



# University of Pretoria Yearbook 2022

## Operational management 310 (BOB 310)

<b>Qualification</b>	Undergraduate
<b>Faculty</b>	<a href="#">Faculty of Engineering, Built Environment and Information Technology</a>
<b>Module credits</b>	16.00
<b>NQF Level</b>	07
<b>Programmes</b>	<a href="#">BEng (Industrial Engineering)</a> <a href="#">BEng (Industrial Engineering) ENGAGE</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 practicals per week, 4 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Department</b>	Industrial and Systems Engineering
<b>Period of presentation</b>	Semester 1

### Module content

Introduction to operations management, operations strategy and competitiveness. World-class and agile manufacturing. Operations planning in the service industries. The manufacturing management environment. Batching principles (EOQ and DEL). Manufacturing planning and control systems. Sales and operations planning. Capacity planning and control. Demand management. Master production scheduling. Materials requirements planning (MRP). Distribution requirements planning. Just-in-time (JIT) manufacturing. Synchronous manufacturing (Theory of constraints). Comparing MRP, JIT and TOC. Shop-floor scheduling and control. Integration and implementation of manufacturing planning and control systems. Enterprise Resource Planning (ERP) systems. Business process transformation.

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