

Curriculum Y17 Onwards

B. Tech. in Mechanical Engineering

1st Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1	PHY102	Classical Physics	IC	3	1	0	4
2	PHY113	UG Physics Laboratory	IC	0	0	3	2
3	MTH102	Mathematics – I	IC	3	1	0	4
4	ECE105	Basic Electronics	IC	3	1	0	4
5	ECE106	Basic Electronics Lab	IC	0	0	3	2
6	CSE104	Computer Programming	IC	3	0	0	3
7	CSE104(L)	Computer Programming Lab	IC	0	0	3	2
8	ENG105(B)	Technical Communication in English	IC	3	0	0	3
Total Credits = 24							

2nd Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1	PHY114	Introduction to Modern Physics	PC	3	0	0	3
2	MTH108	Mathematics – II	IC	3	1	0	4
3	CSE213	Data Structures and Algorithms	IC	3	0	0	3
4	CSE213(L)	Data Structures and Algorithms Lab	IC	0	0	2	1
5	MME201	Environmental Ecology & Biology	IC	2	0	2	3
6	HSS102	Value Education & Ethics	IC	3	0	0	3
7	MME102	Engineering Graphics Lab	PC	0	0	3	2
8	MME103	Engineering Physical Metallurgy	PC	3	0	0	3
Total Credits = 22							

3rd Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1	MTH213	Mathematics – III	IC	3	1	0	4
2	MME210	Modern Electrical and Electronics Technologies	PC	3	0	0	3
3	MME205	Mechanics of Solids	PC	3	0	0	3
4	MME205(L)	Mechanics of Solids Lab	PC	0	0	2	1
5	MME211	Manufacturing Technology – 1	PC	3	0	0	3
6	MME211(L)	Manufacturing Technology Lab	PC	0	0	3	2
7	MME209	Engineering Thermodynamics	PC	3	1	0	4
8	MME212	Industrial Engineering and Management	PC	3	0	0	3
Total Credits = 23							

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4th Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1	MME307	Machine Design – 1	PC	3	0	0	3
2	MME206	Kinematics & Dynamics	PC	3	0	0	3
3	MME206(L)	Kinematics & Dynamics Lab	PC	0	0	2	1
4	MME303	Fluid Mechanics & Machinery	PC	3	0	0	3
5	MME303(L)	Fluid Mechanics & Machinery Lab	PC	0	0	2	1
6	MME308	Metrology, Instrumentation and Control	PC	3	0	0	3
7	MME308(L)	Metrology, Instrumentation and Control Lab	PC	0	0	2	1
8	MME309	Total Quality Management	PC	3	0	0	3
9	MME310	Manufacturing Technology – 2	PC	3	0	0	3
Total Credits =21							

5th Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1	MME311	Heat Transfer	PC	3	0	0	3
2	MME311(L)	Heat Transfer Lab	PC	0	0	2	1
3	MME312	Machine Design – 2	PC	3	0	0	3
4	MME312(L)	Machine Design – 2 Lab	PC	0	0	2	1
5	MME305	CAD – CAM	PC	3	0	0	3
6	MME305(L)	CAD – CAM Lab	PC	0	0	2	1
7		Program Elective – 1	PE	3	0	0	3
8	HSS204 / HSS203	Economics for Engineers / Psychology, Technology and Society	IC	3	0	0	3
Total Credits = 18							

6th Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1	MME313	IC Engines	PC	3	0	0	3
2	MME313(L)	IC Engines Lab	PC	0	0	2	1
3		BTP	IC	3	0	0	3
4		Program Elective – 2	PE	3	0	0	3
5		Other Elective – 1	OE	3	0	0	3
6	HSS204 / HSS203	Economics for Engineers/ Psychology, Technology and Society	IC	3	0	0	3
Total Credits = 16							

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7th Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1		BTP	IC	3	0	0	3
2		Program Elective – 3	PE	3	0	0	3
3		Program Elective – 4	PE	3	0	0	3
4		Other Elective – 2	OE	3	0	0	3
5		Other Elective – 3	OE	3	0	0	3
Total Credits = 15							

8th Semester:

S. No.	Course Code	Course Description	Type	L	T	P	Credits
1		Program Elective – 5	PE	3	0	0	3
2		Other Elective – 4	OE	3	0	0	3
3		Other Elective – 5	OE	3	0	0	3
Total Credits = 9							

Total Credits	148
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Selective list of Programme Electives:

Sr. No.	Name of Programme Electives
1	Failure Analysis and Design
2	Numerical Methods
3	Vehicle Dynamics
4	Automotive Power Transmission Systems
5	Robotics and Industrial Automation
6	Refrigeration and Conditioning
7	Cryogenics
8	Power Plant Engineering
9	Energy Engineering
10	CFD
11	Welding and Allied Processes
12	Mechanical Vibration
13	Energy Conversion and Managements
14	Unconventional Machining Processes

Selective list of Other Electives:

S. No.	Name of course
1	Active Directory
2	Algebra
3	Automotive Electronics
4	Autosar
5	Basics of Finance and Soft Skills
6	Bio-Medical Engineering
7	Biosensors: Concepts and Applications
8	Cinema and Indian Society
9	Classical Mechanics and Field Theory
10	Colonialism and the Making of Modern India
11	Computational Physics
12	Corpus Pragmatics
13	Digital VLSI Circuits
14	Electrical Machines & Power Systems
15	Engineering Chemistry
16	Entrepreneurship Practice
17	Ethnic Conflict: Literature and South Asia
18	French
19	Graph Theory
20	Green Communication and Networking
21	Indian Modernity: Text & Context

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22	Industrial Engineering and Management
23	Industrial Management
24	International Economics and Soft Skills
25	Internet of Things
26	Introduction to Nano Science and Engineering
27	Linear Algebra
28	Logical and Critical Thinking
29	Macro Economics for Managers
30	Mathematical Physics
31	Mathematical Structures for Engineers
32	Modernism: Literary Representation
33	Nano Technology
34	Natural Nano world: Design, Fundamentals and Mechanics
35	Non Linear Dynamics and Chaos
36	Numeric Linear Algebra
37	Numerical Analysis
38	Numerical Methods
39	Operation Research
40	Optimization
41	Organic Electronics and Opto Electronics: Material and Applications
42	Organizational Behaviour
43	Pervasive Computing
44	Physics of Material
45	Physics of The Universe
46	Pragmatics in Social Media
47	Solid State Physics
48	Superconductivity: Basics and Applications
49	System Dynamics and Control
50	System Level Specifications and Design
51	The Self: Aspects and Implications