

COURSE STRUCTURE

B.Tech. Production Engineering

THIRD SEMESTER				FOURTH SEMESTER			
Theory		Contact Hrs.	CR	Theory		Contact Hrs.	CR
Course Code	Subject	L - T - P		Course Code	Subject	L - T - P	
BMA	Mathematics-III	3 - 1 - 0	4	BMA	Mathematics-IV	3 - 1 - 0	4
BHU	Organizational Behavior / Engineering Economics & Costing	3 - 1 - 0	4	BHU	Engineering Economics & Costing / Organizational Behavior	3 - 1 - 0	4
BME	Engineering Thermodynamics	3 - 1 - 0	4	BCS	Object Oriented Programming	3 - 1 - 0	4
BEE	Elements of Electrical Machines	3 - 1 - 0	4	BPE 202	Theory of Machine	3 - 1 - 0	4
BPE 201	Basic Manufacturing Processes	3 - 1 - 0	4	BPE 203	Strength of Materials	3 - 1 - 0	4
Sessional				Sessional			
BEE	Electrical Machines Lab.	0 - 0 - 3	2	BME	Thermal and Material Testing Lab.	0 - 0 - 3	2
BME	Machine Drawing	0 - 0 - 3	2	BPE 292	Dynamics and Production Engg. Lab.	0 - 0 - 3	2
BPE 291	Production Practice-I	0 - 0 - 6	4	BPE 293	Production Practice-II	0 - 0 - 3	2
				BCS	OOP Lab.	0 - 0 - 3	2
Total		15-5-12	28	Total		15-5-12	28

FIFTH SEMESTER				SIXTH SEMESTER			
Theory		Contact Hrs.	CR	Theory		Contact Hrs.	CR
Course Code	Subject	L - T - P		Course Code	Subject	L - T - P	
BPE 301	Theory of Metal Cutting	3 - 1 - 0	4	BPE 305	Production and Operation Management (PE, E & EI)	3 - 1 - 0	4
BPE 302	Materials Engg. and Metallurgy	3 - 1 - 0	4	BPE 306	Inspection and Metrology	3 - 1 - 0	4
BPE 303	Design of Machine Elements	3 - 1 - 0	4	BPE 307	Statistical Methods and Design of Experiments	3 - 1 - 0	4
BPE 304	Industrial Management and Operation Research	3 - 1 - 0	4	BPE 308	Tool Design	3 - 1 - 0	4
BME	Fluid Mechanics & Fluid Power Engineering	3 - 1 - 0	4	BPE 309	Theory of Metal Forming	3 - 1 - 0	4
Sessionals				Sessionals			
BPE 391	Production Engg. Lab.I (Metal Cutting)	0 - 0 - 3	2	BPE 394	Production Engg. Lab.II (Metrology)	0 - 0 - 3	2
BME	Hydraulic Machines Lab.	0 - 0 - 3	2	BPE 395	Production Engg. Lab.III (Simulation Lab.)	0 - 0 - 3	2
BPE 392	Optimization Laboratory	0 - 0 - 3	2	BPE 396	Production Engg. Lab.IV (Metal Forming)	0 - 0 - 3	2
BPE 393	Design of Machine Element Sessional	0 - 0 - 3	2	BPE 397	Tool Design Sessional	0 - 0 - 3	2
Total		15-5-12	28	Total		15-5-12	28

SEVENTH SEMESTER				EIGHTH SEMESTER			
Theory		Contact Hrs.	CR	Theory		Contact Hrs.	CR
Course Code	Subject	L - T - P		Course Code	Subject	L - T - P	
BPE 401	Non-Traditional Machining	3 - 1 - 0	4	BPE 409	Robotics and FMS	3 - 1 - 0	4
BPE 402	Automation and NC Machine	3 - 1 - 0	4	BPE 410	Quality Assurance and Reliability	3 - 1 - 0	4
BPE 403	Principle of Machine Tools	3 - 1 - 0	4		Elective-III	3 - 1 - 0	4
	Elective-I	3 - 1 - 0	4		Elective-IV	3 - 1 - 0	4
	Elective-II	3 - 1 - 0	4				
SESSIONALS				SESSIONALS			
BPE 491	Production Engg. Lab. V (NTM)	0 - 0 - 3	2	BPE 495	Comprehensive Viva Voce	-	2
BPE 492	CAD/CAM/Robotics Lab.	0 - 0 - 3	2	BPE 496	Major Project	0 - 0 - 3	6
BPE 493	Seminar	0 - 0 - 3	2				
BPE 494	Minor Project	0 - 0 - 3	2				
Total		15-5-12	28	Total		12-4-3	24

Elective-I (Any One)				Elective-III (Any one)			
BPE 404	Production Inventory System			BPE 411	Tribology in Design and Manufacturing		
BME	Finite Element Method			BPE 412	Maintenance Engineering and Management		
BPE 405	Advanced Casting and Welding			BPE 413	Manufacturing Information System		
Elective-II (Any One)				Elective-IV (Any One)			
BPE 406	Computer Integrated Manufacturing			BPE 414	Instrumentation and Control		
BPE 407	Mechatronics			BPE 415	Precision Engineering		
BPE 408	Surface Engineering Principles and Systems			BPE 416	Rapid Prototyping		