Curriculum B.Tech Mechanical Engineering Design and Manufacturing: 2014 Batch onward
(According to 28th Senate meeting held on 23.12.2015)

Semester 1				
Course Name	**I**	**P**	**C**	**Category**
Calculus	3	0	3	BSC
Engineering Mechanics	3	0	3	BSC
Computational Engineering / Basic Electrical & Electronics Engineering	3	0	3	BEC / BEC
Concepts in Engineering Design/ Science and Engineering of Materials	3	0	3	DES / BEC
English for Communication	2	0	2	HMC
Earth, Environment & Design/ Professional Ethics for Engineers	2		P/F	DES / HMC
Engineering Skills Practice	0	3	2	BEC
Materials & Mechanics Practice	0	3	2	BSC
Computational Engineering Practice/ Measurement & Data Analysis Practice	0	3	2	BEC / BSC
Engineering Graphics	1	3	3	BEC
Total			**23**	
Semester 2				
Course Name	**I**	**P**	**C**	**Category**
Differential Equations	3	0	3	BSC
Engineering Electromagentics	3	0	3	BSC
Basic Electrical & Electronics Engineering/ Computational Engineering	3	0	3	BEC / BEC
Science and Engineering of Materials / Concepts in Engineering Design	3	0	3	BEC / DES
Design History	2	0	2	DES
Professional Ethics for Engineers/ Earth, Environment & Design	2	0	P/F	HMC / DES
Measurement & Data Analysis Practice/ Computational Engineering Practice	0	3	2	BSC / BEC
Industrial Design Sketching	0	3	2	DES
Engineering Electromagnetics Practice	0	3	2	BSC
Design Realization	0	3	2	DES
Total			**22**	
Semester 3				
Course Name	**I**	**P**	**C**	**Category**
Linear Algebra	3	0	3	BSC
Thermal Engineering - Concepts and Applications	3	0	3	PEC
Mechanics of Materials	3	0	3	PEC
Basic Concepts in Manufacturing Processes	3	0	3	PEC
Electrical Drives	1	3	3	PEC
Machine Drawing and Manufacturability Analysis Practice	0	3	2	PEC
Product Realization Practice	0	3	2	PEC
Systems Thinking for Design	2	0	2	DES
Engineering Economics	2	0	2	HMC
Total			**23**	

Semester 4				
Course Name	I	P	C	Category
Numerical Methods	3	0	3	BSC
Fluid Mechanics and Heat Transfer	3	0	3	PEC
Kinematics and Dynamics of Mechanisms	3	0	3	PEC
Quality Inspection and Product Validation	3	0	3	PEC
Mechanical Design Practice	0	3	2	PEC
Quality Inspection and Product Validation Practice	0	3	2	PEC
Fluid Mechanics and Heat Transfer Practice	0	3	2	PEC
Designing Intelligent Systems	2	0	2	DES
Sociology of Design	2	0	2	HMC
Total			**22**	
Semester 5				
Course Name	I	P	C	Category
Sustainable Design	2	0	2	DES
Entrepreneurship and Management Functions	2	0	2	HMC
Thermal Energy Systems	3	0	3	PEC
Design of Machine elements	3	0	3	PEC
Automation in Manufacturing	3	0	3	PEC
Sensors and Controls	3	0	3	PEC
Thermal Engineering Practice	0	3	2	PEC
Sensors and Controls Practice	0	3	2	PEC
Manufacturing Automation Practice	0	3	2	PEC
Total			**22**	
Semester 6				
Course Name	I	P	C	Category
Design for Quality and reliability	2	0	2	DES
Product Management	2	0	2	HMC
Computational Methods in Engineering	3	0	3	PEC
Computer Aided Design and Manufacturing	3	0	3	PEC
Elective – I	3	0	3	ELE
Elective – II	3	0	3	ELE
Microprocessors and Controllers	1	3	3	PEC
Mechanical Design Simulation Practice	0	3	2	PEC
Product Design Practice	0	3	2	PCD
Total			**23**	
Semester 7				
Course Name	I	P	C	Category
Internship	0	-	5	PCD
Industrial Engineering	2	0	2	PEC
Free Elective – I	3	0	3	ELE
Design Project	0	6	5	DES
Total			**15**	
Semester 8				
CourseName	I	P	C	Category
Elective – III	3	0	3	ELE
Free Elective-II	3	0	3	ELE
Innovation Management	2	0	2	HMC
Project	0	-	10	PCD
Total			**18**	

*Internship is for a period of 5 months