

Course Offerings



**B. SC. INDUSTRIAL ENGINEERING
DEPARTMENT OF INDUSTRIAL ENGINEERING**

**UNIVERSITY OF ENGINEERING AND TECHNOLOGY,
PESHAWAR**

Semester No.	Courses/Group of Courses			Credit Hours (Lecture-Lab-Total)	Knowledge Area	Pre-Require Courses (If Any)
1	1	BSI-101	Islamic Studies	(2-0-2)	Humanities	None
	2	BSI-142	English Composition and Comprehension	(3-0-3)	Humanities	None
	3	IE-111	Basic Industrial Electronics	(2-1-3)	Engineering Foundation	None
	4	BSI-122	Calculus	(3-0-3)	Natural Sciences	None
	5	IE-118	Engineering Drawing and Graphics	(0-2-2)	Engineering Foundation	None
	6	IE-115	Introduction to Computing	(2-0-2)	Computing	None
	7	IE-114	Engineering Mechanics	(2-1-3)	Natural Sciences	None
Total Credit Hours				(14-4-18)		
2	1	BSI-143	Presentation and Communication Skills	(3-0-3)	Humanities	None
	2	BSI-231	Differential Equations	(3-0-3)	Natural Sciences	None
	3	BSI-111	Applied Linear Algebra	(3-0-3)	Natural Sciences	None

	4	IE-115L	Introduction to Computing	(0-1-1)	Computing	None
	5	IE-235	Materials Engineering	(3-1-4)	Engineering Foundation	None
	6	BSI-110	Pakistan Studies	(2-0-2)	Humanities	None
	7	IE-124L	Workshop Practice	(0-1-1)	Engineering Foundation	None
Total Credit Hours				(14-3-17)		
3	1	IE-251	Probability and Statistics	(3-0-3)	Natural Sciences	None
	2	IE-243	Logical and Critical Thinking	(3-0-3)	Humanities	None
	3	IE-122	Engineering Management	(3-0-3)	Management Sciences	None
	4	IE-213	Introduction to Thermo fluids	(3-1-4)	Inter disciplinary Engineering Breadth (Electives)	None
	5	IE-237	Mechanics of Materials	(3-1-4)	Engineering Foundation	Materials Engineering
Total Credit Hours				(15-2-17)		
4	1	IE-241	Engineering Economics	(3-0-3)	Humanities	None
	2	IE-223	Machine Design & CAD	(2-1-3)	Engineering Foundation	Engineering Drawing and Graphics

	3	IE-352	Manufacturing Systems	(3-1-4)	Major Based Core (Depth)	None
	4	IE-353	Metrology and Statistical Quality Control	(3-1-4)	Engineering Foundation	Probability and Statistics
	5	IE-246	Technical Writing and Presentation	(3-0-3)	Humanities	None
Total Credit Hours				(14-3-17)		
5	1	BSI-243	Numerical Analysis & Computer Applications	(2-1-3)	Natural Sciences	Probability & Statistics, Introduction to Computing
	2	IE-412	Operations of Manufacturing Systems	(3-1-4)	Major Based Core (Depth)	Engineering Management
	3	IE-244	Manufacturing Processes	(3-1-4)	Major Based Core (Depth)	Workshop Practice
	4	IE-356	Operation Research	(3-1-4)	Engineering Foundation	Applied Linear Algebra
	5	IE-355	Work Study and Methods Engineering	(2-1-3)	Engineering Foundation	Manufacturing Systems
Total Credit Hours				(13-5-18)		
6	1	IE-360	Industrial System Simulation	(2-1-3)	Computing	Introduction to Computing, Probability and Statistics
	2	IE-361	Human Factor Engineering	(2-1-3)	Major Based Core (Breadth)	Work Study and Methods Engineering

	3	IE-324	Project Management	(2-1-3)	Management Sciences	Engineering Economics, Engineering Management
	4	IE-366	Production Planning and Control	(2-1-3)	Engineering Foundation	Operations of Manufacturing Systems
	5	IE-367	Computer Aided Manufacturing	(2-1-3)	Computing	Machine Design and CAD, Manufacturing Processes
Total Credit Hours				(10-5-15)		
7	1	IE-472	Design of Experiments	(3-1-3)	Inter disciplinary Engineering Breadth (Electives)	Probability and Statistics
	2	IE-358	Industrial Facilities Design	(2-1-3)	Major Based Core (Depth)	Work Study and Methods Engineering, Production Planning and Control
	3	IE-321	Instrumentation & Control	(3-1-4)	Major Based Core (Depth)	None
	4	IE-498	Project Phase-I	(0-3-3)	Senior Design Project	None
Total Credit Hours				(11-6-17)	One elective are offered	
8	1	IE-423	Environment, Maintenance and Safety	(3-0-3)	Major Based Core (Breadth)	Human Factors Engineering, Operations of Manufacturing Systems
	2	IE-499	Project Phase-II	(0-3-3)	Senior Design Project	None
Total Credit Hours				(12-5-17)	Three electives are offered	
Electives						
	1	IE-414	Human Resource Management	(3-0-3)	Major Based Core (Breadth)	None

2	IE-416	Computer Integrated Manufacturing	(3-1-4)	Major Based Core (Breadth)	CAM, Industrial Facilities Design
3	IE-480	Metal Forming and Cutting Analysis	(3-1-4)	Major Based Core (Breadth)	Manufacturing Processes
4	IE-430	Tool and Die Design	(3-1-4)	Major Based Core (Breadth)	Mechanics of Materials
5	IE-410	Automation and Control	(3-1-4)	Major Based Core (Breadth)	Instrumentation & Control, Production Systems Design
6	IE-362	Total Quality Management	(3-1-4)	Major Based Core (Breadth)	None
7	IE-401	Management Information System	(3-1-4)	Major Based Core (Breadth)	Production Planning and Control
8	IE-425	Reliability Analysis	(3-0-3)	Major Based Core (Breadth)	Probability and Statistics
9	IE-450	Special Topics	(3-0-3)	Major Based Core (Breadth)	None
10	IE-422	Logistics Management	(3-0-3)	Major Based Core (Breadth)	Production Planning and Control