

Sustainable Manufacturing & Circular Economy Practices

COURSE OVERVIEW

This course explores innovative approaches to designing, producing and managing industrial systems that minimize waste, optimize resource use and promote environmental responsibility. The course integrates case studies and best practices that demonstrate how industries can create long term value while reducing their environmental footprint and enhancing operational efficiency. Participants will gain insight into the principles of sustainable manufacturing, life cycle assessment, cleaner production, eco design and the transition from a linear to a circular economy.

WHO SHOULD ATTEND?

This course is designed for manufacturing engineers, operations managers, sustainability professionals, environmental consultants, policy advisors and anyone involved in industrial production, supply chain management or sustainability planning.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Understand the core concepts of sustainable manufacturing and circular economy frameworks.
- Evaluate the environmental impact of manufacturing processes using life cycle assessment tools.
- Develop and implement strategies for waste minimization, resource recovery, and product longevity.
- Integrate circular economy models into business and production systems for enhanced sustainability.
- Identify policy, economic, and technological drivers that support sustainable manufacturing initiatives.
- Leverage innovation and green technologies to improve efficiency and reduce carbon footprint.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Principles of sustainable manufacturing focused on reducing waste.
- The circular economy's role in extending product and material lifecycles.
- How to design products for reuse, repair, and recyclability.
- Strategies for integrating renewable energy and reducing emissions.
- Building resilient supply chains through resource recovery and local ecosystems.
- The economic and environmental benefits of adopting circular practices.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded