



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

Program : **BACHELOR OF ENGINEERING**
Branch : **B.E.ELECTRICAL&ELECTRONICSENGG**

Semester : 1

Total Credits: 29

| Subject Code | Subject Title | Credit |
|---------------------|-------------------------------------|---------------|
| CH1401 | ENGINEERING CHEMISTRY | 3.00 |
| EE2201 | PRINCIPLES OF ELECTRICAL ENGG | 4.00 |
| HU1101 | TECHNICAL ENGLISH | 3.00 |
| MA1201 | ENGINEERING MATHEMATICS | 4.00 |
| PH1201 | PHYSICS | 4.00 |
| CS1302 | FUNDAMENTAL OF UNIX & C PROGRAMMING | 3.00 |
| ME1202 | ENGINEERING GRAPHICS | 3.00 |
| PE1202 | WORKSHOP PRACTICE | 2.00 |
| PH1202 | PHYSICS LAB | 2.00 |
| Activity | (CHOICE FOR ONLY ONE) | |
| GA1002 | NCC | 1.00 |
| GA1004 | NSS | 1.00 |
| GA1006 | PT & GAMES | 1.00 |
| GA1008 | CREATIVE ARTS | 1.00 |



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Semester : 2

Total Credits: 30

| Subject Code | Subject Title | Credit |
|---------------------|---------------------------------------|---------------|
| AM1201 | ENGINEERING MECHANICS | 4.00 |
| CH2203 | ENVIRONMENTAL SCIENCE | 3.00 |
| CS2301 | FUNDAMENTAL OF DATA STRUCTURE | 4.00 |
| EC2001 | PRINCIPLES OF ELECTRONICS ENGINEERING | 3.00 |
| MA2201 | ADVANCE ENGINEERING MATHEMATICS | 4.00 |
| ME2001 | PRINCIPLES OF MECHANICAL ENGINEERING | 3.00 |
| CH1402 | CHEMISTRY LAB | 2.00 |
| CS2302 | DATA STRUCTURE LAB | 2.00 |
| EC2002 | BASIC ELECTRONICS ENGINEERING LAB | 2.00 |
| EE3202 | BASIC ELECTRICAL ENGINEERING LAB | 2.00 |
| Activity | (CHOICE FOR ONLY ONE) | |
| GA2002 | NCC | 1.00 |
| GA2004 | NSS | 1.00 |
| GA2006 | PT & GAMES | 1.00 |
| GA2008 | CREATIVE ARTS | 1.00 |



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Semester : 3

Total Credits: 24

| Subject Code | Subject Title | Credit |
|----------------------|--------------------------------------|---------------|
| AM2202 | ENGINEERING MECHANICS LAB | 2.00 |
| EC3201 | DIGITAL ELECTRONICS | 4.00 |
| EE3205 | NETWORK THEORY | 4.00 |
| EC3202 | DIGITAL ELECTRONICS LAB | 2.00 |
| EE3201 | INTRODUCTION TO SYSTEM THEORY | 3.00 |
| EE3207 | ELECTRIC ENERGY GENERATION & CONTROL | 3.00 |
| EE3212 | COMPUTING LAB | 2.00 |
| Activity | (CHOICE FOR ONLY ONE) | |
| GA3004 | NSS | 1.00 |
| GA3002 | NCC | 1.00 |
| GA3006 | PT & GAMES | 1.00 |
| GA3008 | CREATIVE ARTS | 1.00 |
| Breadth Paper | (CHOICE FOR ONLY ONE) | |
| HU4001 | FRENCH | 3.00 |
| HU4003 | GERMAN | 3.00 |



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Semester : 4

Total Credits: 24

| Subject Code | Subject Title | Credit |
|---------------------|--|---------------|
| BT3021 | BIOLOGICAL SCIENCE | 3.00 |
| EE4201 | ELECTRICAL MEASUREMENT & INSTRUMENTATION | 3.00 |
| EE4203 | ELECTRICAL MACHINES - I | 3.00 |
| EE4207 | DIGITAL SIGNAL PROCESSING | 4.00 |
| EE4209 | ENGINEERING ELECTROMAGNETICS | 4.00 |
| EE4202 | MEASUREMENT & ELECTRONIC INSTRUMENTATION LAB I | 2.00 |
| EE4204 | ELECTRICAL MACHINE LAB -I | 2.00 |
| EE4208 | DIGITAL SIGNAL PROCESSING LAB | 2.00 |
| Activity | (CHOICE FOR ONLY ONE) | |
| GA4002 | NCC | 1.00 |
| GA4004 | NSS | 1.00 |
| GA4006 | PT & GAMES | 1.00 |
| GA4008 | CREATIVE ARTS | 1.00 |



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Semester : 5

Total Credits: 22

| Subject Code | Subject Title | Credit |
|--|--|---------------|
| EE5201 | MICROPROCESSOR & MICROCONTROLLER | 3.00 |
| EE5203 | ELECTRICAL MACHINES – II | 3.00 |
| EE5205 | POWER ELECTRONICS | 4.00 |
| EE5207 | POWER SYSTEM – I | 3.00 |
| EE5202 | MICROPROCESSOR LAB | 2.00 |
| EE5204 | ELECTRICAL MACHINE LAB –II | 2.00 |
| EE5206 | POWER ELECTRONICS LAB | 2.00 |
| Breadth Paper (CHOICE FOR ONLY ONE) | | |
| MSH1131 | PRINCIPLES OF MANAGEMENT | 3.00 |
| PE5009 | INDUSTRIAL ORGANIZATION AND MANAGEMENT | 3.00 |
| MSH1125 | ORGANISATION BEHAVIOUR | 3.00 |
| PE5011 | PROJECT ENGINEERING | 3.00 |



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Semester : 6

Total Credits: 19

| Subject Code | Subject Title | Credit |
|--|-------------------------------|---------------|
| EE6210 | ELECTRICAL WORKSHOP | 2.00 |
| EE6208 | COMPUTER AIDED MACHINE DESIGN | 2.00 |
| EE6205 | INDUSTRIAL DRIVES AND CONTROL | 4.00 |
| EE6203 | POWER SYSTEM - II | 3.00 |
| EE6201 | CONTROL THEORY | 3.00 |
| EE6202 | CONTROL SYSTEM LAB | 2.00 |
| Breadth Paper (CHOICE FOR ONLY ONE) | | |
| MSH1123 | OPERATION RESEARCH | 3.00 |
| MSH1137 | ECONOMICS | 3.00 |
| PE6009 | ENGINEERING ECONOMY | 3.00 |
| MSH1115 | HUMAN RESOURCE MANAGEMENT | 3.00 |
| MSH1121 | MARKETING MANAGEMENT | 3.00 |



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Semester : 7

Total Credits: 21

| Subject Code | Subject Title | Credit |
|----------------------|--|--------|
| EE7203 | SWITCHGEAR & PROTECTION | 3.00 |
| EE7204 | POWER SYSTEM LAB | 2.00 |
| EE7210 | MINOR PROJECT | 2.00 |
| Breadth Paper | (CHOICE FOR ONLY ONE) | |
| MSH1117 | FINANCIAL MANAGEMENT | 3.00 |
| MSH1103 | BUSINESS ETHICS | 3.00 |
| MSH1109 | ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT | 3.00 |
| Elective - 1 | (CHOICE FOR ONLY ONE) | |
| EE7211 | COMPUTER AIDED POWER SYSTEM ANALYSIS | 3.00 |
| MEE1151 | ADVANCED POWER ELECTRONICS | 3.00 |
| EE7215 | BIO-ELECTRONICS INSTRUMENTATION | 3.00 |
| Elective - 2 | (CHOICE FOR ONLY ONE) | |
| EE7212 | CAPSA SESSIONAL | 2.00 |
| EE7222 | ADVANCED POWER ELECTRONICS LAB | 2.00 |
| EE7216 | BIO-ELECTRONICS INSTRUMENTATION LAB | 2.00 |
| Elective - 3 | (CHOICE FOR ONLY ONE) | |
| EE8221 | UTILIZATION OF ELECTRICAL POWER | 3.00 |
| EE8213 | ROBOTICS | 3.00 |
| EE8215 | HIGH VOLTAGE ENGINEERING | 3.00 |
| Free Elective | (CHOICE FOR ONLY ONE) | |
| CE7021 | ENVIRONMENTAL ENGINEERING | 3.00 |
| CE7023 | GEOTECHNICAL ENGINEERING | 3.00 |
| ME7015 | CFD | 3.00 |
| ME7033 | POWER PLANT ENGINEERING | 3.00 |
| ME7039 | MECHATRONICS | 3.00 |
| MEC1047 | SENSORS AND TRANSDUCERS | 3.00 |
| MEC2019 | MICRO-ELECTRO-MECHANICAL-SYSTEMS | 3.00 |
| PE7005 | COMPETITIVE MANUFACTURING STRATEGIES | 3.00 |
| PE7021 | MAINTENANCE ENGINEERING | 3.00 |



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Semester : **8**

Total Credits: **10**

| Subject Code | Subject Title | Credit |
|---------------------|----------------------|---------------|
| EE8202 | SIMULATION LAB | 2.00 |
| EE8204 | COMPREHENSIVE VIVA | 2.00 |
| EE8210 | MAJOR PROJECT | 6.00 |