

GODAVARI INSTITUTE OF ENGG & TECHNOLOGY
 APPROVED BY AICTE ACCREDITED BY NBA AFFILIATED TO JNTUK, KAKINADA
 NH-5, CHAITANYA KNOWLEDGE CITY, RAJAHMUNDRU, A.P., INDIA
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Programme structure of **B.Tech. programme in Automobile Engineering** **I YEAR I SEMESTER**

S. No.	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19198101	BSC	Mathematics-I	3	0	0	3	30	70	100
2	19198102	HSMC	Communicative English-I	3	0	0	3	30	70	100
3	19193176	PCC	Engineering Graphics	1	0	3	2.5	30	70	100
4	19198103	BSC	Engineering Chemistry	3	0	0	3	30	70	100
5	19192105	ESC	Basic Electrical & Electronics Engineering	3	0	0	3	30	70	100
6	19198194	MC	Professional Ethics & Human Values	2	0	0	0	30*	-	-
7	19198112	BSC	Engineering Chemistry Laboratory	0	0	3	1.5	50	50	100
8	19198111	HSMC	Communicative English Laboratory	0	0	3	1.5	50	50	100
9	19192113	ESC	Basic Electrical & Electronics Engineering Lab	0	0	3	1.5	50	50	100
TOTAL				15	0	12	19	300	500	800
BSC-7.5		HSMC-4.5	PCC-2.5	ESC-4.5						

I YEAR II SEMESTER

S. No.	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19198201	BSC	Mathematics-II	3	0	0	3	30	70	100
2	19198205	BSC	Engineering Physics & its Applications	3	0	0	3	30	70	100
3	19195206	ESC	Problem Solving & Programming in C	2	1	0	3	30	70	100
4	19198202	HSMC	Communicative English-II	3	0	0	3	30	70	100
5	19198293	MC	Environmental Studies	2	0	0	0	30*	-	-
6	19193204	PCC	Engineering Mechanics	3	0	0	3	30	70	100
7	19198205	BSC	Engineering Physics Laboratory	0	0	3	1.5	50	50	100
8	19198211	HSMC	Communicative English Laboratory II	0	0	3	1.5	50	50	100
9	19195214	ESC	Problem Solving & Programming in C Lab	0	0	3	1.5	50	50	100
10	19193213	PCC	Basic Engineering Workshop	0	0	3	1.5	50	50	100
TOTAL				16	1	12	21	350	550	900
BSC-7.5		HSMC-4.5	PCC-4.5	ESC-4.5						

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REBA Accredited MAAC A+



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II YEAR I SEMESTER

S. No.	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19179301	BSC	Mathematics-III	3	0	0	3	30	70	100
2	19170302	PCC	Basic Automobile Engineering	3	0	0	3	30	70	100
3	19170303	PCC	Metallurgy & Materials Science	3	0	0	3	30	70	100
4	19170304	PCC	Mechanics of Solids	3	0	0	3	30	70	100
5	19170305	PCC	Fluid Mechanics & Hydraulic Machinery	3	0	0	3	30	70	100
6	19170386	MC	Design Thinking & Product Innovation	2	0	0	0	30*	-	-
7	19170377	PCC	Computer Aided Engineering Drawing Practice	1	0	3	2.5	30	70	100
8	19170311	PCC	Automobile Chassis Components Lab	0	0	3	1.5	50	50	100
9	19170312	PCC	Mechanics of Solids & Fluid Mechanics Lab	0	0	3	1.5	50	50	100
TOTAL				18	0	9	20.5	280	520	800
BSC-03	PCC-17.5	ESC-0	MC-0							

II YEAR II SEMESTER

S. No.	Course Code	Course Type	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19179401	BSC	Numerical Methods and Probability & Statistics	3	0	0	3	30	70	100
2	19170402	PCC	Kinematics of Machinery	3	0	0	3	30	70	100
3	19170403	PCC	Automotive Engines	3	0	0	3	30	70	100
4	19170404	PCC	Thermodynamics	3	0	0	3	30	70	100
5	19170475	PCC	Machine Drawing	1	0	3	2.5	30	70	100
6	19170466	OEC	Open Elective-I	3	0	0	3	30	70	100
7	19170411	PCC	Engine Components & Testing Lab	0	0	3	1.5	50	50	100
8	19170421	PR	Community service oriented project	0	0	1	0.5	100	-	100
TOTAL				16	0	7	19.5	330	470	800
BSC-03	OEC-03	PCC-13	ESC-0	PR-0.5						

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III YEAR I SEMESTER

S. No.	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19170501	PCC	Dynamics of Machinery	3	0	0	3	30	70	100
2	19170502	PCC	Manufacturing Processes	3	0	0	3	30	70	100
3	19170503	PCC	Heat Transfer	3	0	0	3	30	70	100
4	19170564A/B/C	PEC	Professional Elective - I	3	0	0	3	30	70	100
5	19170565a/b/c	OEC	Open Elective-II	3	0	0	3	30	70	100
6	19179511	HSMC	Soft Skills Lab	0	0	3	1.5	50	50	100
7	19170512	PCC	Heat Transfer Lab	0	0	3	1.5	50	50	100
8	19170513	PCC	Basic Automobile Components Manufacturing Lab	0	0	3	1.5	50	50	100
9	19170521	PR	Mini Project - I/Study Project/ Internship	0	0	0	2	100	-	100
TOTAL				15	0	9	21.5	400	500	900
PCC-12	PEC-03	HSMC-1.5		OEC-03	PR-02					

III YEAR II SEMESTER

S. No.	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19170601	PCC	Machine Tools & Metrology	3	0	0	3	30	70	100
2	19170602	PCC	Automotive Pollution & Control	3	0	0	3	30	70	100
3	19170603	PCC	Design of Automotive Elements	3	0	0	3	30	70	100
4	19170604	PCC	Automotive Electrical & Autotronics	3	0	0	3	30	70	100
5	19170665A/B/C	PEC	Professional Elective - II	3	0	0	3	30	70	100
6	19170666a/b/c	OEC	Open Elective - III	3	0	0	3	30	70	100
7	19170687	MC	Constitution of India	2	0	0	0	30*	-	-
8	19170611	PCC	Machine Tools & Metrology Lab	0	0	3	1.5	50	50	100
9	19170621	PR	Accident Analysis	0	0	2	1	100	-	100
TOTAL				20	0	5	20.5	330	470	800
PEC-03	OEC-03	PCC-13.5	MC-0	PR-1						

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IV YEAR I SEMESTER

S No.	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19170701	PCC	Vehicle Dynamics	3	0	0	3	30	70	100
2	19170702	PCC	Hybrid, Electric & Fuel Cell Vehicles	3	0	0	3	30	70	100
3	19170703	PCC	Finite Element Methods	3	0	0	3	30	70	100
4	19170704	PCC	CAD/CAM	3	0	0	3	30	70	100
5	19170765A/B/C	PEC	Professional Elective -III	3	0	0	3	30	70	100
6	19170766a/b/c	OEC	Open Elective - IV(MGMT)	3	0	0	3	30	70	100
7	19170787	MC	Intellectual Property Rights and Patents	2	0	0	0	30*	-	-
8	19170711	PCC	Servicing, Maintenance & Scanning of Automobiles Lab	0	0	3	1.5	50	50	100
9	19170712	PCC	CAD/CAM Lab	0	0	3	1.5	50	50	100
10	19170721	PR	Mini Project - 2 /Study Project / Internship	0	0	0	2	100	-	100
TOTAL				20	0	6	23	380	520	900
PEC-03	OEC-03	PCC-15	PR-02	MC-0						

IV YEAR II SEMESTER

S No.	Course Code	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19170861A/B/C	PEC	Professional Elective - I V	3	0	0	3	30	70	100
2	19170862A/B/C	PEC	Professional Elective - V	3	0	0	3	30	70	100
3	19170841	PR	Project Work	-	-	18	9	80	120	200
TOTAL				6	0	18	15	140	260	400
PEC-06	PR-09									

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Streamed Professional Electives

Professional Electives	Manufacturing Courses	Safety & Maintenance Courses	Design Courses	Management Courses	Special Vehicles
PE-I III-1	Product Design & Assembly Automation 19170564A	Automotive Chasis & Suspension 19170564B	Modern Vehicle Design 19170564C	Industrial Engineering & Management 19170564D	Two & Three wheelers 19170564E
PE-II III-2	Unconventional Machining Processes 19170665A	Trouble Shooting, Servicing & Maintenance of Automobiles 19170665B	Automotive Aerodynamics 19170665C	Vehicle Transport Management 19170665D	Special Purpose Vehicles 19170665E
PE-III IV-1	Automation in Automotive Manufacturing 19170765A	Vehicle Maintenance 19170765B	Design for Manufacturing 19170765C	Operations Research 19170765D	Off Road Vehicles 19170765E
PE-IV IV-2	Rapid Prototyping 19170861A	Vehicle Performance & Testing 19170861B	Computational Fluid Dynamics 19170861C	Principles of Entrepreneurship 19170861D	Alternative Energy Sources for Automobiles 19170861E
PE-V IV-2	Computer Integrated Manufacturing 19170862A	Vehicle Body Engineering and Safety 19170862B	Simulation of SI & CI Engines 19170862C	Disaster Management 19170862D	Modern Vehicle Technology 19170862E

Open Electives	Mechanical	CSE	EEE	ECE	Civil Engineering	AME	Mining Engineering
OE-I II-2	Robotics 19170466a	Operating Systems 19170466b	Utilization of Electrical Energy 19170466c	Internet of Things 19170466d	Environmental Pollution & Control 19170466e	Basic Automobile Engineering 19170466f	Elements of Mining Technology 19170466g
OE-II III-1	MEMS 19170565a	Information Security 19170565b	Energy management 19170565c	Digital Image Processing 19170565d	Solid Waste Management 19170565e	Hybrid and Electric Vehicles 19170565f	Disaster Management in Mining 19170565g
OE-III III-2	Nano Technology 19170666a	Human Computer Interaction 19170666b	Renewable Energy Resources 19170666c	Data Communication 19170666d	Global Environment: Problems & Policies 19170666e	Modern Vehicle Technology 19170666f	Remote Sensing & GIS in Mining 19170666g

OE-IV IV-1	MEFA 19179766a	Entrepreneurship Qualities for Engineers 19179766b	Principles of Management 19179766c	Financial Management for Engineers 19179766d	Operations management 19179766e	Digital Marketing 19179766f	Total Quality Management 19179766g	Organizational Behaviour 19179766h	Human Resource Management 19179766i
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GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY (A), RAJAHMUNDRY
DEPARTMENT OF AUTOMOBILE ENGINEERING

LAB INTERNAL MARKS	
<u>DAY TO DAY EVALUATION (25)</u> Experiment & Results 15 + Record 10	<u>INTERNAL EXAM</u> Marks on Script (25) Write up 10 + Experiment & Result 10 + Viva 5

Note: 1. The split of 25 marks in internal exam must be shown on all answer script

2. **Write up 10 + Experiment & Result 10 + Viva 5** - This must indicate on first answer script.

LAB EXTERNAL MARKS
<u>Marks on Script (50)</u> Write up/ procedure 10 Experimentation & Calculations 20 Result 5 Record 5 Viva-voce 10

Note: 1. The split of 25 marks in internal exam must be shown on all answer script

2. **Write up/ procedure 10 +Experimentation & Calculations 20+Result 5+Record 5+Viva-voce 10**- This must indicate on first answer script.