

13. Courses of Study and Scheme of Assessment

BE AUTOMOBILE ENGINEERING

(2019 Regulations)
(Minimum credits to be earned: 165)

Course Code	Course Title	Periods / week				Maximum Marks			
		Lecture	Tutorial	Practical	Credits	CA	FE	Total	CAT
SEMESTER 1									
19W001	Calculus and its Applications	3	1	0	4	50	50	100	BS
19A102	Physics	3	0	0	3	50	50	100	BS
19A103	Chemistry	3	0	0	3	50	50	100	BS
19A104	Engineering Materials	3	0	0	3	50	50	100	ES
19G105	English Language Proficiency	2	1	0	3	50	50	100	HS
19A110	Engineering Graphics	0	0	4	2	100	0	100	ES
19A111	Basic Sciences Laboratory	0	0	4	2	100	0	100	BS
19A112	Engineering Practices Lab	0	0	2	1	100	0	100	ES
19IP15	Induction Programme **	0	0	0	0	-	-	-	MC
Total 26 periods		14	2	10	21	550	250	800	
SEMESTER 2									
19W002	Complex Variables and Transforms	3	1	0	4	50	50	100	BS
19A202	Materials Science	2	0	0	2	50	50	100	BS
19A203	Chemistry of Engineering Materials	2	0	0	2	50	50	100	BS
19A204	Engineering Mechanics	3	1	0	4	50	50	100	ES
19A205	Manufacturing Processes	3	0	0	3	50	50	100	ES
19A210	C Programming Laboratory	0	0	4	2	50	50	100	ES
19_____	Language Elective	0	0	4	2	100	0	100	HS
19A212	Manufacturing Practice Lab	0	0	2	1	100	0	100	ES
19A215	Activity Point Programme *	-	-	-	Grade	-	-	-	MC
Semester 2- Summer Term									
19A213	Internship ^c	0	0	0	2 [£]	100	0	100	EEC
Total 25 periods		13	2	10	22	600	300	900	

** As per norms

* - As per AICTE Norms: Total 60 hrs; Grade: Completed/Not Completed; Not counted for CGPA

CA Continuous Assessment

FE Final Examination

€ This course will be conducted prior to the commencement of the third semester for a period of three weeks

£ For internship, one credit is equivalent to a minimum of 40 hours of work as per norms

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Course Code	Course Title	Periods / week				Maximum Marks			
		Lecture	Tutorial	Practical	Credits	CA	FE	Total	CAT
SEMESTER 3									
19A301	Numerical Methods	2	1	0	3	50	50	100	BS
19A302	Strength of Materials	3	1	0	4	50	50	100	ES
19A303	Kinematics of Machinery	3	1	0	4	50	50	100	PC
19A304	Engineering Thermodynamics	3	1	0	4	50	50	100	PC
19A305	Automotive Chassis	3	0	0	3	50	50	100	PC
19O306	Economics for Engineers	3	0	0	3	50	50	100	HS
19A310	Strength of Materials Laboratory	0	0	2	1	100	0	100	ES
19A311	Machine Drawing	0	0	4	2	100	0	100	ES
19K312	Environmental Science **	2	0	0	0	-	-	-	MC
19A315	Activity Point Programme *	-	-	-	Grade	-	-	-	MC
Total 29 periods		19	4	6	24	500	300	800	
SEMESTER 4									
19A401	Probability and Statistics	2	1	0	3	50	50	100	BS
19A402	Fluid Mechanics and Machinery	2	1	0	3	50	50	100	PC
19A403	Basics of Electrical and Electronics Engineering	3	0	0	3	50	50	100	ES
19A404	Dynamics of Machinery	2	1	0	3	50	50	100	PC
19A405	Engineering Design	3	1	0	4	50	50	100	PC
19A406	Automotive PowerTrain	3	0	0	3	50	50	100	PC
19A410	Thermal Engineering and Fluid Machinery Laboratory	0	0	2	1	100	0	100	ES
19A411	Basics of Electrical and Electronics Lab	0	0	2	1	100	0	100	ES
19O412	Indian Constitution **	2	0	0	0	-	-	-	MC
19Q413	Soft Skills Development	0	0	2	1	100	0	100	EEC
19A415	Activity Point Programme *	-	-	-	Grade	-	-	-	MC
Total 27 periods		17	4	6	22	600	300	900	

** As per norms

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		Periods / week				Maximum Marks			
Course Code	Course Title	Lecture	Tutorial	Practical	Credits	CA	FE	Total	CAT
SEMESTER 5									
19A501	Hydraulics and Pneumatics	3	0	0	3	50	50	100	PC
19A502	Automotive Electrical and Electronics	3	0	0	3	50	50	100	PC
19A503	Vehicle System Design I	2	1	0	3	50	50	100	PC
19A504	Design for Manufacture and Assembly	2	1	0	3	50	50	100	PC
19A505	Alternate Power Train	3	0	0	3	50	50	100	PC
19A510	Automotive Electrical and Electronics Laboratory	0	0	2	1	100	0	100	PC
19A512	Engine Testing and Trouble Shooting Lab	0	0	2	1	100	0	100	PC
19A511	Vehicle Performance characteristics Lab	0	0	2	1	100	0	100	EEC
19Q513	Business and Managerial Communications	0	0	2	1	100	0	100	EEC
19A515	Activity Point Programme *	-	-	-	Grade	-	-	-	MC
19A_____	Professional Elective I	3	0	0	3	50	50	100	PE
Total 26 periods		16	2	8	22	700	300	1000	
SEMESTER 6									
19A601	Vehicle Dynamics	3	1	0	4	50	50	100	PC
19A602	Production planning and Operations Research	2	1	0	3	50	50	100	PC
19A603	Vehicle System Design-II	2	1	0	3	50	50	100	PC
19A604	Finite Element Analysis	3	1	0	4	50	50	100	PC
19A605	Automotive control system	3	0	0	3	50	50	100	PC
19	Open Elective I	3	0	0	3	50	50	100	OE
19A611	Design and Analysis Laboratory	0	0	2	1	100	0	100	EEC
19A612	Innovation Practices	0	0	2	1	100	0	100	EEC
19Q613	Quantitative and Reasoning Skills	0	0	2	1	100	0	100	EEC
19A615	Activity Point Programme *	-	-	-	Grade	-	-	-	MC
Total 26 periods		16	4	6	23	600	300	900	

At the end of 6th semester, the students are required to earn the minimum number of activity points from the AICTE mandated ACTIVITY POINT PROGRAMME to qualify for the award of BE/BTech degree (Refer Section 4 (vii) (c) of 2019 Regulations)

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Course		Periods / week				Maximum Marks			
Code	Course Title	Lecture	Tutorial	Practical	Credits	CA	FE	Total	CAT
SEMESTER 7									
19A701	Metrology and Quality Engineering	3	0	0	3	50	50	100	PC
19_____	Open Elective II	3	0	0	3	50	50	100	OE
19A703	Automotive emission & NVH control	3	0	0	3	50	50	100	PC
19A_____	Professional Elective II	3	0	0	3	50	50	100	PE
19A710	Vehicle Servicing Laboratory	0	0	2	1	100	0	100	EEC
19A711	Project Work I	0	0	4	2	100	0	100	EEC
19A_____	Professional Elective IV	3	0	0	3	50	50	100	PE
19A_____	Professional Elective III	3	0	0	3	50	50	100	PE
Total 24 periods		18	0	6	21	500	300	800	
SEMESTER 8									
19A_____	Professional Elective V	3	0	0	3	50	50	100	PE
19A_____	Professional Elective VI	3	0	0	3	50	50	100	PE
19A810	Project Work II	0	0	8	4	50	50	100	EEC
Total 14 periods		6	0	8	10	150	150	300	

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