

**P.S.R. ENGINEERING COLLEGE**  
(An Autonomous Institution & Affiliated to Anna University, Chennai)  
**SIVAKASI – 626140**



Curriculum  
for

**B.E. Mechanical Engineering**

**REGULATION - 2019**

Department of  
**MECHANICAL ENGINEERING**

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CANDIDATES ADMITTED DURING 2019-2020 AND ONWARDS

**CURRICULUM****Total Credits:160****SEMESTER – I**

S.No.	Course Code	Course Title	Hours Per week			Credits	Category
			L	T	P		
<b>THEORY</b>							
1.	191HS11	Communicative English	2	0	0	2	HSMC
2	191HS12	Calculus and Linear Algebra	3	1	0	4	BSC
3	191HS13	Engineering Physics	2	0	0	2	BSC
4	191HS14	Engineering Chemistry	2	0	0	2	BSC
5	191CSF1	Programming For Problem Solving	3	0	0	3	ESC
<b>THEORY CUM PRACTICAL</b>							
6	191MEF7	Mechanical Workshop	1	0	4	3	ESC
<b>PRACTICAL</b>							
7	191HS17	Physics and Chemistry Laboratory - I	0	0	2	1	BSC
8	191CSF7	C Programming Laboratory	0	0	2	1	ESC
<b>Total</b>						<b>18</b>	

**SEMESTER –II**

S.No	Course Code	Course Title	Hours Per week			Credits	Category
			L	T	P		
<b>THEORY</b>							
1.	191HS21	Technical English	2	0	0	2	HSMC
2	191HS22	Differential Equations and Numerical Methods	3	1	0	4	BSC
3	191HS23	Physics of Materials	2	0	0	2	BSC
4	191HS24	Environmental Science	2	0	0	2	BSC
5	191EEF1	Basic Electrical and Electronics Engineering	3	0	0	3	ESC
<b>THEORY CUM PRACTICAL</b>							
6	191MEF1	Engineering Graphics	1	0	4	3	ESC
<b>PRACTICAL</b>							
7	191HS27	Physics and Chemistry Laboratory - II	0	0	2	1	BSC
8	191EEF7	Basic Electrical and Electronics Laboratory	0	0	2	1	ESC
<b>Total</b>						<b>18</b>	

**SEMESTER – III**

S.No.	Course Code	Course Title	Hours Per week			Credits	Category
			L	T	P		
<b>THEORY</b>							
1.	191HS31	Transforms and Discrete Mathematics	2	1	0	3	BSC
2	191BS31	Biology for Engineers	3	0	0	3	BSC
3	191ME31	Engineering Mechanics	3	0	0	3	ESC
4	191ME32	Engineering Thermodynamics	3	1	0	4	PC
5	191ME33	Engineering Metrology and Measurements	3	0	0	3	PC
<b>THEORY CUM PRACTICAL</b>							
6	191ME34	Manufacturing Processes	3	0	2	4	PC
<b>PRACTICAL</b>							
7	191ME37	Engineering Metrology and Measurements Laboratory	0	0	2	1	PC
8	191ME38	Computer Aided Drafting Laboratory	0	0	2	1	PC
9	191HS37	Communication Skills – I	0	0	2	-	HSMC
10		Value added course - I	1	0	0	-	VC
<b>Total</b>						<b>22</b>	

**SEMESTER – IV**

S.No.	Course Code	Course Title	Hours Per week			Credits	Category
			L	T	P		
<b>THEORY</b>							
1.	191HS42	Probability and Statistics	2	1	0	3	BSC
2	191ME41	Fluid Mechanics and Machinery	3	0	0	3	PC
3	191ME42	Mechanics of Materials	3	1	0	4	PC
4	191ME43	Materials Engineering	3	0	0	3	PC
5	191ME44	Kinematics of Machinery	3	1	0	4	PC
<b>THEORY CUM PRACTICAL</b>							
6	191ME45	Manufacturing Technology	3	0	2	4	PC
<b>PRACTICAL</b>							
7	191ME47	Fluid Mechanics and Machinery Laboratory	0	0	2	1	PC
8	191ME48	Materials Testing Laboratory	0	0	2	1	PC

9	191HS47	Communication Skills – II	0	0	2	-	HSMC
10		Mandatory course - I	1	0	0	-	MC
<b>Total</b>						<b>23</b>	

**SEMESTER – V**

S.No.	Course Code	Course Title	Hours Per week			Credits	Category
			L	T	P		
<b>THEORY</b>							
1	191ME51	Dynamics of Machinery	3	0	0	3	PC
2	191ME52	Thermal Engineering	3	0	0	3	PC
3	191ME53	Applied Hydraulics & Pneumatics	3	1	0	4	PC
4	191ME54	Electronics Instrumentation and Control	3	0	0	3	PC
5		Programme Elective - I	3	0	0	3	PC
<b>THEORY CUM PRACTICAL</b>							
6	191ME55	Machine Design and Drawing	3	0	2	4	PC
<b>PRACTICAL</b>							
7	191ME57	Dynamics Laboratory	0	0	2	1	PC
8	191ME58	Thermal Engineering Laboratory	0	0	2	1	PC
9	191HS57	Business English	0	0	2	-	HSMC
10		Value added course - II	1	0	0	-	VC
<b>Total</b>						<b>22</b>	

**SEMESTER – VI**

S.No.	Course Code	Course Title	Hours Per week			Credits	Category
			L	T	P		
<b>THEORY</b>							
1	191ME61	Automation in Manufacturing	3	0	0	3	PC
2	191ME62	Design of Transmission Systems	3	1	0	4	PC
3	191ME63	Automobile Engineering	3	0	0	3	PC
4	E1	Programme Elective –II	3	0	0	3	PE
5	E2	Open Elective –I	3	0	0	3	OE
<b>THEORY CUM PRACTICAL</b>							
6	191ME64	Heat and Mass Transfer	3	0	2	4	PC
<b>PRACTICAL</b>							
7	191ME67	CAD/ CAM Laboratory	0	0	2	1	PC

8	191ME69	Mini Project	0	0	2	1	PROJ
9	191HS67	Career English	0	0	2	-	HSMC
10		Mandatory course - II	1	0	0	-	MC
<b>Total</b>						<b>22</b>	

## SEMESTER – VII

S.No.	Course Code	Course Title	Hours Per week			Credits	Category
			L	T	P		
<b>THEORY</b>							
1	191ME71	Total Quality Management	3	0	0	3	PC
2	191ME72	Gas Dynamics and Jet Propulsion	3	0	0	3	PC
3	191ME73	Finite Element Analysis	3	1	0	4	PC
4		Programme Elective –III	3	0	0	3	PE
5		Open Elective –II	3	0	0	3	OE
<b>THEORY CUM PRACTICAL</b>							
6	191ME74	Mechatronics	3	0	2	4	PC
<b>PRACTICAL</b>							
7	191ME77	Simulation and Analysis Laboratory	0	0	2	1	PC
8	191ME79	Project - I	0	0	4	2	PROJ
9		Value added course - III	1	0	0	-	VC
<b>Total</b>						<b>23</b>	

## SEMESTER – VIII

S.No.	Course Code	Course Title	Hours Per week			Credits	Category
			L	T	P		
<b>THEORY</b>							
1	-	Programme Elective –IV	3	0	0	3	PE
2	-	Open Elective –III	3	0	0	3	OE
<b>PRACTICAL</b>							
3	191ME89	Project – II	0	0	12	6	PROJ
<b>Total</b>						<b>12</b>	

HS – Humanity Science, BS – Basic Science, ES – Engineering Science, PC – Programme Core, PE – Programme Elective, OE – Open Elective, EEC – Employment Enhancement Course, MC – Mandatory Course

**List of Programme Electives**

S.No.	Code	Course Title	L-T-P	C	Category
1.	191HSEA	Professional Ethics in Engineering	3-0-0	3	HSMC
2.	191MEEA	Additive Manufacturing	3-0-0	3	PE
3.	191MEEB	Composite Materials and Engineering	3-0-0	3	PE
4.	191MEEC	Computational Fluid Dynamics	3-0-0	3	PE
5.	191MEED	Computer Integrated Manufacturing	3-0-0	3	PE
6.	191MEEE	Fireworks Safety	3-0-0	3	PE
7.	191MEEF	Fundamentals of Nano Technology	3-0-0	3	PE
8.	191MEEG	Hybrid and E-Vehicles	3-0-0	3	PE
9.	191MEEH	Industrial Engineering and Management	3-0-0	3	PE
10.	191MEEI	Product Design and Development	3-0-0	3	PE
11.	191MEEJ	Internet Of Things for Manufacturing	3-0-0	3	PE
12.	191MEEK	Modern Machining Processes	3-0-0	3	PE
13.	191MEEL	Rapid Prototyping	3-0-0	3	PE
14.	191MEEM	Power Plant Engineering	3-0-0	3	PE
15.	191MEEN	Process Planning and Cost Estimation	3-0-0	3	PE
16.	191MEEO	Production Planning and Control	3-0-0	3	PE
17.	191MEEP	Refrigeration and Air Conditioning	3-0-0	3	PE
18.	191MEEQ	Welding Technology	3-0-0	3	PE

**List of Open Electives Offered by Mechanical Department**

S.No.	Code	Course Title	L-T-P	C	Category
1	191OE6A	Maintenance Engineering	3-0-0	3	OE
2	191OE6B	Non-Destructive Testing and Materials	3-0-0	3	OE
3	191OE6C	Operations Research and Management	3-0-0	3	OE
4	191OE6D	Renewable Sources of Energy	3-0-0	3	OE
5	191OE6E	Robotics	3-0-0	3	OE

**Mandatory Courses**

S. No.	Code	Name of the Course	L-T-P	C	Category
1	191MC01	Design Thinking	2-0-0	0	MC
2	191MC02	Essence of Indian Traditional Knowledge	2-0-0	0	MC
3	191MC03	Indian Constitution	2-0-0	0	MC
4	191MC04	Universal Human Values	2-0-0	0	MC
5	191MC05	Yoga	2-0-0	0	MC

  
 HOD/MECH  
 Head Of the Department  
 Department of Mechanical Engineering  
 P.S.R. Engineering College  
 Sevalpatti, Sivakasi - 626 140