



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
 (Established by Andhra Pradesh Act No.30 of 2008)  
 Kukatpally, Hyderabad – 500 085, Andhra Pradesh (India)

**B.TECH. AUTOMOBILE ENGINEERING**

**COURSES STRUCTURE**

**I YEAR**

Code	Subject	L	T/P/D	Credits
	English	2	-	4
	Mathematics – I	3	1	6
	Engineering Mechanics	3	-	6
	Engineering Physics	3	-	6
	Engineering Chemistry	3	-	6
	Computer Programming	3	-	6
	Engineering Drawing	2	3	6
	Computer Programming Lab.	-	3	4
	Engineering Physics & Engineering Chemistry Lab	-	3	4
	English Language Communication Skills Lab.	-	3	4
	Engineering Workshop	-	3	4
	<b>Total</b>	<b>19</b>	<b>16</b>	<b>56</b>

**II YEAR I SEMESTER**

Code	Subject	L	P/D	C
	Probability and Statistics	4	-	4
	Electrical and Electronics Engineering	4	-	4
	Mechanics of Solids	4	-	4
	Thermodynamics	4	-	4
	Metallurgy and Materials Science	4	-	4
	Automobile Engineering	4	-	4
	Electrical and Electronics Engineering Lab	-	3	2
	Mechanics of Solids & Metallurgy Lab	-	3	2
	<b>Total</b>	<b>24</b>	<b>6</b>	<b>28</b>

**II YEAR II SEMESTER**

Code	Subject	L	T/P/D	C
	Production Technology	4	-	4
	Kinematics of Machinery	4	-	4
	Thermal Engineering -I	4	-	4
	Machine Drawing	-	6	4
	Environmental Studies	4	-	4
	Automotive Engines	4	-	4
	Production Technology Lab	-	3	2
	Automotive Engines Lab	-	3	2
	<b>Total</b>	<b>20</b>	<b>12</b>	<b>28</b>

**III YEAR I SEMESTER**

Code	Subject	L	T/P/D	C
	Managerial Economics and Financial Analysis	4	-	4
	Mechanics of Fluids and Hydraulic Machinery	4	-	4
	Dynamics of Machinery-I	4	-	4
	Design of Machine Members	4	-	4
	Thermal Engineering –II	4	-	4
	Vehicle Dynamics	4	-	4
	Mechanics of Fluids and Hydraulic Machinery Lab	-	3	2
	Thermal Engineering Lab	-	3	2
	<b>Total</b>	<b>24</b>	<b>6</b>	<b>28</b>

## III YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Industrial Management	4	-	4
	Heat Transfer	4	-	4
	Automobile Air Conditioning	4	-	4
	Design of Machine Members – II	4	-	4
	Mathematics-II	4	-	4
	<b>Open Elective</b> Human Values and Professional Ethics Intellectual Property Rights Disaster Management	4	-	4
	Heat Transfer Lab	-	3	2
	Advanced Communication Skills Lab	-	3	2
	<b>Total</b>	<b>24</b>	<b>6</b>	<b>28</b>

## IV YEAR I SEMESTER

Code	Subject	L	T/P/D	C
	Automotive Electrical and Autotronics	4	-	4
	Automotive chassis and Suspension	4	-	4
	CAD/CAM	4	-	4
	Instrumentation and Control Systems	4	-	4
	<b>ELECTIVE – I</b> Metrology & Surface Engineering Automotive Pollution and Control Mechatronics Mechanical Vibrations Robotics	4	-	4
	<b>ELECTIVE – II</b> Micro Processors and Micro Controllers Computational Fluid Dynamics Finite Element Methods Vehicle Body Engineering and Safety Operations Research	4	-	4
	Metrology & Machine Tools Lab	-	3	2
	Automotive Engines Lab-II & CAD/CAM Lab	-	3	2
	<b>Total</b>	<b>24</b>	<b>6</b>	<b>28</b>

## IV YEAR II SEMESTER

Code	Subject	L	T/P/D	C
	Alternative Fuels for Automobiles	4	-	4
	<b>ELECTIVE – III</b> Vehicle Transport Management Product Design and Assembly Automation Maintenance and Safety Engineering Reliability Engineering	4	-	4
	<b>ELECTIVE – IV</b> Principles of Entrepreneurship Automation in Manufacturing Renewable Energy Sources Plant layout and Material Handling	4	-	4
	Industry Oriented Mini Project	-	-	2
	Seminar	-	6	2
	Project Work	-	15	10
	Comprehensive Viva	-	-	2
	<b>Total</b>	<b>12</b>	<b>21</b>	<b>28</b>