



JAGADGURUKUL
UNIVERSITY

Faculty of Engineering & Technology

B. Tech.

(Mechanical Engineering)

(2015-16)

Program Structure

B.Tech. (ME) Course Structure (2015-16)

Semester - I

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BT 101	Engineering Physics-I	3	1	-	30	70	100	4
BT 102	Introduction to Computers Fundamental and IT*	3	-	-	30	70	100	3
BT 103	Applied Mathematics-I	3	1	-	30	70	100	4
BT 104	Introduction to Electrical & Electronic Engineering	3	-	-	30	70	100	3
BT 105	English & Communication Skills	3	-	-	30	70	100	3
BT 106	Engineering Chemistry	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BT 107	Electrical & Electronics Lab-I	-	-	2	30	20	50	1
BT 108	Engineering Physics Lab-I	-	-	2	30	20	50	1
BT 109	IT Fundamental Lab*	-	-	2	30	20	50	1
BT 110	Engineering Chemistry Lab	-	-	2	30	20	50	1
BT 111	Engineering Workshop	-	-	2	30	20	50	1
TOTAL		18	2	10	330	520	850	25

Semester - II

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BT 201	Engineering Physics-II	3	1	-	30	70	100	4
BT 202	Introduction to Computer Programming *	3	-	-	30	70	100	3
BT 203	Engineering Mechanics*	3	1	-	30	70	100	4
BT 204	Digital Electronics	3	-	-	30	70	100	3
BT 205	Applied Mathematics-II	3	-	-	30	70	100	3
BT 206	Environmental Sciences	3	-	-	30	70	100	3
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BT 207	Electrical & Electronic Lab-II	-	-	2	30	20	50	1
BT 208	Engineering Physics-II	-	-	2	30	20	50	1
BT 209	Computer Programming Lab*	-	-	2	30	20	50	1
BT 210	Engineering Drawing	-	-	2	30	20	50	1
BT 211	Communication Skill Lab*	-	-	2	30	20	50	1
TOTAL		18	2	10	330	520	850	25

Semester - III

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			Credits
Code	Subject/Paper	L	T	P	IA	EA	Total	
BTME 301	Numerical Analysis and Statistical Techniques	3	-	-	30	70	100	3
BTME302	Thermodynamics	3	1	-	30	70	100	4
BTME303	Electronics Measurement and Instrumentation	3	-	-	30	70	100	3
BTME304	Mechanics of solids	3	1	-	30	70	100	4
BTME305	Production Technology	3	-	-	30	70	100	3
BTME306	Material Science & Engineering	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME307	EMI Lab	-	-	2	30	20	50	1
BTME308	Strength of Material Lab	-	-	2	30	20	50	1
BTME309	Production Technology Lab	-	-	2	30	20	50	1
BTME310	Material Science Lab	-	-	2	30	20	50	1
BTME311	Machine drawing lab	-	-	2	30	20	50	1
TOTAL		18	2	10	330	520	850	25

Semester - IV

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			Credits
Code	Subject/Paper	L	T	P	IA	EA	Total	
BTME401	Fluid Mechanics and Hydraulics	3	1	-	30	70	100	4
BTME402	Automobile Engineering	3	-	-	30	70	100	3
BTME403	Kinematics of Machines	3	1	-	30	70	100	4
BTME404	Industrial Engineering	3	-	-	30	70	100	3
BTME405	Manufacturing Processes	3	-	-	30	70	100	3
BTME406	Design Of Machine Elements-I	3	-	-	30	70	100	3
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME407	Fluid Mechanics and hydraulics Lab	-	-	2	30	20	50	1
BTME408	Automobile Engineering Lab	-	-	2	30	20	50	1
BTME409	KOM Lab	-	-	2	30	20	50	1
BTME410	Production Engineering practice lab	-	-	2	30	20	50	1
BTME4111	Machine Design Lab -I	-	-	2	30	20	50	1
TOTAL		18	2	10	330	520	850	25
4-6 weeks training will be held after fourth semester,viva will be conducted in fifth sem.								

Semester - V

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			Credits
Code	Subject/Paper	L	T	P	IA	EA	Total	
BTME501	Design Of Machine Elements- II	3		-	30	70	100	3
BTME502	Management of Manufacturing system	3		-	30	70	100	3
BTME503	Heat and Mass Transfer	3	1	-	30	70	100	4
BTME504	Dynamics Of Machines	3	1	-	30	70	100	4
BTME505	I.C. Engines	3		-	30	70	100	3
	Elective (any one)							
BTME506A	Principle of Turbo Machines	3	-	-	30	70	100	3
BTME506B	Fundamental of Aerodynamics	3	-	-	30	70	100	3
BTME506C	Object Oriented Programming in C++	3	-	-	30	70	100	3
BTME506D	Electrical Machines	3	-	-	30	70	100	3
BTME506E	Control system	3	-	-	30	70	100	3

<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME 507	Heat Transfer Lab	-	-	2	30	20	50	1
BTME 508	Dynamics of Machines Lab	-	-	2	30	20	50	1
BTME 509	I.C. Engine Lab	-	-	2	30	20	50	1
BTME 510	Manufacturing Technology Lab	-	-	2	30	20	50	1
BTME 511	Machine Design Lab-II	-	-	2	30	20	50	1
BTME512	TRAINING VIVA	-	-	0	30	20	50	2
TOTAL		18	2	10	360	540	900	27

Semester - VI

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME 601	Air Conditioning & Refrigeration	3	1	-	30	70	100	4
BTME 602	Steam & Gas Turbines	3	-	-	30	70	100	3
BTME 603	Hydraulic Machines	3	1	-	30	70	100	4
BTME 604	Noise, Vibration & Harshness	3	-	-	30	70	100	3
BTME 605	Operation Research	3	1	-	30	70	100	4
	Elective (any one)							
BTME606A	CAD-CAM	3	-	-	30	70	100	3
BTME606B	Non Destructive Evaluation and Testing	3	-	-	30	70	100	3
BTME606C	Design and Manufacture of Plastic products	3	-	-	30	70	100	3
BTME606D	Maintenance Management	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME 607	Air Conditioning & Refrigeration Lab	-	-	2	30	20	50	1
BTME 608	CAD Lab	-	-	2	30	20	50	1
BTME 609	Vibration Lab	-	-	2	30	20	50	1
BTME 610	Hydraulic Machines Lab	-	-	2	30	20	50	1
BTME 611	Industrial tour/ In house workshop	-	-	0	30	20	50	2
BTME 612	Technical Seminar	-	-	1	30	20	50	1
TOTAL		18	3	9	360	540	900	28

Semester - VII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME 701	PROJECT/INDUSTRIAL TRAINING	1	1	1	540	360	900	28
TOTAL					540	360	900	28

Semester - VIII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME 801	Fundamentals of Aerodynamics	3	1	1	30	70	100	4
BTME 802	Quality Control & Quality Assurance	3	1	1	30	70	100	4
BTME 803	Mechatronics & Robotics	3	1	1	30	70	100	4
BTME 804	Production Design & Development	3	1	1	30	70	100	3
BTME 805	Non Conventional Energy	3	1	1	30	70	100	3
BTME 806	Advanced Manufacturing Methods	3	1	1	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			<i>Sessional</i>	Practical	Total	Credits
BTM807	CAM & Robotics Lab	1	1	2	30	20	50	1
BTME808	MAT Lab	1	1	2	30	20	50	1
BTME809	NCE Lab	1	1	2	30	20	50	1
BTME810	Project/Seminar	1	1	2	90	60	150	2
TOTAL		18	4	8	360	540	900	27
Grand Total of Marks and Credits		126	16	63	3030	4180	7000	210



Faculty of Engineering & Technology

B. Tech.

(Mechanical Engineering)

(2016-17)

Program Structure

B.Tech. (ME) Course Structure (2016-17)

Semester - I

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BT 101	Engineering Physics-I	3	1	-	30	70	100	4
BT 102	Introduction to Computers Fundamental and IT*	3	-	-	30	70	100	3
BT 103	Applied Mathematics-I	3	1	-	30	70	100	4
BT 104	Introduction to Electrical & Electronic Engineering	3	-	-	30	70	100	3
BT 105	English & Communication Skills	3	-	-	30	70	100	3
BT 106	Engineering Chemistry	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessiona	Practical	Total	Credits
BT 107	Electrical & Electronics Lab-I	-	-	2	30	20	50	1
BT 108	Engineering Physics Lab-I	-	-	2	30	20	50	1
BT 109	IT Fundamental Lab*	-	-	2	30	20	50	1
BT 110	Engineering Chemistry Lab	-	-	2	30	20	50	1
BT 111	Engineering Workshop	-	-	2	30	20	50	1
TOTAL		18	2	10	330	520	850	25

Semester - II

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BT 201	Engineering Physics-II	3	1	-	30	70	100	4
BT 202	Introduction to computer Programming *	3	-	-	30	70	100	3
BT 203	Engineering Mechanics*	3	1	-	30	70	100	4
BT 204	Digital Electronics	3	-	-	30	70	100	3
BT 205	Applied Mathematics-II	3	-	-	30	70	100	3
BT 206	Environmental Sciences	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BT 207	Electrical & Electronic Lab-II	-	-	2	30	20	50	1
BT 208	Engineering Physics Lab-II	-	-	2	30	20	50	1
BT 209	Computer Programming Lab*	-	-	2	30	20	50	1
BT 210	Engineering Drawing	-	-	2	30	20	50	1
BT 211	Communication Skill Lab*	-	-	2	30	20	50	1
TOTAL		18	2	10	330	520	850	25

Semester - III

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME 301	Advanced Engineering Mathematics	3	-	-	30	70	100	3
BTME302	Engineering Thermodynamics	3	1	-	30	70	100	4
BTME303	Electronic Measurement and Instruments	3	-	-	30	70	100	3
BTME304	Mechanics of Solids-I	3	1	-	30	70	100	4
BTME305	Manufacturing Processes	3	-	-	30	70	100	3
BTME306	Material Science and Engineering	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME307	Material Science and Testing Lab	-	-	2	30	20	50	1
BTME308	Basic Mechanical Engineering Lab	-	-	2	30	20	50	1
BTME309	Production Practice - I	-	-	2	30	20	50	1
BTME310	EMI Lab	-	-	2	30	20	50	1
BTME311	Mechanical Engineering Drawing	-	-	2	30	20	50	1
TOTAL		18	2	10	330	520	850	25

Semester - IV

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME401	Kinematics of Machines	3	1	-	30	70	100	4
BTME402	Fluid Mechanics & Machines	3	-	-	30	70	100	3
BTME403	Machining & Machine Tools	3	1	-	30	70	100	4
BTME404	Design of Machine Elements - I	3	-	-	30	70	100	3
BTME405	Industrial Engineering	3	-	-	30	70	100	3
BTME406	I.C. Engines	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME407	Kinematics of Machine Lab	-	-	2	30	20	50	1
BTME408	Fluid Mechanics Lab	-	-	2	30	20	50	1
BTME409	Production Practice-II	-	-	2	30	20	50	1
BTME410	Machine Design Sessional - I	-	-	2	30	20	50	1
BTME411	Thermal Engineering Lab-I	-	-	2	30	20	50	1
TOTAL		18	2	10	330	520	850	25

Semester - V

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME501	Heat Transfer	3	1	-	30	70	100	4
BTME502	Dynamics of Machines	3	1	-	30	70	100	4
BTME503	Measurement & Metrology	3	1	-	30	70	100	4
BTME504	Quality Assurance and Reliability	3	-	-	30	70	100	3
BTME505	Sociology and Economics for Engineers	3	-	-	30	70	100	3
BTME506.A	Computer Aided Design and Graphics	3	-	-	30	70	100	3
BTME506.B	Automobile Engg.	3	-	-	30	70	100	3
BTME506.C	Statistics for Decision Making	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME507	Heat Transfer Lab	-	-	2	30	20	50	1
BTME508	Dynamics of Machines Lab	-	-	2	30	20	50	1
BTME509	Production Engineering Lab	-	-	2	30	20	50	1
BTME510	Professional Ethics and Disaster Management	-	-	2	30	20	50	1
BTME511	Discipline & Extra Curricular Activity	-	-	-	-	-	50	1
BTME512	Project	-	-	-	30	20	50	1
TOTAL		18	2	10	360	540	900	27

Semester - VI

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME601	Design of Machine Elements - II	3	1	-	30	70	100	4
BTME602	Newer Machining Methods	3	-	-	30	70	100	3
BTME603	Mechatronics	3	1	-	30	70	100	4
BTME604	Vibration Engineering	3	1	-	30	70	100	4
BTME605	Steam Engineering	3	1	-	30	70	100	4
BTME606.A	Non Destructive Evaluation and Testing	3	-	-	30	70	100	3
BTME606.B	Design and Manufacture of Plastic Products	3	-	-	30	70	100	3
BTME606.C	Maintenance Management	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME607	Machine Design Sessional -II	-	-	2	30	20	50	1
BTME608	Industrial Engineering Lab-I	-	-	2	30	20	50	1
BTME609	Mechatronics Lab	-	-	2	30	20	50	1
BTME610	Vibration Engineering Lab	-	-	2	30	20	50	1
BTME611	Discipline & Extra Curricular Activity	-	-	-	-	-	50	1
TOTAL		18	2	10	330	520	850	27

Semester - VII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME701	Finite Element Methods	3	1	-	30	70	100	4
BTME702	Refrigeration & Air-conditioning	3	-	-	30	70	100	3
BTME703	Operations Research	3	1	-	30	70	100	4
BTME704	Turbomachines	3	-	-	30	70	100	3
BTME705	Operations Management	3	-	-	30	70	100	3
BTME706.A	Micro and Nano Manufacturing	3	-	-	30	70	100	3
BTME706.B	Robotics	3	-	-	30	70	100	3
BTME706.C	CNC Machines and Programming	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME707	Thermal Engineering Lab-II	-	-	2	30	20	50	1
BTME708	FEM Lab	-	-	2	30	20	50	1
BTME709	Practical Training & Industrial visit	-	-	2	30	20	50	1
BTME710	Project-I	-	-	2	30	20	50	1
BTME711	Discipline & Extra Curricular Activity	-	-	-	-	-	50	1
TOTAL		18	2	10	330	520	850	25

Semester - VIII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME801	Computer Integrated Manufacturing Systems	3	1	-	30	70	100	4
BTME802	Laws for Engineers	3	-	-	30	70	100	3
BTME803	Power Generation	3	1	-	30	70	100	4
BTME804.A	Product Development and Launching	3	-	-	30	70	100	3
BTME804.B	Computational Fluid Dynamics	3	-	-	30	70	100	3
BTME804.C	Total Quality Management	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME805	CAM Lab	-	-	2	30	20	50	1
BTME806	CAD Lab	-	-	2	30	20	50	1
BTME807	Industrial Engineering Lab - II	-	-	2	30	20	50	1
BTME808	Project-II	-	-	2	60	40	100	2
BTME809	Seminar	-	-	-	60	40	100	2
BTME810	Discipline & Extra Curricular Activity	-	-	-	-	-	50	-
TOTAL		12	2	8	390	460	900	21



JAGADGURUKUL
UNIVERSITY

Faculty of Engineering & Technology

B. Tech.

(Mechanical Engineering)

(2017-18)

Program Structure

B.Tech. (ME) Course Structure (2017-18)

Semester - I

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BT 101	Engineering mathematics-I	3	1	-	30	70	100	4
BT 102	Communication Skills	3	1	-	30	70	100	4
BT 103	Engineering Physics	3	1	-	30	70	100	4
BT 104	Computer Programming-I	3	1	-	30	70	100	4
BT 105	Environmental Engineering and Disaster Management	3	1	-	30	70	100	4
<i>PRACTICALS/VIVA VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BT 107	Communication Skills Lab	-	-	2	30	20	50	1
BT 108	Engineering Physics Lab	-	-	2	30	20	50	1
BT 109	Computer Programming Lab	-	-	2	30	20	50	1
BT 110	Computer Aided Engineering Graphics	-	-	2	30	20	50	1
BT 111	Mechanical Workshop Practice	-	-	2	30	20	50	1
	TOTAL	15	5	10	300	450	750	25

Semester - II

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BT 201	Engineering Mathematics-II	3	1	-	30	70	100	4
BT 202	Human Values	3	-	-	30	70	100	3
BT 203	Engineering Chemistry	3	1	-	30	70	100	4
BT 204	Computer Programming-II	3	-	-	30	70	100	3
	Elective (any two)*							
BT 205A	Basic Electrical and Electronic Engineering	3	-	-	30	70	100	3
BT 205B	Basic Civil Engineering	3	-	-	30	70	100	3
BT 205C	Basic Mechanical Engineering	3	-	-	30	70	100	3
BT 205D	Engineering Mechanics	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BT 206	Human Values: Activities	-	-	2	30	20	50	1
BT 207	Engineering Chemistry Lab	-	-	2	30	20	50	1
BT 208	Computer Programming-II Lab	-	-	2	30	20	50	1
BT 209	Computer Aided Machine Drawing	-	-	2	30	20	50	1
	TOTAL	18	2	10	330	520	800	24

Semester – III

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME301	Advance Engineering Mathematics-I	3	0	0	30	70	100	3
BTME302	MEFA	3	0	0	30	70	100	3
BTME303	Engineering Mechanics	3	1	0	30	70	100	4
BTME304	Engineering Thermodynamics	3	0	0	30	70	100	3
BTME305	Materials Science and Engineering	3	0	0	30	70	100	3
BTME306	Mechanics of Solids	3	1	0	30	70	100	4
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME307	Machine drawing practice	1	1	2	30	20	50	1
BTME308	Materials Testing Lab	1	1	2	30	20	50	1
BTME309	Basic Mechanical Engineering Lab	1	1	2	30	20	50	1
BTME310	Programming using MATLAB	1	1	2	30	20	50	1

Semester – IV

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME401	Data Analytics	3	-	-	30	70	100	3
BTME402	Technical Communications	3	-	-	30	70	100	3
BTME403	Digital Electronics	3	-	-	30	70	100	3
BTME404	Fluid Mechanics & Fluid Machines	3	1	-	30	70	100	4
BTME405	Manufacturing Processes	3	1	-	30	70	100	4
BTME406	Theory Of Machines	3	1	-	30	70	100	4
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME407	Digital Electronics Lab	-	-	2	30	20	50	1
BTME408	Fluid Mechanics Lab	-	-	2	30	20	50	1
BTME409	Production Practice Lab	-	-	2	30	20	50	1
BTME410	Theory Of Machine Lab	-	-	2	30	20	50	1
BTME411	Social Outreach, Discipline & Extra Curricular Activates	-	-	-	-	-	50	1
TOTAL		18	3	8	330	520	850	26

Semester - V

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME501	Mechatronics Systems	3	-	-	30	70	100	3
BTME502	Heat Transfer	3	1	-	30	70	100	4
BTME503	Manufacturing Technology	3	-	-	30	70	100	3
BTME504	Design Of Machine Elements I	3	1	-	30	70	100	4
BTME505	Principles Of Management	3	-	-	30	70	100	3
BTME506.A	Steam Engineering	3	-	-	30	70	100	3
BTME506.B	Automobile Engineering	3	-	-	30	70	100	3
BTME506.C	Non Destructive Evaluation & Testing	3	-	-	30	70	100	3
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME507	Mechatronics Lab	-	-	2	30	20	50	1
BTME508	Heat Transfer Lab	-	-	2	30	20	50	1
BTME509	Production Engineering Lab	-	-	2	30	20	50	1
BTME510	Machine Design Practice Lab	-	-	2	30	20	50	1
BTME511	Industrial Training/Seminar	-	-	2	30	20	50	1
BTME512	Social Outreach, Discipline & Extra Curricular Activates	-	-	-	-	-	50	1
TOTAL		18	1	10	330	520	900	26

Semester - VI

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME601	Measurement & Metrology	3	-	-	30	70	100	3
BTME602	Computer Integrated Manufacturing Systems	3	-	-	30	70	100	3
BTME603	Mechanical Vibrations	3	1	-	30	70	100	4
BTME604	Design of Machine Elements II	3	1	-	30	70	100	4
BTME605	Quality Management	3	-	-	30	70	100	3
BTME606.A	Refrigeration & Air Conditioning	3	-	-	30	70	100	3
BTME606.B	Non Conventional Machining Methods	3	-	-	30	70	100	3
BTME606.C	Micro electro and mechanical systems (MEMS) and Microsystems	3	-	-	30	70	100	3
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME607	CIMS Lab	-	-	2	30	20	50	1
BTME608	Vibration Lab	-	-	2	30	20	50	1
BTME609	Machine Design Practice II Lab	-	-	2	30	20	50	1
BTME610	Thermal Engineering Lab	-	-	2	30	20	50	1
BTME611	Industrial Training/Seminar	-	-	2	30	20	50	1
BTME612	Social Outreach, Discipline & Extra Curricular Activities	-	-	-	-	-	50	1
TOTAL		18	2	10	330	520	900	26

Semester - VII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME701.A	I.C. Engines	3	0	0	30	70	100	3
BTME701.B	Operation Research	3	0	0	30	70	100	3
BTME701.C	Turbomachines	3	0	0	30	70	100	3
<i>Open Elective – I (Choose Any One Subject)</i>								
BTME702.A	Non Destructive System	3	0	0	30	70	100	3
BTME702.B	Environmental Engineering and Disaster	3	0	0	30	70	100	3
BTME702.C	Power Generation Sources	3	0	0	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME703	FEA Lab	0	0	3	30	20	50	1
BTME704	Thermal Engineering Lab-II	0	0	3	30	20	50	1
BTME705	Quality Control Lab	0	0	2	30	20	50	1
BTME706	Industrial Training	1	0	0	60	40	100	2
BTME707	Seminar	2	0	0	60	40	100	2
BTME708	Social Outreach, Discipline & Extra Curricular Activity	-	-	-	-	-	50	1
TOTAL		9	0	8	270	280	600	14

Semester - VIII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTME801.A	Hybrid and Electric Vehicles	3	0	0	30	70	100	3
BTME801.B	Supply and Operations Management	3	0	0	30	70	100	3
BTME801.C	Additive Manufacturing	3	0	0	30	70	100	3
<i>Open Elective – II (Choose Any One Subject)</i>								
BTME802.A	Finite Elements Methods	3	0	0	30	70	100	3
BTME802.B	Energy Management	3	0	0	30	70	100	3
BTME802.C	Waste and By-product Utilization	3	0	0	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTME803	Industrial Engineering Lab	0	0	2	30	20	50	1
BTME804	Metrology Lab	0	0	2	30	20	50	1
BTME805	Project	3	0	0	150	100	250	5
BTME806	Social Outreach, Discipline & Extra Curricular Activity	0	0	0	0	0	50	1
TOTAL		9	0	4	270	280	600	14



JAGADGURUKUL
UNIVERSITY

Faculty of Engineering & Technology

B. Tech.

(Mechanical Engineering)

(2018-19)

Program Structure

B.Tech. (ME) Course Structure (2018-19)

Semester - I

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			Credits
		Code	Subject/Paper	L	T	P	IA	
BTBSC 101	Engineering Mathematics-I	3	1	-	30	70	100	4
BTBSC 102	Engineering Physics	3	1	-	30	70	100	4
BTHSMC 103	Communication Skills	2	-	-	30	70	100	2
BTESC 104	Programming for Problem Solving	2	-	-	30	70	100	2
BTESC 105A/ BTESC 105B	Basic Electrical Engineering/ Basic Civil Engineering	2	-	-	30	70	100	2
PRACTICALS / VIVA VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTBSC 106	Engineering Physics Lab	-	-	2	30	20	50	1
BTHSMC 107	Language Lab	-	-	2	30	20	50	1
BTESC 108	Computer Programming Lab	-	-	2	30	20	50	1
BTESC109A/ BTESC109B	Basic Electrical Electronics Engineering Lab/ Basic Civil Engineering Lab	-	-	2	30	20	50	1
BTESC 110	Computer Aided Engineering Graphics Lab	-	-	2	30	20	50	1
BTSODECA111	Discipline	-	-	-	-	-	50	1
	Total	12	2	10	300	450	800	20

Semester - II

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTBSC 201	Engineering Mathematics-II	3	1	-	30	70	100	4
BTBSC 202	Engineering Chemistry	3	1	-	30	70	100	4
BTHSMC 203	Human Values	2	-	-	30	70	100	2
BTESC 204	Basic Mechanical Engineering	2	-	-	30	70	100	2
BTESC205A/ BTESC205B	Basic Civil Engineering/ Basic Electrical Engineering	2	-	-	30	70	100	2
BTHSMC 206	Advanced English	2	-	-	30	70	100	2
PRACTICALS/ VIVA VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTBSC 207	Engineering Chemistry Lab	-	-	2	30	20	50	1
BTHSMC 208	Human Values Activities	-	-	2	30	20	50	1
BTESC 209	Manufacturing Practices Workshop	-	-	2	30	20	50	1
BTESC210A/ BTESC 210B	Basic Civil Engineering Lab/ Basic Electrical Engineering Lab	-	-	2	30	20	50	1
BTESC 211	Computer Aided Machine Drawing Lab	-	-	2	30	20	50	1
BTSODECA212	Discipline	-	-	-	-	-	50	1

Semester - III

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEBSC301	Advance Engineering Mathematics-I	3	0	0	30	70	100	3
BTMEHSMC302	Managerial Economics & Financial Accounting	3	0	0	30	70	100	3
BTMEESC303	Engineering Mechanics	3	1	0	30	70	100	4
BTMEPCC304	Engineering Thermodynamics	3	0	0	30	70	100	3
BTMEPCC305	Materials Science and Engineering	3	0	0	30	70	100	3
BTMEPCC306	Mechanics of Solids	3	1	0	30	70	100	4
	Sub Total	18	2	0	180	420	600	20
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			IA	EA	Total	Credits
BTMEPCC307	Machine drawing practice	-	-	2	30	20	50	1
BTMEPCC308	Materials Testing Lab	-	-	2	30	20	50	1
BTMEPCC309	Basic Mechanical Engineering Lab	-	-	2	30	20	50	1
BTMEPCC310	Programming using MATLAB	-	-	2	30	20	50	1
BTMEPSIT311	Industrial Training/Seminar	-	-	-	30	20	50	1
BTMESODECA312	Social Outreach, Discipline & Extra Curricular Activities			0	0	0	50	1
	Sub Total			8	150	100	300	6
TOTAL		18	2	8	330	520	900	26

Semester - IV

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEBSC401	Data Analytics	3	-	-	30	70	100	3
BTMEHSMC402	Technical Communications	3	-	-	30	70	100	3
BTMEESC403	Digital Electronics	3	1	-	30	70	100	4
BTMEPCC404	Fluid Mechanics & Fluid Machines	3	1	-	30	70	100	4
BTMEPCC405	Manufacturing Processes	3	1	-	30	70	100	4
BTMEPCC406	Theory Of Machines	3	1	-	30	70	100	4
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC407	Digital Electronics Lab	-	-	2	30	20	50	1
BTMEPCC408	Fluid Mechanics Lab	-	-	2	30	20	50	1
BTMEPCC409	Production Practice Lab	-	-	2	30	20	50	1
BTMEPCC410	Theory Of Machine Lab	-	-	2	30	20	50	1
BTMESODECA411	Social Outreach, Discipline & Extra Curricular Activates	-	-	-	-	-	50	1
TOTAL		18	4	8	330	520	850	27

Semester - V

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPCC501	Mechatronics Systems	3	-	-	30	70	100	3
BTMEPCC502	Heat Transfer	3	1	-	30	70	100	4
BTMEPCC503	Manufacturing Technology	3	-	-	30	70	100	3
BTMEPCC504	Design Of Machine Elements I	3	1	-	30	70	100	4
BTMEPCC505	Principles Of Management	3	-	-	30	70	100	3
BTMEPEC506.A	Steam Engineering	3	-	-	30	70	100	3
BTME PEC506.B	Automobile Engineering	3	-	-	30	70	100	3
BTME506PEC.C	Non Destructive Evaluation & Testing	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC507	Mechatronics Lab	-	-	2	30	20	50	1
BTMEPCC508	Heat Transfer Lab	-	-	2	30	20	50	1
BTMEPCC509	Production Engineering Lab	-	-	2	30	20	50	1
BTMEPCC510	Machine Design Practice Lab I	-	-	2	30	20	50	1
BTMEPSIT511	Industrial Training Seminar	-	-	2	30	20	50	1
BTMESODECA512	Social Outreach, Discipline & Extra Curricular Activates	-	-	-	-	-	50	1
TOTAL		18	1	10	330	520	900	26

Semester - VI

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPCC601	Measurement & Metrology	3	-	-	30	70	100	3
BTMEPCC602	Computer Integrated Manufacturing Systems	3	-	-	30	70	100	3
BTMEPCC603	Mechanical Vibrations	3	1	-	30	70	100	4
BTMEPCC604	Design of Machine Elements II	3	1	-	30	70	100	4
BTMEPCC605	Quality Management	3	-	-	30	70	100	3
BTMEPECC606.A	Refrigeration & Air Conditioning	3	-	-	30	70	100	3
BTMEPECC606.B	Non Conventional Machining Methods	3	-	-	30	70	100	3
BTMEPECC606.C	Micro electro and mechanical systems (MEMS) and Microsystems	3	-	-	30	70	100	3
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC607	CIMS Lab	-	-	2	30	20	50	1
BTMEPCC608	Vibration Lab	-	-	2	30	20	50	1
BTMEPCC609	Machine Design Practice II Lab	-	-	2	30	20	50	1
BTMEPCC610	Thermal Engineering Lab	-	-	2	30	20	50	1
BTMEPSIT611	Industrial Training/ Seminar	-	-	2	30	20	50	1
BTMESODECA612	Social Outreach, Discipline & Extra Curricular Activities	-	-	-	-	-	50	1
TOTAL		18	2	10	330	520	900	26

Semester - VII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPEC701.A	I.C. Engines	3	0	0	30	70	100	3
BTMEPEC701.B	Operation Research	3	0	0	30	70	100	3
BTMEPEC701.C	Turbomachines	3	0	0	30	70	100	3
<i>Open Elective – I (Choose Any One Subject)</i>								
BTMEOEC702.A	Non Destructive System	3	0	0	30	70	100	3
BTMEOEC702.B	Environmental Engineering and	3	0	0	30	70	100	3
BTMEOEC702.C	Power Generation Sources	3	0	0	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC703	FEA Lab	0	0	3	30	20	50	1
BTMEPCC704	Thermal Engineering Lab-II	0	0	3	30	20	50	1
BTMEPCC705	Quality Control Lab	0	0	2	30	20	50	1
BTMEPSIT706	Industrial Training	1	0	0	60	40	100	2
BTMEPSIT707	Seminar	2	0	0	60	40	100	2
BTMESODECA708	Social Outreach, Discipline & Extra Curricular Activity	-	-	-	-	-	50	1
TOTAL		9	0	8	270	280	600	14

Semester - VIII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPEC801.A	Hybrid and Electric Vehicles	3	0	0	30	70	100	3
BTMEPEC801.B	Supply and Operations Management	3	0	0	30	70	100	3
BTMEPEC801.C	Additive Manufacturing	3	0	0	30	70	100	3
<i>Open Elective – II (Choose Any One Subject)</i>								
BTMEOEC802.A	Finite Elements Methods	3	0	0	30	70	100	3
BTMEOEC802.B	Energy Management	3	0	0	30	70	100	3
BTMEOEC802.C	Waste and By-product Utilization	3	0	0	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC803	Industrial Engineering Lab	0	0	2	30	20	50	1
BTMEPCC804	Metrology Lab	0	0	2	30	20	50	1
BTMEPSIT805	Project	3	0	0	150	100	250	5
BTMESODECA806	Social Outreach, Discipline & Extra Curricular Activity	0	0	0	0	0	50	1
TOTAL		9	0	4	240	260	600	14



JAGADGURUKUL
UNIVERSITY

Faculty of Engineering & Technology

B. Tech.

(Mechanical Engineering)

(2019-20)

Program Structure

B.Tech. (ME) Course Structure (2019-20)

Semester - I

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTBSC 101	Engineering Mathematics-I	3	1	-	30	70	100	4
BTBSC 102	Engineering Physics	3	1	-	30	70	100	4
BTHSMC 103	Communication Skills	2	-	-	30	70	100	2
BTESC 104	Programming for Problem Solving	2	-	-	30	70	100	2
BTESC 105A/ BTESC 105B	Basic Electrical Engineering/ Basic Civil Engineering	2	-	-	30	70	100	2
PRACTICALS/ VIVA VOCE		No. of Teaching Hours			Sessi onal	Practic al	Total	Cred its
BTBSC 106	Engineering Physics Lab	-	-	2	30	20	50	1
BTHSMC 107	Language Lab	-	-	2	30	20	50	1
BTESC 108	Computer Programming Lab	-	-	2	30	20	50	1
BTESC109A/ BTESC109B	Basic Electrical Engineering Lab/ Basic Civil Engineering Lab	-	-	2	30	20	50	1
BTESC 110	Computer Aided Engineering Graphics	-	-	2	30	20	50	1
BTSODECA11 1	Social Outreach, Discipline & Extra Curricular Activities	-	-	-	-	-	50	1
Total		12	2	10	300	450	800	20

Semester - II

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
		L	T	P	IA	EA	Total	
BTBSC 201	Engineering Mathematics-II	3	1	-	30	70	100	4
BTBSC 202	Engineering Chemistry	3	1	-	30	70	100	4
BTHSMC 203	Human Values	2	-	-	30	70	100	2
BTESC 204	Basic Mechanical Engineering	2	-	-	30	70	100	2
BTESC205A/ BTESC205B	Basic Civil Engineering/ Basic Electrical Engineering	2	-	-	30	70	100	2
BTHSMC 206	Advanced English	2	-	-	30	70	100	2
PRACTICALS/ VIVA VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTBSC 207	Engineering Chemistry Lab	-	-	2	30	20	50	1
BTHSMC 208	Human Values Activities	-	-	2	30	20	50	1
BTESC 209	Manufacturing Practices Workshop	-	-	2	30	20	50	1
BTESC210A/ BTESC 210B	Basic Civil Engineering Lab/ Basic Electrical Engineering Lab	-	-	2	30	20	50	1
BTESC 211	Computer Aided Machine Drawing	-	-	2	30	20	50	1
BTSODECA212	Social Outreach, Discipline & Extra Curricular Activities	-	-	-	-	-	50	1

Semester - III

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEBSC301	Advance Engineering Mathematics-I	3	0	0	30	70	100	3
BTMEHSMC302	Managerial Economics & Financial Accounting	3	0	0	30	70	100	3
BTMEESC303	Engineering Mechanics	3	1	0	30	70	100	4
BTMEPCC304	Engineering Thermodynamics	3	0	0	30	70	100	3
BTMEPCC305	Materials Science and Engineering	3	0	0	30	70	100	3
BTMEPCC306	Mechanics of Solids	3	1	0	30	70	100	4
Sub Total		18	2	0	180	420	600	20
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			IA	EA	Total	Credits
BTMEPCC307	Machine drawing practice	-	-	2	30	20	50	1
BTMEPCC308	Materials Testing Lab	-	-	2	30	20	50	1
BTMEPCC309	Basic Mechanical Engineering Lab	-	-	2	30	20	50	1
BTMEPCC310	Programming using MATLAB	-	-	2	30	20	50	1
BTMEPSIT311	Industrial Training/Seminar	-	-	-	30	20	50	1
BTMESODECA312	Social Outreach, Discipline & Extra Curricular Activities			0	0	0	50	1
Sub Total				8	150	100	300	6
TOTAL		18	2	8	330	520	900	26

Semester - IV

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEBSC401	Data Analytics	3	-	-	30	70	100	3
BTMEHSMC402	Technical Communications	3	-	-	30	70	100	3
BTMEESC403	Digital Electronics	3	1	-	30	70	100	4
BTMEPCC404	Fluid Mechanics & Fluid Machines	3	1	-	30	70	100	4
BTMEPCC405	Manufacturing Processes	3	1	-	30	70	100	4
BTMEPCC406	Theory Of Machines	3	1	-	30	70	100	4
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC407	Digital Electronics Lab	-	-	2	30	20	50	1
BTMEPCC408	Fluid Mechanics Lab	-	-	2	30	20	50	1
BTMEPCC409	Production Practice Lab	-	-	2	30	20	50	1
BTMEPCC410	Theory Of Machine Lab	-	-	2	30	20	50	1
BTMESODECA411	Social Outreach, Discipline & Extra Curricular Activates	-	-	-	-	-	50	1
TOTAL		18	4	8	330	520	850	27

Semester - V

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPCC501	Mechatronics Systems	3	-	-	30	70	100	3
BTMEPCC502	Heat Transfer	3	1	-	30	70	100	4
BTMEPCC503	Manufacturing Technology	3	-	-	30	70	100	3
BTMEPCC504	Design Of Machine Elements I	3	1	-	30	70	100	4
BTMEPCC505	Principles Of Management	3	-	-	30	70	100	3
BTMEPEC506.A	Steam Engineering	3	-	-	30	70	100	3
BTME PEC506.B	Automobile Engineering	3	-	-	30	70	100	3
BTME506PEC.C	Non Destructive Evaluation & Testing	3	-	-	30	70	100	3
PRACTICALS/VIVA-VOCE		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC507	Mechatronics Lab	-	-	2	30	20	50	1
BTMEPCC508	Heat Transfer Lab	-	-	2	30	20	50	1
BTMEPCC509	Production Engineering Lab	-	-	2	30	20	50	1
BTMEPCC510	Machine Design Practice Lab I	-	-	2	30	20	50	1
BTMEPSIT511	Industrial Training/ Seminar	-	-	2	30	20	50	1
BTMESODECA512	Social Outreach, Discipline & Extra Curricular Activates	-	-	-	-	-	50	1
TOTAL		18	1	10	330	520	900	26

Semester - VI

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPCC601	Measurement & Metrology	3	1	1	30	70	100	3
BTMEPCC602	Computer Integrated Manufacturing Systems	3	1	1	30	70	100	3
BTMEPCC603	Mechanical Vibrations	3	1	1	30	70	100	4
BTMEPCC604	Design of Machine Elements II	3	1	1	30	70	100	4
BTMEPCC605	Quality Management	3	1	1	30	70	100	3
BTMEPEEC606.A	Refrigeration & Air Conditioning	3	-	-	30	70	100	3
BTMEPEEC606.B	Non Conventional Machining Methods	3	-	-	30	70	100	3
BTMEPEEC606.C	Micro electro and mechanical systems (MEMS) and Microsystems	3	-	-	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC607	CIMS Lab	1	1	2	30	20	50	1
BTMEPCC608	Vibration Lab	1	1	2	30	20	50	1
BTMEPCC609	Machine Design Practice II Lab	1	1	2	30	20	50	1
BTMEPCC610	Thermal Engineering Lab	1	1	2	30	20	50	1
BTMEPSIT611	Industrial Training/ Seminar	1	1	2	30	20	50	1
BTMESODECA612	Social Outreach, Discipline & Extra Curricular Activates	1	1	1	1	1	50	1
TOTAL		18	2	10	330	520	900	26

Semester - VII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPEC701.A	I.C. Engines	3	0	0	30	70	100	3
BTMEPEC701.B	Operation Research	3	0	0	30	70	100	3
BTMEPEC701.C	Turbomachines	3	0	0	30	70	100	3
<i>Open Elective – I (Choose Any One Subject)</i>								
BTMEOEC702.A	Non Destructive System	3	0	0	30	70	100	3
BTMEOEC702.B	Environmental Engineering and Disaster	3	0	0	30	70	100	3
BTMEOEC702.C	Power Generation Sources	3	0	0	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC703	FEA Lab	0	0	3	30	20	50	1
BTMEPCC704	Thermal Engineering Lab-II	0	0	3	30	20	50	1
BTMEPCC705	Quality Control Lab	0	0	2	30	20	50	1
BTMEPSIT706	Industrial Training	1	0	0	60	40	100	2
BTMEPSIT707	Seminar	2	0	0	60	40	100	2
BTMESODECA708	Social Outreach, Discipline & Extra Curricular Activity	-	-	-	-	-	50	1
TOTAL		9	0	8	270	280	600	14

Semester – VIII

THEORY PAPERS		No. of Teaching Hours			Marks Allocation			
Code	Subject/Paper	L	T	P	IA	EA	Total	Credits
BTMEPEC801.A	Hybrid and Electric Vehicles	3	0	0	30	70	100	3
BTMEPEC801.B	Supply and Operations Management	3	0	0	30	70	100	3
BTMEPEC801.C	Additive Manufacturing	3	0	0	30	70	100	3
<i>Open Elective – II (Choose Any One Subject)</i>								
BTMEOEC802.A	Finite Elements Methods	3	0	0	30	70	100	3
BTMEOEC802.B	Energy Management	3	0	0	30	70	100	3
BTMEOEC802.C	Waste and By-product Utilization	3	0	0	30	70	100	3
<i>PRACTICALS/VIVA-VOCE</i>		No. of Teaching Hours			Sessional	Practical	Total	Credits
BTMEPCC803	Industrial Engineering Lab	0	0	2	30	20	50	1
BTMEPCC804	Metrology Lab	0	0	2	30	20	50	1
BTMEPSIT805	Project	3	0	0	150	100	250	5
BTMESODECA806	Social Outreach, Discipline & Extra Curricular Activity	0	0	0	0	0	50	1
TOTAL		9	0	4	240	260	600	14