

Name of the course	Operation Management
Course Code	405
Semester	VIII
Credit Hours	3
Prerequisite	-
Learning outcomes	<p>On completion of this course, the students will be able to:</p> <ol style="list-style-type: none"> 1. Understand the administration of business practices to create the highest level of efficiency possible within an organization. 2. Build the theoretical ideas of converting materials and labor into goods and services as efficiently as possible to maximize the profit of an organization. <p>Develop theoretical ideas as to how operations management teams attempt to balance costs with revenue to achieve the highest net operating profit possible.</p>
Contents	<p>Unit-1 Introduction</p> <ol style="list-style-type: none"> 1.1 Introduction to operations management 1.2 Competitiveness, strategy and productivity <p>Unit-2 Operations Management Models</p> <ol style="list-style-type: none"> 2.2 Forecasting 2.3 Decision Making 2.4 Transportation models 2.5 Waiting lines models 2.6 Learning curves <p>Unit-3 System Design</p> <ol style="list-style-type: none"> 3.1 Product and Service Design: Reliability 3.2 Strategic Capacity Planning for Products and Services: Decision Theory

	<p>3.3 Process Selection and Facility Layout: Linear Programming</p> <p>3.4 Design of work systems: Learning Curves</p> <p>3.5 Location Planning and Analysis: The Transportation Model</p> <p>Unit-4 Quality</p> <p>4.1 Management of Quality</p> <p>4.2 Quality Control: Acceptance Sampling</p> <p>Unit-5 Inventory Management and Scheduling</p> <p>5.1 Inventory Management</p> <p>5.2 Aggregate Planning</p> <p>5.3 MRP and ERP</p> <p>5.4 JIT and Lean Operations: Maintenance</p> <p>5.5. Scheduling</p> <p>Unit-6 Supply Chain Management</p> <p>6.1 Supply Chain Strategies</p> <p>6.2 Vendor selection, Internet purchasing, Supplier quality and reliability</p> <p>6.3 Benchmarking</p> <p>6.4 Types of Facilities and location analysis techniques</p> <p>6.5 Transportation and distribution system</p> <p>Unit-7 Project Management</p> <p>7.1 Waiting Lines and Simulations</p> <p>Unit-8 Layout Strategy</p> <p>8.1 Basics layouts</p> <p>8.2 Designing process layouts</p> <p>8.3 Designing product layouts</p> <p>8.4 Warehousing and storage layouts</p> <p>8.5 Assembly line balancing</p> <p>8.6 Hybrid layouts</p>
Teaching & Learning Strategies	A combination of lecturing, presentations, and discussions will be used to conduct the course. Students will be expected to read extensively ahead of each class session and actively participate in discussions and practical work.
Assignment	Written assignment (10 marks), presentation (5 marks) and Quiz (10 marks)
Suggested Readings	<p>Heizer, J., Render, B., & Munson, C. (2008). <i>Operations management</i>. Prentice-Hall.</p> <p>Heizer, J., Render, B., & Munson, C. (2014). <i>Operations management sustainability and supply chain management</i> (11 ed.). Pearson.</p> <p>Meredith, J. R., & Shafer, S. M. (2002). <i>Operations management for MBAs</i>. John Wiley & Sons. Inc.</p> <p>Russell, R. S., & Taylor, B. W. (2014). <i>Operations and supply chain management</i>. John Wiley & Sons.</p> <p>Stevenson, W. J. (2018). <i>Operations management</i> (12th ed.). McGraw-Hill Education.</p>

Assessment and Examinations

Sr. #	Elements	Weightage	Details
1	Midterm Assessment	35%	Written test (at the mid-point of the semester)
2	Formative Assessment	25%	Assignment, presentation and quiz
3	Final Assessment	40%	Written test (at the end of the semester)