

Programme specification BEng Engineering Pathways

1. Overview / factual information

Programme/award title(s)	BEng (Hons) Engineering - General (top-up) BEng (Hons) Engineering - Mechanical (top-up) BEng (Hons) Engineering - Manufacturing (top-up)- product design and development App BEng (Hons) Engineering – Electrical & Electronic (top-up)
Teaching Institution	Nottingham College
Awarding Institution	The Open University (OU)
Date of first OU validation	23 rd April 2025
Date of latest OU (re)validation	N/A
Next revalidation	31 st August 2031
Credit points achieved for the award	120
UCAS Code (if applicable)	LEC3 Electrical and Electronic GEN3 General MAN3 Manufacturing MEC3 Mechanical
HECoS Code (if applicable)	100192
LDCS Code (FE Colleges England only)	X
Programme start date and cycle of starts if appropriate.	September 2025
Underpinning QAA subject benchmark(s)	Engineering March 2023
Other external and internal reference points used to inform programme outcomes (including QAA Characteristics Statements). For apprenticeships, the standard or framework against which it will be delivered.	https://www.qaa.ac.uk/docs/qaa/sbs/sbs-engineering-23.pdf?sfvrsn=7c71a881_4 Product design and development engineer (degree) / Institute for Apprenticeships and Technical Education
Professional/statutory/ accreditation recognition	Engineering Council to be sought in future
For apprenticeships fully or non-integrated Assessment. If fully integrated, EPAO being used.	Non-integrated Assessment
Mode(s) of Study (PT, FT, DL, Mix of DL & Face-to-Face) Apprenticeship	FT/PT and Apprenticeship

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they takes full advantage of the learning opportunities that are provided.

More detailed information on the learning outcomes, content, and teaching, learning and assessment methods of each module can be found in student module guide(s) and the students handbook.

The accuracy of the information contained in this document is reviewed by the University and may be verified by the Quality Assurance Agency for Higher Education.

Duration of the programme for each mode of study	FT/PT and Apprenticeship – 1 year (30 week)
Dual accreditation (if applicable)	N/A
Date of production/revision of this specification	06 August 2026

2. Programme overview

2.1 Educational aims and objectives

The BEng (Hons) Engineering course is a 1-year top-up programme of study. The purpose of the programme is to develop the student's skillset and knowledge to progress into a career in the Engineering industry or upskill into a new role.

Programme Aims are:

1. Develop Advanced Technical Competencies

Equip students with the advanced engineering knowledge and practical skills necessary to address complex challenges in their specific engineering discipline, integrating theory with real-world application.

2. Foster Critical Thinking and Problem-Solving Abilities

Encourage students to apply critical thinking, analytical methods, and innovative problem-solving approaches to engineering projects, ensuring they can independently tackle technical issues and propose effective solutions.

3. Enhance Professional and Ethical Standards

Promote an understanding of the professional, ethical, and regulatory standards that govern engineering practice, ensuring graduates are equipped to contribute responsibly and sustainably to society.

4. Cultivate Effective Communication and Collaboration Skills

Develop students' ability to communicate complex technical concepts clearly, both orally and in writing, and work collaboratively with multidisciplinary teams in professional engineering environments.

5. Prepare for Leadership and Lifelong Learning

Provide the foundation for leadership roles in engineering by cultivating skills in decision-making, project management, and continuous professional development, empowering graduates to thrive in evolving technological landscapes.

These aims aim to ensure graduates are well-rounded engineers, prepared for leadership and equipped to solve contemporary engineering problems

Programme Objectives are

1. Acquire Advanced Engineering Knowledge

Equip students with in-depth understanding and expertise in advanced engineering concepts, technologies, and methodologies relevant to their chosen discipline, enabling them to apply these principles effectively in practice.

2. Develop Practical Engineering Skills

Ensure students gain hands-on experience through laboratory work, design projects, and industry-based learning, allowing them to implement theoretical knowledge and develop the technical skills needed for real-world engineering challenges.

3. Enhance Analytical and Problem-Solving Competencies

Foster the ability to critically analyse complex engineering problems, use appropriate tools and techniques to model, simulate, and solve them, and make informed decisions under uncertainty.

4. Promote Professionalism and Ethical Practice

Instil a strong sense of ethical responsibility, professionalism, and adherence to industry standards, preparing students to address the societal, environmental, and safety implications of engineering solutions.

5. Support Career Development and Lifelong Learning

Prepare students for successful careers in engineering by emphasising the importance of continuous learning, adaptability to new technologies, and the development of leadership and project management skills for future professional advancement.

These objectives aim to ensure that graduates not only have technical expertise but are also prepared to navigate the evolving demands of the engineering profession.

2.2 Relationship to other programmes and awards

(Where the award is part of a hierarchy of awards/programmes, this section describes the articulation between them, opportunities for progression upon completion of the programme, and arrangements for bridging modules or induction)

NA

2.3 For Foundation Degrees, please list where the 60 credit work-related learning takes place. For apprenticeships an articulation of how the work based learning and academic content are organised with the award.

NA

2.4 List of all exit awards

BEng (Hons) Engineering - General (top-up)
 BEng (Hons) Engineering - Mechanical (top-up)
 BEng (Hons) Engineering - Manufacturing (top-up)- product design and development App
 BEng (Hons) Engineering – Electrical & Electronic (top-up)

3. Programme structure and learning outcomes

(The structure for any part-time delivery should be presented separately in this section.)

Please adjust 'levels' to reflect SCQF if applicable

<u>Programme Structure - LEVEL 6</u>						
Compulsory modules	Credit points	Optional modules	Credit points	Is module compensatable?	Semester runs in	Available as single registerable module?
BENG601 Engineering Project	60	<i>(Electrical, Mechanical & Manufacturing)</i>	60	No	Both	No
BENG602 Systems Engineering	30		30	No	Spring	Yes
BENG603 Specialist learning	30		30	No	Autumn	Yes
		<i>BENG603 Option A: Mechanical Engineering</i>	30			
		<i>BENG603 Option B Electrical Engineering</i>	30			
		<i>BENG603 Option C: Manufacturing Engineering</i>				

Intended learning outcomes at Level 6 are listed below:

<u>Learning Outcomes – LEVEL 6</u>	
3A. Knowledge and understanding	
Learning outcomes:	Learning and teaching strategy/ assessment methods
A1: Demonstrate an in-depth understanding of advanced engineering principles and theories relevant to the selected discipline, including their application in solving complex engineering problems. A2: Critically evaluate the performance and limitations of engineering materials, systems, and technologies, understanding their behaviour under various operating conditions, and the implications for design and safety. A3: Integrate knowledge of mathematics, physics, and engineering science to analyse and solve real-world engineering challenges, applying appropriate models, calculations, and simulations. A4: Understand the ethical, environmental, and societal impacts of engineering solutions, and apply this awareness when designing and implementing systems, considering sustainability, safety, and legal requirements.	The learning and teaching strategy for achieving these outcomes focuses on a blended approach, combining theoretical lectures with practical, hands-on sessions. Lectures will cover core principles and theories, supported by case studies and real-world examples to highlight complex problem-solving and engineering applications. Interactive workshops, laboratory sessions, and simulation-based activities will allow students to apply their knowledge in realistic settings, reinforcing their understanding of engineering materials, systems, and technologies. Assessment methods will include written examinations to test conceptual understanding and problem-solving ability, along with group projects and reports where students critically evaluate engineering solutions and their environmental, ethical, and societal impacts. Additionally, simulations and design challenges will assess students' ability to integrate mathematics, physics, and engineering science in solving practical challenges. Peer reviews and reflective essays will further develop students' awareness of sustainability, safety, and legal considerations in engineering design. These methods will ensure a holistic approach to learning and assessment.

3B. Cognitive skills	
Learning outcomes:	Learning and teaching strategy/ assessment methods
B1: Apply critical thinking and problem-solving techniques to analyse complex engineering problems, synthesising information from various sources to develop innovative and practical solutions. B2: Demonstrate the ability to evaluate and interpret data from experiments, simulations, and real-world applications, drawing sound conclusions that inform engineering decision-making processes. B3: Analyse and assess the performance of engineering systems by identifying underlying principles, evaluating their effectiveness, and proposing improvements based on evidence and theoretical understanding B4: Formulate and justify design decisions using advanced engineering knowledge, considering a range of factors such as feasibility, cost, sustainability, and compliance with industry standards and regulations.	The learning and teaching strategy will centre on active learning and problem-based approaches, encouraging students to engage in real-world engineering challenges. Case studies, group discussions, and scenario-based activities will help students develop critical thinking and problem-solving skills. Workshops and lab sessions will focus on the practical application of experimental data, simulations, and analytical techniques to interpret and evaluate engineering systems. Assessment methods will include individual reports and group projects, where students analyse data and propose evidence-based solutions to engineering problems. These assessments will require students to justify design decisions, considering various factors such as cost, sustainability, and industry standards. Presentations and technical discussions will assess students' ability to communicate complex ideas clearly and effectively. Additionally, written exams and problem-solving tasks will evaluate their understanding of engineering principles and their capacity to critically analyse and improve systems. These strategies ensure a comprehensive development of cognitive and professional skills.
3C. Practical and professional skills	
Learning outcomes:	Learning and teaching strategy/ assessment methods
C1: Demonstrate the ability to design, test, and evaluate engineering systems or components using appropriate tools, techniques, and methods, while ensuring compliance with safety, quality, and regulatory standards.	The learning and teaching strategy will incorporate a mix of practical, project-based learning and teamwork-focused activities to develop key professional skills. Students will engage in design and testing projects, using industry-standard tools and methods while adhering to safety, quality, and regulatory

3C. Practical and professional skills	
C2: Effectively communicate engineering ideas, results, and recommendations through written reports, presentations, and technical documentation, tailored to both technical and non-technical audiences. C3: Work collaboratively within multidisciplinary teams, applying project management principles to plan, execute, and deliver engineering projects on time and within budget, while addressing any challenges or risks that arise. C4: Apply professional and ethical practices when engaging with clients, stakeholders, and team members, including demonstrating awareness of sustainability, risk management, and the societal impacts of engineering decisions.	guidelines. They will receive guidance on how to create detailed technical documentation and how to present engineering solutions to both technical and non-technical stakeholders. Assessment methods will include individual and group design projects, which assess the students' ability to develop, test, and evaluate engineering systems. These projects will require written reports, presentations, and design documentation, simulating real-world engineering scenarios. Team-based assessments will focus on collaboration and project management, where students will plan, execute, and manage project timelines, resources, and risks. Additionally, students will reflect on ethical and professional practices through case studies and peer evaluations, ensuring they understand the wider societal impacts of their engineering decisions. These assessments ensure a comprehensive development of practical and professional skills.
3D. Key/transferable skills	
Learning outcomes:	Learning and teaching strategy/ assessment methods
D1: Demonstrate effective time management and organisational skills, managing multiple tasks and deadlines in a dynamic work environment, while prioritising activities based on project requirements. D2: Exhibit strong problem-solving abilities by applying systematic approaches to address unforeseen challenges, making decisions under pressure, and adapting strategies to changing situations.	The learning and teaching strategy will focus on fostering self-management and adaptability through a combination of individual assignments, group projects, and time-sensitive tasks. Students will be encouraged to prioritise tasks, manage project timelines, and balance multiple responsibilities through real-world engineering scenarios. Assessment methods will include project-based evaluations where students must meet deadlines, manage resources, and adjust plans in response to challenges. These assessments will test their ability to solve problems under

3D. Key/transferable skills	
D3: Cultivate effective communication skills, both written and verbal, to engage with diverse stakeholders, convey technical concepts clearly, and participate in collaborative decision-making processes. D4: Show initiative and self-directed learning, demonstrating the ability to acquire new knowledge and skills independently, while keeping up to date with emerging technologies and industry trends in the engineering field.	pressure, communicate effectively in written reports and oral presentations, and collaborate with peers. Peer feedback and reflective essays will assess communication skills and self-directed learning, while case studies will encourage students to stay current with emerging trends. The integration of problem-solving tasks will promote systematic approaches, while time management and organisational skills will be emphasised in real-time project planning and execution. This ensures students develop both technical expertise and key transferable skills.

BEng in Mechanical/Manufacturing/Electrical Engineering

4. Distinctive features of the programme structure

- **Where applicable, this section provides details on distinctive features such as:**
 - where in the structure above a professional/placement year fits in and how it may affect progression
 - any restrictions regarding the availability of elective modules
 - where in the programme structure students must make a choice of pathway/route
- **Additional considerations for apprenticeships:**
 - how the delivery of the academic award fits in with the wider apprenticeship
 - the integration of the 'on the job' and 'off the job' training
 - how the academic award fits within the assessment of the apprenticeship

Both the Engineering Project and Systems Engineering modules are shared across all pathways with the specialist module being specific to the route selected at enrolment.

5. Support for students and their learning

(For apprenticeships this should include details of how student learning is supported in the workplace)

Example:

Students are supported throughout the programme in various ways:

College Regulations and Policies

All students are protected by the College policies and practices in terms of health and safety, GDPR, safeguarding, etc.

Induction

A detailed induction is designed for the start of the programme, introducing the students to the content of the programme, assessments, the LRC and the support available to them within the team and cross-college.

Tutorials

Tutorial Allowance

Students are allocated 10 hours of tutorial each year (group tutorials, module tutorials and personal tutorials). 6 hours of the allocated allowance are booked by the tutors/module tutors, and 4 hours are available for students to book when necessary.

Personal; Each student is appointed a personal tutor who looks after their academic and personal welfare throughout the programme. They meet with their tutor within the first few weeks of the start to identify any additional support that may be needed. After this initial session, they meet together on a regular basis. In addition, students are encouraged to book appointments with their tutor if they need further support. Working in conjunction with personal tutors is the Wellbeing mentor who can be brought in to provide extra 1:1 support for any student having personal issues impacting on their studies.

Group: These take place on a regular basis and focus on areas such as: key study skills, careers and progression, discussions and guidance and feedback.

Academic: Each module allocates time for the tutor to meet with students in small groups or individually. It enables additional support to be given in terms of key concepts, assessments or feedback.

All lecturers meet weekly to discuss how the programme is evolving. Students at risk are identified, in order for the personal tutors to take action if necessary.

Teaching and Learning

All lecturers receive regular CPD in up-to-date teaching and learning strategies. This allows the team to make sure that all resources and activities meet the individual learning needs of each student. In addition, students are also enrolled on to Microsoft Teams, which allows blended learning when required.

VLE

Microsoft Teams is the cross-college VLE platform, which allows communication between staff and students. It is available to every student through the College website and by an App on their smart phone. Each course year has its own Course Information page, which contains information such as the student handbook, key policy documents and a notice board. Each module has its own page where students can find modular booklets, resources and Turnitin submission points.

Learning Resource Centres

All campuses house an LRC, with both physical and online books to support HE students. In addition, their online facilities also hold many relevant databases and journals which students can search extensively. LRC staff are trained and always willing to help students in their searches or to improve their study skills.

College Wide Student Support

The College offer a range of services to all students including: student services, wellbeing, University-Level Study Team, careers guidance and additional support.

At Nottingham College we provide individual support for all learners who feel they may need additional support with accessing their course. There are a number of support strategies in place to ensure cohesive inclusion for all. We encourage all students who can to apply for Disabled Students Allowance and there is support available on how to do this from our HE Welfare and Finance Officer as well as our specialist student support advisor.

The inclusion team also offer support during enrolment as well as one-to-one consultations where students can be referred for specialist assessments such as dyslexia assessments. All students who wish to can also take part in a Cognassist assessment to look at ways to develop their overall cognitive abilities.

The Wellbeing team offer regular cafes and events for students across campuses with trips, specific events as well as coming into class to speak to groups of students about wellbeing strategies they may access. Student counselling is available subject to availability and can be applied for via our HE Welfare and Finance Officer. Additional financial support is also offered to those students on lower incomes who may need additional financial support to cover the costs of study this is through our HE Bursary scheme.

6. Criteria for admission

(For apprenticeships this should include details of how the criteria will be used with employers who will be recruiting apprentices.)

Applicants for this course will have already passed (or expect to achieve) a full Level 5 qualification in a related subject area. This could be a Foundation Degree (FdEng, FdSc, FdA), Higher National Diploma (HND), Diploma of Higher Education (DipHE) or similar qualification worth a minimum of 240 academic credits at undergraduate level.

GCSE English Language and Maths passes at Grades 9 to 4 (previously A* to C) are required. As an equivalent, we expect applicants to be working at (or to demonstrate competency at) Level 2 or above in English/literacy and Maths/numeracy.

7. Language of study

English

8. Information about non-OU standard assessment regulations (including Professional Statutory Recognised Body requirements)

9. For apprenticeships in England, summary of how the End Point Assessment (EPA) links to the academic award

10. Methods for evaluating and improving the quality and standards of teaching and learning including the student experience

Quality and standards of teaching are assessed and evaluated by varying means.

Assessment for the programme:

Formative assessments include;

Observation of technical, creative and teaching process and progress. Debates, group work, research tasks, planning of rehearsal or classes.

Summative assessments include;
Group and independent educational projects and presentations.

Written work including;
Research, journals and evaluative essays, reports, PP presentations, viva voce.

Improving Teaching and Learning Internally

Within the HE Team, various methods are used that can enhance teaching and learning including:

- The College's quality assurance procedures monitor the programme in order to ensure opportunities for quality enhancement
- End of module surveys
- Unofficial feedback from students during/after lectures
- Peer observation
- Lesson observation
- College-wide Student Voice surveys
- Course committee meetings

Improving Teaching and Learning Externally

The College has an external examiner in place who is responsible for monitoring the programme in order to enhance the analysis of coherence and progression.

11. Changes made to the programme since last (re)validation

N/A First approval

Annexe 1: Curriculum map

Annexe 1 - Curriculum map

This table indicates which study units assume responsibility for delivering (shaded) and assessing (✓) particular programme learning outcomes. Please amend this mapping to suit frameworks used within the different nations if appropriate.

Level	Study module/unit	Programme outcomes																Available as single registerable module?
		A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4	
6	BENG601 Engineering Project		x		x	x	x		x	x	x	x	x	x	x	x	x	
	BENG602 Systems Engineering	x	x	x	x	x	x			x				x	x			
	BENG603 Specialist learning	x	x	x				x				X			x			

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