Year 12 BTEC Engineering Learning Journey

START

Course work

Unit2 - A1
Common engineering processes
Unit 2 - A2
Health and safety requirements
Unit 2 - A3
Human factors affecting the performance of engineering processes

Unit1 - A
Algebraic and trigonometric mathematical methods
Unit1 - B
Static engineering systems

Unit2 - B1
Principles of engineering drawing
Unit 2 - B2
2D computer-aided drawing

Unit1 - C
Dynamic engineering systems
Unit1 - D
Fluid engineering systems
Unit1 - E
Static and direct current electricity and circuits

Unit2 – C1
Principles of effective teams
Unit 2 – C2
Team set-up and organisations
Unit 2 – C3
Health and safety risk assessment
Unit 2 – C4
Preparation for batch manufacture
Unit2 – C5
Delivery of manufacturing processes

Exam

Unit 1 - F
Magnetism and electromagnetic induction
Unit 1 - G
Single-phase alternating current

END

Year 13 BTEC Engineering Learning Journey

START

Unit41 - A1
Traditional secondary machining processes
Unit41 - A2
Specialist secondary machining processes
Unit41 - A3
Sustainability characteristics of secondary machining processes

Unit41 - B1
Health and safety requirements
Unit 41 - B2
Risk assessment
Unit41 – B3
Setting up secondary process machines

Unit41 – C1
Features of secondary processes
Unit41 – C2
Parameters of secondary processes
Unit41 – C3
Quality control methods

Course work

Unit3 – A1
Design triggers
Unit3 – A2
Design challenges
Unit3 – A3
Equipment level and system level constraints and opportunities
Unit3 – A4
Material properties
Unit3 – A5
Mechanical power transmission
Unit3 – A6
Manufacturing processes

Unit3 – B1
Design for a customer
Unit3 – B2
Regulatory constraints and opportunities
Unit3 – B3
Market Analysis
Unit3 – B4
Performance analysis
Unit3 – B5
Manufacturing analysis

Unit41 – C1
Lessons learned from machining a component
Unit41 – C2
Personal performance while machining a component

Unit3 – C1
Design proposals
Unit3 – C2
Communicating designs
Unit3 – C3
Iterative development process

Unit3 – D1
Statistical methods
Unit3 – D2
Validating designs

Exam

END