

Bharath Institute of Higher Education and Research

B.Tech-Mechanical Engineering-Prerequisites & Co requisites Table

Sl.No	Subject Code	Subject Name	Category of course (H/B/E/P/OE /NE/CE/PR)	Prerequisite courses	Co requisites courses
1	BEN101	English-I	H	+2 Level English	NIL
2	BMA101	Mathematics –I	B	+2 Level Maths	NIL
3	BPH 101	Engineering Physics – I	B	+2 Level Physics	NIL
4	BCH101	Engineering Chemistry – I	B	+2 Level Chemistry	NIL
5	BCS101	Fundamentals of Computing and Programming	E	+2 Level Physics	NIL
6	BBA101	Personality Development	H	+2 Level Knowledge	NIL
7	BBT 102	Biology for Engineers	B	Basic Science	NIL
8	BCE101	Basic Civil Engineering	E	+2 Level Maths	Physical Science
9	BME101	Engineering Graphics-E	E	+2 Level Maths	Physical Science
10	BCM1L1	Basic Civil and Mechanical Engineering Practices Laboratory	E	NIL	Basic Civil Mechanical
11	BEN 201	English-II	H	English I	NIL
12	BMA201	Mathematics- II	B	Mathematics –I	NIL
13	BPH 201	Engineering Physics – II	B	Engineering Physics – I	NIL
14	BCH201	Engineering Chemistry – II	B	Engineering Chemistry – I	NIL
15	BFR201	French	H	+2 Level English	NIL
16	BGM201	German	H	+2 Level English	NIL
17	BJP201	Japanese	H	+2 Level English	NIL
18	BKR201	Korean	H	+2 Level English	NIL

19	BCN201	Chinese	H	+2 Level English	NIL
20	BME202	Engineering Mechanics	E	Mathematics –I , Physics I	Mathematics –II, Physics II
21	BEE201	Basic Electrical and Electronics Engineering	E	Mathematics –I , Physics I	Mathematics –II, Physics II
22	BCS2L2	Computer Practices Lab	E	Fundamental Of Computer	
23	BEE2L1	Basic Electrical and Electronics Engineering Practices	E	NIL	Basic Electrical and Electronics Engineering
24	BPC2L1	Physics and Chemistry Laboratory	B	Physics I, Chemistry I	Physics II, Chemistry II
25	BMA301	Mathematics III	B	Mathematics I & II	NIL
26	BME301	Kinematics of Machines	P	Engineering Mechanics	NIL
27	BME302	Thermodynamics	P	Mathematics I & II	NIL
28	BME303	Mechanics of Solids	P	Engineering Mechanics	NIL
29	BME304	Fluid Mechanics and Machinery	P	Mathematics I & II	NIL
30	BME305	Manufacturing Technology –I	P	Basic Mechanical Engineering	NIL
31	BME3L1	Machine Drawing	P	Engineering Graphics	NIL
32	BCE3L3	Fluid Mechanics, Machinery and Strength of Materials Lab	P	NIL	Fluid Mechanics and Machinery
33	BMA401	Numerical Methods	B	Maths I, II & III	NIL
34	BME401	Dynamics of Machines	P	Mathematics I & II	NIL
35	BME402	Thermal Engineering I	P	Thermodynamics	NIL
36	BME403	Industrial Metallurgy	P	Manufacturing Technology	NIL
37	BME404	Engineering Metrology and Instrumentation	P	Manufacturing Technology	NIL
38	BCE406	Environmental Studies	H	Physical Science	NIL

39	BME4L1	Metrology and Metallurgy Lab	P	NIL	Engineering Metrology
40	BME4L2	Manufacturing Technology Lab-I	P	Manufacturing Technology I	NIL
41	BME4L3	Technical Seminar I	PR	English I&II	NIL
42	BME501	Machine Design I	P	Engineering Mechanics & Dynamics of Machines	NIL
43	BME502	Thermal Engineering II	P	Thermal Engineering I	NIL
44	BME503	Fluid Power Systems	P	Fluid Mechanics and Machinery	NIL
45	BME504	Automobile Engineering	P	Manufacturing Technology I	Manufacturing Technology II, Machine Design I
46	BME505	Manufacturing Technology – II	P	Manufacturing Technology I	NIL
47	BME5L1	Thermal Engineering Lab	P	Thermal Engineering I, Thermodynamics	Thermal Engineering II
48	BME5L2	Manufacturing Technology Lab-II	P	Manufacturing Technology I	Manufacturing Technology –II
49	BME5L3	Instrumentation and Dynamics lab	P	Engineering Metrology and Instrumentation	NIL
50	BME601	Machine Design II	P	Machine Design I	NIL
51	BME602	Finite element analysis	P	Numerical Methods	NIL
52	BME603	Heat and Mass Transfer	P	Thermal Engineering II	NIL
53	BME604	CAD/CAM	P	Manufacturing Technology I	NIL
54	BME5C1	Comprehension I	PR	All papers up to 4 semester	NIL
55	BSS601	Value Education and Professional Ethics	H	Professional Courses	NIL
56	BME6L1	Heat Transfer Lab	P	Thermal Engineering Lab	NIL
57	BME6L2	CAD/CAM Lab	P		CAD/CAM
58	BME6L3	Technical Seminar -II	PR	Technical Seminar I	NIL
59	BME701	Industrial Engineering	P	Manufacturing Technology I & II	NIL
60	BME702	Operations Research for Engineers	B	Maths I , II & III	NIL

61	BMT7L1	Fluid Power Automation Lab & Microprocessor Lab	P	Fluid Mechanics and Machinery	NIL
62	BME7L1	Computer Aided Analysis and Simulation Lab	P	CAD/CAM	NIL
63	BME8P1	Project work	PR	All Courses	NIL
64	BME001	Advanced Internal Combustion Engines	CE	Basic Mechanical Engineering	NIL
65	BME002	Special Casting Process	CE	Manufacturing Technology I & II	NIL
66	BME003	Mechanical Vibrations	CE	Kinematics of Machines & Dynamics of Machines	NIL
67	BME004	Plant layout and Material Handling	CE	Manufacturing Technology I & II	NIL
68	BME005	Design of Heat Exchangers	CE	NIL	Heat & Mass Transfer
69	BME006	Combustion Engineering	CE	Basic Mechanical Engineering	NIL
70	BME007	Composite materials and Technology	CE	Machine Design & Industrial Metallurgy	NIL
71	BME008	Mechanics of Fracture	CE	Machine Design I	Machine Design II
72	BME009	Design for Manufacturing	CE	Manufacturing Technology I & II, Machine Design I & II	NIL
73	BME010	Advanced Turbo Machines	CE	Manufacturing Technology I & II, Machine Design I & II	NIL
74	BME011	Process planning and cost Estimation	CE	Industrial Engineering	NIL
75	BME012	Jigs, Fixtures and Press tools	CE	Manufacturing Technology I & II	NIL
76	BGE001	Vibration Control and Condition Monitoring	NE	Kinematics of Machines & Dynamics of Machines	NIL
77	BGE002	Wind and Solar Energy	NE	New and Renewable Sources of Energy	New and Renewable Sources of Energy
78	BGE003	New and Renewable Sources of Energy	NE	Professional Courses	NIL

79	BGE 004	Electronics for Mechanical systems	NE	Mechatronics	NIL
80	BGE005	Industrial Robotics	NE	Mechatronics	NIL
81	BGE006	Power Plant Engineering	NE	Basic Mechanical Engineering	NIL
82	BGE007	Gas Dynamics and Space Propulsion	NE	Heat & Mass Transfer	NIL
83	BBA008	Total Quality Management	NE	Professional Courses	NIL
84	BGE009	Nuclear Engineering	NE	Thermal Engineering	NIL
85	BGE010	Rapid prototyping	NE	Manufacturing Technology I & II	NIL
86	BGE011	Computational Fluid Dynamics	NE	Manufacturing Technology I & II	NIL
87	BGE012	MEMS & Nanotechnology	NE	Physics I	NIL
88	BBA001	Principles of Management and Organizational Behavior	OE	Professional Courses	NIL
89	BBA002	Entrepreneurship Development	OE	Professional Courses	NIL
90	BBA003	Marketing Management	OE	Professional Courses	NIL
91	BBA004	Engineering Economics and Financial Accounting	OE	Professional Courses	NIL
92	BBA005	Energy Engineering and Management	OE	Professional Courses	NIL
93	BBA006	Indian Constitution and Society	OE	Professional Courses	NIL
94	BBA007	Engineering Economics & Cost Analysis	OE	Industrial Engineering	NIL