

Scheme of Studies

SCHEME OF STUDIES & FLOW CHART (BE/BSc)

Course Title	Lec	Lab	Tot	Course Title	Lec	Lab	Tot
First Year (Sem 1)				Sem 2			
English (Functional English)	3	0	3	English II (Communication Skills)	3	0	3
Basic Industrial Electronics	2	1	3	Differential Equations	3	0	3
Pakistan Studies	2	0	2	Workshop Practice	0	2	2
Engineering Drawing and Graphics	0	1	1	Machine Design & CAD	2	1	3
Introduction to Computing	2	1	3	Islamic Studies /Ethics	2	0	2
Engineering Mechanics	2	1	3	Applied Linear Algebra	3	0	3
Calculus	3	0	3				
Total	14	4	18	Total	13	3	16
First Year Credit Hours	34						
Second Year (Sem 3)				Sem 4			
Intro to Engineering Management	3	0	3	Engineering Economics *	3	0	3
Probability & Statistics	3	0	3	Mechanics of Materials	3	1	4
Manufacturing Processes	3	1	4	Metrology & Statistical Quality Control	3	1	4
Intro to Thermo-fluids **	3	1	4	Production Systems Design	3	1	4
Materials Engineering	3	1	4	English III (Technical Report Writing & Presentation)	3	0	3
Total	15	3	18	Total	15	3	18
Second Year Credit Hours	36						

**Third Year
(Sem 5)**

Sem 6

Operations of Manufacturing Systems	3	1	4	Computer Simulations	2	1	3
Numerical Analysis and Computer Applications	2	1	3	Human Factors Engg	2	1	3
Logic & Critical Thinking *	3	0	3	Project Management	3	1	4
Operations Research	3	1	4	Production Planning & Control	2	1	3
Work Study & Methods Engg	2	1	3	Computer Aided Manufacturing	2	1	3
Total	13	4	17	Total	11	5	16
Third Year Credit Hours	33						

**Final Year
(Sem 7)**

Sem 8

Design of Experiments **	3	0	3	Environment, Maintenance and Safety	3	0	3
Industrial Facilities Design	2	1	3	Elective II	3	1	4
Instrumentation & 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
Total	11	5	16	Total	12	5	17
Final Year Credit Hours	33						
Total Credit Hours	136						

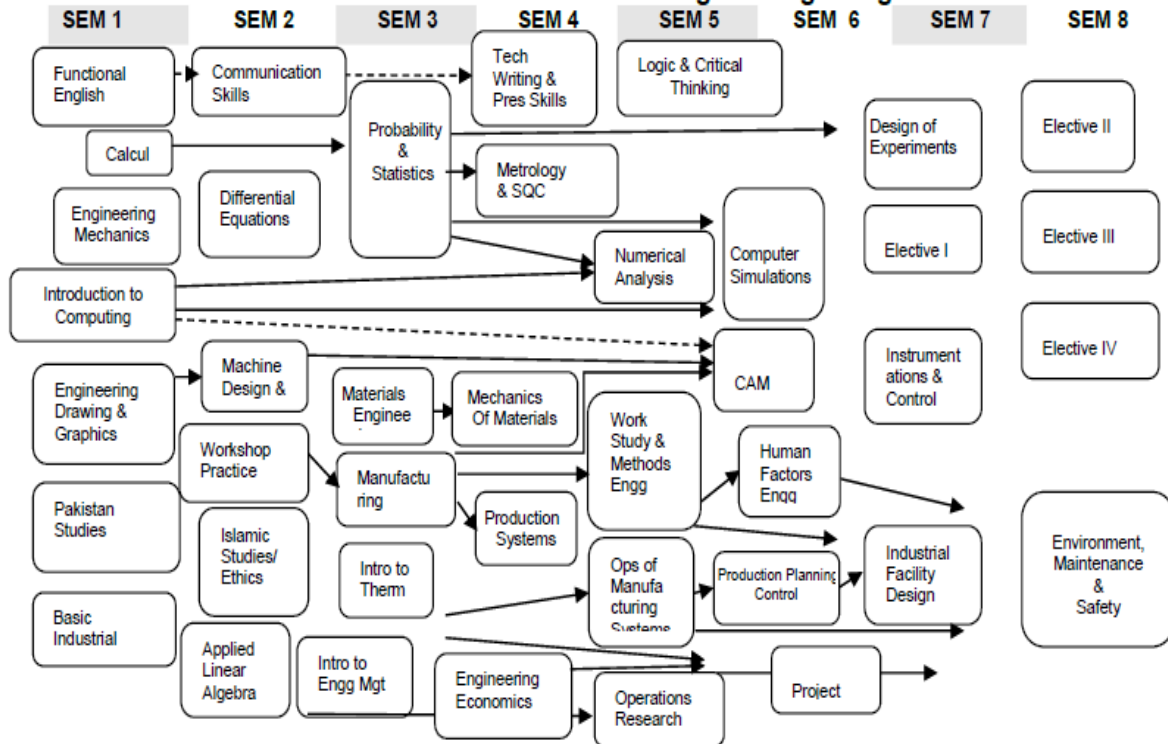
* Can be replaced by some other courses of Social Sciences

** Can be replaced by courses from other disciplines of Engineering

List of Elective Courses

Manufacturing Track				Management Track			
Human Resource Management	3	0	3	Marketing Management	3	0	3
Computer Integrated Manufacturing	3	1	4	Human Resource Management	3	0	3
Metal Forming & Cutting Analysis	3	1	4	Financial Management	3	0	3
Tool & Die Design	3	1	4	Managerial Accounting	3	0	3
Automation & Robotics	3	1	4	Total Quality Management	3	0	3
Total Quality Management	3	0	3	Management Information System	3	1	4
Management Information System	3	1	4	Organizational Behaviour	3	0	3
Reliability Analysis	3	0	3	Computer Integrated Manufacturing	3	1	4
Special Topics	3	0	3	Logistics Management	3	0	3
Logistics Management	3	0	3	Special Topics	3	0	3
Lean Manufacturing	3	0	3	Business Forecasting	3	0	3
Virtual Reality	3	0	3	Business Communications	3	0	3
Contracts and Claims	3	0	3	Contracts and Claims	3	0	3
Entrepreneurship	3	0	3	Entrepreneurship	3	0	3

Flow Chart of BE / BSc Industrial Engineering Program



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