

**DEPARTMENT OF TECHNOLOGY EDUCATION, IER**  
**UNIVERSITY OF THE PUNJAB, LAHORE-PAKISTAN**  
**Course Outline**

<b>Programme</b>	BS Technology Education	<b>Course Code</b>	BSTE313	<b>Credit Hours</b>	3
<b>Course Title</b>	<b>Industrial Management</b>				
<b>Course Introduction</b>					
This course introduces students to the fundamental concepts and practices of industrial management. The course covers various aspects of managing industrial operations, including production planning, quality control, supply chain management, human resources, and financial management. Emphasis is placed on practical applications and real-world case studies.					
<b>Learning Outcomes</b>					
On the completion of the course, the students will:					
<ol style="list-style-type: none"> <li>1. Understand the basic concepts and principles of industrial management.</li> <li>2. Apply management techniques to improve production efficiency and quality.</li> <li>3. Develop and implement effective supply chain management strategies.</li> <li>4. Manage human resources in an industrial setting.</li> <li>5. Utilize financial management tools to make informed business decisions.</li> <li>6. Analyze and solve industrial management problems using case studies.</li> </ol>					
<b>Course Content</b>				<b>Assignments/Readings</b>	
<b>Week 1</b>	<b>Introduction to Industrial Management</b>			Reflective essay on the importance of industrial management	
	<ul style="list-style-type: none"> <li>• <b>Unit 1.1:</b> Overview of Industrial Management</li> <li>• <b>Unit 1.2:</b> Key Concepts and Principles</li> </ul>				
<b>Week 2</b>	<b>Production Planning and Control</b>			Develop a simple production plan for a hypothetical product	
	<ul style="list-style-type: none"> <li>• <b>Unit 2.1:</b> Basics of Production Planning</li> <li>• <b>Unit 2.2:</b> Production Control Techniques</li> </ul>				
<b>Week 3</b>	<b>Quality Management</b>			Research and present on the history and evolution of quality management	
<ul style="list-style-type: none"> <li>• <b>Unit 3.1:</b> Introduction to Quality Management</li> </ul>					

	<ul style="list-style-type: none"> <li>• <b>Unit 3.2:</b> Quality Control and Assurance</li> </ul>	
<b>Week 4</b>	<p style="text-align: center;"><b>Supply Chain Management</b></p> <ul style="list-style-type: none"> <li>• <b>Unit 4.1:</b> Basics of Supply Chain Management</li> </ul>	Map out a supply chain for a specific product
	<ul style="list-style-type: none"> <li>• <b>Unit 4.2:</b> Supply Chain Strategies</li> </ul>	
<b>Week 5</b>	<p style="text-align: center;"><b>Inventory Management</b></p> <ul style="list-style-type: none"> <li>• <b>Unit 5.1:</b> Introduction to Inventory Management</li> </ul>	Develop an inventory management plan for a small business
	<ul style="list-style-type: none"> <li>• <b>Unit 5.2:</b> Techniques and Tools for Inventory Control</li> </ul>	
<b>Week 6</b>	<p style="text-align: center;"><b>Human Resource Management in Industry</b></p> <ul style="list-style-type: none"> <li>• <b>Unit 6.1:</b> Basics of Human Resource Management</li> </ul>	Write a report on the role of HR in industrial management
	<ul style="list-style-type: none"> <li>• <b>Unit 6.2:</b> Recruitment, Training, and Development</li> </ul>	
<b>Week 7</b>	<p style="text-align: center;"><b>Financial Management in Industry</b></p> <ul style="list-style-type: none"> <li>• <b>Unit 7.1:</b> Basics of Financial Management</li> </ul>	Analyze a basic financial statement of a manufacturing company
	<ul style="list-style-type: none"> <li>• <b>Unit 7.2:</b> Budgeting and Cost Control</li> </ul>	
<b>Week 8</b>	<p style="text-align: center;"><b>Project Management</b></p> <ul style="list-style-type: none"> <li>• <b>Unit 8.1:</b> Introduction to Project Management</li> </ul>	Research and present on the stages of project management
	<ul style="list-style-type: none"> <li>• <b>Unit 8.2:</b> Tools and Techniques for Project Management</li> </ul>	
<b>Week 9</b>	<p style="text-align: center;"><b>Industrial Safety and Health Management</b></p> <ul style="list-style-type: none"> <li>• <b>Unit 9.1:</b> Importance of Safety and Health in Industry</li> </ul>	Write a report on safety regulations in the industrial sector
	<ul style="list-style-type: none"> <li>• <b>Unit 9.2:</b> Developing Safety Programs</li> </ul>	
<b>Week 10</b>	<p style="text-align: center;"><b>Lean Manufacturing</b></p>	Research and present on the

	<ul style="list-style-type: none"> <li>• <b>Unit 10.1:</b> Introduction to Lean Manufacturing</li> </ul>	principles of lean manufacturing
	<ul style="list-style-type: none"> <li>• <b>Unit 10.2:</b> Implementing Lean Practices</li> </ul>	
<b>Week 11</b>	<p style="text-align: center;"><b>Technology in Industrial Management</b></p> <ul style="list-style-type: none"> <li>• Role of Technology in Industry</li> </ul>	Write a report on the impact of technology on industrial management
	<ul style="list-style-type: none"> <li>• <b>Unit 11.2:</b> Emerging Technologies</li> </ul>	
<b>Week 12</b>	<p style="text-align: center;"><b>Industrial Relations</b></p> <ul style="list-style-type: none"> <li>• <b>Unit 12.1:</b> Basics of Industrial Relations</li> </ul>	Write a report on the importance of industrial relations
	<ul style="list-style-type: none"> <li>• <b>Unit 12.2:</b> Conflict Resolution</li> </ul>	
<b>Week 13</b>	<p style="text-align: center;"><b>Strategic Management in Industry</b></p> <ul style="list-style-type: none"> <li>• <b>Unit 13.1:</b> Introduction to Strategic Management</li> </ul>	Develop a strategic plan for a hypothetical company
	<ul style="list-style-type: none"> <li>• <b>Unit 13.2:</b> Case Studies in Strategic Management</li> </ul>	
<b>Week 14</b>	<p style="text-align: center;"><b>Environmental Management in Industry</b></p> <ul style="list-style-type: none"> <li>• <b>Unit 14.1:</b> Introduction to Environmental Management</li> </ul>	Write a report on environmental regulations affecting industry
	<ul style="list-style-type: none"> <li>• <b>Unit 14.2:</b> Sustainable Practices in Industry</li> </ul>	
<b>Week 15</b>	<p style="text-align: center;"><b>Industrial Management Trends</b></p> <ul style="list-style-type: none"> <li>• <b>Unit 15.1:</b> Current Trends in Industrial Management</li> </ul>	Research and present on current trends in industrial management
	<ul style="list-style-type: none"> <li>• <b>Unit 15.2:</b> Future Directions</li> </ul>	
<b>Week 16</b>	<p style="text-align: center;"><b>Course Review and Final Assessment</b></p> <ul style="list-style-type: none"> <li>• <b>Unit 16.1:</b> Review of Key Concepts and Themes</li> </ul>	Group presentation summarizing key learning from the course
	<ul style="list-style-type: none"> <li>• <b>Unit 16.2:</b> Comprehensive Final Exam</li> </ul>	
<b>Textbooks and Reading Material</b>		

**1. Textbooks.**

- Operations Management by William J. Stevenson

**2. Suggested Readings**

- Industrial Management and Organization by S. C. Sharma and T.R. Banga

**Teaching Learning Strategies**

1. **Lectures:** To introduce and explain key concepts and theories.
2. **Hands-on Labs:** To provide practical experience with robotics components and programming.
3. **Assignments and Projects:** To reinforce learning and encourage application of concepts in real-world scenarios.
4. **Group Discussions:** To facilitate peer learning and collaborative problem-solving.

**Assessment**

Sr. No.	Elements	Weight age	Details
1.	Midterm Assessment	35%	Written Assessment at the mid-point of the semester.
2.	Formative Assessment	25%	Continuous assessment includes: Classroom participation, assignments, presentations, viva voce, attitude and behavior, hands-on-activities, short tests, projects, practical, reflections, readings, quizzes etc.
3.	Final Assessment	40%	Written Examination at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.

