KEY PROGRAMME INFORMATION

Originating institution(s) Bournemouth University	**Faculty responsible for the programme** Faculty of Science and Technology
Final award(s), title(s) and credits MEng (Hons) Engineering – 120 (60 ECTS) Level 4 / 120 (60 ECTS) Level 5 / 120 (60 ECTS) Level 6 credits / 120 (60 ECTS) Level 7 credits	
Intermediate award(s), title(s) and credits BEng (Hons) Engineering – 120 (60 ECTS) Level 4 / 120 (60 ECTS) Level 5 credits / 120 (60 ECTS) Level 6 credits	
UCAS Programme Code(s) (where applicable and if known) NA	**HECoS (Higher Education Classification of Subjects) Code and balanced or major/minor load.**100184 (100%)
External reference points 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 - Engineering (2015); UK standard for professional Engineering Competence: Engineering Technician, Incorporated Engineer and Chartered Engineer Standard (UK-SPEC) third edition from the Engineering Council UK (January 2014); UK Standard for Professional Engineering Competence: The Accreditation of Higher Education Programmes third edition from the Engineering Council UK (May 2014).	
Professional, Statutory and Regulatory Body (PSRB) links IED: Accredited by the Institution of Engineering Designers to fully meet the exemplifying academic benchmark requirements for registration as a Chartered Engineer (CEng) for 2019-2023 intake years IMechE: Accredited by the Institution of Mechanical Engineers to fully meet the exemplifying academic benchmark requirements for registration as a Chartered Engineer (CEng) for 2020-2023 intake years With regards to those students who have joined the MEng(Hons) Engineering programme from the Foundation Degree, only those students who have studied the FdEng in Mechanical Design and Marine Technologies will be accredited. Those students who have entered the integrated Masters programme from the Foundation Degrees in Manufacturing Management and Electronic Design will not be accredited.	
Places of delivery Bournemouth University, Talbot Campus	
Mode(s) of delivery Part-time blended learning	**Language of delivery** English
Typical duration Programme duration: 4 years part-time Level 6: 2 years Level 7: 2 years	
Date of first intake September 2019	**Expected start dates** September
Maximum student numbers Not applicable	**Placements** NA – this programme is for those in engineering employment only.

Programme Specification – Section 1

Partner(s) Not applicable	**Partnership model** Not applicable
Date of this Programme Specification March 2022.	
Version number v2.1-0924	
Approval, review or modification reference numbers E20171852 BU 1819 01 EC 1819 23 E192033 – Previously v1.1-0920 EC 1819 44 FST 2122 20, approved 23/03/2022, previously V2.0 EC 2223 32	
Author Philip Sewell	

PROGRAMME STRUCTURE

Programme Award and Title: MEng (Hons) Engineering

Year 1/2/Level 6
Students are required to complete 3 core units and choose 2 optional unit

Unit Computational Engineering (FL) may have limitations on numbers because of lab availability
Unit Mechatronics (FL) may have limitations on numbers because of lab availability

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			
BEng Project (FL)	Core	40		100		39	v1.1	100184
Advanced Engineering (FL)	Core	20		100		25	v2.1	100184
Business Development (FL)	Core	20		100		25	v1.1	101221
Advanced Stress and Vibration (FL)	Option	20	100			25	v1.1	100190
Manufacturing Operations (FL)	Option	20		100		25	v2.1	100209
Computational Engineering (FL)	Option	20		100		25	v1.1	100160
Mechatronics (FL)	Option	20	100			25	v1.1	100170

Progression requirements: Requires 120 credits at Level 6
Exit qualification: BEng (Hons) Engineering (Requires 120 credits at Level 4, 120 credits at Level 5 and 120 credits at Level 6)

Year 3/4/Level 7
Students are required to complete 2 core units and 2 option units

Unit Engineering Design Simulation (FL) may have limitations on numbers because of lab availability
Unit Control System Design (FL) may have limitations on numbers because of lab availability

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			
MEng Project (FL)	Core	40		100		12	V3.1	100184
Project Management (FL)	Core	20		100		25	V1.1	100182
Design Management (FL)	Option	20		100		25	V1.1	100048 (major) 100075 (minor)
Life Cycle Management (FL)	Option	20		100		25	V1.2	100048 (balanced) 100180 (balanced)
Failure Analysis and Prevention (FL)	Option	20		100		25	V2.0	100190
Engineering Design Simulation (FL)	Option	20		100		25	V2.0	100184 (balanced) 100190 (balanced)
Control System Design (FL)	Option	20		100		25	V2.0	100170

Exit qualification: MEng (Hons) Engineering
Part-time UG award: 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 set of modern professional engineering skills at the forefront of the discipline informed by research and industry.
- have the ability to independently select appropriate strategies to successfully plan and execute an engineering project underpinned by relevant research literature and adapt them in unfamiliar situations to produce innovative designs, systems, components or processes to fulfil new needs effectively.
- have the ability and confidence to apply their knowledge and skills to complex/unfamiliar engineering problems individually or in a group, and also communicate effectively with both those working in the field of engineering and with the wider public.
- have the ability to apply and integrate knowledge and understanding of other engineering disciplines to support study of the mechanical engineering discipline.
- have a mastery of a range of project management techniques demonstrating analytical and critical thinking with respect to the planning of engineering design and development projects.
- have a working knowledge and understanding of business related issues, encompassing finance, development, marketing, and legal issues.
- have comprehensive knowledge and understanding of a wide range of existing and emerging theories, technologies and processes and demonstrate professional competence and critical awareness when selecting and applying them for design and analysis.can independently apply mathematical and computational methods to extract and evaluate pertinent data in the solution of unfamiliar engineering problems.
- have an appreciation of the social, environmental and ethical considerations affecting their engineering judgement.
- demonstrate effective leadership and the ability to manage relationships in project teams.

The MEng (Hons) Engineering programme will develop high calibre engineers who are able to function both as an engineer and a technology leader in industries such as aerospace, marine, electronic, automotive, alternative energy, oil and gas, and similar high-tech industries.

Key to the exploitation of emerging technologies is understanding their behaviour, performance and limitations. The ability to model and simulate the performance of new technologies is paramount where design optimisation is required.

Advanced modelling and simulation techniques can also be harnessed to shorten design time and reduce market entry costs. This is essential where emerging technologies are exploited as existing methodologies may prohibit lengthy development programmes.

Understanding how emerging technologies can be harnessed through enterprise is essential for an innovative market. Therefore sound business knowledge is required as well as identifying avenues for research funding and strategic collaboration.

The main emphasis of the programme will be in studying solid-state mechanics, manufacturing, electronic design and/or modern/non-traditional engineering technologies and their integration. An

aligned individual project in the final year together with up-to-date engineering skills will ensure the graduate can not only understand the technologies but apply them.

The business element of the programme will ensure that, as well as being able to function as an engineer, the graduate will have the skills and vision to embrace technological innovation and integrate it within their industry.

The masters level (level 7) broadens and deepens the students' knowledge, understanding, skills and awareness from the bachelor's degree. Broadening is obtained through the Project Management, Design Management and Control System Design, while deepening is obtained through the Life Cycle Management, Engineering Design Simulation and Failure Analysis and Prevention units. Students apply the knowledge, understanding and skills gained in the taught units through the MEng Project which provides an opportunity to critically investigate and report on a particular technical engineering issue in depth.

The MEng (Hons) Engineering part time (flexible learning) route has been developed specifically for engineers in employment. The programme has flexible entry and exit points to suit those with different educational requirements. The programme is not a traditional day release programme, each unit is predominately studied through distance learning supported by a number of face-to-face tutorials with academic staff and peers. In addition, mentoring of students to enable them to gain professional engineering qualifications will be offered (dependent upon relevant industrial experience).

ALIGNMENT WITH THE UNIVERSITY'S STRATEGIC PLAN

The MEng (Hons) Engineering 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 engineering 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 engineering 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 engineers, 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

<table>
<tr><td>A: Subject knowledge and understanding

This programme provides opportunities for students to develop and demonstrate knowledge and understanding of:</td><td>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:</td></tr>
<tr><td rowspan="2">A1 systematic engineering design processes, involving analysing and solving advanced engineering problems related to own specialisation;

A2 modern engineering technologies and processes for potential application in industry at a professional engineer level taking account of a range of commercial and industrial constraints;

A3 the appropriate analytical and/or computer tools for efficiently and effectively predicting performance in-service;

A4 the effective planning, implementation and presentation of an individual engineering project demonstrating originality in the application of the knowledge;

A5 the selection and application of different advanced techniques used in the management and control of projects, with special emphasis on project teams.</td><td>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):

• independent research (for project) (A4);

• lectures (A1-A5);

• seminars (A1–A5);

• practical tutorials (A1, A3);

• directed reading (A2, A5);

• use of the VLE (A1-A5).</td></tr>
<tr><td>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):

• individual projects (A4);

• examinations (A3);

• coursework (A1–A5).</td></tr>
<tr><td>B: Intellectual skills

This programme provides opportunities for students to:</td><td>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme outcomes:</td></tr>
<tr><td>B1 develop analytical thinking in respect of part and assembly design utilising comprehensive understanding of the scientific principles of own specialisation and related disciplines;

B2 evaluate critically current research and advanced scholarship to formulate, plan, execute and report on a project involving scientific knowledge and skills, and original engineering design in a structured and disciplined manner;

B3 critically reflect upon interpersonal skills required to operate in a team environment as a professional engineer;</td><td>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):

• independent research (for project) (B2, B4);

• lectures (B1–B5);

• seminars (B1–B5);

• practical tutorials (B1);

• directed reading (B1–B5);</td></tr>
</table>

B4 undertake independent evaluation and argument of alternative approaches to situations, problems or issues that occur when managing a project; **B5** employ decision making techniques and develop awareness of the commercial implications of design management decisions.	• use of the VLE (B1–B5). Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • individual projects (B2, B4); • examinations (B4); • coursework (B1–B5).
C: Practical skills This programme provides opportunities for students to:	The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:
C1 identify, understand, assess and employ the appropriate advanced analytical models to solve engineering design problems recognising their limitations for particular cases; **C2** independently apply advanced simulation tools to analyse engineering design problems; **C3** use highly specialised manual and/or computer-based methods for engineering communication and presentation; **C4** apply and critically evaluate various management techniques to ensure efficient operation of a team; **C5** diagnose the causes of the different types of service failure, through the application of appropriate engineering analysis methods, and the ability to propose methods of avoiding them in future; **C6** use basic workshop-based material processing tools and machines, safely and effectively; **C7** use modern engineering technologies and tools to establish innovative non-routine engineering solutions and adapt engineering designs.	Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes): • individual projects (C1-C3, C6, C7); • practical tutorials (C1-C3, C5); • seminars (C4); • group exercises (C4); • use of the VLE (C1–C7). Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • individual projects (C1-C3, C6, C7); • coursework (C1–C7).
D: Transferable skills This programme provides opportunities for students to:	The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the programme learning outcomes:
D1 communicate effectively and confidently by oral, written and visual means to appropriate professional and academic standards; **D2** work effectively in collaboration with others, including staff and students; **D3** demonstrate creativity in problem solving and the application of knowledge across discipline areas;	Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes): • lectures (D1); • individual projects (D1, D3-D7); • practical tutorials (D3);

D4 identify and work towards targets for personal, career, and academic development; **D5** be independent and reflective learners; **D6** gather, select, and analyse a range of experimental and fieldwork data and present professionally using appropriate media; **D7** distil, synthesise and critically analyse alternative approaches and methodologies to problems and research results reported in literature and elsewhere.	• seminars (D1); • group exercises (D1, D2); • use of the VLE (D1 – D7). Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • individual projects (D1, D3-D7); • coursework (D1–D7).

LEVEL 7 INTENDED LEVEL OUTCOMES

A: Knowledge and understanding This level provides opportunities for students to develop and demonstrate knowledge and understanding of*:*	The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:
A1 systematic engineering design processes, involving analysing and solving engineering problems; **A2** the selection and application of different techniques used in the management and control of projects, with special emphasis on project teams; **A3** have a critical understanding of the mechanisms of common static and dynamic failures in emerging, metallic, polymeric and ceramic materials, when under load and/or due to corrosion and other environmental effects; **A4** the performance of systems and components through the use of analytical methods and computational modelling techniques; **A5** life cycle assessment and influencing sustainable development within the design process; **A6** total quality and quality systems in the design and manufacture of products.	Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes): • independent research (for project) (A2, A4); • lectures (A1-A6); • seminars (A1–A6); • practical tutorials (A3, A4, A5); • directed reading (A2, A6); • use of the VLE (A1-A6). Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • individual project (A1, A2, A6); • coursework (A1–A6).
B: Intellectual skills This level provides opportunities for students to:	The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:
B1 develop analytical thinking in respect of part and assembly design for simulation studies; **B2** evaluate critically current research and advanced scholarship to formulate, plan, execute and report on a	Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):

project involving scientific knowledge and skills, and original engineering design in a structured and disciplined manner; **B3** critically reflect upon interpersonal skills required to operate in a team environment as a professional engineer; **B4** plan and implement engineering design projects individually and in a group; **B5** employ decision making techniques and develop awareness of the commercial implications of design management decisions; **B6** quantify the environmental impact of a product/system through Life Cycle Analysis techniques.	• independent research (for project) (B1- B5); • lectures (B1, B4); • group exercises (B3, B4, B6); • practical tutorials (B1, B6); • directed reading (B2); • use of the VLE (B1-B6). Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • individual project (B1-B6); • coursework (B1–B6).
C: Practical skills This level provides opportunities for students to:	The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:
C1 extract and evaluate pertinent data and to apply computational engineering analysis techniques in the solution of unfamiliar problems; **C2** independently apply computational methods, using alternative approaches and understanding their limitations, in order to solve engineering problems; **C3** apply and critically evaluate various management techniques to ensure efficient operation of a team; **C4** diagnose the causes of the different types of service failure, through the application of appropriate engineering analysis methods, and the ability to propose methods of avoiding them in future; **C5** be able to apply typical product/service lifecycle scenarios to a project at the initial concept stage.	Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes): • individual project (C1, C3); • practical tutorials (C2, C4, C5); • seminars (C3); • group exercises (C3); • use of the VLE (C1–C5). Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • individual project (C1,C3); • coursework (C1–C5).
D: Transferable skills This level provides opportunities for students to:	The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:
D1 communicate effectively and confidently by oral, written and visual means to appropriate professional and academic standards; **D2** work effectively in collaboration with others, including staff and students;	Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes): • lectures (D1);

D3 demonstrate creativity in problem solving and the application of knowledge across discipline areas; **D4** identify and work towards targets for personal, career, and academic development; **D5** be independent and reflective learners; **D6** gather, select, and analyse a range of experimental and fieldwork data and present professionally using appropriate media; **D7** distil, synthesise and critically analyse alternative approaches and methodologies to problems and research results reported in literature and elsewhere.	• individual project (D1, D3-D7); • practical tutorials (D3); • seminars (D1); • group exercises (D1, D2); • use of the VLE (D1 – D7).
	Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • individual project (D1, D3-D7); • coursework (D1–D7).

LEVEL 6/BEng (Hons) INTENDED LEVEL OUTCOMES

A: Knowledge and understanding This level provides opportunities for students to develop and demonstrate knowledge and understanding of*:*	The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:
A1 modern engineering technologies and processes for potential application in industry at a professional engineer level; **A2** the appropriate analytical and/or computer tools for efficiently and effectively predicting performance in-service; **A3** the planning, implementation and presentation of an individual project; **A4** business situations with respect to strengths and weaknesses, opportunities and threats and develop ways and means to counteract or exploit such aspects.	Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes): • independent research (for project) (A1-A4); • lectures (A1-A4); • seminars (A1–A4); • practical tutorials (A2); • directed reading (A1, A4); • use of the VLE (A1-A4).
	Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • individual project (A1-A4); • examinations (A1); • coursework (A1–A4).
B: Intellectual skills This level provides opportunities for students to:	The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:

<table>
<tr><td rowspan="2">B1 approach and implement engineering in a methodical and disciplined manner;

B2 evaluate and synthesise information from a number of sources in order to gain a coherent understanding of engineering theory and practice;

B3 evaluate critically, and apply scientific knowledge and skills in the development and implementation of practical solutions to engineering problems;

B4 plan and implement engineering design projects individually and in a group;

B5 demonstrate a level and type of education to allow the pursuit of postgraduate research in a related discipline;

B6 critically evaluate modern engineering technologies research and future trends.</td><td>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):

• independent research (for project) (B1- B6);

• group exercises (B2, B4);

• practical tutorials (B6);

• directed reading (B2, B6);

• use of the VLE (B1-B6).</td></tr>
<tr><td>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):

• individual project (B1-B6);

• Examinations (B2);

• coursework (B1–B6).</td></tr>
<tr><td>C: Practical skills

This level provides opportunities for students to:</td><td>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:</td></tr>
<tr><td rowspan="2">C1 identify, understand and employ the appropriate analytical models to solve engineering design problems;

C2 use highly specialised manual and/or computer-based methods for engineering communication and presentation;

C3 be able to employ efficiently advanced modelling, simulation and analysis packages in engineering design;

C4 critically review and select engineering materials and material processing methods for the design of components;

C5 use basic workshop-based material processing tools and machines, safely and effectively;

C6 identify and safely use appropriate laboratory methods;

C7 use modern engineering technologies and tools to establish innovative non-routine engineering solutions and adapt engineering designs.</td><td>Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes):

• individual project (C1-C7);

• practical tutorials (C2, C3, C6);

• seminars (C4);

• use of the VLE (C1-C7).</td></tr>
<tr><td>Assessment strategies and methods (referring to numbered Intended Learning Outcomes):

• individual project (C1-C7);

• coursework (C1–C7).</td></tr>
<tr><td>D: Transferable skills

This level provides opportunities for students to:</td><td>The following learning and teaching and assessment strategies and methods enable students to achieve and to demonstrate the level learning outcomes:</td></tr>
</table>

D1 communicate effectively and confidently by oral, written and visual means to appropriate professional and academic standards; **D2** work effectively in collaboration with others, including staff and students; **D3** demonstrate creativity in problem solving and the application of knowledge across discipline areas; **D4** identify and work towards targets for personal, career, and academic development **D5** be independent and reflective learners; **D6** use IT including the Web, spreadsheets, presentation and word processing; **D7** solve numerical and statistical problems using appropriate techniques.	Learning and teaching strategies and methods (referring to numbered Intended Learning Outcomes): • lectures (D1); • individual project (D1, D3-D7); • practical tutorials (D3, D7); • seminars (D1); • group exercises (D1, D2, D6); • use of the VLE (D1 – D7). Assessment strategies and methods (referring to numbered Intended Learning Outcomes): • individual projects (D1, D3-D7); • examination (D7); • coursework (D1–D7).

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 BEng (Hons) Engineering 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 6
Students who have successfully completed the FdEng Engineering (Mechanical Design, Manufacturing Management, Marine Technologies or Electronic Design) programmes at Bournemouth and Poole College with a minimum classification of Merit will be automatically accepted for entry with advanced standing to Level 6 of the MEng (Hons) Engineering programme at Bournemouth University and credited with 120 credits at Level 4 and 120 credits at Level 5.

Additionally, other applicants to level 6 for the MEng programme Engineering require a FdSc, FdEng or HND with Merit in an engineering discipline accredited to EngTech, partial IEng or IEng.

Entry to Level 7
Applicants to Level 7 require an upper second class or first class BEng (Hons) Engineering degree accredited to IEng from Bournemouth University. 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.

Students progressing or returning to complete the MEng (Hons) Engineering award must relinquish the lower BEng (Hons) Engineering/Mechanical Engineering award on successful completion of the MEng (Hons) Engineering/Mechanical Engineering degree.

Transfer between delivery modes for the MEng (Hons) Mechanical Engineering and MEng (Hons) Engineering
Students can request to transfer from full-time MEng (Hons) Mechanical Engineering to part-time (flexible learning) MEng (Hons) Engineering and vice versa, at any point during the programmes. Each transfer will be considered on a case by case basis.

Transfer from MEng to BEng (Hons) Engineering
Students can request to transfer from MEng (Hons) Engineering to BEng (Hons) Engineering, at any point during the programme. Each transfer will be considered on a case by case basis.

PROGRESSION ROUTES

Students who have successfully completed the FdEng Engineering (Mechanical Design, Manufacturing Management, Marine Technologies or Electronic Design) programmes at Bournemouth and Poole College with a minimum classification of Merit will be automatically accepted for entry with advanced standing to Level 6 of the MEng (Hons) Engineering programme at Bournemouth University and credited with 120 credits at Level 4 and 120 credits at Level 5.

Partnership arrangements provide formally approved progression routes through which students are eligible to apply for a place on a programme leading to a BU award.
Please find information on Global Partnerships here: Global partnerships | Bournemouth University

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.

PROGRESSION (Section 8)
To proceed to Level 7, students must normally achieve 120 Level 6 credits, and will be required to complete the BEng (Hons) part of the programme with an upper second class or first class profile. Where appropriate, students must successfully complete the specified work experience.

WORK BASED LEARNING (WBL) AND PLACEMENT ELEMENTS

Students on this programme are all in full-time employment. Assessments have been designed to enable the students to apply their learning in their workplace.

Programme Skills Matrix

	Units	Programme Intended Learning Outcomes																							
		A 1	A 2	A 3	A 4	A 5	B 1	B 2	B 3	B 4	B 5	C 1	C 2	C 3	C 4	C 5	C 6	C 7	D 1	D 2	D 3	D 4	D 5	D 6	D 7
LEVEL 7	MEng Project (FL) (40)	x	x	x	x		x	x		x	x	x	x	x		x	x	x	x	x	x	x	x	x	x
	Project Management (FL) (20)				x	x		x	x	x					x				x	x		x	x		x
	Design Management (FL) (20)				x	x		x	x	x	x				x				x	x	x	x	x		x
	Life Cycle Management (FL) (20)	x	x	x	x		x					x	x					x	x	x	x	x	x		
	Design Simulation (FL) (20)	x	x	x	x		x					x	x	x		x		x	x		x	x	x	x	
	Group Project (FL) (20)	x				x			x		x				x				x	x	x	x	x	x	x
	Control System Design (FL) (20)	x	x	x			x			x		x	x	x		x		x	x	x	x		x	x	
	Failure Analysis and Prevention (FL) (20)	x	x	x	x		x					x				x			x		x			x	
LEVEL 6	Advanced Engineering (FL) (20)	x	x	x	x		x	x				x	x			x		x	x	x	x		x	x	x
	BEng Project (FL) (40)	x	x	x	x		x	x		x		x	x	x		x	x	x	x	x	x	x	x	x	x
	Business Development (FL) (20)				x	x				x	x								x	x	x	x	x	x	x
	Computational Engineering (FL) (20)	x	x	x	x		x					x	x	x		x		x	x		x		x	x	
	Mechatronics (FL) (20)	x	x	x			x			x		x	x	x		x		x	x	x	x		x	x	
	Manufacturing Operations (FL) (20)	x	x	x	x		x			x		x			x	x			x	x	x		x	x	
	Advanced Stress and Vibration (FL) (20)	x	x	x	x		x					x				x			x		x				

A – Subject Knowledge and Understanding

This programme provides opportunities for students to develop and demonstrate knowledge and understanding of:

1. systematic engineering design processes, involving analysing and solving advanced engineering problems related to own specialisation;
2. modern engineering technologies and processes for potential application in industry at a professional engineer level taking account of a range of commercial and industrial constraints;
3. the appropriate analytical and/or computer tools for efficiently and effectively predicting performance in-service;
4. the effective planning, implementation and presentation of an individual engineering project demonstrating originality in the application of the knowledge;
5. the selection and application of different advanced techniques used in the management and control of projects, with special emphasis on project teams.

B – Intellectual Skills

This programme provides opportunities for students to:

1. develop analytical thinking in respect of part and assembly design utilising comprehensive understanding of the scientific principles of own specialisation and related disciplines;

C – Subject-specific/Practical Skills

This programme provides opportunities for students to:

1. identify, understand, assess and employ the appropriate advanced analytical models to solve engineering design problems recognising their limitations for particular cases;
2. independently apply advanced simulation tools to analyse engineering design problems;
3. use highly specialised manual and/or computer-based methods for engineering communication and presentation;
4. apply and critically evaluate various management techniques to ensure efficient operation of a team;
5. diagnose the causes of the different types of service failure, through the application of appropriate engineering analysis methods, and the ability to propose methods of avoiding them in future;
6. use basic workshop-based material processing tools and machines, safely and effectively;
7. use modern engineering technologies and tools to establish innovative non-routine engineering solutions and adapt engineering designs.

D – Transferable Skills

This programme provides opportunities for students to:

1. communicate effectively and confidently by oral, written and visual means to appropriate professional and academic standards;
2. work effectively in collaboration with others, including staff and students;

2. evaluate critically current research and advanced scholarship to formulate, plan, execute and report on a project involving scientific knowledge and skills, and original engineering design in a structured and disciplined manner; 3. critically reflect upon interpersonal skills required to operate in a team environment as a professional engineer; 4. undertake independent evaluation and argument of alternative approaches to situations, problems or issues that occur when managing a project; 5. employ decision making techniques and develop awareness of the commercial implications of design management decisions.	3. demonstrate creativity in problem solving and the application of knowledge across discipline areas; 4. identify and work towards targets for personal, career, and academic development; 5. be independent and reflective learners; 6. gather, select, and analyse a range of experimental and fieldwork data and present professionally using appropriate media; 7. distil, synthesise and critically analyse alternative approaches and methodologies to problems and research results reported in literature and elsewhere.