

**SCHOOL OF MANAGEMENT**  
**Course Specification 2011/12**

<b>Code:</b>	MN203 1B	<b>Course Value:</b>	1	<b>Status:</b>	Core (Science for Management) Optional (Management)				
<b>Title:</b>	Production and Operations Management			<b>Availability:</b>	Autumn/Spring				
<b>Prerequisites:</b>	MN101 5B & MN102 5A (Equivalent)			<b>Recommended:</b>	None				
<b>Co-ordinator:</b>	Dr Alan Pilkington								
<b>Course Staff</b>	Dr Alan Pilkington, Dr Adrian Coronado, Ms Roberta Bernardi								
<b>Aims:</b>	<p>Production and operations management is concerned with the design, planning and control of operating systems for the provision of goods and services. This course will provide the student with an insight not only into the tools and techniques used in the development of operational systems but more importantly into the factors that affect the choice of operating methods.</p> <p>The course examines the different approaches to the planning cycle (product development, operating system and facility design) with reference to the strategic aims of the organisation. It also looks at the many different production control techniques: capacity planning, push and the Japanese perfected pull (just-in-time) systems and their effect on the effectiveness and efficiency of the organisation.</p>								
<b>Learning Outcomes:</b>	<ul style="list-style-type: none"> <li>❖ identify strategic factors implicated in the choice of operating methods,</li> <li>❖ debate the merits and limitations of specific tools and techniques, and their implementation.</li> </ul>								
<b>Course Content:</b>	<p>New Product Design Design of the Operations Network Processes, Layouts and Flow Inventory Planning and Control MRP/MRP II Just in Time Inventory Management (JIT) Quality Planning and Control Operations management systems (ISO 9000) TQM Failure Prevention and Recovery Supply Chain Planning and Control Business Process Management Work Study</p>								
<b>Teaching &amp; Learning Methods</b>	<p>Lectures take place on Fridays at 3pm. The first lecture is on <b>Friday 7<sup>th</sup> October 2011</b>. Workshops take place on Thursdays and Fridays. You will be allocated to a workshop in advance. If your allocated workshop is at the same time as another lecture or workshop you can be placed in a different workshop that fits in with your timetable. You can only change workshops in the event of a timetable clash. Change of workshop forms are available from the Management Reception. The first workshops will be held on <b>Thursday 27<sup>th</sup> and Friday 28<sup>th</sup> October 2011</b>.</p>								
<b>Key Bibliography:</b>	<p>S. Paton, B. Clegg, J. Hsuan, A. Pilkington, (2011), <i>Operations Management</i>, McGraw Hill. Buy this text if you are going to purchase new. Almost any other operations management text is also acceptable if you are buying second hand or using the library (<b>658.5 OPE</b>).</p>								
<b>In-course Feedback:</b>	<p>Feedback to students will be provided during workshops and via the multiple choice tests. The Standard School of Management course evaluation forms will also be distributed for students to provide feedback to staff at the end of the course.</p>								
<b>Assessment:</b>	<p>Is on the basis of:</p> <table style="margin-left: 40px; border: none;"> <tr> <td>Multiple Choice Tests x 3</td> <td style="text-align: right;">(30%)</td> </tr> <tr> <td>End of year examination</td> <td style="text-align: right;">(70%)</td> </tr> </table>					Multiple Choice Tests x 3	(30%)	End of year examination	(70%)
Multiple Choice Tests x 3	(30%)								
End of year examination	(70%)								

The information contained in this course outline is correct at the time of publication, but may be subject to change as part of the Department's policy of continuous improvement and development. Every effort will be made to notify you of any such changes.

# MN203 1A Production and Operations Management 2011/2012

## Lecturers:

Dr Alan Pilkington Room MX30

[a.pilkington@rhul.ac.uk](mailto:a.pilkington@rhul.ac.uk)

Dr Adrian Coronado

Ms Roberta Bernardi

Surgery hours for the lecturers will be posted outside the Management Reception and on the notice boards outside the lecturers' rooms. Should you need to discuss your work with your tutor please keep to these times, alternatively you may see them at the end of the lecture. Lecturers can be contacted via their e-mail addresses.

## Brief Outline and Aims of the Course

Production and operations management is concerned with the design, planning and control of operating systems for the provision of goods and services. This course will provide you with an insight not only into the tools and techniques used in the development of operational systems but more importantly into the factors that affect the choice of operating methods.

The course examines the different approaches to the planning cycle (product development, operating system and facility design) with reference to the strategic aims of the organisation. It also looks at the many different production control techniques: capacity planning, push and the Japanese perfected pull (just-in-time) systems and their effect on the effectiveness and efficiency of the organisation.

## Learning Outcomes

By the end of the module you should be able to:

- ❖ identify strategic factors implicated in the choice of operating methods,
- ❖ debate the merits and limitations of specific tools and techniques, and their implementation.

## Organisation

Lectures take place on Fridays at 3pm. **The first lecture is on Friday 7<sup>th</sup> October 2011.**

Workshops take place on Thursdays and Fridays (covering material from the previous week's lecture). You will be allocated to a workshop in advance. If your allocated workshop is at the same time as another lecture or workshop you can be placed in a different workshop that fits in with your timetable. You can only change workshops in the event of a timetable clash. Change of workshop forms are available from the Management Reception (see timetable for times and venues). **The first workshops will be held on Thursday 27<sup>th</sup> and Friday 28<sup>th</sup> October 2011.**

## Assessment

Is on the basis of:	End of year examination	(70%)
	Multiple Choice Tests x 3	(30%)

The test will be open for the Friday of the relevant week. You will have 45 minutes to complete the test in one continuous attempt. Ensure you have the dates in you diary: *Friday 4<sup>th</sup> November, Friday 2nd December and Friday 2nd March.*

## Course materials

Materials for this and other courses, including all lecture notes, together with the current course outlines are available from the MN203 pages of the School of Management moodle Site. The site also contains sample multiple choice questions and past exam papers with worked answers

to numerical questions. Questions for the workshops are generally to be found at the end of the each set of lecture notes.

## **Reading and Research**

You are expected to undertake your own independent reading and research in order to maintain your progress in this course.

### *Textbook*

As a minimum you should read the text book chapter(s) recommended for each lecture.

The recommended textbook is:

S. Paton, B.Clegg, J. Hsuan, A. Pilkington, (2011), *Operations Management*, McGraw Hill.

This is a brand new textbook which is very current and contains many small cases and worked examples to help develop your understanding of the subject. In addition to the above, the publishers have provided useful additional resources to accompany the textbook on their web site, details of which are included in the textbook.

Other operations management textbooks are perfectly acceptable if you are buying second hand or using the library (**658.5 OPE/ and 338.755 OPE**), but you will need to use the index to find the relevant parts to study.

### *Additional reading and research*

You will find it helpful to undertake additional reading to support your studies and to pursue any areas that you find particularly interesting. You will find relevant papers in the following journals, which should be available via the library system:

- Journal of Operations Management
- International Journal of Operations and Production Management
- Production and Operations Management
- Production Planning and Control
- Technology Analysis and Strategic Management
- Journal of Manufacturing Technology Management
- Journal of Technology Management

Some papers in the following journals are also relevant:

- Journal of Engineering and Technology Management
- Journal of Product Innovation Management
- Long Range Planning
- Omega
- Research Policy
- California Management Review
- Harvard Business Review
- Journal of Management Studies
- Academy of Management Journal
- Administrative Science Quarterly
- Project Management
- International Journal of Quality & Reliability Management
- International Journal of Service Industry Management

*At a glance table of lectures and workshops*

<b>Week commencing</b>	<b>Lecture</b> <i>Fridays 3-4pm</i>	<b>Workshop</b> <i>Thursdays 11 am, 12pm, 1pm, Fridays 10am, 11am, 1pm, 2pm</i>
<b>Autumn Term 2011</b>		
<b>3rd October</b>	Introduction	<i>No workshop</i>
<b>10<sup>th</sup> October</b>	Design of the Operations Network	<i>No workshop</i>
<b>17<sup>th</sup> October</b>	Processes, Layouts and Flow	<i>No workshop</i>
<b>24<sup>th</sup> October</b>	New Product Design	Case study: Taking a Cottage Industry into the 21st Century
<b>31<sup>st</sup> October</b>	<b><i>Multiple Choice Test 1 Friday 4<sup>th</sup> November</i></b>	Location Problems
<b>7<sup>th</sup> November</b>	Inventory Planning and Control	Line Balancing exercise
<b>14<sup>th</sup> November</b>	Dependent Demand Inventory Control (MRP/MRP II)	Economic Order Quantity exercise
<b>21<sup>st</sup> November</b>	Lean Management (JIT)	MRP Calculation
<b>28<sup>th</sup> November</b>	<b><i>Multiple Choice Test 2 Friday 2<sup>nd</sup> December</i></b>	Kanban Calculation
<b>5<sup>th</sup> December</b>		<i>No workshop</i>
<b>Spring Term 2012</b>		
<b>9<sup>th</sup> January</b>	Supply Chain Planning	<i>No workshop</i>
<b>16<sup>th</sup> January</b>	Supply Chain Management	<i>No workshop</i>
<b>23<sup>rd</sup> January</b>	Quality Planning and Control	Case study: Carrs - Operational Efficiency in the Supply Chain
<b>30<sup>th</sup> January</b>	Quality Management Systems (ISO 9000)	Cp/Cpk - process capability exercise
<b>6<sup>th</sup> February</b>	TQM	Statistical Process Control exercise
<b>13<sup>th</sup> February</b>	Business Process Performance Management	Case study: Waterlander Hotel
<b>20<sup>th</sup> February</b>	Future Directions in Operations Management	Utilization and capacity exercise
<b>27<sup>th</sup> February</b>	<b><i>Multiple Choice Test 3 Friday 2<sup>nd</sup> March</i></b>	<i>No workshop</i>
<b>5<sup>th</sup> March</b>	Exam Revision class	<i>No workshop</i>

## Lecture Schedule

### Autumn Term

	Introduction
--	--------------

The spectrum of Manufacturing Processes and Service Operations, World Class Operations Strategies

Reading: Introduction, Chapter 1, and 2.

	Design of the Operations Network
--	----------------------------------

Vertical integration, location, long term capacity management

Reading: Chapter 4 and 7.

	Processes, Layouts and Flow
--	-----------------------------

Flow Diagrams, Bottlenecks, Line Balance, Layouts.

Reading: Chapter 6 and 7.

	New Product Design
--	--------------------

Technological Change and Innovation, stages of design, Japanese Product Development

Reading: Chapter 3 and 5.

	<i>Multiple Choice Test 1</i>
--	-------------------------------

	Inventory Planning and Control
--	--------------------------------

What is inventory? Order/Re-order, inventory analysis

Reading: Chapter 9.

	Dependent Demand Inventory Control (MRP/MRP II)
--	---

MRP, MRP II, ERP

Reading: Chapter 9.

	Lean Management (JIT)
--	-----------------------

Philosophy, techniques, JIT in services

Reading: Chapter 10.

	<i>Multiple Choice Test 2</i>
--	-------------------------------

### Spring term

	Supply Chain Planning
--	-----------------------

Purchasing and supplier relationships

Reading: Chapter 4

	Supply Chain Management
--	-------------------------

Supply Chain Management and Relationships  
Reading: Chapter 8

	Quality Planning and Control
--	------------------------------

Quality: a revolution? Inspection, process control, quality systems  
Reading: Chapter 13

	Quality Management Systems (ISO 9000)
--	---------------------------------------

Measuring performance, improvement techniques  
Reading: Chapter 13

	TQM
--	-----

Total Quality Management, Deming  
Reading: Chapter 13

	Business Process Performance Management
--	---

Analysing and improving capacity and utilisation.  
Reading: Chapter 12

	Future Directions in Operations Management
--	--

Future perspectives on the management of operations.  
Reading: Chapter 12 and 14

	<i>Multiple Choice Test 3</i>
--	-------------------------------

	Revision class
--	----------------

This lecture will provide guidance on the requirements of the course examination. (Past papers with worked answers to numerical questions can be found on the course website).

**N.B. Please ensure that you keep all course outlines as they will prove valuable in obtaining exemptions for postgraduate qualifications, e.g. CIMA and useful for future employers. Note that the Department only keeps previous year's outlines for a limited period.**