatory work, practical activities, reading, critical reflection).

Assessment per 20 credit unit should normally consist of 3,000 words or equivalent. Dissertations and Level 6 and 7 Final Projects are distinct from other assessment types. The word count for these assignments is 5,000 words per 20 credits, recognising that undertaking an in-depth piece of original research as the capstone to a degree is pedagogically sound.

### **STAFF DELIVERING THE PROGRAMME**

Students will usually be taught by a combination of senior academic staff with others who have relevant expertise including – where appropriate according to the content of the unit – academic staff, qualified professional practitioners, demonstrators/technicians and research students.



**INTENDED LEARNING OUTCOMES – AND HOW THE PROGRAMME ENABLES STUDENTS TO ACHIEVE AND DEMONSTRATE THE INTENDED LEARNING OUTCOMES**

**PROGRAMME INTENDED OUTCOMES**

<p><b>A: Subject knowledge and understanding</b></p> <p>This programme provides opportunities for students to develop and demonstrate knowledge and understanding of:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>A1</b> the application of the design processes to complex problems;</p> <p><b>A2</b> basic science, mathematics and technology and a well-developed ability to apply them appropriately to Product Design;</p> <p><b>A3</b> selecting, testing and evaluating the use of materials, processes and manufacturing techniques while designing for relevant cost implications;</p> <p><b>A4</b> complex visual literacy and advanced communication tools;</p> <p><b>A5</b> complex Visual, Psychology, Ergonomic Design Issues, including latest trends in design thinking and an ability to apply them appropriately to Product Design;</p> <p><b>A6</b> working effectively as part of a group and to develop an understanding of leadership;</p> <p><b>A7</b> the broad education necessary to understand the impact of Design solutions in a global and societal context, including legal requirements in familiar and unfamiliar situations;</p> <p><b>A8</b> the application of social and environmental impact analysis and application of sustainable design principles.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• independent research (for project) (A1-A5, A7, A8);</li> <li>• lectures (A1-A8);</li> <li>• seminars (A1–A8);</li> <li>• practical tutorials (A1-A3);</li> <li>• directed reading (A5, A7);</li> <li>• use of the VLE (A1-A8).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• individual projects (A1-A5, A7, A8);</li> <li>• examinations and in-class tests (A2, A3, A5, A7, A8);</li> <li>• coursework (A1–A8).</li> </ul>
<p><b>B: Intellectual skills</b></p> <p>This programme provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme outcomes:</p>
<p><b>B1</b> be creative and innovative in solving problems;</p> <p><b>B2</b> generate ideas, concepts, proposals, solutions or arguments;</p> <p><b>B3</b> evaluate complex design solutions against conflicting constraints;</p> <p><b>B4</b> work independently and/or collaboratively in response to set briefs and/or as self-initiated activity;</p> <p><b>B5</b> take a holistic approach, applying professional judgments, balancing costs, benefits, safety, quality, reliability, appearance and environmental impact;</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• independent research (for project) (B1-B8);</li> <li>• lectures (B1–B3, B5-B8);</li> <li>• seminars (B1–B8);</li> <li>• use of the VLE (B1–B8).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p>

## Programme Specification - Section 2

<p><b>B6</b> maintain a sound theoretical approach in enabling the introduction of new and advancing technology to enhance current practice;</p> <p><b>B7</b> generate and evaluate a wide range of, processes and products, and suggest improvements using logical thinking processes and design methodologies;</p> <p><b>B8</b> address human needs through the use of research and data collection according to customer and user requirements to produce and challenge a product design specification.</p>	<p>Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• individual projects (B1-B8);</li> <li>• examinations and in-class tests (B5, B6);</li> <li>• coursework (B1–B8).</li> </ul>
<p><b>C: Practical skills</b></p> <p>This programme provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>C1</b> produce high quality prototypes which, as closely as possible, look like, feel like and work in the same way as a manufactured item;</p> <p><b>C2</b> apply a wide range of tools, techniques and equipment, including appropriate software and research techniques;</p> <p><b>C3</b> employ appropriate materials, media, techniques, methods, technologies and tools with skill and imagination whilst observing design codes of practice and industry standards;</p> <p><b>C4</b> generate primary data using a range of laboratory work, test rigs, user trips and synthesis it to produce the solution to a complex product based problem.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• individual projects (C1-C4);</li> <li>• practical tutorials (C1, C4);</li> <li>• seminars (C1-C3);</li> <li>• group exercises (C2, C4);</li> <li>• use of the VLE (C1–C4).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• individual projects (C1-C4);</li> <li>• coursework (C1–C4).</li> </ul>
<p><b>D: Transferable skills</b></p> <p>This programme provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>D1</b> source, navigate, select, retrieve, evaluate, manipulate and manage information from a variety of sources;</p> <p><b>D2</b> select and employ communication and information technologies;</p> <p><b>D3</b> articulate ideas and information professionally in visual, oral and written forms;</p> <p><b>D4</b> analyse complex problems and present solutions in a range of situations;</p> <p><b>D5</b> interact effectively with others, for example through</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• seminars (D1);</li> <li>• use of the VLE (D1 – D13).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• coursework (D1–D13).</li> </ul>

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<p>collaboration, collective endeavor and negotiation;</p> <p><b>D6</b> analyse information and experiences, formulate independent judgments;</p> <p><b>D7</b> articulate reasoned arguments through reflection, review and evaluation;</p> <p><b>D8</b> formulate reasoned responses to the critical judgments of others;</p> <p><b>D9</b> identify personal strengths and needs;</p> <p><b>D10</b> study independently, set goals, manage their own workloads and meet deadlines including application of design process management;</p> <p><b>D11</b> develop independence of mind, with intellectual integrity, particularly in respect of ethical issues;</p> <p><b>D12</b> become enthusiastic, in the application of their knowledge and understanding and skills;</p> <p><b>D13</b> develop an enquiring mind, eager for new knowledge and understanding.</p>	
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### LEVEL 6/BA/BSc (Hons) INTENDED LEVEL OUTCOMES

<p><b>A: Knowledge and understanding</b></p> <p>This programme provides opportunities for students to develop and demonstrate knowledge and understanding of:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>A1</b> the design process at a professional level;</p> <p><b>A2</b> basic science, mathematics and technology and a well-developed ability to apply them appropriately to Product Design;</p> <p><b>A3</b> selecting, testing and making appropriate use of materials, processes and manufacturing techniques;</p> <p><b>A4</b> industry-standard solid modelling software package and an awareness of other appropriate software tools;</p> <p><b>A5</b> basic Visual, Psychology, Ergonomic Design Issues and an ability to apply them appropriately to Product Design;</p> <p><b>A6</b> the skills required to be prepared for continuing personal &amp; professional development;</p> <p><b>A7</b> the broad education necessary to understand the impact of Design solutions in a global and societal context, and an awareness of relevant contemporary issues;</p> <p><b>A8</b> business situations with respect to strengths and weaknesses, opportunities and threats and develop ways and means to counteract or exploit such aspects.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• independent research (for project) (A1, A3, A5-A8);</li> <li>• lectures (A1-A8);</li> <li>• seminars (A1–A8);</li> <li>• practical tutorials (A2-A4);</li> <li>• directed reading (A1, A8);</li> <li>• use of the VLE (A1-A8).</li> </ul>
	<p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• individual project (A1-A8);</li> <li>• examinations and in-class tests (A2, A7, A1);</li> </ul>

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	<ul style="list-style-type: none"> <li>coursework (A1–A8).</li> </ul>
<p><b>B: Intellectual skills</b></p> <p>This programme provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>B1</b> be creative and innovative in solving problems;</p> <p><b>B2</b> generate ideas, concepts, proposals, solutions or arguments;</p> <p><b>B3</b> analyse problems logically to arrive at suitable solutions;</p> <p><b>B4</b> work independently and/or collaboratively in response to set briefs and/or as self-initiated activity;</p> <p><b>B5</b> take a holistic approach, applying professional judgments, balancing costs, benefits, safety, quality, reliability, appearance and environmental impact;</p> <p><b>B6</b> criticise and justify aesthetic and ergonomic attributes of a designed product and consider a sound theoretical approach in enabling the introduction of new and advancing technology;</p> <p><b>B7</b> evaluate designs, processes and products, and suggest improvements;</p> <p><b>B8</b> undertake research and analysis of information from a variety of sources.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>independent research (for project) (B1- B8);</li> <li>group exercises (B1-B8);</li> <li>practical tutorials (B1-B8);</li> <li>use of the VLE (B1-B8).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>individual project (B1-B8);</li> <li>coursework (B1–B8).</li> </ul>
<p><b>C: Practical skills</b></p> <p>This programme provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</p>
<p><b>C1</b> produce high quality prototypes which, as closely as possible, look like, feel like and work in the same way as a manufactured item;</p> <p><b>C2</b> use a wide range of tools, techniques and equipment, including appropriate software and rapid prototyping techniques;</p> <p><b>C3</b> employ appropriate materials, media, techniques, methods, technologies and tools with skill and imagination whilst observing good working practices;</p> <p><b>C4</b> undertake laboratory works, test rigs, use laboratory and workshop equipment to generate valuable data.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>individual project (C1-C4);</li> <li>practical tutorials (C1-C4);</li> <li>seminars (C1-C4);</li> <li>use of the VLE (C1-C4).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>individual project (C1-C4);</li> <li>coursework (C1–C4).</li> </ul>
<p><b>D: Transferable skills</b></p> <p>This programme provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to</p>

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	demonstrate the programme learning outcomes:
<p><b>D1</b> source, navigate, select, retrieve, evaluate, manipulate and manage information from a variety of sources;</p> <p><b>D2</b> select and employ communication and information technologies;</p> <p><b>D3</b> articulate ideas and information comprehensibly in visual, oral and written forms;</p> <p><b>D4</b> present ideas in a range of situations;</p> <p><b>D5</b> interact effectively with others, for example through collaboration, collective endeavour and negotiation;</p> <p><b>D6</b> analyse information and experiences, formulate independent judgments;</p> <p><b>D7</b> articulate reasoned arguments through reflection, review and evaluation;</p> <p><b>D8</b> formulate reasoned responses to the critical judgments of others;</p> <p><b>D9</b> identify personal strengths and needs;</p> <p><b>D10</b> study independently, set goals, manage their own workloads and meet deadlines;</p> <p><b>D11</b> develop independence of mind, with intellectual integrity, particularly in respect of ethical issues;</p> <p><b>D12</b> become enthusiastic, in the application of their knowledge and understanding and skills;</p> <p><b>D13</b> develop an enquiring mind, eager for new knowledge and understanding.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• individual project (D1-D13);</li> <li>• practical tutorials (D2);</li> <li>• seminars (D1-D12);</li> <li>• group exercises (D1, D2, D3, D4, D5, D6, D9, D11);</li> <li>• use of the VLE (D1 – D13).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• individual projects (D1-D13);</li> <li>• coursework (D1–D13).</li> </ul>

### LEVEL 5/DipHE INTENDED LEVEL OUTCOMES

<p><b>A: Knowledge and understanding</b></p> <p>This level provides opportunities for students to develop and demonstrate knowledge and understanding of:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:</p>
<p><b>A1</b> the Design Process and Design Methods and their value in the product development process;</p> <p><b>A2</b> less common materials and associated manufacturing processes and an understanding of how to design components and assemblies to suit appropriate production Processes;</p> <p><b>A3</b> prototyping techniques;</p> <p><b>A4</b> applying technical principles to design problems and an understanding of how some advanced products function;</p> <p><b>A5</b> appropriate Visual, Psychological, Ergonomic and Social</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• lectures (A1- A7);</li> <li>• seminars (A1 – A7);</li> <li>• use of the VLE (A1-A7).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p>

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<p>issues and their impact upon Product Design;</p> <p><b>A6</b> how Visualisation techniques may be applied during the process of design;</p> <p><b>A7</b> industry-standard modelling software tools.</p>	<ul style="list-style-type: none"> <li>• examinations and on-line assessments (A2, A4);</li> <li>• coursework (A1 – A7).</li> </ul>
<p><b>B: Intellectual skills</b></p> <p>This level provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:</p>
<p><b>B1</b> use creativity, innovation and analysis in solving problems;</p> <p><b>B2</b> generate ideas, concepts, proposals and solutions;</p> <p><b>B3</b> use analytical understanding to assist in generating and judging ideas;</p> <p><b>B4</b> work effectively using their own initiative and as part of a group;</p> <p><b>B5</b> use a holistic and balanced approach to design tasks.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• lectures (B1 – B5);</li> <li>• seminars (B1 – B5);</li> <li>• use of the VLE (B1 – B5).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• examinations and on-line tests (B3);</li> <li>• coursework (B1 - B5).</li> </ul>
<p><b>C: Practical skills</b></p> <p>This level provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:</p>
<p><b>C1</b> produce prototypes that demonstrate the function, manufacture, visual and ergonomic aspects of their designs;</p> <p><b>C2</b> use a wide and varied range of workshop tools, techniques and equipment;</p> <p><b>C3</b> employ various materials, media, techniques, methods, technologies and tools whilst observing good working practices;</p> <p><b>C4</b> use practical test rigs to test ideas and prototypes to evaluate their solutions;</p> <p><b>C5</b> use advanced 3D computerised modelling techniques to aid their design process.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• coursework (C1-C5).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• coursework (C1-C5);</li> <li>• practical exercises (C1-C4).</li> </ul>
<p><b>D: Transferable skills</b></p> <p>This level provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:</p>
<p><b>D1</b> undertake research, evaluate and summarise information from a wide variety of sources;</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p>

## Programme Specification - Section 2

<p><b>D2</b> use appropriate computer software;</p> <p><b>D3</b> select and employ communication and information technologies;</p> <p><b>D4</b> present visual work in a wide variety of different ways;</p> <p><b>D5</b> communicate ideas in oral and written forms;</p> <p><b>D6</b> present ideas and work in a professional manner effectively to different audiences;</p> <p><b>D7</b> work effectively with others in a group situation;</p> <p><b>D8</b> clearly explain the reasons and judgments that informed their decisions;</p> <p><b>D9</b> be constructive and supportive in criticising the work of others;</p> <p><b>D10</b> listen to, evaluate and respond to criticism of their own work;</p> <p><b>D11</b> plan their own time effectively, set priorities and meet deadlines;</p> <p><b>D12</b> develop a committed awareness of the need for academic study;</p> <p><b>D13</b> enjoy developing and applying their knowledge, understanding and skills;</p> <p><b>D14</b> develop a clear awareness and personal interest in professional development.</p>	<ul style="list-style-type: none"> <li>• seminars (D1- D14);</li> <li>• use of the VLE (D1 – D14);</li> </ul> <hr/> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• coursework (D1 – D14).</li> </ul>
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### LEVEL 4/Cert HE INTENDED LEVEL OUTCOMES

<p><b>A: Knowledge and understanding</b></p> <p>This level provides opportunities for students to develop and demonstrate knowledge and understanding of:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:</p>
<p><b>A1</b> the Design Process, some basic Design Methods and their usefulness and importance to the product Designer;</p> <p><b>A2</b> a basic ability in the use of development, communication and presentation tools;</p> <p><b>A3</b> Visual, Ergonomic, Product Psychology and physiology issues and their effect upon design;</p> <p><b>A4</b> some basic mathematical, Technological and Scientific principles and their application to Product Design problems;</p> <p><b>A5</b> the basic structure of materials and how these affect their properties and a broad knowledge and understanding of general Workshop Theory and Practice;</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• lectures (A1- A7);</li> <li>• seminars (A1 – A7);</li> <li>• use of the VLE (A1-A7).</li> </ul> <hr/> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• in-class tests (A3-A6);</li> <li>• coursework (A1 – A7).</li> </ul>

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<p><b>A6</b> basic materials and production Processes and an understanding of how to design simple components to suit some production processes;</p> <p><b>A7</b> an industry-standard 2D drafting package and a 3D modelling package.</p>	
<p><b>B: Intellectual skills</b></p> <p>This level provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:</p>
<p><b>B1</b> be creative and innovative in solving problems;</p> <p><b>B2</b> generate ideas, proposals and solutions for simple product ideas;</p> <p><b>B3</b> analyse problems logically to arrive at suitable solutions;</p> <p><b>B4</b> work alone or in teams;</p> <p><b>B5</b> use time planning techniques to organise their own time;</p> <p><b>B6</b> be aware of the need for a holistic and balanced approach to design tasks;</p> <p><b>B7</b> apply basic analytical and creative techniques to design problems.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• lectures (B1, B7);</li> <li>• seminars (B1 – B7);</li> <li>• use of the VLE (B1 – B7).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• coursework (B1 – B7).</li> </ul>
<p><b>C: Practical skills</b></p> <p>This level provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:</p>
<p><b>C1</b> produce simple prototypes that function reasonably well and portray an appropriate visual image of simple products;</p> <p><b>C2</b> develop and communicate their ideas using manual techniques;</p> <p><b>C3</b> produce clear effective engineering drawings to the appropriate standard;</p> <p><b>C4</b> use various workshop tools, techniques and equipment;</p> <p><b>C5</b> undertake practical test rigs to test ideas;</p> <p><b>C6</b> use 2D-computer drafting and 3D Computer modelling packages.</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• lectures (C1 – C4);</li> <li>• coursework (C1 – C6);</li> <li>• group exercises (C1-C6).</li> </ul> <p>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• coursework (C1-C6).</li> </ul>
<p><b>D: Transferable skills</b></p> <p>This level provides opportunities for students to:</p>	<p>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:</p>
<p><b>D1</b> research and utilise information from both manual and digital sources;</p> <p><b>D2</b> use basic office software on a PC efficiently and accurately;</p> <p><b>D3</b> present visual work in a variety of different ways;</p>	<p>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):</p> <ul style="list-style-type: none"> <li>• lectures (D1, D9);</li> <li>• seminars (D1- D12);</li> </ul>



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<b>D4</b> communicate ideas in oral and written forms;	<ul style="list-style-type: none"><li>• use of the VLE (D1 – D12).</li></ul>
<b>D5</b> present ideas and work to an audience;	
<b>D6</b> work in a group situation;	Assessment strategies and methods (referring to numbered Intended Learning Outcomes): <ul style="list-style-type: none"><li>• coursework (D1 – D12).</li></ul>
<b>D7</b> justify decisions based upon reasonable analysis, evaluation and consideration;	
<b>D8</b> develop the ability to take and give constructive criticism;	
<b>D9</b> plan their own time and meet deadlines	
<b>D10</b> to develop an awareness of the need for academic study;	
<b>D11</b> enjoy developing their knowledge, understanding and skills;	
<b>D12</b> develop awareness and personal interest in professional development.	

### ADMISSION REGULATIONS

The regulations for this programme are the University's Standard Undergraduate Admission Regulations (<https://intranetsp.bournemouth.ac.uk/pandptest/3a-undergraduate-admissions-regulations.pdf>) with the following exceptions:

#### All applicants

All applicants who are accepted on the Integrated Masters programme will be required to complete the BSc or BA (Hons) Product Design part of the programme with an upper second class or first class profile in order to continue to the final level of the programme.

#### Entry to Level 7

Applicants to Level 7 require an upper second class or first class BSc or BA (Hons) Product Design degree from Bournemouth University accredited by the IED to MIED or RProdDes level. Students returning to study at Level 7 must normally have achieved an upper second or first class degree. Entry for applicants who are no longer registered as BU students will be assessed according to the principles set out in 3P - Recognition of Prior Learning (RPL) and UK Credit Transfer (UKCT): Policy and Procedure.

### ASSESSMENT REGULATIONS

The regulations for this programme are the University's Standard Integrated Masters Assessment Regulations (<https://intranetsp.bournemouth.ac.uk/pandptest/6a-standard-assessment-regulations-integrated-masters.pdf>) with the following exceptions:

#### **COMPENSATION (Section 7)**

Compensation may only be applied for up to 20 credits across all levels of the programme and cannot be applied to the level 7 Interdisciplinary Group Project unit.

#### **PROGRESSION (Section 8)**

To proceed to Level 7, students must normally achieve 120 Level 6 credits, and will be required to complete the BA or BSc (Hons) part of the programme with an upper second class or first class profile. Where appropriate, students must successfully complete the specified work experience.

#### **CLASSIFICATION (Section 11)**

For Integrated Masters, Level 7 units will normally have a weighting of 45% towards final degree classification, with 40% weighting for Level 6 units and 15% weighting for Level 5.

## PLACEMENT ELEMENT

This programme offers students, under the guidance of the Placement Tutor and the Placement Coordinator, the opportunity to complete a sandwich year with a minimum 30 week placement before level 6.

Successful completion of the 30 week placement is optional. The placement is assessed on a pass/fail basis using a 3000 word reflective report. The 30 week sandwich placement must be completed between levels 5 and 6 and is a requirement for progression to level 6 for the successful completion of the sandwich mode award.

Placement draws on some or all of the units studied on the first two levels of the programme. It provides the opportunity for the student to develop their abilities and understanding of product design and related subjects, as well as providing a platform for successful entry into the profession following graduation. It applies and develops understanding and skills acquired in Levels 4 and 5, makes a major contribution to the understanding of the final level units, further develops final projects by utilising the context of the work experience as appropriate and enhances students' prospects of future employment.

<http://intranetsp.bournemouth.ac.uk/pandptest/4k-placements-policy-and-procedure.pdf>

## Programme Skills Matrix

Units		Programme Intended Learning Outcomes																																		
		A 1	A 2	A 3	A 4	A 5	A 6	A 7	A 8	B 1	B 2	B 3	B 4	B 5	B 6	B 7	B 8	C 1	C 2	C 3	C 4	D 1	D 2	D 3	D 4	D 5	D 6	D 7	D 8	D 9	D 10	D 11	D 12	D 13		
LEVEL 7	MDes Project	x	x	x	x	x		x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x		x	x	x		x	x	x	x	x	x	
	Design Thinking				x	x				x	x	x			x	x	x		x			x	x	x	x		x	x	x				x	x		
	Interdisciplinary Group Project	x	x	x		x	x				x	x	x	x	x	x	x		x	x		x	x	x	x	x	x	x	x		x	x	x	x		
	Life Cycle Management		x	x					x	x	x		x	x	x	x				x		x						x					x	x		
	Competitive Product Development								x	x		x	x		x		x		x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	
LEVEL 6	Product Design Prototypes (BA/BSc)			x						x		x		x		x	x	x	x	x	x	x		x			x					x		x	x	
	Business Development (BA/BSc)								x					x			x															x		x	x	
	Product Design Project 3 (BA/BSc)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	Advanced Technology (BSc)		x									x			x																	x		x	x	
	Design Studies 3 (BA)					x																									x		x	x	x	
LEVEL 5	Manufacturing and Technology		x	x								x											x		x						x	x		x	x	
	Design Studies 2					x													x				x		x			x	x	x	x	x	x	x	x	
	Management and Commercialisation								x		x			x									x		x						x	x		x	x	
	Product Design Tools				x														x						x						x	x		x	x	
	Product Design Projects 2A	x	x	x	x	x	x	x		x	x	x	x	x			X	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	Product Design Projects 2B	x	x	x	x	x	x	x		x	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
LEVEL 4	Materials and Technology A		x	x								x											x		x						x	x		x	x	
	Materials and Technology B		x	x								x												x		x						x	x		x	x
	Design Communication				x																				x							x	x		x	x
	Design Studies 1					x											x	x						x		x						x	x		x	x
	Design Projects 1	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Team Project	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>A – Subject Knowledge and Understanding</b> This programme provides opportunities for students to develop and demonstrate knowledge and understanding of:										<b>C – Subject-specific/Practical Skills</b> This programme provides opportunities for students to:																										
<ol style="list-style-type: none"> <li>the application of the design processes to complex problems;</li> <li>basic science, mathematics and technology and a well-developed ability to apply them appropriately to Product Design;</li> </ol>										<ol style="list-style-type: none"> <li>produce high quality prototypes which, as closely as possible, look like, feel like and work in the same way as a manufactured item;</li> <li>apply a wide range of tools, techniques and equipment, including appropriate software and research techniques;</li> </ol>																										

<ol style="list-style-type: none"> <li>3. selecting, testing and evaluating the use of materials, processes and manufacturing techniques while designing for relevant cost implications;</li> <li>4. complex visual literacy and advanced communication tools;</li> <li>5. complex Visual, Psychology, Ergonomic Design Issues, including latest trends in design thinking and an ability to apply them appropriately to Product Design;</li> <li>6. working effectively as part of a group and to develop an understanding of leadership;</li> <li>7. the broad education necessary to understand the impact of Design solutions in a global and societal context, including legal requirements in familiar and unfamiliar situations;</li> <li>8. the application of social and environmental impact analysis and application of sustainable design principles.</li> </ol>	<ol style="list-style-type: none"> <li>3. employ appropriate materials, media, techniques, methods, technologies and tools with skill and imagination whilst observing design codes of practice and industry standards;</li> <li>4. generate primary data using a range of laboratory work, test rigs, user trips and synthesis it to produce the solution to a complex product based problem.</li> </ol>
<p><b>B – Intellectual Skills</b> This programme provides opportunities for students to:</p> <ol style="list-style-type: none"> <li>1. be creative and innovative in solving problems;</li> <li>2. generate ideas, concepts, proposals, solutions or arguments;</li> <li>3. evaluate complex design solutions against conflicting constraints;</li> <li>4. work independently and/or collaboratively in response to set briefs and/or as self-initiated activity;</li> <li>5. take a holistic approach, applying professional judgments, balancing costs, benefits, safety, quality, reliability, appearance and environmental impact;</li> <li>6. maintain a sound theoretical approach in enabling the introduction of new and advancing technology to enhance current practice;</li> <li>7. generate and evaluate a wide range of, processes and products, and suggest improvements using logical thinking processes and design methodologies;</li> <li>8. address human needs through the use of research and data collection according to customer and user requirements to produce and challenge a product design specification.</li> </ol>	<p><b>D – Transferable Skills</b> This programme provides opportunities for students to:</p> <ol style="list-style-type: none"> <li>1. source, navigate, select, retrieve, evaluate, manipulate and manage information from a variety of sources;</li> <li>2. select and employ communication and information technologies;</li> <li>3. articulate ideas and information professionally in visual, oral and written forms;</li> <li>4. analyse complex problems and present solutions in a range of situations;</li> <li>5. interact effectively with others, for example through collaboration, collective endeavor and negotiation;</li> <li>6. analyse information and experiences, formulate independent judgments;</li> <li>7. articulate reasoned arguments through reflection, review and evaluation;</li> <li>8. formulate reasoned responses to the critical judgments of others;</li> <li>9. identify personal strengths and needs;</li> <li>10. study independently, set goals, manage their own workloads and meet deadlines including application of design process management;</li> <li>11. develop independence of mind, with intellectual integrity, particularly in respect of ethical issues;</li> <li>12. become enthusiastic, in the application of their knowledge and understanding and skills;</li> <li>13. develop an enquiring mind, eager for new knowledge and understanding.</li> </ol>