

# Engineering Preparation Work

## Detail of examinations

The Edexcel BTEC Level 3 Engineering course is made up of 360 Guided learning hours which comprises of 3 mandatory units and 1 optional unit which is decided by the Teacher.

Each Unit 1 and 3 are exam based unit 2 and 9 are coursework based.

## Areas of study

### Single award

- 360 GLH (465 TQT)
- Equivalent in size to one A Level.
- 4 units of which 3 are mandatory and 2 are external.
- Mandatory content (83%).
- External assessment (67%).

### Double award

- 720 GLH (975 TQT)
- Equivalent in size to two A Levels.
- 10 units of which 5 are mandatory and 2 are external.
- Mandatory content (58%).
- External assessment (33%).

## Links to maths

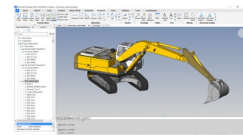
- Confident use of number and percentages
- Use of ratios
- Calculation of surface areas and/or volumes
- Use of trigonometry
- Construction, use and/or analysis of graphs and charts
- Use of coordinates and geometry

## Research and preparation activities

Design and technology resources to read through in preparation for the A level course, can be used at any time throughout the course to support learning.

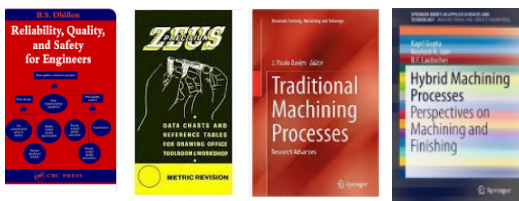
## What will I study In Each Year?

Year	Unit	Title	Teacher	Certificate or only Diploma?
12	1	Engineering Principles (Mandatory EXAM)	RRT/SGL/TCM	Cert & Dipl
12	2	Delivery of Engineering Processes Safely as a Team	SGL/DWL	Cert & Dipl
12	3	Engineering Product Design and Manufacture (Mandatory EXAM)	SGL/NPR/ GBK	Cert & Dipl
12	10	Computer Aided Design in Engineering	SGL/NPR/ GBK	Cert & Dipl
12	5	A Specialist Engineering Project	TCM	Dipl only
12	41	Manufacturing Secondary Machining Processes	SGL	Dipl only



## Further reading

Great list of Design Books



## Fun and engaging

### Cad tutorials

- [https://www.youtube.com/watch?v=CdX\\_V85L2MI](https://www.youtube.com/watch?v=CdX_V85L2MI)
- <https://www.youtube.com/watch?v=KKbwf2a53bA>
- <https://www.youtube.com/watch?v=SsLkAokkeR8>
- <https://www.youtube.com/watch?v=5aHulvtaiKw>
- <https://www.youtube.com/watch?v=iCnVZrzz1V>