

## Glass Manufacturing Management Foundation Degree Module Overview

### Management Modules (Understanding the Business):

#### ***Business Environment***

The aim of this module is to support students in developing an understanding of an organisation's relationship to the environment and the stakeholder influences upon the development of organisational objectives. Throughout the module local, national and global impacting aspects will be considered.

#### ***Data Analysis and Decision Making***

The aim of this module is to support students in developing an understanding of the use of statistical, graphical and other quantitative techniques used in business decision-making. Develop an appreciation of information systems which are used at all levels within a business organisation.

#### ***Managing Activities***

This module focuses on the effective and efficient planning and management of work activities. It provides learners with the knowledge and skills to design, implement and change operational systems to improve their effectiveness and efficiency and to achieve the desired results.

#### ***Operations Management***

This module will focus on the candidate's role in the day-to-day operational activities of their organisation. It will develop an appreciation of the contribution the candidate makes to the achievement of strategic objectives.

#### ***Organisation and Behaviour***

The aim of this module is to provide students with an introduction to the nature of organisations. The module will allow students to develop an understanding of the behaviour of people within organisations and the significance of organisational design and characteristics.

#### ***Marketing***

The aim of this module is to support students in developing an understanding of marketing issues that apply within an organisation. Throughout the module local, national and global impacting aspects will be considered.

#### ***Finance***

The aim of this module is to support students in developing a general understanding of financial and management accounting. Students should be able to use the data to analyse the financial performance of a business.

#### ***Human Resources Management***

The aim of this module is to provide students with an understanding of the context and role of human resource management. The module will focus on the diverse roles of personnel/ human resource specialists and line managers in relation to aspects of employee resourcing, employee development and employee relations. In particular the module will introduce students to human resource planning, recruitment and selection, equal opportunities, training and development, appraisal and performance management.

#### ***Performance Measurement***

The aim of this module is to support students in developing an understanding of the role performance measurement plays in the control of operational activities and behaviour.

#### ***Commercial Relationships***

The aim of this module is to support students in developing an understanding of the role commercial relationships. Students will develop an understanding of the role between customer and supplier relationships and issues with regard to internal and external aspects.

#### ***Compliance Management***

This module focuses on effective understanding and processing of information pertinent to legal compliance schemes. Awareness, efficient planning and scheduling of data, collection, collation, verification and storage of information, reporting, auditing and process management activities will be reviewed.

This will provide learners with the knowledge and skills to design and maintain data capture systems, record and verify information to auditable standards and to manage systems.

### ***Quality Management***

The aim of this module is to develop an understanding of the concept of quality and quantity management and to define it in the context of business and service operations. Learners will investigate the major quality schemes and look at the advantages and disadvantages of each in terms of the benefits to the organisation and the customers they serve.

## **Glass Manufacturing Modules:**

### ***Health & Safety***

The aim of this module will demonstrate the range of health and safety measures currently employed across the sector, what improvements are being made and the models to measure, assess and improve performance.

### ***Glass Science***

The aim of this module is to demonstrate the differences between glasses, metals and other crystalline solids and the reasons for glass formation. The physics and physical chemistry of glass forming systems will be addressed.

### ***Glass Making***

This module will focus on the informing the student about the variety of glass making raw materials available, the components they provide into the final glass composition. It will identify advantages and problems with each material and look at delivery, storage, mixing and feeding to the furnace. It will also identify the different glass types in common use and the precursory raw materials for each.

### ***Quality Control***

This module will address the various inspection techniques available for glass quality control post forming. It will cover manual, mechanical and computer based techniques for inspection and fault recognition. It will inform of common fault types, their cause and prevention. Container, flat glass and technical glass techniques will be covered.

### ***Glass Melting***

This module will explain the principles of glass melting, the requirements for containment and firing. Heating methods, and constraints, furnace types, ranges and sizes, efficiencies and the choices involved in design. It will discuss factors affecting furnace life, glass contamination and commonly encountered problems.

### ***Mould Designs***

This module will look at mould designs and materials used in hot glass contact and the techniques used to mould the glass. It will also cover mould repair and maintenance and the limitations to the mould design.

### ***Glass Properties***

Glass has a wide range of applications and the properties it imparts can dictate the scope of these applications. This module will demonstrate the limits to glass use, the failure criteria addressed in specification, and the diagnostic techniques employed post failure to establish cause. Fracture analysis, proof testing, and statistical testing and analysis will be used to demonstrate.

### ***Forming and Production***

Glass can be formed into a myriad of shapes and designs. This module will demonstrate the range of forming techniques available to glass makers. It will look at causes and prevention of common forming faults. It will also cover the 3 common types of container glass making techniques in detail and their different requirements.