

M.Tech (Automobile Engineering)

2018-20 SCHEME OF STUDIES

SOFT-ME

Year	SNo	Subject Code	Title	L	T	P	C
1	1	CC	ETME701	Chassis & Body Engineering	4	-	4
	2	CC	ETME703	Pneumatic & Hydraulic System	4	-	4
	3	CC	ETME705	Automotive Engines & Emission Design or Experiments or Research	4	-	4
	4	CC	ETME704	Foundation of Computational Fluid Dynamics	4	-	4
	5	SE	ETME 721	(Elective-I-Mooc)	4	-	4
	6	SE	ETME751	Engine Testing and Pollution Measurement Lab	-	-	2
	7	SE	ETME753	Automotive System components Lab	-	-	2
	8	SE	ETME755	Seminar - I	-	-	1
<b>TOTAL</b>				<b>20</b>	<b>4</b>	<b>4</b>	<b>23</b>

SNo	Subject Code	Title	L	T	P	C
1	CC	ETME702	Automobile Air Conditioning	4	-	4
2	CC	ETME707	Advanced Manufacturing Technology	4	-	4
3	CC	ETME706	Advanced Automotive Transmission	4	-	4
4	CC	ETME708	Vehicle Safety & Maintenance	4	-	4
5	SE		Elective II	4	-	4
6	SE	ETME752	Automobile air conditioning Lab	-	-	2
7	SE	ETME754	Automobile CAD Lab with simulation	-	-	2
8	SE	ETME756	Seminar - II	-	-	1
<b>TOTAL</b>				<b>20</b>	<b>4</b>	<b>23</b>

Semester - III							
2	1	CC	ETME801	Alternate Energy Sources for Automobiles	4	-	4
	2	SE		Elective - III	4	-	4
	3	SE	ETME851	Dissertation Part-A	-	-	8
<b>TOTAL</b>					<b>12</b>	<b>-</b>	<b>16</b>

Semester - IV							
1	SE			Elective-IV	4	-	4
2	SE	ETME854		Dissertation Part-B	-	-	16
<b>TOTAL</b>					<b>4</b>	<b>4</b>	<b>20</b>


<b>Total Hours: Lect [L]+Prac [P]+Tut [T]</b>	
<b>Total Credits [C]</b>	<b>82</b>

Elective I							
1	CC	ETME709	Gas Dynamics	4	-	4	
2	CC	ETME711	Advanced Computer Aided Design	4	-	4	
3	CC	ETME713	Finite Element Analysis in Design	4	-	4	
4	CC	ETME715	Advanced Materials and Sensors for Automobile	4	-	4	
5	CC	ETME717	Advanced Theory of Vibrations	4	-	4	
6	CC	ETME719	Modern Automobile Accessories	4	-	4	
7	CC	ETME 721	Foundation of Computational Fluid Dynamics	4	-	4	

Elective II							
1	CC	ETME710	Production of Automotive Component	4	-	4	
2	CC	ETME712	Automotive Electrical and Electronics control	4	-	4	
3	CC	ETME714	Automobile Design	4	-	4	
4	CC	ETME716	Automotive Power Trains	4	-	4	
5	CC	ETME718	Automotive Aerodynamics	4	-	4	
6	CC	ETME720	Computational Fluid Dynamics	4	-	4	

Elective III							
1	SE	ETME805	Automotive Maintenance & Management	4	-	4	
2	SE	ETME807	Automotive Air Pollution and Control	4	-	4	
3	SE	ETME809	Electric and Hybrid Vehicles	4	-	4	
4	SE	ETME811	Vehicle Instrumentation & Testing	4	-	4	
5	SE	ETME813	Micro and Nano Manufacturing	4	-	4	
6	SE	ETME815	Special Types of Vehicles	4	-	4	

Elective IV							
1	SE	ETME804	Advanced Automotive Transmission	4	-	4	
2	SE	ETME806	Two and Three wheeler Technology	4	-	4	
3	SE	ETME808	Robust Design	4	-	4	
4	SE	ETME810	Vehicle Dynamics	4	-	4	
5	SE	ETME812	Automotive Security	4	-	4	
6	SE	ETME814	Manufacturing and Testing of Vehicle Component	4	-	4	


  
**Registrar**  
**K.R. Mangalam University**  
**Sohna Road, Gurugram, (Haryana)**

M.Tech(AE)

ETME 851	Dissertation Part-A	L	T	P	C
		-	-	-	8

**Objective:** To improve the professional competency and research aptitude by touching the specific areas which otherwise not covered by theory or laboratory classes. The project work aims to develop the work practice in students to apply theoretical and practical tools/techniques to solve real life problems related to industry/field and current research.


The project work can be analysis and design projects of innovative nature or experimental investigation or numerical simulations or a combination of these. Appropriate software developments with sufficient literature contributions can also be taken up. Each student will be allotted with a faculty as guide. In specific cases student may consult with an external guide with the prior consents of internal guide and head of the department. In this semester, students are expected to finalize appropriate topic of research, complete the required literature survey and about 25% of the objectives of their intended research.

  
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M.Tech (AE)  
SEMESTER – IV

ETME 852	Dissertation Part-B	L	T	P	C
		-	-	-	16

**Objective:** Master Research project phase II is a continuation of project phase I started in the third semester. Towards the end of the semester there would be a pre-submission presentation to the evaluation committee to assess the quality and quantum of the work done. This would be a prequalifying exercise for the students for getting approval by the departmental committee for the submission of the thesis. At least one technical paper is to be prepared for possible publication in journal or conference. The technical paper is to be submitted along with the thesis. The final evaluation of the project will be external.

  
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