



SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

An ISO 9001:2008 Certified Institution

Pulloor, Kariapatti



Department of Mechanical Engineering

CBCS 2015

Sl.No	Category	Credits	% of Credit Distribution
1.	Humanities and social science	14	8.24
2.	Basic Sciences	28	16.47
3.	Engineering Science	30	17.64
4.	Professional Core	56	32.94
5.	Project	15	8.82
6.	Professional Electives	18	10.59
7.	Open Electives	9	5.29
Total		170	100

Semester – I

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	HS	15UEN101	Technical English (Common to All Branches)	2	0	0	2
2.	BS	15UMA102	Engineering Mathematics – I (Common to All Branches)	3	2	0	4
3.	BS	15UPH103	Engineering Physics (Common to All Branches)	3	0	0	3
4.	BS	15UCY104	Engineering chemistry (common to Mech & Chemical, Fashion Technology)	3	0	0	3
5.	ES	15UCS107	Computer Programming (Common to All Branches)	3	0	0	3
6.	ES	15UME108	Engineering Graphics (Common to All Branches)	3	2	0	4
7.	ES	15UCS109	Computer Programming Laboratory - I (Common to All Branches)	0	0	2	1
8.	ES	15UME110	Engineering Practices Laboratory (Common to Mech, EEE, Civil, Chemical Agricultural and Bio Medical)	0	0	2	1
9.	BS	15UGS112	Basic Sciences Laboratory – I	0	0	2	1
Total Credits :22				17	4	6	22

Semester – II

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	HS	15UEN201	Business English and Presentation skills (Common to All Branches)	3	0	0	3
2.	BS	15UMA202	Engineering Mathematics – II (Common to All Branches)	3	2	0	4
3.	BS	15UPH203	Material Science (Common to Mech & Chemical)	3	0	0	3
4.	HS	15UCY207	Environmental Science (Common to All Branches)	3	0	0	3
5.	ES	15UME208	Basic civil and Mechanical Engineering (Common to Mech, EEE, EIE)	3	0	0	3
6.	ES	15UEE208	Basic Electrical and Electronics Engineering (Common to Mech, Civil. Chemical, Agriculture)	3	0	0	3
7.	BS	15UGS210	Basic Sciences Laboratory – II (Common to All Branches)	0	0	2	1
8.	ES	15UME211	Computer Aided Drafting and Modeling Laboratory	0	0	2	1
Total Credits :21				18	2	4	21

Semester – III

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	BS	15UMA321	Transform and Partial Differential Equations. (Common to MECH, ECE, EEE, CIVIL, EIE and CHEMICAL, Agriculture, Bio medical)	3	2	0	4
2.	PC	15UME302	Manufacturing Technology-I	3	0	0	3
3.	ES	15UME303	Engineering Thermodynamics	3	0	0	3
4.	ES	15UME304	Fluid Mechanics and Machinery	3	0	0	3
5.	ES	15UME305	Engineering Mechanics	3	0	0	3
6.	ES	15UEE323	Electrical Machines	3	0	2	4
7.	PC	15UME307	Manufacturing Technology Laboratory -I	0	0	2	1
8.	ES	15UME308	Fluid Mechanics and Machinery Laboratory	0	0	2	1
Total Credits : 22				18	2	6	22

Semester – IV

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	BS	15UMA423	Statics and Numerical Methods	3	2	0	4
2.	PC	15UME402	Kinematics of Machinery	3	0	0	3
3.	PC	15UME403	Manufacturing Technology II	3	0	0	3
4.	PC	15UME404	Thermal Engineering	3	0	0	3
5.	PC	15UME405	Strength of Materials	3	0	0	3
6.	PC	15UME406	Machine Drawing	2	2	0	3
7.	HS	15UGS431	Reasoning and Quantitative Aptitude (Common to All Branches)	1	0	0	1
8.	PC	15UME407	I.C Engine and Steam Laboratory	0	0	2	1
9.	PC	15UME408	Manufacturing laboratory - II	0	0	2	1
10.	PC	15UME409	Material Testing Laboratory	0	0	2	1
Total Credits : 23				18	4	6	23

Semester – V

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	PC	15UME501	Dynamics of Machinery	3	0	0	3
2.	PC	15UME502	Engineering Materials and Metallurgy	3	0	0	3
3.	PC	15UME503	Design of Machine Elements	3	0	0	3
4.	PC	15UME504	Operations Research	3	0	0	3
5.	PE	E 1	Professional Elective - I	3	0	0	3
6.	PE	E 2	Professional Elective - II	3	0	0	3
7.	PC	15UME507	CAD/CAM Laboratory	0	0	2	1
8.	PC	15UME508	Dynamics Laboratory	0	0	2	1
9.	PC	15UME509	Metallurgy Laboratory	0	0	2	1
Total Credits : 21				18	0	6	21

Semester – VI

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	PC	15UME601	Design of Transmission Systems	3	0	0	3
2.	PC	15UME602	Engineering Metrology and Measurements	3	0	0	3
3.	PC	15UME603	Heat and Mass Transfer	3	0	0	3
4.	PE	E 3	Professional Elective - III	3	0	0	3
5.	PE	E 4	Professional Elective - IV	3	0	0	3
6.	OE	OE 1	Open Elective - I	3	0	0	3
7.	BS	15UGS531	Soft skills and communication Laboratory (Common to MECH, EIE, Civil, Chemical)	0	0	2	1
8.	P	15UME607	Technical Project	0	0	6	3
9.	PC	15UME608	Metrology and Measurements Laboratory	0	0	2	1
10.	PC	15UME609	Heat and Mass Transfer Laboratory	0	0	2	1
Total Credits : 24				18	0	12	24

Semester – VII

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	HS	15UME701	Project Management and Finance (Common to Mech, CSE, ECE, EEE, IT, EIE)	3	0	0	3
2.	PC	15UME702	Finite Element Analysis	3	0	0	3
3.	PC	15UME703	Mechatronics	3	0	0	3
4.	PE	E 5	Professional Elective - V	3	0	0	3
5.	OE	OE 2	Open Elective II	3	0	0	3
6.	PC	15UME706	Computer Aided Analysis Laboratory	0	0	2	1
7.	PC	15UME707	Mechatronics Laboratory	0	0	2	1
Total Credits : 17				15	0	4	17

Semester – VIII

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	HS	15UME801	Professional Ethics (Common to all branches)	2	0	0	2
2.	PE	E 6	Professional Elective - VI	3	0	0	3
3.	PE	OE 3	Open Elective - III	3	0	0	3
4.	P	15UME804	Project Work	0	0	24	12
Total Credits : 20				8	0	24	20

PROFESSIONAL ELECTIVE:

Sl. No	Course Category	Course Code	Course Name	L	T	P	C
1.	PE	15UME901	Industrial and Quality Management	3	0	0	3
2.	PE	15UME902	Gas Dynamics and Jet Propulsion	3	0	0	3
3.	PE	15UME903	Automobile Engineering	3	0	0	3
4.	PE	15UME904	Applied Hydraulics and pneumatics	3	0	0	3
5.	PE	15UME905	Design of Jigs, Fixtures & Press Tools	3	0	0	3
6.	PE	15UME906	Computational Fluid Dynamics	3	0	0	3
7.	PE	15UME907	Quality Control and Reliability Engineering	3	0	0	3
8.	PE	15UME908	Renewable Sources of Energy	3	0	0	3
9.	PE	15UME909	Industrial Tribology	3	0	0	3
10.	PE	15UME910	Power Plant Technology	3	0	0	3
11.	PE	15UME911	Unconventional Machining Processes	3	0	0	3
12.	PE	15UME912	Composite Materials	3	0	0	3
13.	PE	15UME913	Process Planning and Cost Estimation	3	0	0	3
14.	PE	15UME914	Nano Science and Technology	3	0	0	3
15.	PE	15UME915	Vibration and Noise Control	3	0	0	3
16.	PE	15UME916	Refrigeration and Air conditioning	3	0	0	3
17.	PE	15UME917	Nuclear Engineering	3	0	0	3
18.	PE	15UME918	Entrepreneurship Development	3	0	0	3
19.	PE	15UME919	Maintenance Engineering	3	0	0	3
20.	PE	15UME920	Production Planning and Control	3	0	0	3
21.	PE	15UME921	Design of Heat Exchangers	3	0	0	3
22.	PE	15UME922	Advanced I.C. Engines	3	0	0	3
23.	PE	15UME923	Failure Analysis and Design	3	0	0	3
24.	PE	15UME924	Computer Integrated Manufacturing	3	0	0	3
25.	PE	15UME925	Cryogenics	3	0	0	3
26.	PE	15UME926	Industrial Robotics	3	0	0	3
27.	PE	15UME927	Introduction to aircraft industry and aircraft systems	3	0	0	3
28.	PE	15UME928	Design of aircraft structures	3	0	0	3

OPEN ELECTIVE (Mechanical Department offering course):

Sl. No	Course Category	Course Code	Course Name	L	T	P	C
1.	OE	15UME971	Industrial Psychology and Work Ethics	3	0	0	3
2.	OE	15UME972	Industrial Safety and Engineering	3	0	0	3
3.	OE	15UME973	Synthesis of Nano Materials	3	0	0	3
4.	OE	15UME974	Principles of Management	3	0	0	3
5.	OE	15UME975	Total Quality Management	3	0	0	3

ONE CREDIT COURSE:

Sl. No	Course Code	Course Name	L	T	P	C
1.	15UME861	Smart Materials	1	0	0	1
2.	15UME862	CNC programming	1	0	0	1
3.	15UME863	Solar energy	1	0	0	1
4.	15UME864	Basics in Refrigeration and Air-conditioning	1	0	0	1
5.	15UME865	Jigs and Fixtures	1	0	0	1
6.	15UME866	Work Study	1	0	0	1

HUMANITIES AND SOCIAL SCIENCE (HS)

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	HS	15UEN101	Technical English (Common to All Branches)	2	0	0	2
2.	HS	15UEN201	Business English and Presentation skills (Common to All Branches)	3	0	0	3
3.	HS	15UCY207	Environmental Science (Common to All Branches)	3	0	0	3
4.	HS	15UGS431	Reasoning and Quantitative Aptitude (Common to All Branches)	1	0	0	1
5.	HS	15UME701	Project Management and Finance (Common to Mech, CSE, ECE, EEE, IT, EIE)	3	0	0	3
6.	HS	15UME801	Professional Ethics (Common to all branches)	2	0	0	2

BASIC SCIENCES (BS)

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	BS	15UMA102	Engineering Mathematics – I (Common to All Branches)	3	2	0	4
2.	BS	15UPH103	Engineering Physics (Common to All Branches)	3	0	0	3
3.	BS	15UCY104	Engineering chemistry (common to Mech, Chemical and Fashion Technology)	3	0	0	3
4.	BS	15UGS112	Basic Sciences Laboratory – I	0	0	2	1
5.	BS	15UMA202	Engineering Mathematics – II (Common to All Branches)	3	2	0	4
6.	BS	15UPH203	Material Science (Common to Mech & Chemical)	3	0	0	3
7.	BS	15UGS210	Basic Sciences Laboratory – II	0	0	2	1
8.	BS	15UMA321	Transform and Partial Differential Equations. (Common to Mech, ECE, EEE, Civil, Chemical, Agriculture and Bio medical)	3	2	0	4
9.	BS	15UMA423	Statics and Numerical Methods	3	2	0	4
10.	BS	15UGS531	Soft skills and communication Laboratory (Common to MECH, EIE, Civil, Chemical)	0	0	2	1

ENGINEERING SCIENCE (ES)

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1	ES	15UCS107	Computer Programming (Common to All Branches)	3	0	0	3
2	ES	15UME108	Engineering Graphics (Common to All Branches)	3	2	0	4
3	ES	15UCS109	Computer Programming Laboratory - I (Common to All Branches)	0	0	2	1
4	ES	15UME110	Engineering Practices Laboratory (Common to Mech, EEE, Civil, Chemical, Agricultural and Bio Medical)	0	0	2	1
5	ES	15UME208	Basic civil and Mechanical Engineering (Common to Mech, EEE, EIE)	3	0	0	3
6	ES	15UEE208	Basic Electrical and Electronics Engineering (Common to Mech, Civil, Chemical, Agriculture)	3	0	0	3
7	ES	15UME211	Computer Aided Drafting and Modeling Laboratory	0	0	2	1
8	ES	15UME303	Engineering Thermodynamics	3	0	0	3
9	ES	15UME304	Fluid Mechanics and Machinery	3	0	0	3
10	ES	15UME305	Engineering Mechanics	3	0	0	3
11	ES	15UEE323	Electrical Machines	3	0	2	4
12	ES	15UME308	Fluid Mechanics and Machinery Laboratory	0	0	2	1

PROFESSIONAL CORE (PC)

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	PC	15UME302	Manufacturing Technology-I	3	0	0	3
2.	PC	15UME307	Manufacturing Technology Laboratory -I	0	0	2	1
3.	PC	15UME402	Kinematics of Machinery	3	0	0	3
4.	PC	15UME403	Manufacturing Technology II	3	0	0	3
5.	PC	15UME404	Thermal Engineering	3	0	0	3
6.	PC	15UME405	Strength of Materials	3	0	0	3
7.	PC	15UME406	Machine Drawing	2	1	0	3
8.	PC	15UME407	I.C Engine and Steam Laboratory	0	0	2	1
9.	PC	15UME408	Manufacturing laboratory - II	0	0	2	1
10.	PC	15UME409	Material Testing Laboratory	0	0	2	1
11.	PC	15UME501	Dynamics of Machinery	3	0	0	3
12.	PC	15UME502	Engineering Materials and Metallurgy	3	0	0	3
13.	PC	15UME503	Design of Machine Elements	3	0	0	3
14.	PC	15UME504	Operations Research	3	0	0	3
15.	PC	15UME507	CAD/CAM Laboratory	0	0	2	1
16.	PC	15UME508	Dynamics Laboratory	0	0	2	1
17.	PC	15UME509	Metallurgy Laboratory	0	0	2	1
18.	PC	15UME601	Design of Transmission Systems	3	0	0	3
19.	PC	15UME602	Engineering Metrology and Measurements	3	0	0	3
20.	PC	15UME603	Heat and Mass Transfer	3	0	0	3

21.	PC	15UME608	Metrology and Measurements Laboratory	0	0	2	1
22.	PC	15UME609	Heat and Mass Transfer Laboratory	0	0	2	1
23.	PC	15UME702	Finite Element Analysis	3	0	0	3
24.	PC	15UME703	Mechatronics	3	0	0	3
25.	PC	15UME706	Computer Aided Analysis Laboratory	0	0	2	1
26.	PC	15UME707	Mechatronics Laboratory	0	0	2	1

PROJECT (P)

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	P	15UME607	Technical Project	0	0	6	3
2.	P	15UME804	Project Work	0	0	24	12

PROFESSIONAL ELECTIVE

Sl.No	Course Category	Course Code	Course Name	L	T	P	C
1.	PE	15UME901	Industrial and Quality Management	3	0	0	3
2.	PE	15UME902	Gas Dynamics and Jet Propulsion	3	0	0	3
3.	PE	15UME903	Automobile Engineering	3	0	0	3
4.	PE	15UME904	Applied Hydraulics and pneumatics	3	0	0	3
5.	PE	15UME905	Design of Jigs, Fixtures & Press Tools	3	0	0	3
6.	PE	15UME906	Computational Fluid Dynamics	3	0	0	3
7.	PE	15UME907	Quality Control and Reliability Engineering	3	0	0	3
8.	PE	15UME908	Renewable Sources of Energy	3	0	0	3
9.	PE	15UME909	Industrial Tribology	3	0	0	3
10.	PE	15UME910	Power Plant Technology	3	0	0	3
11.	PE	15UME911	Unconventional Machining Processes	3	0	0	3
12.	PE	15UME912	Composite Materials	3	0	0	3
13.	PE	15UME913	Process Planning and Cost Estimation	3	0	0	3
14.	PE	15UME914	Nano Science and Technology	3	0	0	3
15.	PE	15UME915	Vibration and Noise Control	3	0	0	3
16.	PE	15UME916	Refrigeration and Air conditioning	3	0	0	3
17.	PE	15UME917	Nuclear Engineering	3	0	0	3
18.	PE	15UME918	Entrepreneurship Development	3	0	0	3
19.	PE	15UME919	Maintenance Engineering	3	0	0	3
20.	PE	15UME920	Production Planning and Control	3	0	0	3
21.	PE	15UME921	Design of Heat Exchangers	3	0	0	3
22.	PE	15UME922	Advanced I.C. Engines	3	0	0	3
23.	PE	15UME923	Failure Analysis and Design	3	0	0	3
24.	PE	15UME924	Computer Integrated Manufacturing	3	0	0	3
25.	PE	15UME925	Cryogenics	3	0	0	3
26.	PE	15UME926	Industrial Robotics	3	0	0	3
27.	PE	15UME927	Introduction to aircraft industry and aircraft systems	3	0	0	3
28.	PE	15UME928	Design of aircraft structures	3	0	0	3

Sl.No	SUBJECT AREA	SUMMARY OF CREDIT								CREDITS TOTAL
		I	II	III	IV	V	VI	VII	VIII	
1	HS	2	6	-	1	-	-	3	2	14
2	BS	11	8	4	4	-	1	-	-	28
3	ES	9	7	14	-	-	-	-	-	30
4	PC	-	-	4	18	15	11	8	-	56
5	PE	-	-	-	-	6	6	3	3	18
6	OE	-	-	-	-	-	3	3	3	9
7	P	-	-	-	-	-	3	-	12	15
Total		22	21	22	23	21	24	17	20	170

HS	Humanities and Social Science	PE	Professional Electives
BS	Basic Sciences	OE	Open Electives
ES	Engineering Sciences	P	Project
PC	Professional Cores		