

First Year (I Semester): Common to All Branches

S. No.	Course Code	Course Name	Category Code	I	P	No. of Credits
1.		Differential and Integral Calculus	BSC	3	0	3
2.		Physics I	BSC	3	0	3
3.		Engineering Mechanics	BEC	3	0	3
4.		Basic Electrical and Electronics Engineering	BEC	3	0	3
5.		Problem-Solving and Computer Programming	BEC	3	0	3
6.		Technical and Professional Communication	HMC	2	2	3
7.		Physics I Practice	BSC	0	3	2
8.		Problem-Solving and Computer Programming Practice	BEC	0	3	2
9.		Engineering Skills Practice	BEC	0	3	2
10.		NSS/NSO/NCC	-	0	0	0
Total No. of Credits						24

Note:

- (1) Branch change may be permitted after the successful completion of 1st Semester.
- (2) Physics I (3-0-3) is to be proposed as a new course by the Department of Sciences.
- (3) Physics I Practice (0-3-2) is to be proposed as a new course by the Department of Sciences.
- (4) NSS/NSO/NCC must be offered as a mandatory course to all the students of 1st Semester. However, students will be given the choice to register for at least 01 course from NSS, NSO, and NCC.
- (5) Engineering Mechanics syllabus may be revised and must be taught as a new course by the Department of Mechanical Engineering.

First Year (II Semester)

S. No.	Course Code	Course Name	Category Code	I	P	No. of Credits
1.		Differential Equations	BSC	3	0	3
2.		Physics II	BSC	3	0	3
3.		Design Course	DES	2	0	2
4.		Humanities Course	HMC	2	0	0
5.		Concepts in Engineering Design	DES	3	0	3
6.		Engineering Graphics (ME & ECE)	BEC	1	3	3
		(OR) Linear Algebra (CSE & AIDS)	BSC	3	0	3
7.		Design Realization Practice	DES	0	3	2
8.		Physics II Practice	BSC	0	3	2
9.		Material Science and Metallurgy	PEC	3	0	3
10.		Thermodynamics	PEC	3	0	3
11.		NSS/NSO/NCC	-	0	0	0
Total No. of Credits						24

Note:

- (1) Engineering Graphics will be offered to only ME and ECE students.
- (2) Linear Algebra will be offered to only CSE and AIDS students.
- (3) Physics II (3-0-3) is to be proposed as a new course by the Department of Sciences.
- (4) Physics II Practice (0-3-2) is to be proposed as a new course by the Department of Sciences.
- (5) Department Core Courses 01 and 02 will be offered by the individual department.
- (6) List of courses under Design Course:
 - (a) Design History
 - (b) Sociology of Design
 - (c) Earth, Environment, and Design
- (7) List of courses under Humanities Course:
 - (a) Professional Ethics for Engineers
 - (b) Universal Human Values
 - (c) History of Science and Technology in India
 - (d) Constitution of India

Second Year (III Semester)

S. No.	Course Code	Course Name	Category Code	I	P	No. of Credits
1.		Linear Algebra (ME and ECE)	BSC	3	0	3
		(OR) Probability and Statistics (CSE and AIDS)	BSC	3	0	3
2.		Mechanics of Materials	PEC	3	0	3
3.		Kinematics of Machines	PEC	3	0	3
4.		Fluid Mechanics and Hydraulic Machinery	PEC	3	0	3
5.		Electrical Drives, Sensors, and Microprocessor	PEC	3	0	3
6.		Materials and Mechanics Practice	PEC	0	3	2
7.		Electrical Drives, Sensors, and Microprocessor Practice	PEC	0	3	2
8.		Machine Drawing & Manufacturability Analysis Practice	PEC	0	3	2
Total No. of Credits						21

Electrical Drives, Sensors, and Microprocessors (Theory & Practice) will be offered by ECE Dept.

Second Year (IV Semester)

S. No.	Course Code	Course Name	Category Code	I	P	No. of Credits
1.		Probability and Statistics (ECE and ME)	BSC	3	0	3
		(OR) Department Core Course (CSE and AIDS)	PEC	3	0	3
2.		Basic Concepts in Manufacturing Processes	PEC	3	0	3
3.		Dynamics of Machines	PEC	3	0	3
4.		Design of Machine elements	PEC	3	0	3
5.		Heat Transfer	PEC	3	0	3
6.		Basic Manufacturing Processes Practice	PEC	0	3	2
7.		Dynamics of Machines Practice	PEC	0	3	2
8.		Fluid Mechanics and Heat Transfer Practice	PEC	0	3	2
9.		Skill Development Course 01	PCD	2	0	2
Total No. of Credits						23

Third Year (V Semester)

S. No.	Course Code	Course Name	Category Code	I	P	No. of Credits
1.		Managerial Economics and Financial Accountancy	HMC	3	0	3
2.		Quality Inspection and Product Validation	PEC	3	0	3
3.		Automation in Manufacturing	PEC	3	0	3
4.		Thermal Engineering	PEC	3	0	3
5.		Operation Research	PEC	3	0	3
6.		Quality Inspection and Product Validation Practice	PEC	0	3	2
7.		Automation in Manufacturing Practice	PEC	0	3	2
8.		Thermal Engineering Practice	PEC	0	3	2
Total No. of Credits						21

Third Year (VI Semester)

S. No.	Course Code	Course Name	Category Code	I	P	No. of Credits
1.		Entrepreneurship and Management Functions	HMC	3	0	3
2.		Computational Methods in Engineering	PEC	3	0	3
3.		Machine Tool Technology	PEC	3	0	3
4.		Department Elective I	PEC	3	0	3
5.		Free Elective I	PEC	3	0	3
6.		Computational Methods in Engineering Practice	PEC	0	3	2
7.		Machine Tool Technology Practice	PEC	0	3	2
8.		Product Design Practice	DES	0	3	2
9.		Skill Development Course 02	PCD	2	0	2
Total No. of Credits						23

Fourth Year (VII Semester)

S. No.	Course Code	Course Name	Category Code	I	P	No. of Credits
1.		Project I	PCD	-	-	3
2.		Departmental Elective II	PEC	3	0	3
3.		Departmental Elective III	PEC	3	0	3
4.		Departmental Elective IV	PEC	3	0	3
5.		Free Elective II	PEC	3	0	3
6.		Seminar	PCD	-	-	1
Total No. of Credits						16

Fourth Year (VIII Semester)

S. No.	Course Code	Course Name	Category Code	I	P	No. of Credits
1.		Internship	PCD	-	-	3
2.		Project II	PCD			8
Total No. of Credits						11

*The student can enroll for the Elective courses from (i) the basket of electives listed and (ii) the list of all courses offered as part of the M.Tech programs with prior approval from the faculty advisor, and HoD.

Grand Total credits for B.Tech = 163