



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

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

Semester : 1

Total Credits: 29

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
PH1201	PHYSICS	4.00
CH1401	ENGINEERING CHEMISTRY	3.00
MA1201	ENGINEERING MATHEMATICS	4.00
ME1202	ENGINEERING GRAPHICS	3.00
CS1302	FUNDAMENTAL OF UNIX & C PROGRAMMING	3.00
CH1402	CHEMISTRY LAB	2.00
EC2002	BASIC ELECTRONICS ENGINEERING LAB	2.00
EC2001	PRINCIPLES OF ELECTRONICS ENGINEERING	3.00
AM1201	ENGINEERING MECHANICS	4.00
<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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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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Semester : 3

Total Credits: 24

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
CL3001	FLUID MECHANICS	3.00
CL3003	CHEMICAL ENGINEERING THERMODYNAMICS	4.00
CL3005	PROCESS CALCULATIONS AND MECHANICAL OPERATIONS IN CHEMICAL ENGG.	4.00
ME3007	STRENGTH OF MATERIALS	3.00
ME3008	STRENGTH OF MATERIALS LAB	2.00
CL3004	INSTRUMENTAL ANALYSIS 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>	
BT3021	BIOLOGICAL SCIENCE	3.00
<b>Sessionals</b>	<b>( CHOICE FOR ONLY ONE )</b>	
EE3202	BASIC ELECTRICAL ENGINEERING LAB	2.00



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Branch : **B.E. CHEMICAL ENGINEERING**

Semester : 4

Total Credits: 23

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
CL4001	HEAT TRANSFER OPERATIONS	4.00
CL4003	PETROCHEMICALS AND REFINERY ENGINEERING	3.00
CL4007	TRANSPORT PHENOMENA	3.00
CL4005	NUMERICAL METHODS FOR CHEMICAL ENGINEERS	3.00
CL4002	CHEMICAL ENGINEERING LAB I	2.00
CL4004	NUMERICAL METHODS FOR CHEMICAL ENGG. LAB	2.00
CL4006	ENERGY ENGG LAB	2.00
<b>Activity</b>	<b>( CHOICE FOR ONLY ONE )</b>	
GA4002	NCC	1.00
GA4004	NSS	1.00
GA4006	PT & GAMES	1.00
GA4008	CREATIVE ARTS	1.00
<b>Elective - 1</b>	<b>( CHOICE FOR ONLY ONE )</b>	
HU4001	FRENCH	3.00
HU4003	GERMAN	3.00



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Branch : **B.E. CHEMICAL ENGINEERING**

Semester : 5

Total Credits: 22

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
CL5001	MASS TRANSFER OPERATIONS	4.00
CL5003	ENERGY ENGINEERING	3.00
CL5005	REACTION ENGG	3.00
CL5007	COMPUTER AIDED PROCESS ENGINEERING	3.00
CL5002	CHEMICAL ENGINEERING LAB-II	2.00
CL5004	COMPUTER AIDED PROCESS ENGINEERING LAB I	2.00
CL5006	REACTION ENGG LAB	2.00
<b>Breadth Paper ( CHOICE FOR ONLY ONE )</b>		
MSH1125	ORGANISATION BEHAVIOUR	3.00
MSH1131	PRINCIPLES OF MANAGEMENT	3.00
PE5009	INDUSTRIAL ORGANIZATION AND MANAGEMENT	3.00
PE5011	PROJECT ENGINEERING	3.00



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Program : **BACHELOR OF ENGINEERING**  
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Semester : 6

Total Credits: 24

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
CL6009	ADVANCES IN REACTION ENGINEERING	3.00
CL6007	POLYMER SCIENCE AND ENGINEERING	3.00
CL6001	BIOCHEMICAL ENGG	3.00
CL6003	INDUSTRIAL CHEMICAL PROCESSES	3.00
CL6005	MODERN SEPARATION PROCESSES	3.00
CL6002	CHEMICAL ENGINEERING LAB III	2.00
CL6004	POLYMER ENGG LAB.	2.00
CL6006	CHEMICAL ENGG EQUIPMENT DESIGN	2.00



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Program : **BACHELOR OF ENGINEERING**

Branch : **B.E. CHEMICAL ENGINEERING**

Semester : 7

Total Credits: 21

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
CL7001	PROCESS CONTROL AND INSTRUMENTATION	3.00
CL7003	PROCESS MODELLING SIMULATION & OPTIMIZATION	3.00
CL7005	PROJECT ENGG & ECONOMICS FOR CHEMICAL ENGINEERS	3.00
CL7002	PROCESS CONTROL AND INSTRUMENTATION LAB	2.00
CL7004	COMPUTER AIDED PROCESSES ENGINEERING LAB-II	2.00
CL7006	CHEMICAL TECHNOLOGY LAB	2.00
<b>Elective - 1</b>	<b>( CHOICE FOR ONLY ONE )</b>	
PC7003	BIOMATERIALS	3.00
PC7005	PLASTIC & ENVIRONMENT	3.00
<b>Elective - 2</b>	<b>( CHOICE FOR ONLY ONE )</b>	
CL7035	COLLOID & INTERFACIAL ENGG	3.00
PC7015	SURFACE COATING AND ADHESIVE TECHNOLOGY	3.00



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

Semester : **8**

Total Credits: **9**

<b>Subject Code</b>	<b>Subject Title</b>	<b>Credit</b>
PC8002	PROJECT & COMPREHENSIVE VIVA	8.00
PC8004	ENTREPRENEURSHIP AND BUSINESS PLAN	1.00