

**B. Tech. Mechanical Engineering (Sandwich)**  
**Course Structure for Semester III [Second Year] w.e.f. 2019-2020**

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTBC301	BSC 7	Engineering Mathematics-III	3	1	--	20	20	60	100	4
BTMEC302	ESC 11	Materials Science and Metallurgy	3	1	--	20	20	60	100	4
BTMEC303	PCC 1	Fluid Mechanics	3	1	--	20	20	60	100	4
BTMEC304	PCC 2	Machine Drawing and CAD	2	--	--	20	20	60	100	2
BTMEC305	ESC 12	Thermodynamics	3	1	--	20	20	60	100	4
BTHM3401	HSMC 3	Basic Human Rights	2	--	--	50	--	--	50	Audit (AU/ NP)
BTMEL307	ESC 13	Materials Science and Metallurgy Lab	--	--	2	60	--	40	100	1
BTMEL308	PCC 3	Fluid Mechanics Lab	--	--	2	60	--	40	100	1
BTMEL309	PCC 4	Machine Drawing and CAD Lab	--	--	4	60	--	40	100	2
BTMEF310	Project 1	Field Training /Internship/Industrial Training I	--	--	--	--	--	50	50	1
Total			16	4	8	330	100	470	900	23

**B. Tech. Mechanical Engineering (Sandwich)**  
**Course Structure for Semester IV [Second Year] w.e.f. 2019-2020**

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTMEC401	PCC 5	Manufacturing Processes - I	2	1	--	20	20	60	100	3
BTME402S	PCC 6	Theory of Machines	3	1	--	20	20	60	100	4
BTMEC403	PCC 7	Strength of Materials	3	1	--	20	20	60	100	4
BTID405S	PCC 8	Product Design Engineering	3	--	2	60	--	40	100	4
BTMEC404	OEC 1	Numerical Methods in Mechanical Engineering	3	--	--	20	20	60	100	3
BTBSE406A		Physics of Engineering Materials								
BTBSE3405A		Advanced Engineering Chemistry								
BTHM3402		Interpersonal Communication Skill & Self Development								
BTMEL407	PCC 9	Manufacturing Processes Lab – I	--	--	4	60	--	40	100	2
BTMEL408S	PCC 10	Theory of Machines Lab	--	--	2	60	--	40	100	1
BTMEL409	PCC 11	Strength of Materials Lab	--	--	2	60	--	40	100	1
Total			15	3	10	320	80	400	800	22
Minimum 4 weeks training which can be completed partially in third and fourth semester or in at one time.										

**B. Tech. Mechanical Engineering (Sandwich)**  
**Course Structure for Semester V [Third Year] w.e.f. 2020-2021**

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTMEC501	PCC 12	Heat Transfer	3	1	--	20	20	60	100	4
BTME502S	PCC 13	Applied Thermodynamics	2	1	--	20	20	60	100	3
BTME503S	PCC 14	Machine Design	3	1	--	20	20	60	100	4
BTME504S	PCC 15	Renewable Energy Sources	2	--	--	20	20	60	100	2
BTMEC505	PCC 16	Metrology and Quality Control	2	1	--	20	20	60	100	3
BTMEC506A	OEC 2	Automobile Engineering	3	--	--	20	20	60	100	3
BTMEC506B		Nanotechnology								
BTMEC506C		Energy Conservation and Management								
BTMEL507	PCC 18	Heat Transfer Lab	--	--	2	30	--	20	50	1
BTMEL508S	PCC 19	Applied Thermodynamics Lab	--	--	2	30	--	20	50	1
BTMEL509S	PCC 20	Machine Design Practice Lab	--	--	2	30	--	20	50	1
BTMEL510	PCC 25	Metrology and Quality Control Lab	--	--	2	30	--	20	50	1
BTMEF511	Project 2	Field Training /Internship/Industrial Training II	--	--	--	--	--	50	50	1
Total			15	4	8	240	120	490	900	24

**B. Tech. Mechanical Engineering (Sandwich)**  
**Course Structure for Semester VI [Third Year] w.e.f. 2020-21**

Course Code	Type of Course	Course Title	Weekly Teaching Scheme			Evaluation Scheme				Credits
			L	T	P	CA	MSE	ESE	Total	
BTMEC601	PCC 22	Manufacturing Processes- II	2	1	--	20	20	60	100	3
BTMEC604A	PEC 1	Engineering Tribology	2	1	--	20	20	60	100	3
BTMEC604B		IC Engines								
BTMEC604C		Additive Manufacturing								
BTMEC604D		Mechanical Measurements								
BTMEL609	PCC 23	IC Engine Lab	--	--	2	60	-	40	100	1
BTMEM603	Project 3A	Industrial In plant Training I	--	--	--	--	--	300	300	12
BTMEM604	Project 3B	Seminar on Industrial In plant Training I	--	--	--	--	--	100	100	4
Total			4	2	2	100	40	560	700	23