

COURSE STRUCTURE

For

AUTOMOBILE ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

I Year - I Semester

S.No.	Subjects	L	T	P	Credits
1-HS	English – I	4	--	--	3
2-BS	Mathematics - I	4	--	--	3
3-ES	Engineering Chemistry	4	--	--	3
4-BS	Engineering Mechanics	4	--	--	3
5-BS	Computer Programming	4	--	--	3
6-ES	Environmental Studies	4	--	--	3
7-HS	Engineering/Applied Chemistry Laboratory	--	--	3	2
8-BS	English-Communication Skills Lab - I	--	--	3	2
9-ES	C Programming Lab	--	--	3	2
Total Credits					24

I Year - II Semester

S.No.	Subjects	L	T	P	Credits
1-HS	English – II	4	--	--	3
2-BS	Mathematics – II (Mathematical Methods)	4	--	--	3
3-BS	Mathematics – III	4	--	--	3
4-ES	Engineering Physics	4	--	--	3
5-HS	Basic Electrical and Electronics Engineering	4	--	--	3
6-ES	Engineering Drawing	4	--	--	3
7-BS	English - Communication Skills Lab - II	--	--	3	2
8-HS	Engineering /Applied Physics Lab	--	--	3	2
9-ES	Engineering Physics – Virtual Labs - Assignments	--	--	2	--
10	Engg.Workshop & IT Workshop	--	--	3	2
Total Credits					24

II Year - I Semester

S.No.	Subjects	L	T	P	Credits
1	Metallurgy & Materials Science	4	--	--	3
2	Mechanics of Solids	4	--	--	3
3	Thermodynamics	4	--	--	3
4	Automotive Engines	4	--	--	3
5	Computer aided Engineering Practice	4	--	--	3
6	Managerial Economics & Financial Analysis	4	--	--	3
7	Electrical & Electronics Engg-lab	--	--	3	2
8	Mechanics of Solids & Metallurgy Lab	--	--	3	2
Total Credits					22

II Year - II Semester

S.No.	Subjects	L	T	P	Credits
1	Kinematics of Machinery	4	--	--	3
2	Thermal Engineering	4	--	--	3
3	Fluid Mechanics & Hydraulic Machinery	4	--	--	3
4	Production Technology	4	--	--	3
5	Industrial Engg. & Management	4	--	--	3
6	Machine Drawing	4	--	--	3
7	Thermal Engg.-lab	--	--	3	2
8	Fluid Mechanics & Hydraulic Machinery-lab	--	--	3	2
Total Credits					22

III Year - I Semester

S.No.	Subjects	L	T	P	Credits
1	Dynamics of Machinery	4	--	--	3
2	Fuels and Combustion	4	--	--	3
3	Design of Machine Elements	4	--	--	3
4	Vehicle Transport Management	4	--	--	3
5	Heat Transfer	4	--	--	3
6	Automotive Engines Lab & Fuels Lab	--	--	3	2
7	Heat Transfer-lab	--	--	3	2
8	Production Technology laboratory	--	--	3	2
9	IPR & Patents	--	2	--	--
Total Credits					21

III Year - II Semester

S.No.	Subjects	L	T	P	Credits
1	Machine Tools & Metrology	4	--	--	3
2	Instrumentation & Control Systems	4	--	--	3
3	Automotive Electrical and Electronics	4	--	--	3
4	Alternative Energy sources for Automobiles	4	--	--	3
5	OPEN ELECTIVE 1. Electronic Instrumentation 2. Data base management systems 3. Computer graphics 4. Green engineering systems 5. Offroad vechiles. 6. Automotive emissions and pollution control	4	--	--	3
6	Automotive Electrical And Electronics Lab	--	--	3	2
7	Metrology & Machine Tools-lab	--	--	3	2
8	Auto Scanning & Vehicle Testing-lab	--	--	3	2
MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					21

IV Year - I Semester

S.No.	Subjects	L	T	P	Credits
1	Automotive chassis and Suspension	4	--	--	3
2	Vehicle Dynamics	4	--	--	3
3	CAD/CAM	4	--	--	3
4	Finite Element Methods	4	--	--	3
5	Elective I 1. Vehicle Body Engg. & Safety 2. Robotics 3. Automotive Aerodynamics	4	--	--	3
6	Elective II 1. Micro Processors & Micro Controllers 2. Computational Fluid Dynamics 3. Vehicle Condition Monitoring	4	--	--	3
7	Automobile Chassis Lab & Instrumentation Lab	--	--	2	2
8	CAD/CAM-lab	--	--	2	2
Total Credits					22

IV Year - II Semester

S.No.	Subjects	L	T	P	Credits
1	Automotive Control Systems	4	--	--	3
2	Vehicle Maintenance	4	--	--	3
3	Product Design and Assembly automation	4	--	--	3
4	Elective III 1. Automotive Safety 2. Automotive Manufacturing Systems 3. Automobile Air Conditioning	4	--	--	3
5	Seminar	--	3	--	2
6	Project	--	--	--	10
Total Credits					24

Total Course Credits = 48+44 + 42 + 46 = 180