



**B.E. AUTOMOBILE ENGINEERING**  
Minimum Credits to be Earned 170.0

**First Semester**

Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
18AU101	ENGINEERING MATHEMATICS I	I	a,b	3	1	0	4
18AU102	ENGINEERING PHYSICS I - STATICS	I,II,III	a,b,i	2	0	2	3
18AU103	ENGINEERING CHEMISTRY I	I,III	a,b,m	2	0	2	3
18AU104	BASICS OF ELECTRICAL ENGINEERING	I,III	a,b,c,m	2	0	2	3
18HS101	COMMUNICATIVE ENGLISH I	II,III	i,j	1	0	2	2
18AU106	COMPUTER PROGRAMMING I	I,II	a,b,e	0	0	4	2
<b>Total</b>				10	1	12	17.0

**Second Semester**

Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
18AU201	ENGINEERING MATHEMATICS II	I	a,b	3	1	0	4
18AU202	ENGINEERING PHYSICS II - DYNAMICS	I,III	a,b,m	2	1	0	3
18AU203	ENGINEERING CHEMISTRY II	I,III	a,b,m	2	0	2	3
18AU204	ENGINEERING DRAWING	I,III	a,j,m	0	0	4	2
	LANGUAGE ELECTIVE	-	-	-	-	-	2
18AU206	MANUFACTURING PROCESSES I	I,III	a,b,c,m	3	0	2	4
18AU207	COMPUTER PROGRAMMING II	I,II	a,b,e,n	0	0	4	2
<b>Total</b>				10	2	12	20.0

**Third Semester**

Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
18AU301	ENGINEERING MATHEMATICS III	I	a,b	3	1	0	4
18AU302	ENGINEERING THERMODYNAMICS	I,III	a,b,c,d,m	3	1	0	4
18AU303	FLUID MECHANICS AND MACHINERY	I,III	a,b,c,d,m	3	1	0	4
18AU304	AUTOMOTIVE ENGINES	I,III	a,b,m	3	0	0	3
18AU305	AUTOMOTIVE CHASSIS	I,II,III	a,b,e,f,m	3	0	0	3
18AU306	MANUFACTURING PROCESSES II	I,II,III	a,b,g,i,l,n	3	0	2	4
18AU307	AUTOMOTIVE COMPONENTS LABORATORY	I,II,III	a,c,d,e,l,m	0	0	2	1
18AU308	AUTOMOTIVE COMPONENTS DRAWING LABORATORY	I,II,III	a,c,e,i,m	0	0	2	1
18GE301	SOFT SKILLS - VERBAL ABILITY	-	-	2	0	0	0
<b>Total</b>				20	3	6	24.0

**Fourth Semester**

Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
18AU401	ENGINEERING MATHEMATICS IV	I	a,b	3	1	0	4
18AU402	STRENGTH OF MATERIALS	I,III	a,b,c,m	2	1	2	4
18AU403	AUTOMOTIVE TRANSMISSION	I,III	a,b,c,d,m	3	0	0	3
18AU404	AUTOMOTIVE MECHANICS	I,II,III	a,b,c,e,m,n	2	0	2	4
18AU405	APPLIED THERMODYNAMICS AND HEAT TRANSFER	I,III	a,b,c,d,m	3	1	0	4
18AU406	AUTOMOTIVE ELECTRICAL SYSTEM	I,II,III	a,b,c,d,g,m	3	0	0	3
18AU407	AUTOMOTIVE ELECTRICAL LABORATORY	I,II,III	a,b,e,g,i,m	0	0	2	1
18AU408	THERMO FLUIDS ENGINEERING LABORATORY	I,II,III	a,b,c,d,i,m	0	0	2	1
18HS001	ENVIRONMENTAL SCIENCE	I	a,b	2	0	0	0
18GE401	SOFT SKILLS-REASONING	-	-	2	0	0	0
<b>Total</b>				20	3	8	24.0

**Fifth Semester**

Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
18AU501	METROLOGY AND MEASUREMENTS	I,II,III	a,b,c,e,i,m	3	0	2	4
18AU502	DESIGN OF AUTOMOTIVE ENGINE COMPONENTS	I,III	a,b,c,h,k,m	3	1	0	4
18AU503	AUTOMOTIVE ELECTRONICS	I,II,III	a,b,c,e,m	3	0	0	3
18AU504	AUTOMOTIVE EMISSION AND CONTROL	I,II,III	a,b,c,d,e,f,g,h,i,m	3	0	2	4
	PROFESSIONAL ELECTIVE I	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE II	-	-	-	-	-	3
18AU507	AUTOMOTIVE ELECTRONICS LABORATORY	I,II,III	a,b,e,g,i,m,n	0	0	2	1
18AU508	AUTOMOTIVE COMPONENTS MODELING LABORATORY	I,II,III	a,b,c,e,i,l,m,n	0	0	2	1
18GE501	SOFT SKILLS - APTITUDE I	-	-	0	0	2	0
<b>Total</b>				12	1	10	23.0

**Sixth Semester**

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18HS002	PROFESSIONAL ETHICS IN ENGINEERING	-	-	2	0	0	2
18AU602	FINITE ELEMENT ANALYSIS	I,III	a,b,c,m	3	1	0	4
18AU603	DESIGN OF AUTOMOTIVE CHASSIS COMPONENTS	I,III	a,b,c,h,k,m	3	1	0	4
18AU604	VEHICLE BODY ENGINEERING	I,II,III	a,b,c,d,e,m	3	0	0	3
18AU607	VEHICLE MAINTENANCE LABORATORY	I,II,III	a,b,i,m	0	0	2	1
18AU608	COMPUTER AIDED ANALYSIS LABORATORY	I,II,III	a,b,c,e,m	0	0	2	1
18GE601	SOFT SKILLS-APTITUDE II	-	-	0	0	2	0
	PROFESSIONAL ELECTIVE III	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE IV	-	-	-	-	-	3
Total				11	2	6	21.0
<b>Seventh Semester</b>							
Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18HS003	PRINCIPLES OF MANAGEMENT	-	-	2	0	0	2
18AU702	VEHICLE DYNAMICS	I,III	a,b,c,m	3	1	0	4
18AU703	INTELLIGENT VEHICLE SYSTEMS	I,II	c,e,g,n	3	0	2	4
18AU704	TRANSPORT MANAGEMENT	I,II,III	f,g,h,k,m	3	0	0	3
	PROFESSIONAL ELECTIVE V	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE VI	-	-	-	-	-	3
18AU707	VEHICLE DYNAMICS LABORATORY	I,II,III	a,b,c,e,m	0	0	2	1
18AU708	PROJECT WORK I	I,II,III	a,b,c,d,e,f,g,h,i,j,k,l	0	0	6	3
Total				11	1	10	23.0
<b>Eight Semester</b>							
Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18AU804	PROJECT WORK II	I,II,III	a,b,c,d,e,f,g,h,i,j,k,l	0	0	18	9
	PROFESSIONAL ELECTIVE VII	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE VIII	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE IX	-	-	-	-	-	3
Total				0	0	18	18.0
<b>Electives</b>							
Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
<b>DISCIPLINE ELECTIVES</b>							
18AU033	AUTOMOTIVE STYLING	I,II,III	a,b,c,e,m	3	0	0	3
18AU034	AUTOMOTIVE EMBEDDED SYSTEMS	I,II,III	a,b,c,m,n	3	0	0	3
18AU035	ELECTRO MAGNETIC INTERFACE AND ELECTRO MAGNETIC COMPATIBILITY	I,II,III	a,c,d,g,m,n	3	0	0	3
18AU036	ELECTRIC MOTORS AND DRIVE SYSTEMS	-	-	3	0	0	3
18AU037	LEAN MANUFACTURING	-	-	3	0	0	3
<b>ONE CREDIT COURSES</b>							
18AU0XG	AUTOMOTIVE INTERIOR COMPONENTS DESIGN	-	-	0	0	0	1
18AU0XH	CONNECTED VEHICLES	-	-	1	0	0	1
<b>OPEN ELECTIVES</b>							
18AU0YE	TROUBLE SHOOTING AND MAINTENANCE OF AUTOMOBILES	I,II,III	a,b,m,n	3	0	0	3
18GE0P4	BIO-PHOTONICS	-	-	3	0	0	3
18GE0P5	PHYSICS OF SOFT MATTER	-	-	3	0	0	3
<b>ADDITIONAL ONE CREDIT COURSE</b>							
18GE0XJ	INTERPERSONAL SKILLS	-	-	1	0	0	1
18GE0XK	NEW AGE INNOVATION AND ENTREPRENEURSHIP	-	-	1	0	0	1
18GE0XL	NATIONAL CADET CORPS	II,III	g,i	1	0	0	1
18GE0XM	COMMUNITY SERVICE AND LEADERSHIP DEVELOPMENT	-	-	1	0	0	1
18GE0XN	DISRUPTIVE INNOVATION BASED STARTUP ACTIVITIES	-	-	1	0	0	1
18GE0XO	SOCIAL PSYCHOLOGY	II,III	i	1	0	0	1
<b>LANGUAGE ELECTIVES</b>							
18HS201	COMMUNICATIVE ENGLISH II	II,III	i,j	1	0	2	2
18HSC01	CHINESE	-	-	1	0	2	2
18HSF01	FRENCH	III	j	1	0	2	2
18HSG01	GERMAN	-	-	1	0	2	2
18HSH01	HINDI	-	-	1	0	2	2
18HSJ01	JAPANESE	-	-	1	0	2	2
<b>DISCIPLINE ELECTIVES</b>							

18AU001	AUTOMOTIVE PRODUCT DESIGN AND DEVELOPMENT	I,III	a,b,m	3	0	0	3
18AU002	DESIGN FOR MANUFACTURE AND ASSEMBLY	I,II,III	a,b,c,e,g,l,m	3	0	0	3
18AU003	DESIGN THINKING	-	-	3	0	0	3
18AU004	COMPUTATIONAL FLUID DYNAMICS	I,II,III	a,b,c,d,e,m,n	3	0	0	3
18AU005	COMBUSTION THERMODYNAMICS AND HEAT TRANSFER	I,III	a,b,c,d,m	3	0	0	3
18AU006	SUPERCHARGING AND SCAVENGING	I,II,III	a,b,c,d,g,m	3	0	0	3
18AU007	FUELS AND COMBUSTION	-	-	3	0	0	3
18AU008	ALTERNATE FUELS AND ENERGY SYSTEMS	I,II,III	a,b,c,g,m	3	0	0	3
18AU009	AUTOMOTIVE AIR-CONDITIONING	I,II,III	a,c,d,e,g,m	3	0	0	3
18AU010	COMPOSITE MATERIALS	I,II,III	a,b,l,n	3	0	0	3
18AU011	ENGINEERING TRIBOLOGY	I,III	a,b,c,d,m	3	0	0	3
18AU012	NON-TRADITIONAL MACHINING PROCESSES	I,II,III	a,b,e,m	3	0	0	3
18AU013	ADDITIVE MANUFACTURING	I,II	a,b,c,e,n	3	0	0	3
18AU014	NOISE, VIBRATION AND HARSHNESS CONTROL	I,II	a,b,f,g,n	3	0	0	3
18AU015	IOT IN AUTOMOBILES	I,II,III	a,b,c,e,m,n	3	0	0	3
18AU016	AUTOMOTIVE AERODYNAMICS	I,II,III	a,b,c,d,m,n	3	0	0	3
18AU017	AUTOMOTIVE SAFETY AND ERGONOMICS	I,II,III	a,b,d,e,f,m	3	0	0	3
18AU018	TWO AND THREE WHEELERS	I,II,III	a,b,c,e,m	3	0	0	3
18AU019	OFF-ROAD VEHICLES	I,III	a,b,c,m	3	0	0	3
18AU020	ELECTRIC AND HYBRID VEHICLES	I,III	a,b,c,m	3	0	0	3
18AU021	SMART MOBILITY	I,II,III	a,b,c,e,m,n	3	0	0	3
18AU022	MOTORSPORT TECHNOLOGY	I,II,III	a,b,c,e,m,n	3	0	0	3
18AU023	ADVANCED VEHICLE TECHNOLOGY	I,II,III	a,c,d,e,f,m,n	3	0	0	3
18AU024	TYRE TECHNOLOGY	I,II,III	a,b,c,d,e,f,g,m,n	3	0	0	3
18AU025	INDUSTRY 4.0	-	-	3	0	0	3
18AU026	VEHICLE SYSTEM EVALUATION AND CERTIFICATION	I,III	a,b,c,d,m	3	0	0	3
18AU027	HYDRAULICS AND PNEUMATICS	-	-	3	0	0	3
18AU028	INDUSTRIAL ENGINEERING	I,II,III	a,b,c,e,m	3	0	0	3
18AU029	OPTIMIZATION TECHNIQUES	I,II,III	a,b,c,d,e,f,g,j,l,m	3	0	0	3
18AU030	TOTAL QUALITY MANAGEMENT	I,II,III	a,b,c,e,f,g,h,k,m	3	0	0	3
18AU031	VEHICLE MAINTENANCE	I,III	a,b,c,m	3	0	0	3
18AU032	ENGINEERING ECONOMICS AND COST ANALYSIS	II,III	f,g,h,k,l	3	0	0	3
<b>ONE CREDIT COURSES</b>							
18AU0XA	PLASTICS-DESIGN, PROCESSING, TOOLING, ASSEMBLY AND TESTING	I,II,III	d,f,l,m	1	0	0	1
18AU0XB	VEHICLE TESTING AND CERTIFICATION	I,II,III	a,b,c,d,e,l,m,n	1	0	0	1
18AU0XC	AUTOMOBILE EMBEDDED SYSTEM	I,II,III	a,b,c,e,l,m,n	1	0	0	1
18AU0XD	GASOLINE INJECTION SYSTEMS	I,II,III	a,c,d,e,l,n	1	0	0	1
18AU0XE	ADVANCED MOTOR SPORTS ENGINEERING	I,II,III	a,b,c,d,l,m	1	0	0	1
18AU0XF	AUTOMOTIVE PRODUCT DEVELOPMENT	-	-	1	0	0	1
<b>OPEN ELECTIVES</b>							
18AU0YA	AUTOMOTIVE ENGINEERING	I,III	a,b,c,m	3	0	0	3
18AU0YB	VEHICLE CONTROL SYSTEMS	I,II,III	b,c,e,m	3	0	0	3
18AU0YC	PUBLIC TRANSPORT MANAGEMENT	I,II	a,b,f,g,n	3	0	0	3
18AU0YD	TECHNOLOGIES FOR GREEN MOBILITY	I,II	a,b,f,g,n	3	0	0	3
18GE0C1	CORROSION SCIENCE AND ENGINEERING	I,II	a,b,g	3	0	0	3
18GE0C2	ENERGY STORING DEVICES	I	a,b	3	0	0	3
18GE0C3	POLYMER SCIENCE	I	a,b,c	3	0	0	3
18GE0P1	NANOMATERIALS SCIENCE	-	-	3	0	0	3
18GE0P2	SEMICONDUCTOR PHYSICS AND DEVICES	-	-	3	0	0	3
18GE0P3	APPLIED LASER SCIENCE	-	-	3	0	0	3
<b>ADDITIONAL ONE CREDIT COURSE</b>							
18GE0XA	ETYMOLOGY	-	-	1	0	0	1
18GE0XB	GENERAL PSYCHOLOGY	-	-	1	0	0	1
18GE0XC	NEURO BEHAVIORAL SCIENCE	II,III	i	1	0	0	1
18GE0XD	VISUAL MEDIA AND FILM MAKING	I,II	b,f	1	0	0	1
18GE0XE	YOGA FOR HUMAN EXCELLENCE	-	-	1	0	0	1
18GE0XF	VEDIC MATHEMATICS	-	-	1	0	0	1
18GE0XG	HEALTH AND FITNESS	-	-	1	0	0	1
18GE0XH	CONCEPT, METHODOLOGY AND APPLICATIONS OF VERMICOMPOSTING	-	-	1	0	0	1
18GE0XI	BLOG WRITING	II,III	f,g,j	1	0	0	1
<b>OPEN ELECTIVES</b>							
18AE0YA	NON-DESTRUCTIVE TESTING	-	-	3	0	0	3
18AE0YB	SMART MATERIALS	-	-	3	0	0	3
18AE0YC	FUNDAMENTALS OF AIRCRAFT ENGINEERING	-	-	3	0	0	3

18AG0YA	ENTREPRENEURSHIP DEVELOPMENT AND FOOD QUALITY MANAGEMENT FOOD INDUSTRY	-	-	3	0	0	3
18AG0YB	HUMAN ENGINEERING AND SAFETY IN AGRICULTURE	-	-	3	0	0	3
18AG0YC	ENERGY MANGEMENT IN AGRICULTURE	-	-	3	0	0	3
18AG0YD	FARM MECHANISATION	-	-	3	0	0	3
18BT0YA	BIOFUELS	-	-	3	0	0	3
18BT0YB	MUSHROOM CULTIVATION AND VERMICOMPOSTING	-	-	3	0	0	3
18BT0YC	FORENSIC TECHNOLOGY	-	-	3	0	0	3
18CE0YA	GREEN BUILDINGS	-	-	3	0	0	3
18CE0YB	DISASTER PREPAREDNESS AND PLANNING	-	-	3	0	0	3
18CE0YC	ENVIRONMENTAL IMPACT ASSESSMENT	-	-	3	0	0	3
18CE0YD	BUILDING SERVICES	-	-	3	0	0	3
18CE0YE	INDUSTRIAL WASTE MANAGEMENT	-	-	3	0	0	3
18CE0YF	WEALTH FROM WASTE	-	-	3	0	0	3
18CE0YG	RISK AND SAFETY MANAGEMENT	-	-	3	0	0	3
18CE0YH	ENERGY SCIENCE AND ENGINEERING	-	-	3	0	0	3
18CE0YI	CONCEPTS OF REMOTE SENSING	-	-	3	0	0	3
18CS0YA	E-LEARNING TECHNIQUES	-	-	3	0	0	3
18CS0YB	SOFTWARE TESTING AND QUALITY ASSURANCE	-	-	3	0	0	3
18CS0YC	JAVA FUNDAMENTALS	-	-	3	0	0	3
18CS0YD	NETWORK ENGINEERING AND MANAGEMENT	-	-	3	0	0	3
18CS0YE	AGENT BASED INTELLIGENT SYSTEMS	-	-	3	0	0	3
18CS0YF	E-BUSINESS	-	-	3	0	0	3
18CS0YG	KNOWLEDGE DISCOVERY IN DATABASES	-	-	3	0	0	3
18CS0YH	SOCIAL NETWORK ANALYSIS CONCEPTS	-	-	3	0	0	3
18CS0YI	OPERATING SYSTEM CONCEPTS	-	-	3	0	0	3
18CS0YJ	OBJECT ORIENTED PROGRAMMING	-	-	3	0	0	3
18EC0YA	BASICS OF ANALOG AND DIGITAL ELECTRONICS	-	-	3	0	0	3
18EC0YB	AUTOMOTIVE ELECTRONICS	-	-	3	0	0	3
18EC0YC	PCB DESIGN AND PROTOTYPING	-	-	3	0	0	3
18EC0YD	MICROCONTROLLER PROGRAMMING	-	-	3	0	0	3
18EC0YE	ENGINEERING COMPUTATION WITH MATLAB	-	-	3	0	0	3
18EC0YF	BASICS OF HARDWARE DESCRIPTION LANGUAGES	-	-	3	0	0	3
18EC0YG	FUNDAMENTALS OF EMBEDDED SYSTEMS	-	-	3	0	0	3
18EC0YH	PRINCIPLES OF COMMUNICATION SYSTEMS	-	-	3	0	0	3
18EC0YI	ELECTRONIC PRODUCT DESIGN AND PACKAGING	-	-	3	0	0	3
18EC0YJ	PRINCIPLES OF COMPUTER COMMUNICATION AND NETWORKS	-	-	3	0	0	3
18EE0YA	ENERGY CONSERVATION AND MANAGEMENT	-	-	3	0	0	3
18EE0YB	ELECTRICAL SAFETY	-	-	3	0	0	3
18EE0YC	INDUSTRIAL DRIVES AND CONTROL	-	-	3	0	0	3
18EI0YA	PROGRAMMABLE LOGIC CONTROLLERS	-	-	3	0	0	3
18EI0YB	SENSOR TECHNOLOGY	-	-	3	0	0	3
18EI0YC	FUNDAMENTALS OF VIRTUAL INSTRUMENTATION	-	-	3	0	0	3
18EI0YD	OPTOELECTRONICS AND LASER INSTRUMENTATION	-	-	3	0	0	3
18FD0YA	TRADITIONAL FOODS	-	-	3	0	0	3
18FD0YB	FOOD LAWS AND REGULATIONS	-	-	3	0	0	3
18FD0YC	POST HARVEST TECHNOLOGY OF FRUITS AND VEGETABLES	-	-	3	0	0	3
18FT0YA	FASHION CRAFTS	-	-	3	0	0	3
18FT0YB	FASHION ACCESSORIES	-	-	3	0	0	3
18FT0YC	FASHION VISUAL MERCHANDISING	-	-	3	0	0	3
18FT0YD	INTERIOR DESIGN	-	-	3	0	0	3
18FT0YE	SURFACE EMBELLISHMENT	-	-	3	0	0	3
18GE01	BUSINESS ANALYTICS	-	-	3	0	0	3
18GE02	INDUSTRIAL SAFETY	-	-	3	0	0	3
18GE03	OPERATIONS RESEARCH	-	-	3	0	0	3
18GE04	COST MANAGEMENT OF ENGINEERING PROJECTS	-	-	3	0	0	3
18GE05	COMPOSITE MATERIALS	-	-	3	0	0	3
18GE06	WASTE TO ENERGY	-	-	3	0	0	3
18IT0YA	DATABASE MANAGEMENT SYSTEMS	-	-	3	0	0	3
18IT0YB	DATA STRUCTURES AND ALGORITHMS	-	-	3	0	0	3
18IT0YC	DATA SCIENCES AND ANALYTICS	-	-	3	0	0	3
18IT0YD	OBJECT ORIENTED PROGRAMMING	-	-	3	0	0	3
18IT0YE	ARTIFICIAL INTELLIGENCE	-	-	3	0	0	3
18ME0YA	INDUSTRIAL PROCESS ENGINEERING	-	-	3	0	0	3
18ME0YB	SAFETY ENGINEERING	-	-	3	0	0	3
18ME0YC	MAINTENANCE ENGINEERING	-	-	3	0	0	3
18ME0YD	BASICS OF NON-DESTRUCTIVE TESTING	-	-	3	0	0	3
18ME0YE	DIGITAL MANUFACTURING	-	-	3	0	0	3

18ME0YF	WORK STUDY AND ERGONOMICS	-	-	3	0	0	3
18ME0YG	METROLOGY IN INDUSTRY	-	-	3	0	0	3
18ME0YH	PLANT LAYOUT AND MATERIAL HANDLING	-	-	3	0	0	3
18ME0YI	CONCEPTS OF ENGINEERING DESIGN	-	-	3	0	0	3
18ME0YJ	OIL HYDRAULICS AND PNEUMATICS	-	-	3	0	0	3
18ME0YK	ENERGY AUDITING AND MANAGEMENT	-	-	3	0	0	3
18ME0YL	LEAN SIX SIGMA	-	-	3	0	0	3
18ME0YM	HEATING VENTILATION AND AIRCONDITIONING	-	-	3	0	0	3
18TT0YA	YARN AND FABRIC MANUFACTURE	-	-	3	0	0	3
18TT0YB	COLOURATION OF TEXTILES	-	-	3	0	0	3
18TT0YC	TEXTILES IN ENGINEERING APPLICATION	-	-	3	0	0	3
18TT0YD	GENERAL TEXTILE TECHNOLOGY	-	-	3	0	0	3

