Course aims

Delegates will be provided with a working understanding of the range of manufacturing processes used in aircraft production (concentrating on metals). The objective of the course is to facilitate and enhance communications between departments within aerospace supplier organisations and up and down supply chains.

Who should attend

The course has been designed for staff with some understanding of aerospace materials and processes, who need to interact with colleagues, suppliers and customers through a shared understanding of the technology. It is equally suited to staff who specialise in some aspects of manufacture but are less knowledgeable in others.

Find out more: For further information please contact

T: 0114 222 4446   E: cpd@amrctraining.co.uk   W: amrctraining.co.uk
Manufacturing Processes for Aerospace

Shape Forming
- Casting
- Forging
- Superplastic and hydroforming
- Extrusion
- Pressing and bending

Metal Powders and 3D Printing
- Rapid prototyping
- Stereolithography
- Fused deposition modelling
- Laminated object modelling
- Powder processing
- Selective laser sintering
- Metal injection moulding
- Hot isostatic pressing

Cutting and Machining
- Turning
- Milling
- Drilling
- Grinding
- EDM, water, laser and plasma cutting

Joining Technologies
- MIG, TIG and MAG welding
- Electron beam and laser beam welding
- Friction stir and diffusion bonding
- Soldering and brazing

Surface Modifications and Coatings
- Vapour deposition (PVD and CVD)
- Laser deposition
- Thermal and plasma spraying
- Powder coating
- Electroplating

Heat Treatment
- Why do we heat treat?
- What does heat treatment do?
- How is it done?

LEARNING OUTCOMES
- Communicate more effectively with colleagues, suppliers and customers
- Appreciate the benefits and disadvantages of a variety of shape-forming technologies
- Understand the opportunities offered by 3D printing / additive layer manufacturing
- Deeper insight into the reasons and methodologies for heat treatment of metals
- Gain a working understanding of a wide range of cutting and joining technologies
- Recognise the benefits of surface modifications and coatings