

Corrected on 29.10.2012

BIRLA INSTITUTE OF TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING
MESRA, RANCHI.
COURSE STRUCTURE (I TO VIII SEMESTERS)
(EFFECTIVE FROM MO-2011)

Course No.	Subjects	L	T	P	CP
I-SEMESTER					
HU1101	Technical English	3	0	0	3
PH1201	Physics	3	1	0	4
MA1301	Engg. Mathematics	3	1	0	4
EE2201	Principles of Electrical Engg.	3	1	0	4
CH1401	Engg. Chemistry	3	0	0	3
ME1202	Engg. Graphics	1	0	3	3
CS1302	Fundamental of Unix & C Programming	1	0	3	3
PE1202	Workshop Practice	0	0	3	2
PH1202	Physics Lab.	0	0	3	2
GA1002/GA1004 GA1006/GA1008	NCC/NSSS/PT & Games/ C.Arts	0	0	2	1
					Total 29
II-SEMESTER					
EC2001	Principle of Electronics Engg.	3	0	0	3
MA2301	Advance Engg. Mathematics	3	1	0	4
CH2203	Environmental Science	3	0	0	3
CS2301	Fundamentals of Data Structure	3	1	0	4
ME2001	Principles of Mechanical Engg.	3	0	0	3
AM1201	Engineering Mechanics	3	1	0	4
CH1402	Chemistry Lab.	0	0	3	2
EE3202	Basic Electrical Engg. Lab.	0	0	3	2
EC2002	Basic Electronics Engg. Lab.	0	0	3	2
CS2302	Data Structure Lab.	0	0	3	2
GA2002/GA2004 GA2006/GA2008	NCC/NSS/PT & Games/C.Arts	0	0	2	1
					Total 30

III- SEMESTER					
ME 3001	Thermodynamics	3	0	0	3
ME3003	Fluid Mechanics & Hydraulics	3	0	0	3
ME3005	Mechanics of Solids	3	1	0	4
PE3001	Metallurgy	3	0	0	3
BT3021	Biological Science/Foreign Language	3	0	0	3
AM2202	Engg. Mechanics Lab./Basic Electrical Engg.	0	0	3	2
ME3002	Fluid Mechanics Lab.	0	0	3	2
ME3004	Mechanics of Solids Lab.	0	0	3	2
ME3006	Engg. Measurement Lab.	0	0	3	2
GA3002/3/4/8	NCC/NSS/PT & Games Creative Arts.	0	0	3	1
					Total 25
IV-SEMESTER					
ME 4001	Heat Power Conversion	3	0	0	3
ME4003	Mechanics of Materials	3	1	0	4
PE4001	Manufacturing Process-I	3	0	0	3
ME4005	Non-Conventional Energy	3	0	0	3
	Foreign Language/Biological Science	3	0	0	3
ME4009*	Design of Machine Elements (Production only)	3	0	0	3
ME4004	Mechanical Engg. Lab.	0	0	3	2
ME4006	Non-Conventional Energy Lab.	0	0	3	2
PE4002	Manufacturing Process-I Lab.	0	0	3	2
ME4008*	Machine Design Sessional (only for production Engg.)	2	0	3	2
GA4002/3/4/8	NCC/NSS/PT & Games Creative Arts	0	0	3	1
					Total 23
V-SEMESTER					
ME5001	IC Engine & Gas Turbine	3	1	0	4
ME5003	Kinematics & Kinetics of Machines	3	1	0	4
PE5001	Manufacturing Process – II	3	0	0	3
ME5005	Design of Machine Elements	3	0	0	3
	Breadth Subject	3	0	0	3
ME5002	I.C. Engines Lab.	0	0	3	2
ME5004	Energy Engg. Lab.	0	0	3	2
ME5006	CADD Lab.	0	0	3	2
					Total 23

*Only for Production Engineering.

VI-Semester					
ME6001	Automobile Engg.	3	0	0	3
ME6003	Heat & Mass Transfer	3	0	0	3
ME6005	Dynamics of Machines	3	1	0	4
	Breadth Subject	3	0	0	3
ME6007	Design of Mechanical Systems	3	0	0	3
ME6002	Automobile Engg. Lab.	0	0	3	2
ME6004	Heat Transfer Lab.	0	0	3	2
ME6006	Dynamics of Machines Lab.	0	0	3	2
					Total 22
VII-SEMESTER					
	Breadth Subject	3	0	0	3
	Elective I (Other Dept.)	3	0	0	3
	Elective II (Other Dept.)	3	0	0	3
	Elective III (Departmental)	3	0	0	3
	Elective IV (Departmental)	3	0	0	3
ME7002	Project	0	0	6	4
					Total 19
VIII-SEMESTER					
ME8002	Industrial Project & Comprehensive Viva	0	0	12	8
					Total 08
					Grand Total 179

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LIST OF ELECTIVES III & IV

ELECTIVE- III

1. ME 7317 Design of Mechanical Handling Equipment.
2. ME 7327 Mechanical Vibration
3. ME 7323 Finite Element Analysis
4. ME 7015 CFD
5. ME 7313 Composite Materials
6. ME 7311 Fluidics

ELECTIVE –IV

1. ME 7029 Design of Thermal Systems
2. ME 7331 Refrigeration & Air-conditioning
3. ME 7033 Power Plant Engineering
4. ME 7035 Design, Modelling & Application of Solar Energy
5. ME 7037 Industrial Management
6. ME 7039 Mechatronics