

## Scheme of Studies

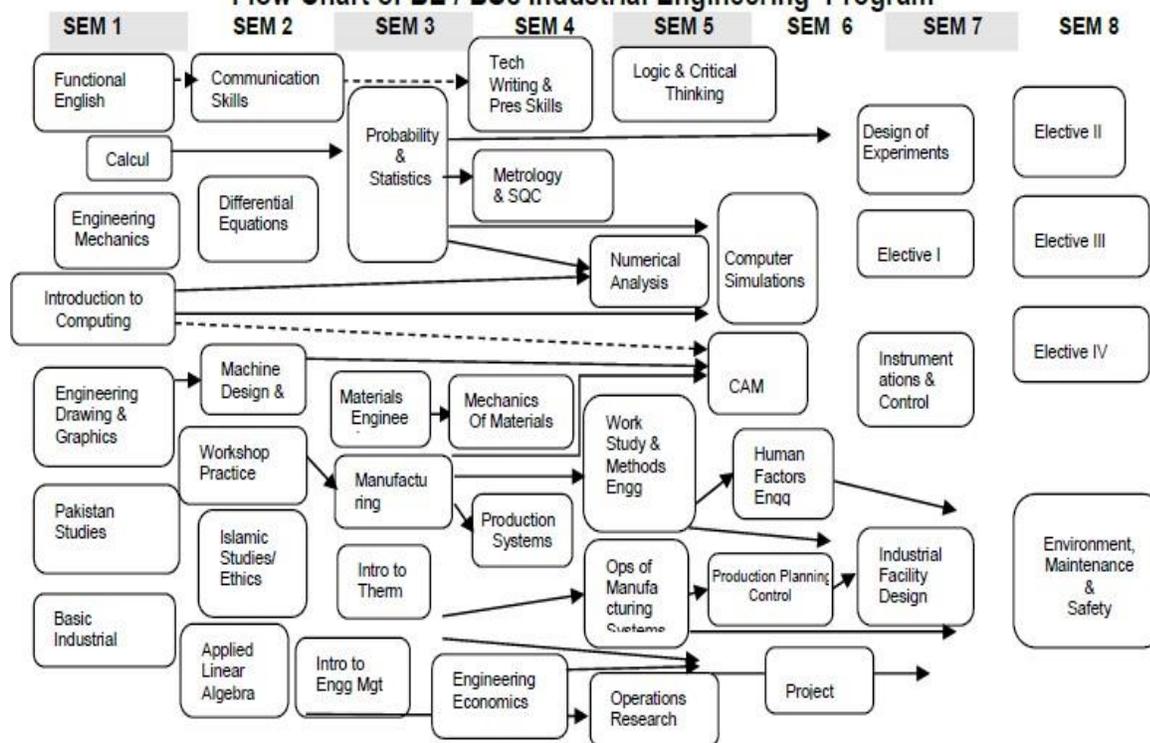
### SCHEME OF STUDIES & FLOW CHART (BE/BSC)

Course Title	Lec	Lab	Total	Course Title	Lec	Lab	Total
<b>First Year</b>							
<b>Sem 1</b>			<b>Sem 2</b>				
English Composition and Comprehension	3	0	3	Presentation & Communication Skills	3	0	3
Basic Industrial Electronics	2	1	3	Differential Equations	3	0	3
Islamic Studies/Ethics	2	0	2	Introduction to Computing	0	1	1
Engineering Drawing and Graphics	0	2	2	Workshop Practice	0	1	1
Introduction to Computing	2	0	2	Materials Engineering	3	1	4
Engineering Mechanics	2	1	3	Pakistan Studies	2	0	2
Calculus	3	0	3	Applied Linear Algebra	3	0	3
<b>Total</b>	<b>14</b>	<b>4</b>	<b>18</b>	<b>Total</b>	<b>14</b>	<b>3</b>	<b>17</b>
<b>First Year Credit Hours</b>	<b>35</b>						
<b>Second Year</b>							
<b>Sem 3</b>			<b>Sem 4</b>				
Engineering Management	3	0	3	Engineering Economics*	3	0	3
Probability and Statistics	3	0	3	Metrology and Statistical Quality Control	3	1	4
Logical and Critical Thinking*	3	0	3	Machine Design and CAD	2	1	3
Introduction to Thermo-fluids	3	1	4	Manufacturing Systems	3	1	4
Mechanics of Materials	3	1	4	Technical Writing and Presentation	3	0	3
<b>Total</b>	<b>15</b>	<b>2</b>	<b>17</b>	<b>Total</b>	<b>14</b>	<b>3</b>	<b>17</b>
<b>Second Year Credit Hours</b>	<b>34</b>						
<b>Third Year</b>							
<b>Sem 5</b>			<b>Sem 6</b>				
Operation of Manufacturing Systems	3	1	4	Industrial System Simulations	2	1	3
Numerical Analysis and Computer Applications	2	1	3	Human Factors Engineering	2	1	3
Manufacturing Processes	3	1	4	Project Management	2	1	3
Operation Research	3	1	4	Production Planning and Control	2	1	3
Work Study and Methods Engineering	2	1	3	Computer Aided Manufacturing	2	1	3
<b>Total</b>	<b>13</b>	<b>5</b>	<b>18</b>	<b>Total</b>	<b>10</b>	<b>5</b>	<b>15</b>
<b>Third Year Credit Hours</b>	<b>33</b>						
<b>Final Year</b>							
<b>Sem 7</b>			<b>Sem 8</b>				
Design of Experiments	3	1	4	Environment, Maintenance and Safety	3	0	3
Industrial Facilities Design	2	1	3	Elective II	3	1	4
Instrumentation and Control**	3	1	4	Elective III	3	0	3
Elective I	3	0	3	Elective IV	3	1	4
Project Phase I	0	3	3	Project Phase II	0	3	3
<b>Total</b>	<b>11</b>	<b>6</b>	<b>17</b>	<b>Total</b>	<b>12</b>	<b>5</b>	<b>17</b>
<b>Final Year Credit Hours</b>	<b>34</b>						
<b>Total Credit Hours</b>	<b>136</b>						

**List of Electives**

<b>Manufacturing Track</b>			<b>Management Track</b>		
<b>Course Name</b>	<b>CH</b>	<b>Lab</b>	<b>Course Name</b>	<b>CH</b>	<b>Lab</b>
Human Resource Management	3	0	Marketing Management	3	0
Computer Integrated Manufacturing	3	1	Human Resource Management	3	0
Metal Forming & Cutting Analysis	3	1	Financial Management	3	0
Tool & Die Design	3	1	Managerial Accounting	3	0
Automation & Robotics	3	1	Total Quality Management	3	0
Total Quality Management	3	0	Management Information System	3	1
Management Information System	3	1	Organizational Behaviour	3	0
Reliability Analysis	3	0	Computer Integrated Manufacturing	3	1
Special Topics	3	0	Logistics Management	3	0
Logistics Management	3	0	Special Topics	3	0
Lean Manufacturing	3	0	Business Forecasting	3	0
Virtual Reality	3	0	Business Communications	3	0
Contracts and Claims	3	0	Contracts and Claims	3	0
Entrepreneurship	3	0	Entrepreneurship	3	0

### Flow Chart of BE / BSc Industrial Engineering Program



**Legend:** Solid Arrow shows pre-requisite course, dotted arrow shows preferred knowledge