

K.S.R. COLLEGE OF ENGINEERING (Autonomous) (Approved by AICTE & Affiliated to Anna University)

K.S.R. Kalvi Nagar, Tiruchengode - 637 215

CURRICULUM UG R - 2016

Automobile Engineering Department

Programme B.E. - Automobile Engineering

1.09.0		OFMECTED 1				
	T = -	SEMESTER - I				
SI.	Course	Course Name	Hou	rs/ We	ek	Credit
No.	Code	Course Name	L	T	Р	С
THEOF	RY					
1.	16HS1101	Technical English – I	3	0	0	3
2.	16MA1102	Engineering Mathematics – I	3	1	0	4
3.	16PH1103	Engineering Physics	3	0	0	3
4.	16CY1104	Engineering Chemistry	3	0	0	3
5.	16CS1105	Computer Programming	3	0	0	3
6.	16ME2106	Engineering Drawing	1	3	0	4
PRACT	ΓICAL					
7.		Physics and Chemistry Laboratory - I *	-	-	3	•
8.	16CS1110	Computer Practices Laboratory	0	0	3	2
9.	16AU2111	Computer Aided Drawing Laboratory	0	0	3	2
Total credits						24

^{*} Laboratory Examination only in the II Semester

		SEMESTER - II				
SI. No.	Course Code	Course Name	Hou	rs/ We	ek P	Credit C
THEOF						
1.	16HS1201	Technical English – II	3	0	0	3
2.	16MA1202	Engineering Mathematics – II	3	1	0	4
3.	16PH1203	Material Science	3	0	0	3
4.	16CY1204	Environmental Science and Engineering	3	0	0	3
5.	16EE2205	Basics of Electrical and Electronics Engineering	3	1	0	4
6.	16CE2206	Engineering Mechanics	3	1	0	4
PRAC1	ΓICAL					
7.	16GE1210	Physics and Chemistry Laboratory – II	0	0	3	2
8.	16EE2201	Basics of Electrical and Electronics Engineering Laboratory	0	0	3	2
9.	16GE1212	Engineering Practices Laboratory	0	0	3	2
	Total credits					27



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CURRICULUM UG

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Depart	tment	Automobile Engineering				
Progra	ımme	B.E Automobile Engineering				
		SEMESTER - III				
SI.	Course	Course Name	Но	urs/ W		Credit
No.	Code		l L	Т	Р	С
THEOF	RY					
1.	16MA2301	Engineering Mathematics - III	3	1	0	4
2.	16AU3302	Fluid Mechanics and Machinery	3	0	0	3
3.	16AU3303	Mechanics of Materials	3	1	0	4
4.	16AU3304	Thermodynamics and Thermal Engineering	3	1	0	4
5.	16AU3305	Automotive Manufacturing Technology	3	0	0	3
6.	16AU3306	Automotive Chassis	3	0	0	3
PRACT	TICAL					
7.	16AU3310	Manufacturing Technology Laboratory	0	0	3	2
8.	16AU3311	Strength of Materials Laboratory	0	0	3	2
9.	16AU3312	Fluid Mechanics and Machinery Laboratory	0	0	3	2
			Tot	al cre	dits	27

	SEMESTER - IV							
SI.	Course Code	Course Name	Но	urs/ W	eek P	Credit		
No.			<u> </u>	<u> </u>	Р	С		
THEOR	RY							
1.	16MA2401	Numerical Methods	3	1	0	4		
2.	16AU3402	Automotive Fuels and Lubricants	3	0	0	3		
3.	16AU3403	Mechanics of Machines	3	1	0	4		
4.	16AU3404	Automotive Computer Controlled Systems	3	0	0	3		
5.	16AU3405	Automotive Engines	3	0	0	3		
6.	16AU3406	Automotive Materials and Metallurgy	3	0	0	3		
PRACT	TICAL							
7.	16AU3410	Automotive Chassis and Engine Components Laboratory	0	0	3	2		
8.	16AU3411	Automotive Electronics and Microprocessor Laboratory	0	0	3	2		
9.	16AU3412	Fuels and Lubricants Laboratory	0	0	3	2		
Total credits				26				



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CURRICULUM UG P - 2016

R - 2016 Department Automobile Engineering Programme B.E. - Automobile Engineering **SEMESTER - V** Course SI. Hours/ Week Credit **Course Name** No. Code **THEORY** 16AU3501 **Automotive Transmission** 3 0 0 3 1. 2. 16AU3502 Machine Elements Design 3 1 0 4 4 16AU3503 Vehicle Design and Data Characteristics 3 1 0 3. 16AU3504 Fluid Power systems 3 0 0 3 4. Two and Three Wheelers 3 0 0 3 16AU3505 5. Automotive Electrical and Electronics Systems 3 0 0 3 16AU3506 6. **PRACTICAL** 16AU3510 Automotive Electrical and Electronics Laboratory 0 2 7. 0 3 16AU3511 **Automotive Components Modeling Laboratory** 0 2 8. **Engine Testing and Emission Measurement** 16AU3512 Laboratory 0 0 2 3 9. **Total credits** 26

	SEMESTER - VI						
SI. No.	Course	Course Name	Hou	rs/ We	ek P	Credit C	
THEOF	Code RY	<u>L</u>	<u> </u>	ı	P	<u> </u>	
1.	16AU3601	Automotive Chassis Components Design	3	1	0	4	
2.	16AU3602	Automotive Engines Components Design	3	1	0	4	
3.	16AU3603	Finite Element Analysis	3	1	0	4	
4.	16AU3604	Emission, Vibration and Noise Control	3	0	0	3	
5.		Professional Elective - I	3	0	0	3	
6.		Open Elective - I	3	0	0	3	
PRAC	TICAL						
7.	16AU3610	Design and Analysis Laboratory	0	0	3	2	
8.	16AU3611	Computer Aided Chassis and Engine Design Laboratory	0	0	3	2	
9.	16HR1513	Communication Skills – Laboratory Based	0	2	0	2	
Total credits					27		

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CURRICULUM

		(Approved by AICTE & Affiliated to Anna University)				UG		
65	The state of the s	K.S.R. Kalvi Nagar, Tiruchengode – 637 215			R	- 2016		
Depar	tment	Automobile Engineering						
Progra	amme	B.E Automobile Engineering						
SEMESTER - VII								
SI.	Course	Course Name	Hou	rs/ We		Credit		
No.	Code		<u> </u>		Р	С		
THEOR	RY							
1.	16HS1701	Engineering Ethics and Human Values	3	0	0	3		
2.	16AU3702	Vehicle Dynamics	3	0	0	3		
3.	16AU3703	Vehicle Maintenance and Testing	3	0	0	3		
4.		Professional Elective -II	3	0	0	3		
5.		Professional Elective -III	3	0	0	3		
6.		Open Elective -II	3	0	0	3		
PRACT	TICAL							
7.	16AU3710	Vehicle Maintenance and Reconditioning Laboratory	0	0	3	2		
8.	16AU3711	Vehicle Dynamics Laboratory	0	0	3	2		
9.	16AU3712	Industrial Training and Seminar	0	0	4	2		
			Tota	al cre	dits	24		

	SEMESTER - VIII						
SI.	Course	Course Name	Hours/ Week			Credit	
No.	Code	Course Name	L	Т	Р	С	
THEOF	THEORY						
1.	16HS2821	Total Quality Management	3	0	0	3	
2.		Elective -IV	3	0	0	3	
3.		Elective -V	3	0	0	3	
PRAC	TICAL						
4.	16AU3810	Project Work	0	0	12	6	
	Total credits			15			

Total Credit = 24 + 27 + 27 + 26 + 26 + 27 + 24 + 15 = 196

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Depart	Department Automobile Engineering							
Progra	mme		B.E Automobile Engineering					
			ELECTIVE - I (SEMESTER - VI)					
SI.	Course		Course Name	Hour			Credit	
No.	Code		Oourse Hume	L	Т	P	С	
THEO	RY	1			ı	1		
1.	16AU4601	Automotiv	e Air-Conditioning (T)	3	0	0	3	
2.	16AU4602	Alternate	Fuels and Energy Systems (T)	3	0	0	3	
3.	16AU4603	Automotiv	ve Sensors (A)	3	0	0	3	
4.	16AU4604	Design of A	Automotive Jigs, Fixtures and Press Tools	3	0	0	3	
5.	16AU4605	Intelligent	Vehicle Technology (A)	3	0	0	3	
6.	16AU4606	Intellectua	al Property Rights (IPR)	3	0	0	3	
7.	16AU4607	Computat	ional Fluid Dynamics (D)	3	0	0	3	
8.	16AU4608	Metrology	and Measurements (M)	3	0	0	3	

3

0

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ELECTIVE - II & III (SEMESTER – VII)								
SI.	Course	Course Name	Hour	s/ Wee		Credit		
No.	Code	Course Name	L	Т	Р	С		
THEO	RY							
1.	16AU4701	Automotive Aerodynamics (D)	3	0	0	3		
2.	16AU4702	Automotive Materials (M)	3	0	0	3		
3.	16AU4703	Advanced Theory and Simulation of I.C. Engines	3	0	0	3		
		Virutal Instrumentation in Automobile						
4.	16AU4704	Engineering	3	0	0	3		
5.	16AU4705	Industrial Robotics and Expert Systems (M)	3	0	0	3		
6.	16AU4706	Combustion Thermodynamics and Heat Transfer	3	0	0	3		
7.	16AU4707	Reliability in Automotive Engineering (M)	3	0	0	3		
8.	16AU4708	Automotive Vehicle Safety	3	0	0	3		
9.	16AU4709	Manufacturing of Automotive Components	3	0	0	3		
10.	16AU4710	Hybrid and Electric Vehicles	3	0	0	3		

Vehicle Body Engineering (A)

16AU4609

	ELECTIVE - IV & V (SEMESTER - VIII)								
SI.	Course	Course Name	Hour	s/ Wee	k	Credit			
No.	Code	Course Name	L	Т	Р	С			
THEOF	THEORY								
1.	16AU4801	Operations Research and Vehicle Routing	3	0	0	3			
2.	16AU4802	Machine Drawing, Dimensioning and Tolerance	3	0	0	3			
3.	16AU4803	Engineering Optimization	3	0	0	3			
4.	16AU4804	Special Purpose Vehicles	3	0	0	3			
5.	16AU4805	Entrepreneurship Development	3	0	0	3			
6.	16AU4806	Indian Constitution and Society	3	0	0	3			
7.	16AU4807	Fuel Cells and Applications	3	0	0	3			
8.	16AU4808	Flexible and Lean Manufacturing	3	0	0	3			
9.	16AU4809	Transport Management	3	0	0	3			

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Department Automobile Engineering						
Progra	mme	B.E Automobile Engineering				
		ONE Credit Courses				
SI.	Course	Course Name	Hou	rs/ Wee		Credit
No.	Code	Course Name	L	T	P	С
THEOF	RY		T	•		
1.		Overview of Motor Sports Engineering				
2.		Automotive Styling				
3.		Electronic Engine Management System				
4.		Vehicle Service Management				