

**BE AUTOMOBILE ENGINEERING****(2019 Regulations)**

Course Code	Course Title	Periods / week				Maximum Marks				
		Lecture	Tutorial	Practical	Credits	CA	FE	Total	CAT	
<b>SEMESTER VII</b>										
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	
<b>Total 24 periods</b>		<b>18</b>	<b>0</b>	<b>6</b>	<b>21</b>	<b>500</b>	<b>300</b>	<b>800</b>		
<b>SEMESTER VIII</b>										
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	
<b>Total 14 periods</b>		<b>6</b>	<b>0</b>	<b>8</b>	<b>10</b>	<b>150</b>	<b>150</b>	<b>300</b>		

CA Continuous Assessment  
 FE Final Examination

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## PROFESSIONAL ELECTIVES

### DESIGN ENGINEERING

19A001	Aerodynamics of Road Vehicles
19A002	Automatic Transmission
19A003	Automotive Electronics
19A004	Automotive Product Development Strategies
19A005	Mechatronics
19A006	Automotive Embedded Systems
19A007	Vehicle Concept Styling and Design
19A008	Signals and Systems
19A009	Automotive Instrumentation
19A010	Automotive Testing
19A011	Automotive Product Life Cycle Management
19A012	Vibration and Noise Engineering
19A013	Vehicle Development Process
19A014	Mathematical modeling of Mechanical systems
19A015	Model based design
19A016	Surface Finishing Process
19A017	Internet of Things
19A018	Artificial Intelligence
19A019	Introduction to Digital Signal Processing
19A020	Mobility and Infrastructure
19A021	Virtual Product Development
19A022	Motor Transport
19A023	Solar vehicles
19A024	Vehicle communication systems
19A025	Automotive Styling
19A026	Electric Vehicle Design
19A027	Power train design (electric and hybrid)
19A028	Power Electronics and Drives
19A029	Automotive Communication Protocols
19A030	Vehicle Diagnostic Systems
19A031	Advanced materials for green vehicles
19A032	Flexible manufacturing system
19A033	Vehicle Stability and Control
19A034	Alternative Sources of Energy
19A035	Vehicle testing and trouble shooting
19A036	Modern vehicle technology
19A037	Electrical charging system

### THERMAL ENGINEERING

19A038	Automotive HVAC
19A039	Modelling and Simulation of Internal Combustion Engines
19A040	Advanced Theory of Internal Combustion Engines
19A041	Computational Fluid Dynamics

### INDUSTRIAL & MANUFACTURING ENGINEERING

19A042	Value Engineering
19A043	Commercial Fleet Operation
19A044	Quality Assurance and Reliability

19A045	Total Quality Management
19A046	Materials for Automobile Industry
19A047	Process Planning and Cost Estimation
19A048	Lean Methods for Automobile Engineers
19A049	Quality Management System for Automotive Industry
19A050	Electric Vehicle Thermal Engineering

#### **LANGUAGE ELECTIVES**

19G001	Communication Skills for Engineers
19G002	German- Level A1.1
19G003	French Language Level 1
19G004	Basic Japanese

#### **ONE-CREDIT COURSES**

##### **AUTOMOBILE ENGINEERING**

19AF01	Gasoline Engine Management System
19AF02	Diesel Engine Management System
19AF03	Vehicle System Engineering
19AF04	Computer Aided Industrial Design for Automobiles
19AF05	Sketching for Designers
19AF06	Industrial Design
19AF07	Computer Aided Automobile Styling
19AF08	Vehicle Design Process
19AF09	Active Safety Systems
19AF10	Passive Safety Systems
19AF11	Integrated Product Development
19AF12	Car Design and Packaging Fundamentals
19AF13	Automotive Communication Protocols
19AF14	Challenges and Issues in Fuel Cell Technologies
19AF15	Product Development Practices
19AF16	Product Costing

##### **ENGLISH**

19GF01	Interpersonal and Organizational Communication
19GF02	Human Values Through Literature

##### **HUMANITIES**

19OFA1	Export – Import Practices
19OFA2	Insurance - Concepts and Practices
19OFA3	Public Finance
19OFA4	Security Analysis and Portfolio Management

### Summary of Credit Distribution

<b>BE AUTOMOBILE ENGINEERING</b>										
<b>S. No</b>	<b>Course Category</b>	<b>Credits Per Semester</b>								<b>Total Credits</b>
		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	
1	HS	3	2	3	0	0	0	0	0	8
2	BS	12	8	3	3	0	0	0	0	26
3	ES	6	10	7	5	0	7	0	0	35
4	PC	0	0	11	13	17	10	6	0	57
5	PE	0	0	0	0	3	0	9	6	18
6	OE	0	0	0	0	0	3	3	0	6
7	EEC	0	0+2	0	1	2	3	3	4	15
8	MC	-	-	-	-	-	-	-	-	-
	<b>TOTAL</b>	<b>21</b>	<b>20+2</b>	<b>24</b>	<b>22</b>	<b>22</b>	<b>23</b>	<b>21</b>	<b>10</b>	<b>165</b>

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