

SETHU INSTITUTE OF TECHNOLOGY

Pulloor, Kariapatti – 626 115

B.E. Degree Programme Estd.1995



Estd.1995

CURRICULUM

Regulations 2013

Bachelor of Engineering in Mechanical Engineering

OVERALL COURSE STRUCTURE

Category	Total No. of Courses	Credits	Percentage
Science & Humanities	15	40	21.05
Basic Engineering	7	20	10.54
Professional Subjects – CORE	41	112	58.94
Professional Subjects – ELECTIVE	6	18	9.47
TOTAL	69	190	100

Course Credits – Semester wise

Branch	I	II	III	IV	V	VI	VII	VIII	TOTAL
Mechanical	26	27	27	26	24	26	22	12	190

SEMESTER – I

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	01UEN101	Technical English – I	3	1	0	4
2.	01UMA102	Engineering Mathematics - I	3	1	0	4
3.	01UPH103	Engineering Physics	3	0	0	3
4.	01UCY104	Engineering Chemistry (Common to MECH. & CIVIL)	3	0	0	3
5.	01UCS106	Computer Programming	3	0	0	3
6.	01UME107	Engineering Graphics	2	0	3	4
PRACTICAL						
7.	01UCS108	Computer Programming Laboratory -I	0	0	3	2
8.	01UME109	Engineering Practices Laboratory	0	0	3	2
9.	01UGS110	Physics & Chemistry Laboratory	0	0	2	1
		TOTAL	19	2	11	26
Total No.of Credits - 26						

SEMESTER – II

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	01UEN201	Technical English – II	3	1	0	4
2.	01UMA202	Engineering Mathematics – II	3	1	0	4
3.	01UPH203	Material Science (Common to MECH. & CIVIL)	3	0	0	3
4.	01UCY204	Environmental Science	3	0	0	3
5.	01UME205	Basic Civil and Mechanical Engineering (Common to ALL Branches)	4	0	0	4
6.	01UEE206	Basic Electrical & Electronics Engineering (Common to MECH. & CIVIL)	4	0	0	4
PRACTICAL						
7.	01UME208	Computer Aided Drafting and Modeling Laboratory (Common to MECH. & CIVIL)	0	0	3	2
8.	01UCS209	Computer Practice Laboratory -II	0	0	3	2
9.	01UGS210	Physics & Environmental Science Laboratory	0	0	2	1
		TOTAL	20	2	8	27
Total No.of Credits - 27						

SEMESTER – III

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C	
THEORY							
1.	01UMA321	Transforms and Partial Differential Equations (Common to ALL Branches)	3	1	0	4	
2.	01UME302	Manufacturing Technology – I	3	0	0	3	
3.	01UME303	Engineering Thermodynamics	3	0	0	3	
4.	01UME304	Fluid Mechanics and Machinery	3	1	0	4	
5.	01UEE323	Electrical Machines (Common to MECH.,ICE & ECE)	3	0	0	3	
6.	01UME305	Engineering Mechanics	3	1	0	4	
PRACTICAL							
7.	01UME307	Manufacturing Technology Laboratory – I	0	0	3	2	
8.	01UME308	Fluid Mechanics and Machinery Laboratory	0	0	3	2	
9.	01UEE327	Electrical Machines Laboratory (Common to MECH. & ICE)	0	0	3	2	
VALUE ADDED COURSE							
10.	01UGS331	Value Education and Human Rights (Common to ALL Branches)	2	0	0	P/F	
		TOTAL	20	3	9	27	
		Total No.of Credits - 27					

SEMESTER – IV

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	01UMA423	Statistics and Numerical Methods	3	1	0	4
2.	01UME402	Kinematics of Machinery	3	0	0	3
3.	01UME403	Manufacturing Technology – II	3	0	0	3
4.	01UME404	Thermal Engineering	3	0	0	3
5.	01UME405	Strength of Materials	3	0	0	3
6.	01UME406	Machine Drawing	3	0	0	3
7.	01UGS431	Qualitative and Quantitative Aptitude (Common to ALL Branches)	1	0	0	1
PRACTICAL						
8.	01UME407	Material Testing Laboratory	0	0	3	2
9.	01UME408	Thermal Engineering Laboratory	0	0	3	2
10.	01UME409	Manufacturing Technology Laboratory – II	0	0	3	2
		TOTAL	19	1	9	26
Total No.of Credits - 26						

SEMESTER – V

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	01UME501	Dynamics of Machinery	3	1	0	4
2.	01UME502	Engineering Materials and Metallurgy	3	0	0	3
3.	01UME503	Design of Machine Elements	3	0	0	3
4.	01UME504	Automobile Engineering	3	0	0	3
5.	01UME505	Power Plant Technology	3	0	0	3
6.	01UME506	Applied Hydraulics and Pneumatics	3	0	0	3
PRACTICAL						
7.	01UME507	CAD/CAM Laboratory	0	0	3	2
8.	01UME508	Dynamics Laboratory	0	0	3	2
9.	01UME509	Metallurgy Laboratory	0	0	2	1
		TOTAL	18	1	8	24
	Total No.of Credits - 24					

SEMESTER – VI

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	01UME601	Design of Transmission Systems	3	0	0	3
2.	01UME602	Heat and Mass Transfer	3	1	0	4
3.	01UME603	Engineering Metrology and Measurements	3	0	0	3
4.	01UME604	Operations Research	3	0	0	3
5.		Elective – I	3	0	0	3
6.		Elective – II	3	0	0	3
PRACTICAL						
7.	01UME607	Heat and Mass Transfer Laboratory	0	0	3	2
8.	01UME608	Design and Fabrication Project	0	0	4	2
9.	01UME609	Metrology and Measurement Laboratory	0	0	3	2
10.	01UGS531	Soft Skills and Communication Laboratory (Common to MECH., ICE, CIVIL & EIE)	0	0	2	1
		TOTAL	18	1	12	26
Total No.of Credits - 26						

SEMESTER – VII

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	01UME701	Project Management and Finance (Common to MECH.,ICE,ECE, EEE & EIE)	3	0	0	3
2.	01UME702	Finite Element Analysis	3	0	0	3
3.	01UME703	Mechatronics	3	0	0	3
4.	01UME704	Computer Integrated Manufacturing	3	0	0	3
5.		Elective – III	3	0	0	3
6.		Elective – IV	3	0	0	3
PRACTICAL						
7.	01UME707	Computer Aided Analysis and Simulation Laboratory	0	0	3	2
8.	01UME708	Mechatronics Laboratory	0	0	3	2
9.	01UME709	Comprehension	0	0	2	P/F
		TOTAL	18	0	8	22
	Total No.of Credits - 22					

SEMESTER – VIII

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.		Elective – V	3	0	0	3
2.		Elective -VI	3	0	0	3
PRACTICAL						
3.	01UME803	Project Work	0	0	12	6
		TOTAL	6	0	12	12
	Total No.of Credits - 12					

ELECTIVES

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
1.	01UME901	Industrial and Quality Management	3	0	0	3
2.	01UME902	Gas Dynamics and Jet Propulsion	3	0	0	3
3.	01UME903	Design of Jigs, Fixtures and Press Tools	3	0	0	3
4.	01UME904	Computational Fluid Dynamics	3	0	0	3
5.	01UME 905	Quality Control and Reliability Engineering	3	0	0	3
6.	01UME906	Renewable Sources of Energy	3	0	0	3
7.	01UME907	Industrial Tribology	3	0	0	3
8.	01UME908	Unconventional Machining Processes	3	0	0	3
9.	01UME909	Composite Materials	3	0	0	3
10.	01UME910	Process Planning and Cost Estimation	3	0	0	3
11.	01UME911	Nano Science and Technology	3	0	0	3
12.	01UME912	Vibration and Noise Control	3	0	0	3
13.	01UME913	Refrigeration and Air conditioning	3	0	0	3
14.	01UME914	Professional Ethics	3	0	0	3
15.	01UME915	Principles of Management	3	0	0	3
16.	01UME916	Entrepreneurship Development	3	0	0	3
17.	01UME917	Maintenance Engineering	3	0	0	3
18.	01UME918	Production Planning and Control	3	0	0	3
19.	01UME919	Design of Heat Exchangers	3	0	0	3
20.	01UME920	Advanced I.C. Engines	3	0	0	3
21.	01UME921	Failure Analysis and Design	3	0	0	3
22.	01UME922	Industrial Psychology and Work Ethics	3	0	0	3
23.	01UME923	Total Quality Management	3	0	0	3
24.	01UME924	Robotics	3	0	0	3

Note: The student may choose anyone of the elective offered by other branches of studies.

OTHER DEPARTMENT COURSES

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	01UME421	Thermodynamics and Fluid Mechanics (Common to ICE & EIE)	3	0	0	3
PRACTICAL						
2.	01UME427	Thermodynamics and Fluid Mechanics Laboratory (Common to ICE & EIE)	0	0	3	2