

Syllabus Scheme

of

Bachelor of Technology (Mechanical Engineering)



**I.E.C. UNIVERSITY
BADDI (SOLAN) H.P.**

**B. TECH. PROGRAM FIRST YEAR,
SEMESTER I**

Course			Periods			Evaluation Scheme					Course Total	
Sr. No	Code	Title	L	T	P	Sessional Marks				Exam marks	Marks	Credits
						MSE	CA	P	Total	ESE		
Theory												
1	MATH-101	Engineering Mathematics-I	3	1	0	40	20	0	60	40	100	3.5
2	PHY-101	Engineering Physics	3	1	0	40	20	0	60	40	100	3.5
3	CSE-101	Fundamentals of computer and programming in "C"	3	1	0	40	20	0	60	40	100	3.5
4	HUM-101	Communication Skills	3	0	0	30	20	0	60	40	100	3
5	ME-101	Engineering Mechanics	3	1	0	40	20	0	60	40	100	3.5
6	CSE-102	IT infrastructure Landscape Overview	3	0	0	40	20	0	60	40	100	3
Practical/Training/Project												
1	PHY-151	Engineering Physics Lab.	0	0	2			30	30	20	50	1
2	CSE-151	Programming in "C" lab.	0	0	2			30	30	20	50	1
3	ME-151	Engineering Mechanics Lab	0	0	2			30	30	20	50	1
4	HUM-151	Communication Skills Lab	0	0	2			30	30	20	50	1
Total									480	320	800	24
SEMESTER II												
Theory												
1	MATH-201	Engineering Mathematics-II	3	1	0	40	20	0	60	40	100	3.5
2	CHEM-101	Engineering Chemistry	3	1	0	40	20	0	60	40	100	3.5
3	ME-201	Engineering Drawing	3	0	0	40	20	0	60	40	100	3
4	EVS-101	Environment Science and technology	3	0	0	40	20	0	60	40	100	3
5	EEE-101	Basic Electrical & Electronics	3	1	0	40	20	0	60	40	100	3.5
6	CSE-201	Introduction to Internet of Things	3	0	0	40	20	0	60	40	100	3
Practical/Training/Project												
1	CHEM-151	Engineering Chemistry Lab	0	0	2			0	30	20	50	1
2	EEE-151	Basic Electrical & Electronics Lab	0	0	2			0	30	20	50	1
3	ME-152	Workshop lab	1	0	3			0	60	40	100	2.5
Total									480	320	800	24

B.Tech (Mechanical Engineering)
Semester III

Course			Periods			Evaluation Scheme					Course Total	
Sr. No	Code	Title	L	T	P	Sessional Marks				Exam Marks	Marks	Credits
						MSE	CA	P	Total	ESE		
Theory												
1	HUM-305	Human Value & Professional Ethics	3	0	0	40	20	0	60	40	100	3
2	MAT-301	Mathematics-III	3	1	0	40	20	0	60	40	100	3.5
3	ME-301	Fluid Mechanics	3	1	0	40	20	0	60	40	100	3.5
4	ME-302	Materials Science in Engineering	3	0	0	40	20	0	60	40	100	3
5	ME-303	Strength of Materials-1	3	1	0	40	20	0	60	40	100	3.5
6	ME-304	Engineering Thermodynamics -I	3	1	0	40	20	0	60	40	100	3.5
(Practical/Training/Project)												
1	ME-351	Fluid Mechanics Lab	0	0	2			30	30	20	50	1
2	ME-352	Material Science & Testing Lab	0	0	2			30	30	20	50	1
3	ME-353	Machine Drawing	0	0	3			30	30	20	50	1.5
Total			18	4	7	240	120	90	450	300	750	23.5

**B.Tech (Mechanical Engineering)
Semester IV**

Course			Periods			Evaluation Scheme					Course Total	
Sr. No	Code	Title	L	T	P	Sessional Marks				Exam Marks	Marks	Credits
						MSE	CA	P	Total	ESE		
			Theory									
1	ME-401	Fluid Machinery	3	1	0	40	20	0	60	40	100	3.5
2	ME-402	Internal Combustion Engine and Gas Turbine	3	1	0	40	20	0	60	40	100	3.5
3	ME-403	Engineering Thermodynamics II.	3	1	0	40	20	0	60	40	100	3.5
4	ME-404	Manufacturing Science-I	4	0	0	40	20	0	60	40	100	4
5	ME-405	Measurement & Metrology	4	0	0	40	20	0	60	40	100	4
6	ME-406	Strength of Materials -II	3	1	0	40	20	0	60	40	100	3.5
Practical/Training/Project												
1	ME-451	Fluid Machinery Lab	0	0	2			30	30	20	50	1
2	ME-452	Internal Combustion Engine and Gas Turbine Lab	0	0	2			30	30	20	50	1
3	ME-453	Engineering Thermodynamics Lab	0	0	2			30	30	20	50	1
Total			20	4	6	240	120	90	450	300	750	25

Note- Summer Training (6 Weeks) done after 4th Semester would be evaluated in 5th semester through Report and viva voice etc

B.Tech (Mechanical Engineering)
Semester V

Course			Periods			Evaluation Scheme					Course Total	
Sr. No	Code	Title	L	T	P	Sessional Marks				Exam Marks	Marks	Credits
						MSE	CA	P	Total	ESE		
						Theory						
1	ME-501	Machine Design-I	3	1	0	40	20	0	60	40	100	3.5
2	ME-502	Theory of Machines-I	3	1	0	40	20	0	60	40	100	3.5
3	ME-503	Manufacturing Science-II	3	0	0	40	20	0	60	40	100	3
4	ME-504	Heat & Mass Transfer	3	1	0	40	20	0	60	40	100	3.5
5	ME-505	Production Planning & Control	3	0	0	40	20	0	60	40	100	3
Practical/Training/Project												
1	ME-551	Machine Design-I Lab	0	0	3			30	30	20	50	1.5
2	ME-552	Manufacturing Science Lab	0	0	2			30	30	20	50	1
3	ME-553	Heat & Mass Transfer Lab	0	0	2			30	30	20	50	1
4	ME-554	Summer Training (6Weeks)						60	60	40	100	2
5	ME-555	Seminar	0	0	2			30	30	20	50	1
Total			15	3	9	200	120	180	480	320	800	23

**Machine Design-I (ME-501) L-T-P changed to 3-1-0 and new credits for the subject now 3.5. Total credits increased to 23 (W.e.f 2019-2023).*

**B.Tech (Mechanical Engineering)
Semester VI**

Course			Periods			Evaluation Scheme					Course Total	
Sr. No	Code	Title	L	T	P	Sessional Marks				Exam Marks	Marks	Credits
						MSE	CA	P	Total	ESE		
						Theory						
1	ME-601	Industrial Engineering	3	0	0	40	20	0	60	40	100	3
2	ME-602	Unconventional Manufacturing Processes	3	0	0	40	20	0	60	40	100	3
3	ME-603	Mechanical Vibrations	3	1	0	40	20	0	60	40	100	3.5
4	ME-604	Machine Design-II	3	1	0	40	20	0	60	40	100	3.5
5	ME-605	Theory of Machine- II	3	1	0	40	20	0	60	40	100	3.5
6	ME-606	Refrigeration and Air Conditioning	3	1	0	40	20	0	60	40	100	3.5
Practical/Training/Project												
1	ME-651	Machine Design-II Lab	0	0	3			30	30	20	50	1.5
2	ME-652	Theory of Machines Lab	0	0	2			30	30	20	50	1
3	ME-653	Refrigeration and Air Conditioning Lab	0	0	2			30	30	20	50	1
4	ME-654	AutoCAD Lab	0	0	2			30	30	20	50	1
Total			18	4	9	240	120	120	480	320	800	24.5

**Machine Design-II (ME-604) L-T-P changed to 3-1-0 and new credits for the subject now 3.5. Total credits increased to 24.5 (W.e.f 2019-2023).*

B.Tech (Mechanical Engineering)
Semester VII

Course			Periods			Evaluation Scheme					Course Total	
Sr. No	Code	Title	L	T	P	Sessional Marks				Exam Marks	Marks	Credits
						MSE	CA	P	Total	ESE		
Theory												
1	ME-701	Computer Aided Design/Computer Aided Manufacturing	4	0	0	40	20	0	60	40	100	4
2	ME-702	Automobile Engineering	4	0	0	40	20	0	60	40	100	4
3	ME-703	Total Quality Management	4	0	0	40	20	0	60	40	100	4
4	ME-704	Operations Research	4	0	0	40	20	0	60	40	100	4
5	ME-705	Non Conventional Energy Resources	4	0	0	40	20	0	60	40	100	4
Practical/Training/Project												
1	ME-751	CAD/CAM Lab	0	0	2			30	30	20	50	1
2	ME-752	Automobile Lab	0	0	2			30	30	20	50	1
3	ME-753	Project	0	0	4			60	60	40	100	3
Total			20	0	8	200	100	120	420	280	600	25

**Non Conventional Energy Resources (ME-705) L-T-P changed to 4-0-0.*

**B.Tech (Mechanical Engineering)
Semester VIII**

Course			Periods			Evaluation Scheme				Course Total		
Sr. No	Code	Title	L	T	P	Sessional Marks			Exam Marks	Marks	Credits	
						MSE	CA	P	Total			ESE
Practical/Training/Project												
1	ME-851	Industrial Training(6 Months)	0	0	0			300	300	200	500	20
Total			0	0	0			300	300	200	500	20

Summary of credits: 24+24+23.5+25+23+24.5+25+20= 189