

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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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