City & Guilds 2850-10 Level 1 Certificate in Engineering at Chichester College



Course Handbook

This course contains 11 units as part of two qualifications.

City & Guilds Level 1 Certificate in Engineering, and EAL Level 1 NVQ Certificate in Performing Engineering Operations.

All units of both Qualifications will need to be completed to progress to a Level 2 Qualification in Engineering.

City & Guilds Level has three units:

101 - Working in Engineering

- 1. Know safe working practices.
- 2. Know the engineering environment.
- 3. Understand the importance of maintaining working relationships.
- 4. Know the sectors within engineering.
- 5. Know key engineering materials.
- 6. Know basic engineering information technology requirements.

106 - Carrying out electrical assembly.

- 1. Be able to prepare for building electrical circuits.
- 2. Be able to build electrical circuits.
- 3. Be able to check completed circuits.

115 - Communicating using CAD systems.

- 1. Be able to prepare for communication.
- 2. Be able to use CAD software for engineering purposes.
- 3. Be able to use communication software for engineering purposes.

Assessments

You will be assessed by an online exam (GOLA) for unit 101.

Practical assessments and written short answer question papers for the other two units.

These are all graded at Pass, Merit or Distinction.

EAL Level 1 has eight units:

Unit QPE02/001 Working Safely in an Engineering Environment.

1. A series of Knowledge Questions (K Questions) to ascertain your knowledge of Health and Safety etc.

Unit QPE01/002N Carrying out Engineering Activities Efficiently and Effectively:

1. A series of K Questions to ascertain your knowledge of the progression between education and employment.

Unit QPE01/003N Using and Communicating Technical Information.

Unit QPE01/004N Making components using hand tools and fitting techniques.

- 1. Be able to prepare for fitting activities.
- 2. Be able to use simple fitting techniques to produce components.
- 3. Be able to check components for correct size.
- 4. State the need for good housekeeping in the workplace.
- 5. Use equipment safely.
- 6. Restore the work area using the correct procedures for the disposal of waste.

Unit QPE01/012N Carrying out sheet metal cutting, forming and assembly activities.

- 1. Use simple methods of fabrication assembly.
- 2. Assemble simple non self-secured joints.
- 3. Assemble simple self-secured joints.
- 4. Use mechanical joining methods.
- 5. Use the resistance spot welding process.
- 6. Produce sheet metalwork assembly.
- 7. State the need for good housekeeping in the workplace.
- 8. Use equipment safely.
- 9. Restore the work area using the correct procedures for the disposal of waste.

Unit QPE01/017N Using semi-automatic Mig welding equipment.

- 1. Know how to prepare MIG welding equipment and tools for safe use.
- 2. Know how to use equipment safely for MIG welding low carbon Steel.
- 3. Be able to produce welded joints safely using MIG welding.
- 4. State the need for good housekeeping in the workplace.
- 5. Use equipment safely.
- 6. Restore the work area using the correct procedures for the disposal of waste.

Unit QPE01/023N Carrying out Electronic Assembly.

- 1. Be able to prepare for building electrical circuits.
- 2. Be able to build electrical circuits.
- 3. Be able to check completed circuits.
- 4. State the need for good housekeeping in the workplace.
- 5. Use equipment safely.
- 6. Restore the work area using the correct procedures for the disposal of waste.

Unit QPE01/027N Carrying out Composite Moulding Activities.

- 1. Be able to prepare for composite moulding activities.
- 2. Be able to use a variety of methods to produce a composite product.
- 3. Be able to check components for correct size.
- 4. State the need for good housekeeping in the workplace.
- 5. Use equipment safely.
- 6. Restore the work area using the correct procedures for the disposal of waste.

Assessments

You will be assessed by completing three practical tasks for each practical unit, along with a series of K Questions to ascertain your knowledge of each practical subject. the need to extract data from a variety of sources.

As part of your study programme you will be required to carry out at least 15 hours of work experience at an industrial placement. This is to be organized by the student, but some leads are available. This will have to be authorised by the College for you to attend to ensure that safety and legal requirements have been met. This is done via filling out a form & handing it to the study programme leader, at least 2 weeks before the placement begins..



This will not only give the student an insight to the working world but could possibly lead to future employment opportunities.

Enrichment

During your time at college you will be given the opportunity to attend Industrial trips to local business that will give you some career guidance. As well as an end of year experience, currently Go-Karting.



Progression

On successful completion of <u>all</u> the units of the course you would able to move on to:-

- City & Guilds 2850-24 Level 2 Diploma in Engineering (Manufacturing Technology).
- Level 3 BTEC Diploma or T Level L3 Academic.
- An Apprenticeship
- Full time employment.

Course Supplement

There is a supplement added to the course –

Currently £245.00. This covers the cost of the equipment you will be given.

- Protective clothing.
- Safety boots.
- Welding mask and gloves.
- Rigger gloves.
- Work gloves
- Electronics tool kit.
- Safety Glasses.
- Bag to carry PPE



Example of Assessment Calendar

				Level 1 Diploma In Engineering				Course Code; MNT173CF1A			Units 102,108,110		
27-Aug-18	Bank Holiday	15-Oct-18		03-Dec-18		21-Jan-19		11-Mar-19		29-Apr-19		17-Jun-19	
28-Aug-18		16-Oct-18	PREPARE	04-Dec-18	PREPARE	22-Jan-19	PREPARE	12-Mar-19	PREPARE	30-Apr-19	Hand Tools	18-Jun-19	
29-Aug-18	Admin Week	17-Oct-18	FOR ALL	05-Dec-18	FOR ALL	23-Jan-19	FOR ALL	13-Mar-19	FOR ALL	01-May-19	Assessment	19-Jun-19	Catch up week
30-Aug-18		18-Oct-18	UNITS	06-Dec-18	UNITS	24-Jan-19	UNITS	14-Mar-19	UNITS	02-May-19	week	20-Jun-19	
31-Aug-18		19-Oct-18		07-Dec-18		25-Jan-19		15-Mar-19		03-May-19		21-Jun-19	
01-Sep-18		20-Oct-18		08-Dec-18		26-Jan-19		16-Mar-19		04-May-19		22-Jun-19	
02-Sep-18		21-Oct-18		09-Dec-18		27-Jan-19		17-Mar-19		05-May-19		23-Jun-19	
03-Sep-18		22-Oct-18		10-Dec-18		28-Jan-19		18-Mar-19		06-May-19	Bank Holiday	24-Jun-19	
04-Sep-18		23-Oct-18		11-Dec-18	PREPARE	29-Jan-19	Welding	19-Mar-19	Welding	07-May-19	Hand Tools	25-Jun-19	
05-Sep-18	Induction Week	24-Oct-18	Half Term	12-Dec-18	FOR ALL	30-Jan-19	Assessment	20-Mar-19	Assessment	08-May-19	Assessment	26-Jun-19	Admin Week
06-Sep-18		25-Oct-18		13-Dec-18	UNITS	31-Jan-19	week	21-Mar-19	week	09-May-19		27-Jun-19	
07-Sep-18		26-Oct-18		14-Dec-18		01-Feb-19		22-Mar-19		10-May-19	week	28-Jun-19	
08-Sep-18		27-Oct-18		15-Dec-18		02-Feb-19		23-Mar-19		11-May-19		29-Jun-19	
09-Sep-18		28-Oct-18		16-Dec-18		03-Feb-19		24-Mar-19		12-May-19		30-Jun-19	
10-Sep-18		29-Oct-18		17-Dec-18		04-Feb-19		25-Mar-19		13-May-19		01-Jul-19	
11-Sep-18	Welding/Hand	30-Oct-18	PREPARE	18-Dec-18	Christmas	05-Feb-19	PREPARE	26-Mar-19	PREPARE	14-May-19	Hand Tools	02-Jul-19	
12-Sep-18	Tools/Sheet	31-Oct-18	FOR ALL	19-Dec-18		06-Feb-19	FOR ALL	27-Mar-19	FOR ALL	15-May-19	Assessment	03-Jul-19	Taster Week
13-Sep-18	Metal Therov	01-Nov-18	UNITS	20-Dec-18	Break	07-Feb-19	UNITS	28-Mar-19	UNITS	16-May-19	week	04-Jul-19	
14-Sep-18		02-Nov-18		21-Dec-18		08-Feb-19		29-Mar-19		17-May-19		05-Jul-19	
15-Sep-18		03-Nov-18		22-Dec-18		09-Feb-19		30-Mar-19		18-May-19		06-Jul-19	
16-Sep-18		04-Nov-18		23-Dec-18		10-Feb-19		31-Mar-19		19-May-19		07-Jul-19	
17-Sep-18		05-Nov-18		24-Dec-18		11-Feb-19		01-Apr-19		20-May-19		08-Jul-19	
18-Sep-18	Welding/Hand	06-Nov-18	PREPARE	25-Dec-18	Christmas	12-Feb-19	PREPARE	02-Apr-19	Sheet Metal	21-May-19	GCSE Maths	09-Jul-19	
19-Sep-18	Tools/Sheet	07-Nov-18	FOR ALL	26-Dec-18		13-Feb-19	FOR ALL	03-Apr-19	Assessment	22-May-19		10-Jul-19	Summer Break
20-Sep-18	Metal UPK	08-Nov-18	UNITS	27-Dec-18	Break	14-Feb-19	UNITS	04-Apr-19	week	23-May-19	Catch up week	11-Jul-19	
21-Sep-18		09-Nov-18		28-Dec-18		15-Feb-19		05-Apr-19		24-May-19		12-Jul-19	
22-Sep-18		10-Nov-18		29-Dec-18		16-Feb-19		06-Apr-19		25-May-19		13-Jul-19	
23-Sep-18		11-Nov-18		30-Dec-18		17-Feb-19		07-Apr-19		26-May-19		14-Jul-19	
24-Sep-18		12-Nov-18	PREPARE	31-Dec-18		18-Feb-19		08-Apr-19		27-May-19	Bank Holiday		
25-Sep-18	PREPARE	13-Nov-18	FOR ALL	01-Jan-19	Christmas Break	19-Feb-19		09-Apr-19		28-May-19			
26-Sep-18	FOR ALL	14-Nov-18	UNITS	02-Jan-19		20-Feb-19	Half Term	10-Apr-19	Easter Break	29-May-19	Half Term		
27-Sep-18	UNITS	15-Nov-18	Staff Development	03-Jan-19	Staff Development	21-Feb-19		11-Apr-19		30-May-19			
28-Sep-18		16-Nov-18		04-Jan-19	Review Day	22-Feb-19		12-Apr-19		31-May-19			
29-Sep-18		17-Nov-18		05-Jan-19		23-Feb-19		13-Apr-19		01-Jun-19			
30-Sep-18		18-Nov-18		06-Jan-19		24-Feb-19		14-Apr-19		02-Jun-19			
01-Oct-18	PREPARE	19-Nov-18		07-Jan-19		25-Feb-19		15-Apr-19		03-Jun-19			
02-Oct-18	Staff Development	20-Nov-18	Welding	08-Jan-19	PREPARE	26-Feb-19	PREPARE	16-Apr-19		04-Jun-19	GCSE English	Ohish	
03-Oct-18	FOR ALL	21-Nov-18	Assessment	09-Jan-19	FOR ALL	27-Feb-19	FOR ALL	17-Apr-19	Easter Break	05-Jun-19		UTICH	and the second
04-Oct-18	UNITS	22-Nov-18	week	10-Jan-19	UNITS	28-Feb-19	UNITS	18-Apr-19		06-Jun-19	GCSE Maths	college:	
05-Oct-18		23-Nov-18		11-Jan-19		01-Mar-19		19-Apr-19		07-Jun-19	GCSE English	Concelle.	
06-Oct-18		24-Nov-18		12-Jan-19		02-Mar-19		20-Apr-19		08-Jun-19			
07-Oct-18		25-Nov-18		13-Jan-19		03-Mar-19		21-Apr-19		09-Jun-19		Course	Calendar
08-Oct-18		26-Nov-18		14-Jan-19		04-Mar-19	PREPARE	22-Apr-19	Bank Holiday	10-Jun-19		2020	-2021
09-Oct-18	PREPARE	27-Nov-18	PREPARE	15-Jan-19	PREPARE	05-Mar-19	FOR ALL	23-Apr-19	PREPARE	11-Jun-19	GCSE Maths		
10-Oct-18	FOR ALL	28-Nov-18	FOR ALL	16-Jan-19	FOR ALL	06-Mar-19	Staff Development	24-Apr-19	FOR ALL	12-Jun-19			
11-Oct-18	UNITS	29-Nov-18	UNITS	17-Jan-19	UNITS	07-Mar-19	UNITS	25-Apr-19		13-Jun-19	Catch up week		
12-Oct-18		30-Nov-18		18-Jan-19		08-Mar-19	01115	26-Apr-19	UNITS	14-Jun-19			
13-Oct-18		01-Dec-18		19-Jan-19		09-Mar-19		27-Apr-19		15-Jun-19			
14-Oct-18		02-Dec-18		20-Jan-19		10-Mar-19		28-Apr-19		16-Jun-19			