



**BIRLA INSTITUTE OF TECHNOLOGY**  
**MESRA, RANCHI – 835215, INDIA**  
**Course Structure Session - 2016**  
**UNDERGRADUATE (Full Time)**

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Program : **BACHELOR OF ENGINEERING**  
Branch : **B.E. PRODUCTION ENGINEERING**

Semester : 1

Total Credits: 29

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
AM1201	ENGINEERING MECHANICS	4.00
CH1401	ENGINEERING CHEMISTRY	3.00
EC2001	PRINCIPLES OF ELECTRONICS ENGINEERING	3.00
MA1201	ENGINEERING MATHEMATICS	4.00
PH1201	PHYSICS	4.00
CH1402	CHEMISTRY LAB	2.00
CS1302	FUNDAMENTAL OF UNIX & C PROGRAMMING	3.00
EC2002	BASIC ELECTRONICS ENGINEERING LAB	2.00
ME1202	ENGINEERING GRAPHICS	3.00
<b>Activity</b>	<b>( CHOICE FOR ONLY ONE )</b>	
GA1002	NCC	1.00
GA1004	NSS	1.00
GA1006	PT & GAMES	1.00
GA1008	CREATIVE ARTS	1.00



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Program : **BACHELOR OF ENGINEERING**  
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Semester : 2

Total Credits: 30

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
CH2203	ENVIRONMENTAL SCIENCE	3.00
CS2301	FUNDAMENTAL OF DATA STRUCTURE	4.00
EE2201	PRINCIPLES OF ELECTRICAL ENGG	4.00
HU1101	TECHNICAL ENGLISH	3.00
MA2201	ADVANCE ENGINEERING MATHEMATICS	4.00
ME2001	PRINCIPLES OF MECHANICAL ENGINEERING	3.00
AM2202	ENGINEERING MECHANICS LAB	2.00
CS2302	DATA STRUCTURE LAB	2.00
PE1202	WORKSHOP PRACTICE	2.00
PH1202	PHYSICS LAB	2.00
<b>Activity</b>	<b>( CHOICE FOR ONLY ONE )</b>	
GA2002	NCC	1.00
GA2004	NSS	1.00
GA2006	PT & GAMES	1.00
GA2008	CREATIVE ARTS	1.00



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Program : **BACHELOR OF ENGINEERING**  
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Semester : 3

Total Credits: 24

Subject Code	Subject Title	Credit
PE3001	METALLURGY	3.00
ME3003	FLUID MECHANICS AND HYDRAULICS	3.00
ME3005	MECHANICS OF SOLIDS	4.00
PE3003	OPERATIONS RESEARCH	4.00
PE3002	METALLURGY LAB	2.00
ME3004	MECHANICS OF SOLIDS LAB	2.00
EE3202	BASIC ELECTRICAL ENGINEERING LAB	2.00
<b>Activity</b>	<b>( CHOICE FOR ONLY ONE )</b>	
GA3002	NCC	1.00
GA3004	NSS	1.00
GA3006	PT & GAMES	1.00
GA3008	CREATIVE ARTS	1.00
<b>Breadth Paper</b>	<b>( CHOICE FOR ONLY ONE )</b>	
HU4001	FRENCH	3.00
HU4003	GERMAN	3.00



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Program : **BACHELOR OF ENGINEERING**  
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Semester : 4

Total Credits: 25

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
BT3021	BIOLOGICAL SCIENCE	3.00
ME4004	MECHANICAL ENGG. LAB	2.00
ME4008	DESIGN OF MACHINE ELEMENTS LAB	2.00
ME4009	DESIGN OF MACHINE ELEMENTS	3.00
PE4001	MANUFACTURING PROCESS-I	3.00
PE4003	METROLOGY	3.00
ME4007	THEORY OF MACHINE	4.00
PE4002	MANUFACTURING PROCESS-I LAB	2.00
PE4004	METROLOGY LAB.	2.00
<b>Activity</b>	<b>( CHOICE FOR ONLY ONE )</b>	
GA4004	NSS	1.00
GA4002	NCC	1.00
GA4006	PT & GAMES	1.00
GA4008	CREATIVE ARTS	1.00



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Program : **BACHELOR OF ENGINEERING**  
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Semester : 5

Total Credits: 23

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
PE5001	MANUFACTURING PROCESS – II	3.00
PE5003	MACHINE TOOL DESIGN	4.00
PE5005	STATISTICAL QUALITY CONTROL	4.00
PE5007	WORK STUDY & ERGONOMICS	3.00
PE5002	MANUFACTURING PROCESS - II LAB	2.00
PE5004	MACHINE TOOL DESIGN SESSIONAL	2.00
PE5006	WORK STUDY & ERGONOMICS LAB	2.00
<b>Breadth Paper ( CHOICE FOR ONLY ONE )</b>		
MSH1131	PRINCIPLES OF MANAGEMENT	3.00
MSH1125	ORGANISATION BEHAVIOUR	3.00
PE5011	PROJECT ENGINEERING	3.00



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Program : **BACHELOR OF ENGINEERING**  
Branch : **B.E. PRODUCTION ENGINEERING**

Semester : 6

Total Credits: 21

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
PE6001	TOOL DESIGN	3.00
PE6005	PRODUCTION PLANNING & CONTROL	3.00
PE6007	MANUFACTURING AUTOMATION AND ROBOTICS	3.00
PE6002	TOOL DESIGN SESSIONAL	2.00
PE6004	MANUFACTURING AUTOMATION & ROBOTICS LAB./	2.00
	COURSEWORK	
PE6006	COMPUTER AIDED DESIGN LAB./COURSE WORK	2.00
<b>Elective - 1</b>	<b>( CHOICE FOR ONLY ONE )</b>	
MSH1115	HUMAN RESOURCE MANAGEMENT	3.00
MSH1121	MARKETING MANAGEMENT	3.00
MSH1123	OPERATION RESEARCH	3.00
MSH1137	ECONOMICS	3.00
PE6009	ENGINEERING ECONOMY	3.00



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Program : **BACHELOR OF ENGINEERING**  
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Semester : 7

Total Credits: 23

Subject Code	Subject Title	Credit
PE7002	MODELLING AND SIMULATION LAB	2.00
PE7004	MATERIAL DEFORMATION PROCESS LAB	2.00
PE7006	PROJECT	4.00
<b>Breadth Paper</b>	<b>( CHOICE FOR ONLY ONE )</b>	
MSH1117	FINANCIAL MANAGEMENT	3.00
MSH1109	ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT	3.00
MSH1103	BUSINESS ETHICS	3.00
<b>Elective - 1</b>	<b>( CHOICE FOR ONLY TWO )</b>	
PE7011	ADVANCED MANUFACTURING PROCESSES	3.00
PE7015	VALUE ENGINEERING	3.00
PE7019	ADVANCED OPERATIONS RESEARCH	3.00
<b>Free Elective</b>	<b>( CHOICE FOR ONLY ONE )</b>	
CE7021	ENVIRONMENTAL ENGINEERING	3.00
EE3207	ELECTRIC ENERGY GENERATION & CONTROL	3.00
MEC2019	MICRO-ELECTRO-MECHANICAL-SYSTEMS	3.00
PE7021	MAINTENANCE ENGINEERING	3.00
ME7039	MECHATRONICS	3.00
ME7015	CFD	3.00
<b>Free Elective</b>	<b>( CHOICE FOR ONLY TWO )</b>	
CE7023	GEOTECHNICAL ENGINEERING	3.00
EE3201	INTRODUCTION TO SYSTEM THEORY	3.00
MEC1047	SENSORS AND TRANSDUCERS	3.00
PE7005	COMPETITIVE MANUFACTURING STRATEGIES	3.00
ME7033	POWER PLANT ENGINEERING	3.00



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Program : **BACHELOR OF ENGINEERING**  
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Semester : 8

Total Credits: 6

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
PE8002	INDUSTRIAL PROJECT& COMPREHENSIVE VIVA	6.00