

B.E. MECHANICAL ENGINEERING**Regulation 2019 (R)****Semester I**

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
	-	Induction Program	-	-	-	-	-	-
1	R19MA101	Matrix Algebra and Calculus	BS	4	3	1	0	4
2	R19CY101	Engineering Chemistry	BS	3	3	0	0	3
3	R19CS101	Problem Solving using C	ES	3	3	0	0	3
4	R19ME101	Engineering Graphics	ES	5	1	0	4	3
5	R19ME102	Engineering Mechanics	PC	4	3	1	0	4
THEORY CUM PRACTICAL								
6	R19HS151	Technical English	HS	4	2	0	2	3
PRACTICALS								
7	R19CY111	Chemistry Laboratory	BS	2	0	0	2	1
8	R19GE111	Engineering Practices Laboratory	ES	4	0	0	4	2
9	R19CS111	Problem Solving using C Laboratory	ES	4	0	0	4	2
PROFESSIONAL DEVELOPMENT								
10	R19EM101	Soft Skills	EM	2	0	0	2	1
TOTAL				35	15	2	18	26

Semester II

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19MA102	Advanced Calculus and Complex Variables	BS	4	3	1	0	4
2	R19PH101	Engineering Physics	BS	3	3	0	0	3
3	R19CS103	Data Structures and Algorithms	ES	3	3	0	0	3
4	R19EC103	Electronics and Microprocessors	ES	3	3	0	0	3
THEORY CUM PRACTICAL								
5	R19HS15X	Language Elective	HS	4	2	0	2	3
6	R19CS151	Python Programming	ES	5	3	0	2	4
PRACTICALS								
7	R19PH111	Physics Laboratory	BS	2	0	0	2	1
8	R19ME111	Computer Aided Drafting and Modeling Laboratory	PC	4	0	0	4	2
9	R19CS113	Data Structures and Algorithms Laboratory	ES	4	0	0	4	2
MANDATORY COURSE								
10	R19MC101	Heritage of Tamils	HSMC	1	1	0	0	1
	R19EM111	Technical Report Writing	EM	1	1	0	0	NC
TOTAL				34	19	1	14	26

* L T P C either 3 0 0 3 or 2 0 2 3

Semester III

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19MA204	Probability and Applied Statistics	BS	4	3	1	0	4
2	R19ME201	Engineering Materials and Metallurgy	PC	3	3	0	0	3
3	R19ME202	Manufacturing Technology	PC	3	3	0	0	3
4	R19ME203	Engineering Thermodynamics	PC	4	3	1	0	4
THEORY CUM PRACTICAL								
5	R19ME251	Fluid Mechanics and Machinery	PC	5	3	0	2	4
6	R19XXXXX	Open Elective – I*	OE	4	2	0	2	3
PRACTICALS								
7	R19ME211	Computer Aided Machine Drawing Laboratory	PC	2	0	0	2	1
8	R19ME212	Manufacturing Technology Laboratory	PC	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
9	R19EM201	Logical Thinking	EM	2	0	0	2	1
MANDATORY COURSE								
10	R19MC102	Tamils and Technology	HSMC	1	1	0	0	1
TOTAL				29	19	2	8	25

Semester IV

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19MA207	Numerical Methods and Partial Differential Equations	BS	4	3	1	0	4
2	R19ME206	Kinematics of Machinery	PC	3	3	0	0	3
3	R19ME207	Thermal Engineering	PC	4	3	1	0	4
THEORY CUM PRACTICAL								
4	R19EC251	Embedded Systems and IoT	ES	5	3	0	2	4
5	R19ME252	Strength of Materials	PC	5	3	0	2	4
6	R19XXXXX	Open Elective – II*	OE	4	2	0	2	3
PROJECT								
7	R19ME281	Project using Design Thinking (Product / Software Development Life Cycle)	PW	2	0	0	2	1
PROFESSIONAL DEVELOPMENT								
8	R19EM202	Advanced Logical Thinking	EM	2	0	0	2	1
	R19EM203	Summer Internship	EM	-	-	-	-	-
MANDATORY COURSE								
	R19MC202	Indian Constitution and Tradition	MC	1	1	0	0	NC
TOTAL				30	18	2	10	24

* L T P C either 3 0 0 3 or 2 0 2 3

Semester V

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19ME301	Engineering Metrology and Measurements	PC	3	3	0	0	3
2	R19ME302	Dynamics of Machines	PC	3	3	0	0	3
3	R19ME303	Heat and Mass Transfer	PC	4	3	1	0	4
4	R19ME304	Machine Design	PC	4	3	1	0	4
5	R19ME5XX	Professional Elective I	PE	3	3	0	0	3
PRACTICALS								
6	R19ME311	Metrology and Dynamics Laboratory	PC	4	0	0	4	2
7	R19ME312	Thermal Engineering Laboratory	PC	2	0	0	2	1
8	R19ME313	CAD/CAM Laboratory	PC	2	0	0	2	1
MANDATORY COURSE								
	R19MC201	Environmental Science	MC	1	1	0	0	NC
TOTAL				26	16	2	6	21

Semester VI

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19AM303	Artificial Intelligence and Machine Learning	PC	3	3	0	0	3
2	R19ME305	Finite Element Analysis	PC	3	3	0	0	3
3	R19ME5XX	Professional Elective II	PE	3	3	0	0	3
4	R19ME5XX	Professional Elective III	PE	3	3	0	0	3
THEORY CUM PRACTICAL								
5	R19ME351	Fluid Power Systems and Industrial Automation	PC	4	2	0	2	3
PRACTICALS								
6	R19AM312	Artificial Intelligence and Machine Learning Laboratory	PC	2	0	0	2	1
7	R19ME314	Computer Aided Simulation and Analysis Laboratory	PC	2	0	0	2	1
PROJECT								
8	R19ME381	Innovative / Multi-Disciplinary Project	PW	2	0	0	2	1
TOTAL				22	14	0	8	18

* L T P C either 3 0 0 3 or 2 0 2 3

Semester VII

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19HS401	Principles of Management and Professional Ethics	HS	3	3	0	0	3
2	R19ME401	Operations Research	PC	3	3	0	0	3
3	R19ME5XX	Professional Elective IV	PE	3	3	0	0	3
PROJECT								
4	R19ME481	Project Work – Phase I	PW	6	0	0	6	3
TOTAL				15	9	0	6	12

Semester VIII

Sl. No.	Course Code	Course Title	Category	Contact Periods	L	T	P	C
THEORY								
1	R19XXXXX	Open Elective – III*	OE	4	2	0	2	3
PROJECT								
2	R19ME482	Project Work – Phase II	PW	16	0	0	16	8
TOTAL				19	3	0	16	11

Total Number of Credits: 163

SUMMARY

Sl. No.	Course Category	Credits per Semester								Credits	Credit %
		I	II	III	IV	V	VI	VII	VIII		
1	HS	3	3	-	-	-	-	3	-	9	5.5
2	BS	8	8	4	4	-	-	-	-	24	14.7
3	ES	10	12	-	4	-	-	-	-	26	16.0
4	PC	4	2	16	11	18	11	3	-	65	39.9
5	PE	-	-	-	-	3	6	3	-	12	7.4
6	OE	-	-	3	3	-	-	-	3	9	5.5
7	PW	-	-	-	1	-	1	3	8	13	8.0
8	EM	1	-	1	1	-	-	-	-	3	1.8
9	MC	-	1	1	✓	✓	-	-	-	2	1.2
10	NC	-	✓	-	✓	-	-	-	-	0	0.0
Total		26	26	25	24	21	18	12	11	163	100