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S	DET				2022-2026: SCHEME OF STUDIES AS P							D LEARNI					B,Te	
r	SNo	UC		Subject	Code Title	L	T	P C		SNo	UC		Subject Code	Title	L	T	P	L
					Semester - I			_						Semester - II	-			_
		SD	S		105A Applied Mathematics-I	3	1	-	4	1	SD	SE	ETMA104A	Applied Mathematics-II Introduction to Computer Science and Programmin	3	1	-	+
	2	SD	S	E ETPH	09A Engineering Physics	3	1	-	4	2	SD	SE	ETCS104A	in Puthon	g 3	1	-	1
	3		0	E	Open Elective (Basic of Customer Bel	havior) 4			4	3		OE		Open Elective	4			t
	4	SD	S			3	-	-	3	4	SD	SE	ETCH119A	Engineering Chemistry	3	1	-	t
	5	OE	SI			ineerii 3	1	-	4	5	SD	CC	ETEC124A	Introduction to Automation Robotics and Drone	4	-	-	Ť
	6	SD	SI		101A Basics of Mechanical Engineering	3	1	-	4	6	SD	SE	ETCS150A	introduction to Computer Science and Programmin	g _		2	1
	7	SD	SI			-		2	1	7	SD	SE	ETCH159A	Engineering Chemistry Lab	1.		2	
	8	OE	C		51A Basics of Electrical & Electronics Eng	incerii -		2	1	8	OE	CC	ETME 157A	Workshop Practices			3	
	9	SD	S		151A Basics of Mechanical Engineering Lab			2	1	9	EMP	CC	ETME 156A	CAD Fundamental Processes Part-B			2	
	10				159A CAD Fundamental Processes Part-A	-		2	i					Crts i unamena i rocesso i are s				_
	TOTA				Constitution of the consti	19			27	TOTAL			-		13	3	9	T
					Semester - III									Semester - IV	-			_
		SD	S	E ETMA	215A Probability and Statistcs	3	1	-	4	1	EMP	CC	ETME 317A	CAD Mold Wizard Fundamental Process	3	-	-	T
	2	EMP	C	C ETME	205A Thermodynamics	3	1	-	4	2	EMP	CC	ETME 230A	Fluid Machines	3		-	1
	3	EMP	C		215A Strength of Materials	3		-	3	3	OE	CC	ETME 220A	Engineering Mechanics	3		-	Ī
	4	EMP	C	C ETME	217A Fluid Mechanics	3	-	-	3	4	HSMC	OE	ETMC602A	Essentials of Organizational Behaviour	3	-	-	
	5	EMP	S		301A Disaster Management	3	-	-	3	5	EMP	CC	ETME 226A	Theory of Machines	3	1	-	1
	6	EMP	C		213A CAD Advanced Processes	3	-	-	3	6	EMP	CC	ETME 328A	Electric Vehicle Engineering Design	3	-	-	1
	7	EMP	C		228A CAD Sheet Metal/Surface Modeling	3	-	-	3		EMP	CC	ETME 252A	Fluid Machines Lab	-	-	2	T
	8	EMP	C	C ETME	253A Strength of Materials Lab	-	-	2	1	7	EMP	CC	ETME 258A	Theory of Machines Lab	-		2	1
	9	EMP			255A Fluid Mechanics Lab	-	-	2	1	8	SD	SE	ETCS 228A	Communication and Analytical Skills-I	0	0	2	1
										9								_
	TOTA	L				21	2	4	25				TOT	AL	18	1	6	1
								-										
P	ractical t	training will	be of mini	mum six week	s duration at the end of fourth semester du	ıring sumn	ner b	reak	and the	evaluation will	be done at	the end of	fifth semester.					
					Semester - V									Semester - VI				
	1	EMP	C		309A Manufacturing Technology	3	-	-	3	1	EMP	CC	ETME 302A	Heat Transfer	3	1	-	
	2	EMP	C		319A Internal Combustion Engine	3		-	3	2	OE	CC	ETME 322A	Robotics & Automation	3	-	-	
	3	ED	S			3	-	-	3	3	OE	CC	ETME 326A	Automobile Engineering	3	-		
	4	EMP	C		315A Design of Machine Elements	3	1	-	4	4	EMP	OE		Open Elective Courses (OEC)	3	-	-	1
	5	EMP	S		381A Practical Training-I	-	-	-	1	5	EMP	DE		Program Elective Course (PEC/DE)	3	-	-	
	6	EMP	C	C ETME	357A Manufacturing Technology Lab	-	-	2	1	6	EMP	CC	ETME 352A	Heat Transfer Lab	-	-	2	T
	8	EMP	C	C ETME	363A Internal Combustion Engine	-	-	2	1	7	EMP	CC	ETME 354A	Robotics & Automation Lab	-	-	2	1
	9	SD	S	E ETCS:	325A Communication and Analytical Skills-	II -	-		2	8	EMP	CC	ETME 356A	Automobile Engineering Lab	-		2	1
			The state of					2	4								-	
								2	2	9	SD	SE	ETCS 330A	Communication and Analytical Skills-III	-	-	2	1
								2		9	SD	SE	ETCS 330A	Communication and Analytical Skills-III	-	•	2	1
	-										SD	SE	ETCS 330A	Communication and Analytical Skills-III				
	ТОГА	L				18	1		18	9 TOTAL	SD	SE	ETCS 330A	Communication and Analytical Skills-III	15			
: P			be for min	imum of four y	vecks duration at the end of Sixth Semeste		1	6	18	TOTAL				Communication and Analytical Skills-III				
P			be for min	imum of four	veeks duration at the end of Sixth Semeste		1	6	18	TOTAL				Communication and Analytical Skills-III				
P			be for min	imum of four v			1	6	18	TOTAL								
P		training will			Semester - VII	r during st	1	6	18	TOTAL				Communication and Analytical Skills-III Semester - VIII				
P	ractical t	training will	C	с Етме	Semester - VII 425A Refrigeration And Air-Conditioning	er during su	1	6	18 eak and	TOTAL								
P	actical t	EMP	CO	C ETME	Semester - VII 425A Refrigeration And Air-Conditioning Open Electice Courses (OEC)	er during su	1	6	18 eak and	TOTAL								
P	1 2 3	EMP SD EMP	CO O	E ETME	Semester - VII 425A [Refrigeration And Air-Conditioning Open Electice Courses (OEC) 404A [Additive Manufacturing (PEC/DE)	ar during su	1 umm	6 er bro	18 eak and	TOTAL	be done at	the end of	Seventh Semester.	Semester - VIII				
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P	1 2 3 4 5	EMP SD EMP EMP EMP	CO DD CO SI	E ETME E ETME C ETME E ETME E ETME E ETME E ETME	Semester - VII 425A Refrigeration And Air-Conditioning Open Electice Courses (OEC) 404A Additive Manufacturing (PEC/DE) 451A Refrigeration And Air-Conditioning L 481A Practical Training-II	3 3 3 3 ab -	1 - -	6 er bro	3 3 3 1	TOTAL	be done at	the end of	Seventh Semester.	Semester - VIII				
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P	1 2 3 4 5	EMP SD EMP EMP EMP EMP EMP	CO DD CO SI	E ETME E ETME C ETME E ETME E ETME E ETME E ETME	Semester - VII 425A Refrigeration And Air-Conditioning Open Electice Courses (OEC) 404A Additive Manufacturing (PEC/DE) 451A Refrigeration And Air-Conditioning L 481A Practical Training-II 453A Measurement & Metrology Lab	3 3 3 3 3 ab	1 - -	6	3 3 3 1 1	TOTAL	be done at	the end of	Seventh Semester.	Semester - VIII	15	1		
P	1 2 3 4 5 6	EMP SD EMP EMP EMP EMP EMP	CO DD CO SI	E ETME E ETME C ETME E ETME E ETME E ETME E ETME	Semester - VII 425A Refrigeration And Air-Conditioning Open Electice Courses (OEC) 404A Additive Manufacturing (PEC/DE) 451A Refrigeration And Air-Conditioning L 481A Practical Training-II 453A Measurement & Metrology Lab	3 3 3 3 3 ab	1	6	3 3 3 1 1 1 6	TOTAL l evaluation will I Total	be done at	the end of	Seventh Semester.	Semester - VIII	15		8	
P	1 2 3 4 5 6	EMP SD EMP EMP EMP EMP EMP	CO DD CO SI	E ETME E ETME C ETME E ETME E ETME E ETME E ETME	Semester - VII 425A Refrigeration And Air-Conditioning Open Electice Courses (OEC) 404A Additive Manufacturing (PEC/DE) 451A Refrigeration And Air-Conditioning L 481A Practical Training-II 453A Measurement & Metrology Lab	3 3 3 3 3 ab	1	6	3 3 3 1 1 1 6	TOTAL evaluation will	be done at	the end of	Seventh Semester.	Semester - VIII	15		8	
P	1 2 3 4 5 6	EMP SD EMP EMP EMP EMP EMP	CO O D CC SI SI CO	E ETME E ETME C ETME E ETME C ETME E ETME C ETME	Semester - VII 425A Refrigeration And Air-Conditioning Open Electice Courses (OEC) 404A Additive Manufacturing (PEC/DE) 451A Refrigeration And Air-Conditioning L 481A Practical Training-II 453A Measurement & Metrology Lab Project	3 3 3 3 ab 9		6 er bro	3 3 3 1 1 1 6	TOTAL l evaluation will I Total	be done at	the end of	Seventh Semester. ETME 452A	Semester - VIII Industrial Internship	15		8	
P	1 2 3 4 5 5 6 7 TOTA	EMP SD EMP EMP EMP EMP EMP	CO O D CC SI SI CO	E ETME E ETME E ETME E ETME E ETME E ETME C ETME	Semester - VII 425A Refrigeration And Air-Conditioning Open Electice Courses (OEC) 404A Additive Manufacturing (PEC/DE) 451A Refrigeration And Air-Conditioning L 481A Practical Training-II 453A Measurement & Metrology Lab 455A Project	3 3 3 3 3 ab 9 9	1	6 er bro	3 3 3 3 1 1 1 6	TOTAL l evaluation will I Total	EMP	the end of	Seventh Semester. ETME 452A Open Elective C	Semester - VIII Industrial Internship ourses (OEC)	0 L	0	0	5
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P	1 2 3 4 5 6 7 TOTA	EMP SD EMP	CCI CCI	E ETME E ETME E ETME C ETME E ETME E ETME E ETME E ETME	Semester - VII 425A Refrigeration And Air-Conditioning Open Electice Courses (OEC) 404A Additive Manufacturing (PEC/DE) 451A Refrigeration And Air-Conditioning L 481A Practical Training-II 453A Measurement & Metrology Lab Project Active Courses (PEC) 410A Inspections And Quality Control 412A Industrial Engineering	3 3 3 3 3 3 4 5 9 9 1 L 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1	6 er bro	3 3 3 3 1 1 1 1 6	TOTAL l evaluation will I Total	EMP	the end of	Seventh Semester. ETME 452A Open Elective C	Semester - VIII Industrial Internship ourses (OEC)	0 L	0	0	5
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P	1 2 3 4 5 6 7 TOTA	EMP SD EMP	CCI CCI	E ETME	Semester - VII 425A Refrigeration And Air-Conditioning Open Electice Courses (OEC) 404A Additive Manufacturing (PEC/DE) 451A Refrigeration And Air-Conditioning L 481A Practical Training-II 453A Measurement & Metrology Lab 455A Project 455A Project 456A Project 457A Project 458A Courses (PEC) 468A Computer Aided Manufacturing 468A Computer Aided Manufacturing 468A Computer Aided Manufacturing	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1	6 er bro	3 3 3 1 1 1 6 C 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	TOTAL l evaluation will I Total	EMP	the end of	Seventh Semester. ETME 452A Open Elective C	Semester - VIII Industrial Internship ourses (OEC)	0 L	0	0	5
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B.Tech - Mechanical Engineering (Automative Designs & Electrical Vehicle)

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Course Objectives

- 5. To make student innovative through the hands on / fabrication and practically sound.
- 6. Demonstrate a sound technical knowledge of their selected project topic.
- 7. Undertake problem identification, formulation and solution.
- 8. Conduct an engineering project

Course Outcomes

On completion of this course, the students will be able to

- CO1. Undertake problem identification, formulation and solution.
- C02. Design solutions to complex problems utilising a system approach.
- CO3. Demonstrate the knowledge, skills and attitudes of a professional engineer
- CO4. Communicate with engineers and the community at large in written an oral forms

ETME 455A	PROJECT	L	T	P	C
Version 1.0		0	0	0	6
Pre-requisites/Exposure					
Co-requisites					

Modes of Evaluation: Quiz/Oral practical oral exam/presentation/projects/Practical Examination

Examination Scheme:

Components	Quiz	Attenda	Mid Term	Presentation/	End Term
****	10	nce	Exam	Projects/ etc.	Exam
Weightage (%)	10	10	20	10	50

Relationship between the Course Outcomes (COs) and Program Outcomes (POs)

Mapping between COs and POs												
	Course Outcomes (COs)	Mapped Program Outcomes										
CO1	Demonstrate a sound technical knowledge of their selected project topic	PO1										

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CO2	Undertake problem identification, formulation and solution.	
CO3	Design engineering solutions to complex problems utilising a systems approach.	
CO4	Demonstrate the knowledge, skills and attitudes of a professional engineer	PO2

Course	Course Title	PO	PS	PS	PS											
Code		1	2	3	4	5	6	7	8	9	10	11	12	O1	O2	O3
ETME 455 A	Project	2	2		3	3										

1=weakly mapped

2= moderately mapped

3=strongly mapped

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SEMESTER VIII

ETME 452A	INTERNSHIP	L	T	P	С
Version 1.0		0	0	0	1
Pre-requisites/Exposure	Basics of Mechanical Engineering.				2
Co-requisites		4.37			

Course Objectives:

- 1. To provide an exposure to real life industry environment.
- 2. To help student learn about the projects.
- 3. To enhance students' knowledge in one particular technology.
- 4. To Increase self-confidence of students and helps in finding their own proficiency.
- 5. To cultivate student's leadership ability and responsibility to perform or execute the given task.
- 6. To provide learners hands on practice within a real job situation.

Course Outcomes:

On completion of this course, the students will be able to

- CO1. Learn the practical aspects of the mechanical industry.
- CO2. Learn to work over projects for the development of students.
- CO3. Become updated with all the latest changes in technological world.
- CO4. Ability to communicate efficiently.
- CO5. Knack to be a multi-skilled engineer with good technical knowledge, management, leadership and entrepreneurship skills.
- CO6. Capability to acquire and apply fundamental principles of engineering.

Catalog Description:

Minimum of six months Internship in industry or appropriate workplace/ academic and research institutions in India/abroad. The internship should give exposure to the practical aspects of the discipline. The outcome of the internship should be presented in the form of a report.

Modes of Evaluation: Quiz/Oral practical oral exam/presentation/projects/Practical Examination

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Examination Scheme:

Components	Quiz	Attenda	Mid Term	Presentation/	End Term
		nce	Exam	Projects/ etc.	Exam
Weightage (%)	10	10	20	10	50

Relationship between the Course Outcomes (COs) and Program Outcomes (POs)

Mapping	between COs and Pos	
	Course Outcomes (COs)	Mapped Program Outcomes
CO1	Learn the practical aspects of the Mechanical industry.	PO1
CO2	Learn to work over projects for the development of students.	PO2
CO3	Become updated with all the latest changes in technological world.	PO4
CO4	Ability to communicate efficiently.	PO5
CO5	Knack to be a multi-skilled engineer with good technical knowledge,	PO10
CO6	management, leadership and entrepreneurship skills.	PSO01

Course	Course	PO	PO1	PO	PS	PS	PS									
Code	Title	1	2	3	4	5	6	7	8	9	10		12	O1	O2	O3
ETME452 A	Internship	2	2		3	3					2			3		

1=weakly mapped

2= moderately mapped

3=strongly mapped

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