

COURSE:	LEVEL 3 BTEC EXTENDED DIPLOMA in ENGINEERING	THE END POINT FOR THE EXTENDED DIPLOMA IN ENGINEERING
DETAILS:	Two-Year Course 15 Units 3 x External Examinations 7 x Mandatory	A high-quality Engineering Qualification The knowledge and skills to enable students to achieve a higher apprenticeship placement or university degree course
INDUSTRY SKILLS	Creative Problem Solving Communication Teamwork Practical Solutions Decision Making Collaboration Initiative	A confidence to use their learnt skills and development of knowledge in the engineering field to address future changes and needs within their chosen field and beyond. To enable them to apply their understanding and skills to new experiences
HOW ENGINEERING IS BEING DEVELOPED, TAUGHT AND ASSESSED		
	Curriculum The curriculum design focuses on delivering a wide range of units delivered by specialist teachers, including Engineering Maths, Electronics, Mechanical Engineering and CAD/CAM. The delivery and assessment schedule is a two-year programme including assessment windows and examination dates.	
	Problem Based Learning The course uses an integrated engineering programme to deliver unit content through problem-based assignments. Contextualised briefs enable students to apply knowledge to real-life experiences. Extra-curricular projects consolidate learning and provide additional opportunities to support assignments.	
	Links with Industry Partners Industry links are continuously developed to incorporate real-world challenges into curriculum projects, increase students' contact with organisations and opportunities, and help students make informed decisions about their next stages.	
	Starting Points Students who arrive at Brook Sixth Form & Academy for KS5 have varied educational experiences at KS4. Initial baseline work identifies existing skills and gaps so teaching can consolidate strengths and ensure students can fully access their Level 3 course.	
	Specification Pearson BTEC Level 3 National Extended Diploma in Engineering UHA94 RQF 1080 GLH 601/7588/6	

COURSE CONTENT FOR TWO YEAR PROGRAMME**Mandatory Units**

Unit	Unit Title	Assessment	GLH	Year
1	Engineering Principles	External	120	1
2	Delivery of Engineering Processes Safely as a Team	Internal	60	1
3	Engineering Product Design and Manufacture	External	120	1
4	Applied Commercial and Quality Principles in Engineering	Internal	60	1
5	A Specialist Engineering Project	Internal	60	2
6	Microcontroller Systems for Engineers	External	120	2
7	Calculus to Solve Engineering Problems	Internal	60	1 & 2

Additional Units

Unit	Unit Title	Assessment	GLH	Year
8	Further Engineering Mathematics	Internal	60	2
10	Computer Aided Design in Engineering	Internal	60	1
17	Power and Energy Electronics	Internal	60	1 & 2
24	Maintenance of Mechanical Systems	Internal	60	1 & 2
41	Manufacturing Secondary Machining Processes	Internal	60	1 & 2
45	Additive Manufacturing Processes	Internal	60	2
57	Sustainable Transport	Internal	60	2
58	Energy Management	Internal	60	1 & 2

Academic Year 2026 - 2027

Pearson BTEC Level 3 National Extended Diploma in Engineering (RQF)

Unit	Title	Teacher	Term
1	Engineering Principles	ACH / ESH	1,2,3,4
2	Delivery of Engineering Processes Safely as a Team	TMU	1,2,3
3	Engineering Product Design and Manufacture	LRO	1,2,3,4
4	Applied Commercial and Quality Principles in Engineering	TMU	4,5,6
5	A Specialist Engineering Project	LRO	1,2,3
6	Microcontroller Systems for Engineers	RGA	1,2,3
7	Calculus to Solve Engineering Problems	ACH / ESH / BAH	5,6 / 1,2
8	Further Engineering Mathematics	BAH / ESH	3,4,5
10	Computer Aided Design in Engineering	LRO	5,6
17	Power and Energy Electronics	RGA	1,2,3 / 4,5
24	Maintenance of Mechanical Systems	RDG / DBU	5,6 / 3,4,5
41	Manufacturing Secondary Machining Processes	RDG	1,2,3,4 / 1,2,3,4,5
45	Additive Manufacturing Processes	LRO	4,5
57	Sustainable Transport	DBU	
58	Energy Management	RGA / DBU	4,5,6 / 1,2

Academic Year 2026 - 2027

Term	Start Date	End Date
Year 1	YEAR 12	
1	7 September 2026	23 October 2026
2	9 November 2026	18 December 2026
3	4 January 2027	12 February 2027
4	22 February 2027	25 March 2027
5	12 April 2027	28 May 2027
6	7 June 2027	16 July 2027
Year 2	YEAR 13	
7	7 September 2026	23 October 2026
8	9 November 2026	18 December 2026
9	4 January 2027	12 February 2027
10	22 February 2027	25 March 2027
11	12 April 2027	28 May 2027