

COURSE STRUCTURE FOR B.TECH. IN PRODUCTION ENGINEERING

FIRST YEAR: FIRST SEMESTER				
THEORY				
S/N	Code	Subject	L-T-P	Credits
1.	BMA01001	Mathematics-I	3-1-0	4
2.	BCH01001	Chemistry	3-0-0	3
3.	BEC01001	Basic Electronics	3-0-0	3
4.	BIT01001	Programming for Problem Solving	3-0-0	3
5.	BCE01001	Basic Civil Engg.	3-0-0	3
SESSIONALS				
1.	BCH01002	Chemistry Lab	0-0-3	1.5
2.	BEC01002	Basic Electronics Lab	0-0-3	1.5
3.	BIT01002	Programming Lab	0-0-3	1.5
4.	BCE01002	Engineering Graphics & Design	0-0-3	1.5
NON-CREDIT				
1	BNC01001	Induction Programme and Participation in Clubs/Societies	0-0-0	0
TOTAL			15-1-12	22

FIRST YEAR: SECOND SEMESTER				
THEORY				
S/N	Code	Subject	L-T-P	Credits
1.	BMA02001	Mathematics - II	3-1-0	4
2.	BPH02001	Physics	3-0-0	3
3.	BEE02001	Basic Electrical Engg.	3-0-0	3
4.	BHU02001	English For Business Communication	3-0-0	3
5.	BME02001	Engineering Mechanics	3-0-0	3
SESSIONALS				
1.	BPH02002	Physics Lab	0-0-3	1.5
2.	BEE02002	Basic Electrical Engg. Lab	0-0-3	1.5
3.	BHU02002	Business Communication Skills Lab	0-0-3	1.5
4.	BME02002	Workshop & Manufacturing Practices	0-0-3	1.5
NON-CREDIT				
1	BNC02001	NSS/NCC/Yoga	0-0-0	0
TOTAL			15-1-12	22

SECOND YEAR: THIRD SEMESTER				
THEORY				
S/N	Code	Subject	L-T-P	Credits
1	BMA03001	Math-III	3-1-0	4
2	BPE03001	Thermodynamics	3-0-0	3
3	BPE03002	Material Engineering & Metallurgy	3-0-0	3
4	BPE03003	Basic Manufacturing Processes	3-0-0	3
5	BHU03001	Economics For Engineers	3-0-0	3
SESSIONAL				
1	B...0300..	Instrumentation and Sensor Technology for Engg. Applications	0-0-3	1.5
2	BPE03004	Production Practice- I	0-0-3	1.5
3	BPE03005	Computer Aided Machine Drawing	0-0-3	1.5
4	BPE03006	Thermal & Materials Engineering Lab.	0-0-3	1.5
NON CREDIT				
1	BNC03001	Essence of India Traditional Knowledge/ Environmental Sciences	0-0-0	0
TOTAL			15-1-12	22

SECOND YEAR: FOURTH SEMESTER				
THEORY				
S/N	Code	Subject	L-T-P	Credits
1.	BMA04001	Math IV	3-0-0	3
2.	BPE04001	Theory of Machine	3-1-0	4
3.	BPE04002	Strength of Materials	3-0-0	3
4.	BPE04003	Theory of Metal Cutting	3-0-0	3
5.	BHU04001	Organizational Behavior	3-0-0	3
SESSIONAL				
1.	BPE04004	Production Practice- II	0-0-3	1.5
2.	BPE04005	Metal Cutting Lab.	0-0-3	1.5
3.	BPE04006	Dynamics Lab	0-0-3	1.5
4.	BPE04007	Material Testing Lab.	0-0-3	1.5
NON CREDIT				
1	BNC04001	Environmental Sciences/ Essence of India Traditional Knowledge	0-0-0	0
2	BNC04002	Summer Internship/ Training	0-0-0	0
TOTAL			15-1-12	22

THIRD YEAR: FIFTH SEMESTER				
THEORY				
S/N	Code	Subject	L-T-P	Credits
1.	BPE05001	Design of Machine Elements	3-0-0	3
2.	BPE05002	Inspection and Metrology	3-0-0	3
3.	BPE05003	Tool Design	3-0-0	3
4.		Professional Elective-I	3-0-0	3
5.		Open Elective-I	3-0-0	3
6.		Professional Ethics, Professional Law & Human Values	2-0-0	2
SESSIONAL				
1.	BPE05004	Machine Design Sessional	0-0-3	1.5
2.	BPE05005	Metrology Lab.	0-0-3	1.5
3.	BPE05006	Tool Design Sessional	0-0-3	1.5
TOTAL			17-0-9	21.5

Professional Elective-I		
S/N	Course Code	Subjects
1.	BPEPE501	Measurement & Instrumentation
2.	BPEPE502	Advanced Casting & Welding
3.	BPEPE503	Production Planning & Control
4.	BPEPE504	Maintenance Engineering & Management

Open Elective-I		
S/N	Course Code	Subjects
1.	BPEOE501	Maintenance Engineering & Management
2.	BPEOE502	Logistics & Supply Chain Management
3.	BPEOE503	Mechatronics

THIRD YEAR: SIXTH SEMESTER				
THEORY				
S/N	Code	Subject	L-T-P	Credits
1.	BPE06001	Theory of Metal Forming	3-0-0	3
2.	BPE06002	Principle of Machine Tools	3-0-0	3
3.		Professional Elective-II	3-0-0	3
4.		Professional Elective-III	3-0-0	3
5.		Open Elective-II	3-0-0	3
6.		Professional Ethics, Professional Law & Human Values	2-0-0	2
SESSIONAL				
1.	BPE06003	Metal Forming Lab	0-0-3	1.5
2.	BPE06004	Fluid Dynamics Lab.	0-0-3	1.5
3.	BPE06005	Simulation Lab.	0-0-3	1.5
NON-CREDIT				
		Summer Industry Internship/ Training/ Project	0-0-0	0
TOTAL			17-0-9	21.5

Professional Elective-II		
Sl.No.	Course Code	Subjects
1.	BPEPE601	Fluid Mechanics & Fluid Power Engineering
2.	BPEPE602	Manufacturing & Design of Composites
3.	BPEPE603	Industrial Hydraulics
4.	BPEPE604	Precision Engineering
Professional Elective -III		
Sl.No.	Course Code	Subjects
1.	BPEPE605	Statistical Methods and Design of Experiments
2.	BPEPE606	Finite Element Method in Manufacturing
3.	BPEPE607	Production and Operation Management
4.	BPEPE608	Advanced Material Science
Open Elective-II		
Sl.No.	Course Code	Subjects
1.	BPEOE601	Automotive & System Engineering
2.	BPEOE602	Production and Operation Management

FOURTH YEAR: SEVENTH SEMESTER				
THEORY				
S/N	Code	Subject	L-T-P	Credits
1.	BPE07001	Automation and NC Machine	3-0-0	3
2.	BPE07002	Non-Traditional Machining	3-0-0	3
3.		Professional Elective- IV	3-0-0	3
4.		Open Elective-III	3-0-0	3
SESSIONAL				
1.	BPE07003	NTM & FMS Lab.	0-0-3	1.5
2.		Project – I	0-0-6	3
3.		Seminar on internship	0-0-3	1.5
TOTAL			12-0-12	18

Professional Elective-IV		
Sl.No.	Course Code	Subjects
1.	BPEPE701	Engineering Ergonomics
2.	BPEPE702	Surface Engineering Principles & Systems
3.	BPEPE703	Design for Manufacturing & Assembly
Open Elective -III		
Sl.No.	Course Code	Subjects
1.	BPEOE701	Performance Measurement & Benchmarking
2.	BPEOE702	Total Quality System and Engineering
3.	BPEOE703	Project Management

FOURTH YEAR: EIGHTH SEMESTER**THEORY**

S/N	Code	Subject	L-T-P	Credits
1		Professional Elective-V	3-0-0	3
2		Professional Elective-VI	3-0-0	3
3		Open Elective-IV	3-0-0	3
SESSIONALS				
1		Project II	0-0-12	6
2		Seminar on Project	0-0-2	1
TOTAL			9-0-14	16

Professional Elective-V

Sl.No.	Course Code	Subjects
1.	BPEPE801	Robotics & Flexible Manufacturing Systems
2.	BPEPE802	Plant layout & Automated Material Handling
3.	BPEPE803	Micro Electro-Mechanical Systems
4.	BPEPE804	Quality Assurance & Reliability

Professional Elective-VI

Sl.No.	Course Code	Subjects
1.	BPEPE805	Rapid Prototyping & Tooling
2.	BPEPE806	Computer Integrated Manufacturing
3.	BPEPE807	Safety Engineering

Open Elective-IV

Sl.No.	Course Code	Subjects
1.	BEPEOE801	Micro Electro-Mechanical Systems
2.	BEPEOE802	Entrepreneurship & E-Business