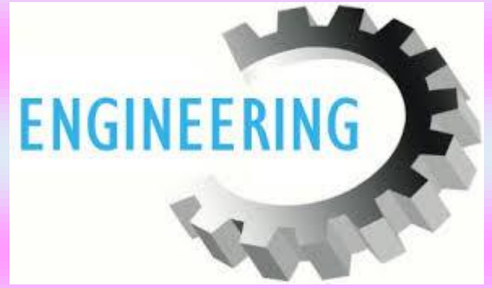
LITERACY MAT



How your Course works?

Your journey into engineering begins with the EAL Level 2 in Engineering Technology. The course is broken into:

Unit 1: Environmental Awareness - a detailed look into the engineering environment; legislations, regulations, career development and relationships.

Unit 2: Engineering Techniques – You will be taught how to produce orthographic projections, and communication effectively within teams.

Unit 3: Scientific and Mathematic principles – foundation of material studies and mathematic formulae and concepts that are at the basis of all engineering activities.

Unit 17: Fitting and Assembly Techniques – essential tool making skills, you will need to complete three practical based tasks.

Online Exam worth 50% of your qualification will solely focus on Units 1, 2 and 3.

Synoptic assessment is the remaining 50% of the qualification which will be demonstrate your practical knowledge.

Engineering Keywords?

Unit 1:

- **Legislation – laws that govern how we conduct engineering operations. Example: Health and Safety at Work Act 1974**
- **Regulations – legal framework which governs our operations in the engineering industry. Example: Manual Handling Operations Regulations 1992.**
- **Responsibility: your expected duties within the working environment.**
- **Roles: action(s) you are expected to expected to perform within the working environment.**

Unit 2:

- **Orthographic: a two dimensional drawing showing front, side and plan planes.**
- **Isometric: a three dimensional drawing of a component drawn with a 30° from the base line.**
- **Oblique: a three dimensional drawing of a component drawn from the front plane with a rise of 45° from base line.**
- **Work assembly: the way in which we can assemble the product. Examples include: welding, soldering, mechanical fixing (nuts and bolts).**
- **Communication: the way in which pass information. Examples: written (letters), verbal (talking), Electronic (emails).**

Unit 3:

- **Properties: characteristics or traits with a materials behaviour.**
- **Applications: the environment for which the material is being used.**
- **Classification: how materials are grouped based on their properties.**
- **Forms: how materials are shaped during their manufacture process.**
- **Melting point: the exact temperature which will cause a material to change from a solid to a liquid.**
- **Conduction: when a material is heated the collisions between the molecules transfer the heat long its body.**
- **Convection: when a liquid is used to as a media to transfer heat.**
- **Radiation: a method of transferring energy.**

Unit 17:

- **Alignment: when all components are centred before operations are performed. Examples include: drilling, milling, creating radii**
- **Datum: an edge used to take all measurements from, the edge must contain two right angles.**
- **Taps: special cutters used to create internal threads. Taps you will use Tapered, Intermediate and plug.**
- **Counter bore and sink: used to create a flush finish. Counter bore used for bolts and socket screws, counter sink used for counterhead scres.**

Engineering Command words?

You will need to provide evidence that meets the command-word requirements of a criterion. Below is a grid to try and help you understand the command word meaning.

Assessment word	Definition
Assess	Give careful consideration to all the factors or events that apply, and identify which are the most important or relevant.
Compare	Give the main points relating to two or more items/situations and explain the similarities and differences, and in some cases say which is best and why.
Describe	Give a clear description that includes all the important features. Think of it as 'painting a picture with words'.
Discuss	Consider different aspects of a topic, how they relate to each other and why they are important.
Evaluate	Bring together all information and review it to form conclusions, including strengths, weaknesses, other actions, data or information.
Explain	Provide details and give reasons and/or evidence to support an argument.
Identify	Indicate the main features or purpose of something.
Outline	Write a clear description, but not a detailed one.

Connectives

Time (when)	Place (where)	Manner (how)	Cause (why)	Adding (joining alike)	Contrasting (comparing)
after	where	as if	although	and	alternatively
as soon as	wherever	by	as a result	also	but
at first		like	because	as well as	except for
at once		likewise	by	besides	however
before			consequently	in addition	in contrast
finally			despite	including	if not … then
meanwhile			in case	moreover	instead of
next			in order that	similarly	on the other hand
now			in that case		or
now that			in this way		whereas
since			otherwise		
then			since		
until			so		
when			so as to		
while			so that		
			therefore		
			though		
			thus		
			to that end		
			unless		
			yet		