Syllabus for B-Tech (Mechanical Engineering) Upto 4th year



Second Year - Third Semester

A.TI	HEORY									
Sl	Subject	Theory	Contac	Contact Hours/Week						
No.	Code									
			${f L}$	T	P	Total				
1	HU-301	Values & Ethics in Profession	3	0	0	3	3			
2	M (CS) 301	Numerical Methods	2	1	0	3	2			
3	CH301	Basic Environmental	3	0	0	3	3			
		Engineering &Elementary								
		Biology								
4	ME 301	Applied Thermodynamics	4	0	0	4	4			
5	ME 302	Strength of Materials	3	1	0	4	4			
6	ME 303	Engineering Materials	3	1	0	4	3			
		Essential studies for								
7.	GS301	professional 3	2	1	0	3	2			
		Total of Theory				24	21			
B. P	RACTICAL									
8	HU-381	Technical Report Writing &	0	0	3	3	2			
		Language Lab Practice								
9	M (CS) 391	Numerical Methods	0	0	2	2	1			
10	ME 391	Machine Drawing –I	0	0	3	3	2			
11	ME 392	Workshop Practice-II	0	0	3	3	2			
12	ME 393	Applied Mechanics Lab	0	0	3	3	2			
		Skill development for								
13	GS -381	professionals	3	0	0	3 17	1 10			
	Total of Practical									
	Total of Semester									



Second Year Fourth Semester

A.TI	HEORY							
Sl	Subject	Theory	Conta	ct Hours	/Week		Credit	
No.	Code			Points				
			L	T	P	Total		
1	M 401	Mathematics-3	3	1	0	4	4	
2	ME 401	Fluid Mechanics & Hydraulic Machines	3	1	0	4	4	
3	ME 402	Mechanisms	3	0	0	3	3	
4	ME 403	Primary Manufacturing Processes	3	1	0	4	4	
5	ME 404	Heat Transfer	3	1	0	4	4	
6.	GS-401	Essential studies for professional 4	2	1	0	3	2	
	22	21						
B. P	RACTICAL	•				•	•	
7	ME491	Fluid Mechanics & Hydraulics Lab	0	0	3	3	2	
8	ME 492	Manufacturing Technology Lab	0	0	3	3	2	
9	ME493	Material Testing Lab	0	0	3	3	2	
10	ME 494	Machine Drawing-II	0	0	3	3	2	
11	ME 495	Applied Thermodynamics & Heat Transfer Lab	0	0	3	3	2	
12	GS -481	skill development for professionals	3	0	0	3	1	
	Total of Practical							
	Total of Semester							

Syllabus for B-Tech (Mechanical Engineering) Upto 4th year



Third Year – Fifth Semester

A.TI	HEORY								
Sl	Subject	Theory	Contact 1	Hours	/Wee	ek	Credit		
No.	Code								
			L	T	P	Total			
1	HU511	Principles & Practices of Management	2	0	0	2	2		
2	ME 501	Dynamics of Machines	3	1	0	4	4		
3	ME 502	Design of Machine Elements	3	1	0	4	4		
4	ME 503	Metrology & Measurement	3	1	0	4	4		
5	ME 504	Professional Elective-I	3	0	0	3	3		
		A-Electrical Machines							
		B-Applied Fluid Mechanics							
6	ME 505	Free Elective – I	3	0	0	3	3		
		A. Data Base Management Systems							
		B. Operating System							
		C. Microprocessor & Microcontroller							
7.	GS -501	Essential studies for professional5	2	1	0	3	2		
		Total of Theory				23	22		
B. P	RACTICA	L							
8	ME 581	Seminar-I	0	0	3	3	2		
	(Session								
	al)								
9	ME 592	Design Practice-I	0	0	3	3	2		
10	ME593	Metrology & Measurement Lab	0	0	2	2	1		
11	ME 594	Professional Elective – I Lab	0	0	3	3	2		
12	ME 595	Free Elective – I Lab	0	0	3	3	2		
13	GS -581	Skill development for professionals Total of Practical	3	0	0	3	1		
	17 40	10 32							
	Total of Semester								



Third Year – Sixth Semester

A.TH	EORY								
Sl	Subject	Theory	Contact Ho	eek	Credit				
No.	Code				Points				
			${f L}$	T	P	Total			
1	HU 611	Production & Operations Management	2	0	0	2	2		
2	ME 601	IC Engines and Gas Turbines	3	0	0	3	3		
3	ME 602	Machining Principles & MachineTools	3	0	0	3	3		
4	ME 603	Machine Design	3	0	0	3	3		
5	ME 604	Professional Elective-II A. Air Conditioning & Refrigeration B. Mechatronics C. Fluid Power Control	3	0	0	3	3		
6	ME 605	Free Elective-II A. Control System B. Software Engineering C. Operations Research	3	0	0	3	3		
7.	GS 601	Essential studies for professional 6	2	1	0	3	2		
		Total of Theory				20	19		
B. PF	RACTICAI								
8	ME 691	Machining & Machine Tools Lab	0	0	3	3	2		
9	ME 692	IC Engine Lab	0	0	3	3	2		
10	ME 693	Design Practice-II	0	0	3	3	2		
11	ME 694	Dynamics of Machines Lab	0	0	3	3	2		
12	ME 695	Professional Elective-II Lab	0	0	3	3	2		
13	GS -681	Skill development for professionals	3	0	0	3	1		
	Total of Practical								
	Total of Semester								



Fourth Year – Seventh Semester

A.Tl	HEORY							
Sl	Subject	Theory	Contact Hours/Week				Credit	
No.	Code						Points	
			L	T	P	Total		
1	ME 701	Power Plant Engineering	4	0	0	4	4	
2	ME 702	Advanced Manufacturing	4	0	0	4	4	
		Technology						
3	ME 703	Professional Elective-III	3	0	0	3	3	
		A. Materials Handling						
		B. Finite Element Method						
		C. Turbo Machinery						
4	ME 704	Professional Elective-IV	3	0	0	3	3	
		A. Maintenance Engineering						
		B. Renewable Energy Systems						
		C. Tribology						
5	ME 705	Professional Elective – V	3	0	0	3	3	
		A. Quantity Production Method						
		B. Advanced Welding Technology						
		C. Computational Methods in						
		Engineering						
6	ME 706	Free Elective-III	3	0	0	3	3	
		A. Object Oriented Programming						
		B. Artificial Inelegance						
		C. Electronic Measurement &						
_		Instrumentation				_		
7.	GS 701	Essential studies for professional 7	2	1	0	3	2	
		Total of Theory				23	22	
	RACTICAI			- I -	_			
8	ME 791	Advanced Manufacturing Lab	0	0	3	3	2	
9	ME 781	Project : Part 1	0	0	4	4	2	
10	ME 782	Viva Voce on Vocational Training	0	0	0	0	2	
11	ME783	Group Discussion	0	0	0	0	2	
12	GS -781	Skill development for professionals Total of Practical	3	0	0	3	1	
	10 33	30						
	Total of Semester							

Syllabus for B-Tech (Mechanical Engineering) Upto 4th year



Fourth Year – Eighth Semester

A.TH	IEORY								
Sl	Subject	Theory		Cont	act H	Veek	Credit		
No.	Code						Points		
				L	T	P	Total		
1	ME 801	Economics for Engineers		3	0	0	3	3	
	(HU)								
2	ME 802	Professional Elective-VI		3	0	0	3	3	
		A. CAD/CAM							
		B. Industrial Robotics							
		C. Energy Conservation &							
		Management							
		D. Quality & Reliability							
		Engineering							
3	ME 803	Free Elective-IV		3	0	0	3	3	
		A. Safety & Occupational Healt	h						
		B. Automation & Control							
		C. Water Resource Engineering							
		D. Automobile Engineering							
4.	GS 801	Essential studies for professiona	al - 8	2	1	0	3	2	
		Total of Theory					12	11	
B. Pl	RACTICAL								
4	ME 881	Deign of a Mechanical System		0	0	6	6	4	
5	ME 882	Project : Part II		0	0	12	12	6	
6	ME 883	Comprehensive viva		0	0	0	0	2	
	Total of Practical								
	Total of Semester								

Syllabus for B-Tech (Mechanical Engineering) Upto ${\bf 4}^{\sf th}$ year

