

GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY
(AUTONOMOUS)

Approved by AICTE, Accredited by NBA & NAAC 'A+' Grade, Recognized under 2(f) and 12(b) of UGC, Permanently Affiliated to JNTUK, Kakinada.

DEPARTMENT OF AUTOMOBILE ENGINEERING

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Chaitanya Knowledge City, Rajanagaram, Rajamahendravaram – 533294. E.G.Dt. - AP.



GR-17

DEPARTMENT OF AUTOMOBILE ENGINEERING

4 YEARS B.Tech. COURSE STRUCTURE & SYLLABUS

With Effective from 2017-18 Batch

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DEPARTMENT OF AUTOMOBILE ENGINEERING

w.e.f. Academic Year : 2017-2018

I YEAR
I SEMESTER

S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	L	T	P/D		Internal	External	Total
1	English – I	17198101	3	1	-	3	40	60	100
2	Mathematics - I	17198102	3	1	-	3	40	60	100
3	Engineering Physics	17198104	3	1	-	3	40	60	100
4	Computer Programming	17195103	3	1	-	3	40	60	100
5	Engineering Drawing	17193175	1	-	3	3	40	60	100
6	Environmental Studies	17198106	3	1	-	3	40	60	100
7	English Communication Skills Lab-1	17198111	-	-	3	2	50	50	100
8	Engineering Physics Lab	17198112	-	-	3	2	50	50	100
9	Computer Programming Lab	17195113	-	-	3	2	50	50	100
	Total		16	5	12	24	390	510	900

I YEAR
II SEMESTER

S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	L	T	P/D		Internal	External	Total
1	English – II	17198201	3	1	-	3	40	60	100
2	Mathematics – II (Mathematical Methods)	17198202	3	1	-	3	40	60	100
3	Mathematics – III	17198203	3	1	-	3	40	60	100
4	Engineering Chemistry	17198204	3	1	-	3	40	60	100
5	Engineering Mechanics	17193205	3	1	-	3	40	60	100
6	Professional Ethics and Human Values*	17198206	1	2	-	1	40	60	100
7	English Communication Skills Lab – 2	17198211	-	-	3	2	50	50	100
8	Engineering Chemistry Lab	17198212	-	-	3	2	50	50	100
9	Engineering Workshop & IT Workshop	17198213	-	-	3	2	50	50	100
	Total		16	7	9	22	390	510	900

T : Theory

P: Practical

D: Drawing

C: Credits

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w.e.f. Academic Year : 2017-2018

II Year I SEMESTER

S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	L	T	P/D		Internal	External	Total
1	Basic Automobile Engineering	17170301	3	1	-	3	40	60	100
2	Metallurgy & Materials Science	17170302	3	1	-	3	40	60	100
3	Mechanics of Solids	17170303	3	1	-	3	40	60	100
4	Thermodynamics	17170304	3	1	-	3	40	60	100
5	Industrial Engineering & Management	17170305	3	1	-	3	40	60	100
6	Computer Aided Engineering Drawing Practice	17170376	-	-	6	2	40	60	100
7	Automobile Chassis Components Lab	17170311	-	-	3	2	50	50	100
8	Mechanics of Solids & Fluid Mechanics lab	17170312	-	-	3	2	50	50	100
	Total		15	5	12	21	340	460	800

II YEAR
II SEMESTER

S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	L	T	P/D		Internal	External	Total
1	Kinematics of Machinery	17170401	3	1	-	3	40	60	100
2	Automotive Engines	17170402	3	1	-	3	40	60	100
3	Basic Electrical & Electronics Engineering	17170403	3	1	-	3	40	60	100
4	Fluid Mechanics & Hydraulic Machinery	17170404	3	1	-	3	40	60	100
5	Manufacturing Processes	17170405	3	1	-	3	40	60	100
6	Soft Skills -1	17179406	1	2	-	1	40	60	100
7	Machine Drawing	17170477	-	-	3	3	40	60	100
8	Engine Components & Testing Lab	17170411	-	-	3	2	50	50	100
9	Basic Electrical & Electronics Engineering Lab	17170412	-	-	3	2	50	50	100
	Total		16	7	9	23	380	520	900

* Student should carry **Mini Project** during summer vacation after II B.Tech. II Sem. Course work and it will be evaluated during III B.Tech. I Sem

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w.e.f. Academic Year : 2017-2018

II YEAR I SEMESTER

S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	L	T	P/D		Internal	External	Total
1	Dynamics of Machinery	17170501	3	1	-	3	40	60	100
2	Automotive Electrical & Autotronics	17170502	3	1	-	3	40	60	100
3	Design of Automobile Components	17170503	3	1	-	3	40	60	100
4	Vehicle Transport Management	17170504	3	1	-	3	40	60	100
5	Heat Transfer	17170505	3	1	-	3	40	60	100
6	Vehicle Performance & Testing	17170506	3	1	-	3	40	60	100
7	Heat Transfer Lab	17170511	-	-	3	2	50	50	100
8	Basic Automobile Components Manufacturing Lab	17170512	-	-	3	2	50	50	100
9	Mini Project-1 *	17170521	-	-	-	2	100	-	100
Total			18	6	6	24	440	460	900

III YEAR
II SEMESTER

S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	L	T	P/D		Internal	External	Total
1	Managerial Economics & Financial Analysis	17179601	3	1	-	3	40	60	100
2	Machine Tools & Metrology	17170602	3	1	-	3	40	60	100
3	CAD / CAM	17170603	3	1	-	3	40	60	100
4	Alternative Energy Sources for Automobiles	17170604	3	1	-	3	40	60	100
5	Departmental Elective-I (See List)		3	1	-	3	40	60	100
6	Automation in Automotive Manufacturing	17170605	3	1	-	3	40	60	100
7	Soft Skills – 2*	17179607	1	2	3	1	40	60	100
8	Machine Tools & Metrology Lab	17170611	-	-	3	2	50	50	100
9	CAD / CAM LAB	17170612	-	-	3	2	50	50	100
Total			19	8	6	23	380	520	900

**** Student should carry Summer Internship during summer vacation after III B.Tech. II Sem. And it will be evaluated during IV B.Tech. I Sem**

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IV YEAR

I SEMESTER

S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P/D		Internal	External	Total
1	Departmental Elective – II	(See List)	3	1	-	3	40	60	100
2	Vehicle Dynamics	17170701	3	1	-	3	40	60	100
3	Instrumentation & Control Systems	17170702	3	1	-	3	40	60	100
4	Finite Element Methods	17170703	3	1	-	3	40	60	100
5	Open Elective	(See List)	3	1	-	3	40	60	100
6	Automotive pollution & Control	17170704	3	1	-	3	40	60	100
7	Servicing and Maintenance of Automobiles & Instrumentation Lab	17170711	-	-	3	2	50	50	100
8	Tuning of Automobiles through Real time workshop interaction Lab	17170712	-	-	3	2	50	50	100
9	Mini Project-2*	17170721	-	-	-	2	100	-	100
Total			18	6	6	24	440	460	900

IV YEAR

II SEMESTER

S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P/D		Internal	External	Total
1	Hybrid, Electric & Fuel Cell Vehicles	17170801	3	1	-	3	40	60	100
2	Departmental Elective – III	(See List)	3	1	-	3	40	60	100
3	Departmental Elective – IV	(See List)	3	1	-	3	40	60	100
4	Project Work	17170841	-	-	-	9	60	140	200
5	Intellectual Property Rights & Patents	17179894	1	2	-	1	40	60	100
Total			10	5	-	19	220	380	600

T : Theory P: Practical D: Drawing C: Credits

Dr D Lingaraju
Sri P. Veeraraju
Sri T. V. Dharmaraju

Dr. P. Senthil Kumar
Dr. S.V.S.N. Murthy
M. Manikanta Dora

Sri L. Sivarama Krishna
Sri S. Rajasekhara
Ms B. Chandrakala

Sri V. Subrahmanyam
Sri J. Rajasekher
Ms. P. Revathi
Sri P. Manoj Reddy