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ENGINEERING

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Level 3 Extended Certificate

Level 3 Diploma

Level 3 Extended Diploma

ENGINEERING Extended CERTIFICATE

KS5 Engineering at South Devon UTC

Subject Content and Assessment

Learners gain relevant skills and knowledge from studying a range of content focused on electrical/electronic and mechanical disciplines, for example electrical machines and maintenance of mechanical systems. Progression could be either directly to employment in Level 3 job roles, higher apprenticeship programmes or via higher education courses in engineering.

Students will be assessed over the course of the two years through 8 internally assessed units and 2 externally assessed. Of those internally assessed, 3 units are mandatory and 5 have been chosen to be delivered based on the skills, knowledge and expertise of our practitioners at South Devon UTC.

The units cover a wide range of disciplines in order for our students to leave the college with a broad comprehension of the engineering sectors as a whole while delivering the most relevant specific technical content that our employer partners feel are most prevalent in the current engineering climate.

What skills will you learn?

Students studying the Level 3 qualification at South Devon UTC will leave the college having completed the following units:

Unit 1: Engineering Principles

Unit 2: Delivery of Engineering Processes Safely as a Team

Unit 3: Engineering Product Design and Manufacture

And **one** from the following:

Unit 10: Computer Aided Design in Engineering

Unit 12: Pneumatic and Hydraulic Systems

Unit 45: Additive Manufacturing Processes

Entry Requirements

Five Level 4 GCSEs are required for entry into 6th Form.

Level 5 pass is required in Mathematics and at least one Science, though Level 4 will be considered for entry to the BTEC through decisions on an individual basis.

Curriculum Outline

Year 12/13

9 hours per fortnight,

33% internally assessed coursework

67% external examination

Certificated June 2023

Student Guide

Assignment briefs, resources and past exam papers available via UTC's Virtual Learning Environment.

Resources needed

BTEC National

Engineering Student Book:

For the 2016 specifications

ISBN: 13-9781292141008

ENGINEERING DIPLOMA

KS5 Engineering at South Devon UTC

Subject Content and Assessment

Learners gain relevant skills and knowledge from studying a range of content focused on electrical/electronic and mechanical disciplines, for example electrical machines and maintenance of mechanical systems. Progression could be either directly to employment in Level 3 job roles, higher apprenticeship programmes or via higher education courses in engineering.

Students will be assessed over the course of the two years through 8 internally assessed units and 2 externally assessed. Of those internally assessed, 3 units are mandatory and 5 have been chosen to be delivered based on the skills, knowledge and expertise of our practitioners at South Devon UTC.

The units cover a wide range of disciplines in order for our students to leave the college with a broad comprehension of the engineering sectors as a whole while delivering the most relevant specific technical content that our employer partners feel are most prevalent in the current engineering climate.

What skills will you learn?

Students studying the Level 3 qualification at South Devon UTC will leave the college having completed the following units:

Unit 1: Engineering Principles

Unit 2: Delivery of Engineering Processes Safely as a Team

Unit 3: Engineering Product Design and Manufacture

Unit 4: Applied Commercial and Quality Principles in Engineering

Unit 5: A Specialist Engineering Project

Unit 10: Computer Aided Design in Engineering

Unit 12: Pneumatic and Hydraulic Systems

Unit 35: Computer Programming

Unit 43: Manufacturing Computer Numerical Control Machining Processes

Unit 44: Fabrication Manufacturing Processes

Entry Requirements

Five Level 4 GCSEs are required for entry into 6th Form.

Level 5 pass is required in Mathematics and at least one Science, though Level 4 will be considered for entry to the BTEC through decisions on an individual basis

Curriculum Outline

Year 12/13

20 hours per fortnight,
33% internally assessed
coursework

67% external examination
Certificated June 2022

Student Guide

Assignment briefs resources and past exam papers available via UTC's Virtual Learning Environment

Resources needed

BTEC National
Engineering Student Book:
For the 2016 specifications
ISBN: 13-9781292141008

ENGINEERING Extended DIPLOMA

KS5 Engineering at South Devon UTC

Subject Content and Assessment

Learners gain relevant skills and knowledge from studying a range of content focused on electrical/electronic and mechanical disciplines, for example electrical machines and maintenance of mechanical systems. Progression could be either directly to employment in Level 3 job roles, higher apprenticeship programmes or via higher education courses in engineering.

Students will be assessed over the course of the two years through 12 internally assessed units and 3 externally assessed. Of those internally assessed, 4 units are mandatory and 8 are delivered based on the skills, knowledge and expertise of our practitioners at South Devon UTC.

The units cover a wide range of disciplines in order for our students to leave the college with a broad comprehension of the engineering sectors as a whole while delivering the most relevant specific technical content that our employer partners feel are most prevalent in the current engineering climate.

What skills will you learn?

Students studying the Level 3 qualification at South Devon UTC will leave the college having completed the following units:

- Engineering Principles
- Delivery of Engineering Processes Safely as a Team
- Engineering Product Design and Manufacture
- Applied Commercial and Quality Principles in Engineering
- A Specialist Engineering Project
- Microcontroller Systems for Engineers
- Calculus to Solve Engineering Problems
- Work Experience in the Engineering Sector
- Computer Aided Design in Engineering
- Pneumatic and Hydraulic Systems
- Mechanical Behaviour of Metallic Materials
- Computer Programming
- Manufacturing Computer Numerical Control Machining Processes
- Fabrication Manufacturing Processes
- Manufacturing Joining, Finishing and Assembly Processes

Entry Requirements

Five Level 4 GCSEs are required for entry into 6th Form.

Level 5 pass is required in Mathematics and at least one Science, though Level 4 will be considered for entry to the BTEC through decisions on an individual basis.

Curriculum Outline

Year 12/13

30 hours per fortnight,
33% internally assessed
coursework

67% external examination

Certificated June 2022

Student Guide

Assignment briefs resources and past exam papers available via UTC's Virtual Learning Environment.