Course Information

CITY OF WOLVERHAMPTON COLLEGE

Polymer - Materials Appreciation

Study Mode: | Course Level:

Is this course right for me?

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?

Attending the course will ensure that the delegates have a general understanding of the most common polymer materials, available additives, processing requirements and identification testing procedures. In addition, the course will explain the history of plastics materials development, as well as potential future developments associated with the topic.

Attending candidates will leave the course having heard the theory behind materials developments and been involved in 'hands-on' identification exercises for a range of polymers. They will also have discussed the various topic areas to draw on experiences that illustrate the key points being made throughout the course by the tutor.

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

Delivery

Location: Telford Campus
Start Date:
Day:
Time:
Course Fee:
Course Code:
Study Mode:

Apply online: **www.wolvcoll.ac.uk/apply**