Structure of the Edexcel BTEC Level 4 HNC in Aeronautical Engineering

The Edexcel BTEC Level 4 HNC programme must contain a minimum of 65 credits at level 4.

Unit number	Mandatory core units – all three units must be taken	Unit level	Unit credit
1	Analytical Methods for Engineers	4	15
2	Engineering Science	4	15
3	Project Design, Implementation and Evaluation	5	20
	Optional units group A – select a minimum of 45 credits		
6	Health, Safety and Risk Assessment in Engineering	4	15
82	Aircraft System Principles and Applications	5	15
83	Aerodynamic Principles and Aircraft Design	4	15
84	Aerodynamic Principles and Aircraft Stability and Performance	5	15
85	Automatic Flight Control Systems	4	15
86	Aircraft Communication and Navigation Systems	4	15
87	Construction and Operation of Aircraft Fluid Systems	4	15
88	Principles and Applications of Aircraft Fluid Systems	5	15
89	Aircraft Structural Integrity	5	15
90	Aircraft Propulsion Technology	4	15
91	Integrated Flight Instrument Systems	5	15
92	Aircraft Gas Turbine Science	5	15

Unit number	Optional units group B	Unit level	Unit credit
4	Mechanical Principles	5	15
5	Electrical and Electronic Principles	5	15
7	Business Management Techniques for Engineers	4	15
8	Engineering Design	5	15
10	Manufacturing Process	4	15
13	Application of Machine Tools	4	15
14	Computer-aided Machining	4	15
17	Business Improvement Techniques	5	15
18	Advanced Machine Tools	5	15
19	Computer-aided Design and Manufacture	5	15
20	Quality and Business Improvement	5	15
21	Materials Engineering	4	15
26	Employability Skills	5	15
27	Personal and Professional Development	5	15
28	Research Project	5	20
29	Work-based Experience	5	15
30	Quality Assurance and Management	5	15
35	Further Analytical Methods for Engineers	5	15
37	Management of Projects	4	15
38	Managing People in Engineering	5	15
58	Microprocessor Systems	4	15
59	Advanced Mathematics for Engineering	5	15
61	Engineering Thermodynamics	5	15
64	Electrical and Electronic Measurement and Testing	4	15
66	Electrical, Electronic and Digital Principles	5	15
76	Managing the Work of Individuals and Teams	5	15
103	Further Mathematics for Engineering Technicians	3	10
109	Principles and Applications of Aircraft Mechanical Science	3	10
110	Principles and Applications of Aircraft Physical Science	3	10

Structure of the Edexcel BTEC Level 5 HND in Aeronautical Engineering

The Edexcel BTEC Level 5 HND programme must contain a minimum of 125 credits at level 5.

Unit number	Mandatory core units – all four units must be taken	Unit level	Unit credit
1	Analytical Methods for Engineers	4	15
2	Engineering Science	4	15
3	Project Design, Implementation and Evaluation	5	20
82	Aircraft System Principles and Applications	5	15
	Specialist units group A – choose units with a minimum credit value of 75 credits		
6	Health, Safety and Risk Assessment in Engineering	4	15
7	Business Management Techniques for Engineers	4	15
8	Engineering Design	5	15
83	Aerodynamic Principles and Aircraft Design	4	15
84	Aerodynamic Principles and Aircraft Stability and Performance	5	15
85	Automatic Flight Control Systems	4	15
86	Aircraft Communication and Navigation Systems	4	15
87	Construction and Operation of Aircraft Fluid Systems	4	15
88	Principles and Applications of Aircraft Fluid Systems	5	15
89	Aircraft Structural Integrity	5	15
90	Aircraft Propulsion Technology	4	15
91	Integrated Flight Instrument Systems	5	15
92	Aircraft Gas Turbine Science	5	15

Unit number	Specialist units group B	Unit level	Unit credit
4	Mechanical Principles	5	15
5	Electrical and Electronic Principles	5	15
10	Manufacturing Process	4	15
13	Application of Machine Tools	4	15
14	Computer-aided Machining	4	15
17	Business Improvement Techniques	5	15
18	Advanced Machine Tools	5	15
19	Computer-aided Design and Manufacture	5	15
20	Quality and Business Improvement	5	15
21	Materials Engineering	4	15
26	Employability Skills	5	15
27	Personal and Professional Development	5	15
28	Research Project	5	20
29	Work-based Experience	5	15
30	Quality Assurance and Management	5	15
35	Further Analytical Methods for Engineers	5	15
37	Management of Projects	4	15
38	Managing People in Engineering	5	15
58	Microprocessor Systems	4	15
59	Advanced Mathematics for Engineering	5	15
61	Engineering Thermodynamics	5	15
64	Electrical and Electronic Measurement and Testing	4	15
66	Electrical, Electronic and Digital Principles	5	15
76	Managing the Work of Individuals and Teams	5	15
103	Further Mathematics for Engineering Technicians	3	10
109	Principles and Applications of Aircraft Mechanical Science	3	10
110	Principles and Applications of Aircraft Physical Science	3	10