



## **Module Specification**

### **Process Design and Management**

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## Part 1: Information

**Module title:** Process Design and Management

**Module code:** UFMFJM-15-M

**Level:** Level 7

**For implementation from:** 2023-24

**UWE credit rating:** 15

**ECTS credit rating:** 7.5

**Faculty:** Faculty of Environment & Technology

**Department:** FET Dept of Engineering Design & Mathematics

**Partner institutions:** None

**Field:** Engineering, Design and Mathematics

**Module type:** Module

**Pre-requisites:** None

**Excluded combinations:** None

**Co-requisites:** None

**Continuing professional development:** No

**Professional, statutory or regulatory body requirements:** None

## Part 2: Description

**Overview:** Not applicable

**Features:** Not applicable

**Educational aims:** The aim of this module is to provide students with concepts, techniques and tools to design, analyse and improve operational processes in both manufacturing and service organisations. The module also enables students to develop practical knowledge and skills. Topics include, but not limited to:

Forecasting,

Process design and analysis,

Capacity management,

Inventory management,

Resource planning and control.

**Outline syllabus:** Students will be presented with real-life service and manufacturing examples and case studies relating real or realistic situations that require analysis, decision, or both. These provide the opportunity to students to test out their understanding of the principles covered.

This module will prepare students to understand:

The main approaches and techniques of forecasting,

The tools of process design and analysis, and the different ways of process layouts,

The different strategies of managing the demand-capacity mismatches,

The importance of effectively controlling the inventory and the basic inventory models,

The technical issues of managing the core resource planning and control activities to ensure that the resources flow smoothly through processes.

### **Part 3: Teaching and learning methods**

**Teaching and learning methods:** See assessment strategy.

**Module Learning outcomes:** On successful completion of this module students will achieve the following learning outcomes.

**MO1** Demonstrate detailed knowledge of the tasks, issues and decisions that are necessary to manage processes and resources effectively

**MO2** Develop a critical understanding of the nature of demand and capacity fluctuations, and the strategies of managing the potential demand-capacity mismatches

**MO3** Evaluate the roles of inventories and basics of managing inventories in various demand settings

**MO4** Evaluate the relationship of the various planning practices of capacity planning, aggregate planning, materials requirements planning and scheduling

**MO5** Apply analytical skills and problem-solving techniques for decision making in the management of processes

**Hours to be allocated:** 150

**Contact hours:**

Independent study/self-guided study = 115 hours

Face-to-face learning = 35 hours

Total = 150

**Reading list:** The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/ufmfjm-15-m.html) via the following link <https://uwe.rl.talis.com/modules/ufmfjm-15-m.html>

## **Part 4: Assessment**

**Assessment strategy:** The assessment for this module involves a real-world case study concerning the management of processes and resources that are used to deliver either a good or service product to the customer.

Students are expected to work on an individual report of 2500 words in length to

evaluate the theoretical concepts encountered within the module and apply them to a real-world problem.

The referred assignment will involve a reworking of the original report based on the feedback received from the initial submission. The length of the report is 2500 words.

**Assessment tasks:**

**Report - Component A (First Sit)**

Description: Individual report (2500 words)

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5

**Report - Component A (Resit)**

Description: Individual report (2500 words)

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested:

**Part 5: Contributes towards**

This module contributes towards the following programmes of study:

Engineering Management [Frenchay] MSc 2023-24

Engineering Management [Frenchay] MSc 2023-24

Engineering Management [GCET] MSc 2023-24

Engineering Management [GCET] MSc 2023-24