

**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.

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



GR14

DEPARTMENT OF AUTOMOBILE ENGINEERING

4 YEARS B.Tech. COURSE STRUCTURE & SYLLABUS

With Effective from 2014-15 Batch

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B.Tech., Automobile Engineering**With effective from 2014-15 Batch****B.Tech. Automobile Engineering****COURSE STRUCTURE****I YEAR****4+0+0+0+0 (T+P+D+ACC+NCC)****I SEMESTER**

S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	T	P	D		Internal	External	Total
1	English – I	14198101	4	-	-	3	30	70	100
2	Mathematics - I	14198102	4	-	-	3	30	70	100
3	Mathematics – II (Mathematical Methods)	14198103	4	-	-	3	30	70	100
4	Engineering Physics	14198104	4	-	-	3	30	70	100
5	Computer Programming	14198105	4	-	-	3	30	70	100
6	Environmental Studies	14198106	4	-	-	3	30	70	100
7	English Communication Skills Lab-1	14198111	-	3	-	2	50	50	100
8	Engineering Physics Lab. (Engineering Physics Virtual lab assignments)	14198112	-	3	-	2	50	50	100
9	C- Programming Lab	14198113	-	3	-	2	50	50	100
	Total		24	9	-	24	-	-	900

I YEAR**4+0+0+0+0 (T+P+D+ACC+NCC)****II SEMESTER**

S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	T	P	D		Internal	External	Total
1	English – II	14198201	4	-	-	3	30	70	100
2	Mathematics – III	14198202	4	-	-	3	30	70	100
3	Engineering Chemistry	14198203	4	-	-	3	30	70	100
4	Engineering Mechanics	14198204	4	-	-	3	30	70	100
5	Engineering Drawing	14198275	1	-	3	3	30	70	100
6	Professional Ethics and Human Values*	14198296	4	-	-	-	-	-	-
7	English Communication Skills Lab – 2	14198211	-	3	-	2	50	50	100
8	Engineering Chemistry Lab	14198212	-	3	-	2	50	50	100
9	Engineering Workshop & IT Workshop	14198213	-	3	-	2	50	50	100
	Total		21	9	3	21	-	-	800

T : Theory P: Practical D: Drawing C: Credits**ACC : Additional Credit Course****NCC: Non Credit Course**

*Professional Ethics & Human Values is an Audit Course / add on course with internal assessment only, Pass at 40% is compulsory,
No credit/Marks. Result shown as Satisfactory / Not Satisfactory.

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II YEAR		4+0+0+0+0 (T+P+D+ACC+NCC)					I SEMESTER		
S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	T	P	D		Internal	External	Total
1	Metallurgy & Materials Science	14170302	4	-	-	3	30	70	100
2	Mechanics of Solids	14170303	3+1	-	-	3	30	70	100
3	Thermodynamics	14170304	3+1	-	-	3	30	70	100
4	Basic Automobile Engineering	14170301	4	-	-	3	30	70	100
5	Fluid Mechanics & Hydraulic Machinery	14170305	4	-	-	3	30	70	100
6	Computer Aided Engineering Drawing Practice	14170376	1	-	3	2	30	70	100
7	Automobile Engineering Lab-1	14170311	-	3	-	2	50	50	100
8	Mechanics of Solids & Fluid Mechanics lab	14170312	-	3	-	2	50	50	100
	Total		21	6	3	21	-	-	800

II YEAR		4+0+0+0+0 (T+D+P+ACC+NCC)					II SEMESTER		
S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	T	P	D		Internal	External	Total
1	Kinematics of Machinery	14170401	3+1	-	-	3	30	70	100
2	Automotive Engines	14170402	3+1	-	-	3	30	70	100
3	Basic Electrical & Electronics Engineering	14170403	3+1	-	-	3	30	70	100
4	Industrial Engineering & Management	14170404	3+1	-	-	3	30	70	100
5	Manufacturing Processes	14170405	3+1	-	-	3	30	70	100
6	Soft Skills -1	14179406	1	3	-	-	-	-	-
7	Machine Drawing	14170477	-	-	3	3	30	70	100
8	Automobile Engineering Lab -II	14170411	-	3	-	2	50	50	100
9	Basic Electrical & Electronics Engineering Lab	14172412	-	3	-	2	50	50	100
	Total		21	9	3	22	-	-	800

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III YEAR			4+0+0+0+0 (T+D+P+ACC+NCC)				I SEMESTER		
S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	T	P	D		Internal	External	Total
1	Dynamics of Machinery	14170501	3+1	-	-	3	30	70	100
2	Automotive Electrical & Autotronics	14170502	3+1	-	-	3	30	70	100
3	Design of Machine Elements	14170503	3+1	-	-	3	30	70	100
4	Vehicle Transport Management	14170504	3+1	-	-	3	30	70	100
5	Heat Transfer	14170505	3+1	-	-	3	30	70	100
6	Vehicle Performance & Testing	14170506	3+1	-	-	3	30	70	100
7	Heat Transfer Lab	14170511	-	3	-	2	50	50	100
8	Manufacturing processes Lab	14170512	-	3	-	2	50	50	100
9	Mini Project*	14170521	-	-	-	2	100	-	100
	Total		24	6	-	24	-	-	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.

III YEAR			4+0+0+0+0 (T+D+P+ACC+NCC)				II SEMESTER		
S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
	Name	Code	T	P	D		Internal	External	Total
1	Machine Tools & Metrology	14170602	3+1	-	-	3	30	70	100
2	Instrumentation & Control Systems	14170603	3+1	-	-	3	30	70	100
3	Managerial Economics & Financial Analysis	14170601	3+1	-	-	3	30	70	100
4	Alternative Energy Sources for Automobiles	14170604	3+1	-	-	3	30	70	100
5	Departmental Elective - I	(See List)	3+1	-	-	3	30	70	100
6	Product Design and Assembly Automation	14170606	3+1	-	-	3	30	70	100
7	Soft Skills - 2	14178697	-	3	-		-	-	-
8	Machine Tools & Metrology Lab	14170611	-	3	-	2	50	50	100
9	Auto Scanning & Vehicle Testing Lab	14170612		3	-	2	50	50	100
	Total		24	9	-	22	-	-	800

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IV YEAR			4+0+0+0+0 (T+D+P+ACC+NCC)				I SEMESTER		
S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
			T	P	D		Internal	External	Total
1	Departmental Elective – II	(See List)	3+1	-	-	3	30	70	100
2	Vehicle Dynamics	14170702	3+1	-	-	3	30	70	100
3	CAD / CAM	14170703	3+1	-	-	3	30	70	100
4	Finite Element Methods	14170704	3+1	-	-	3	30	70	100
5	Automotive Pollution & Control(Open Elective)	14170765a	3+1	-	-	3	30	70	100
6	Automotive Chassis & Suspension	14170706	3+1	-	-	3	30	70	100
7	Automobile Engineering LabIII & Instrumentation Lab	14170711	-	3	-	2	50	50	100
8	CAD / CAM LAB	14170712	-	3	-	2	50	50	100
9	Summer Internship	14170731	-	-	-	3	100	-	100
	Total		24	6	-	25	-	-	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.**

IV YEAR			4+0+0+0+0 (T+D+P+ACC+NCC)				II SEMESTER		
S. No.	Subject		Periods per week			C	Scheme of Examination Maximum Marks		
			T	P	D		Internal	External	Total
1	Automotive Control Systems	14170801	3+1	-	-	3	30	70	100
2	Vehicle maintenance	14170802	3+1	-	-	3	30	70	100
3	Departmental Elective – III	(See List)	3+1	-	-	3	30	70	100
4	Departmental Elective – IV	(See List)	3+1	-	-	3	30	70	100
5	Project Work	14170841	-	-	-	9	60	140	200
6	IPR& PATENTS	14179895	2	-	-	-	-	-	-
	Total		18	-	-	21	-	-	600

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