Polymer – Materials Appreciation

Study Mode: Part Time

Is this course right for me?

This course is ideal if you want to gain a broad understanding of plastics and polymer materials — including their history, how they're made, and where the industry is heading. It's perfect for those working in, or looking to enter, the manufacturing or materials sectors who want to enhance their technical knowledge and practical skills. If you enjoy learning through both theory and hands-on experience, and want to better understand how to identify, process, and apply different types of polymers, this course will be a great fit.

Delivery Information

This duration of this course is 2 days

This course will run from the following dates:

- 20 January 2026
- 24 March 2026
- 12 May 2026
- 7 July 2026
- 22 September 2026
- 24 November 2026

Cost per person: £1,060

Entry Requirements

This course is appropriate for anyone involved in the plastics material selection process for development projects, staff involved in a consolidation process for materials used within existing components and also those who need knowledge of how to process these materials correctly. Specifically designed to enhance the capabilities of staff contributing to new development projects and existing manufacturing using plastics materials. In particular:

- Product Development Engineers
- Process Engineers
- Production Managers
- Tooling Design Engineers
- Project Development Managers
- Product Design Engineers

What will I learn?

By attending this course, you will:

- Develop a general understanding of the most common polymer materials and their key characteristics.
- Learn about the additives used in polymers and their impact on material performance.
- Explore the processing requirements for different polymer types.
- Gain practical experience through hands-on identification testing of a range of polymers.
- Discover the history of plastics materials development and potential future trends in the industry.
- Understand the theory behind materials development through interactive discussions and tutor-led examples.
- Draw on shared experiences to reinforce key learning points and deepen your understanding.

What skills will I gain?

The prime objective of this intensive course is to provide a thorough understanding of the most common types of plastics materials and will cover their manufacture, molecular structure, additives, processing characteristics and identification methods. The programme enables attending personnel to manage material selection and consolidation exercises to reduce ongoing and future cost implications associated with raw materials and their storage. Once selected it is also important to process these materials in a manner that will ensure optimum service properties are obtained. On completion of the course the delegates will be able to:

- Understand why the mechanical properties of various materials are different
- State the chemical names, their abbreviations and common trade names for a range of materials
- Classify different polymers in various sub-sections depending upon molecular structure and service properties
- Explain the reasons why polymer melts behave as they do when processed
- Differentiate between a range of mechanical properties quoted by material suppliers
- Select materials based on their properties and additives available
- Select manufacturing processes suitable for various material types
- Describe suitable application areas for various polymer materials
- Conduct material identification test procedures using various techniques
- Contribute to future material selection and consolidation activities to reduce the cost involved

How will I be assessed?

What can I do next?

Delivery

Location: Telford Campus

Start Date:

Day:

Time:

Course Fee: 1060.00

Course Code: POL17

Study Mode: Part Time

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