

# **MAHATMA GANDHI UNIVERSITY**

Kottayam, Kerala



## **B.Tech. -Degree Courses 2010-2011**

Revised Scheme and Syllabus  
And  
Syllabus for Combined I & II Sem

**Contents**

1. **Course Regulations of B.Tech. -Degree Courses (With effect from 2010 admissions)**
2. **Revised Scheme For B Tech Syllabus 2010-11**
3. **Syllabus for combined Ist & IInd Sem (Common for all branches)**

From,

M.C.Philipose

Chairman

Board of Studies in Engg (UG)

M.G.University

Kottayam

To

The Registrar

M.G.University

Kottayam

Sir,

Sub: Regulation,scheme&syllabus

I am herewith submitting the following approved by the Board of Studies in Engg (UG) held on 31.05.2010 at M.G.university mini conference hall.

1. Regulation for B.Tech degree(2010 onwards)
2. Scheme for first to eighth semesters
3. Syllabus for combined first & second (common for all branches)

I request you to take the necessary action in this regard

Thanking you

Yours sincerely

31.05.2010

**Mahatma Gandhi University**  
**Course Regulations**  
**of**  
**B.Tech. -Degree Courses**

**(With effect from 2010 admissions)**

**Electives III**

AI010 804L01	Neural networks
AI010 804L02	Advanced DSP
AI010 804L03	Embedded systems
AI010 804L04	Artificial Intelligence
AI010 804L05	VHDL
AI010 804L06	BioInformatics

**Electives IV**

AI010 805G01	Total quality management
AI010 805G02	Human factors engineering
AI010 805G03	System engineering
AI010 805G04	Professional Ethics
AI010 805G05	Industrial Pollution control
AI010 805G06	Simulation and modelling

**Mahatma Gandhi University Revised Scheme For****B Tech Syllabus Revision 2010****(Automobile Engineering)****Common for All Branches****SCHEME S1&S2**

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
EN010 101	Engineering Mathematics I	2	1	-	50	100	3	5

EN010 102	Engineering Physics	1	1	-	50	100	3	4
EN010 103	Engineering. Chemistry & Environmental Studies	1	1	-	50	100	3	4
EN010 104	Engineering Mechanics	3	1	-	50	100	3	6
EN010 105	Engineering Graphics	1	3	-	50	100	3	6
EN010 106	Basic Civil Engineering	1	1	-	50	100	3	4
EN010 107	Basic Mechanical Engineering	1	1	-	50	100	3	4
EN010 108	Basic Electrical Engineering	1	1	-	50	100	3	4
EN010 109	Basic Electronics Engineering. & Information Technology	2	1	-	50	100	3	5
EN010 110	Mechanical Workshop	0	-	3	50	-	3	1
EN110 111	Electrical and Civil Workshops	-	-	3	100	-	3	1
	<b>Total</b>	<b>13</b>	<b>11</b>	<b>6</b>			<b>30</b>	<b>44</b>

### 3<sup>rd</sup> Semester

Code	Subject	Hours/week			Marks		End-sem duration -hours	Credits
		L	T	P/D	Internal	End-sem		
EN010 301	Engineering Mathematics II	2	2	-	50	100	3	4
EN010 302	Economics and Communication Skills	2	2	-	50	100	3	4 (3+1)
AU010 303	Fluid Mechanics and Hydraulic Machinery	2	2	-	50	100	3	4
AU010 304(ME)	Metallurgy & Material Science	3	1	-	50	100	3	4
AU010 305(ME)	Programming in C	3	1	-	50	100	3	4

AU010 306(CE)	Strength of Materials & Structural Engineering	3	1	-	50	100	3	4
AU010 307	Computer Lab	-	-	3	50	100	3	2
AU010 308(ME)	Fluid Mechanics Lab	-	-	3	50	100	3	2
	<b>Total</b>	<b>15</b>	<b>9</b>	<b>6</b>				<b>28</b>

#### 4<sup>th</sup> Semester

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
EN010 401	Engineering Mathematics III	2	2	-	50	100	3	4
EN010 402(ME)	Principles of Management	3	1	-	50	100	3	4
AU010 403	Auto Power Plant	2	2	-	50	100	3	4
AU010 404(ME)	Manufacturing Process	3	1	-	50	100	3	4
AU010 405	Machine Drawing	3	1	-	50	100	3	4
AU010 406(EE)	Electrical Technology	3	1	-	50	100	3	4
AU010 407	Auto Workshop I	-	-	3	50	100	3	2
AU010 408(CE)	Strength of Materials Lab	-	-	3	50	100	3	2
	<b>Total</b>	<b>16</b>	<b>8</b>	<b>6</b>				<b>28</b>

#### 5<sup>th</sup> Semester

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
EN010 501A	Engineering Mathematics IV	2	2	-	50	100	3	4

	N								
AU010 502	Computer Aided Design & Manufacturing	3	1		50	100	3	4	
AU010 503	Auto Chassis	2	2	-	50	100	3	4	
AU010 504(ME)	Kinematics of Machinery	3	1	-	50	100	3	4	
AU010 505(ME)	I C Engines & Combustion	3	1	-	50	100	3	4	
AU010 506(ME)	Thermodynamics	3	1	-	50	100	3	4	
AU010 507	Computer Graphics & Drafting	-	-	3	50	100	3	2	
AU010 508(EE)	Electrical & Electronics Lab	-	-	3	50	100	3	2	
	<b>Total</b>	<b>16</b>	<b>8</b>	<b>6</b>				<b>28</b>	

### 6<sup>th</sup> Semester

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
AU010 601	Mechanics of Machines	2	2	-	50	100	3	4
AU010 602(ME)	Heat & Mass Transfer	2	2	-	50	100	3	4
AU010 603	Automotive Transmission	3	1	-	50	100	3	4
AU010 604(ME)	Metrology & Machine Tools	3	1	-	50	100	3	4
AU010 605(ME)	Mechatronics & Control Systems	3	1	-	50	100	3	4
AU010 606Lxx	Elective I	2	2	-	50	100	3	4
AU010 607	Heat Engines Lab	-	-	3	50	100	3	2
AU010 608	Machine Tool Lab	-	-	3	50	100	3	2
	<b>Total</b>	<b>15</b>	<b>9</b>	<b>6</b>				<b>28</b>



## Elective I

AU010 606L01 Vehicle Transport Management

AU010 606L02 Computer Aided vehicle Design

AU010 606L03 Computer Simulation of I C Engines

AU010 606L04 Tribology

AU010 606L05 Alternate Fuels and Energy systems

AU010 606L06 Quantitative Techniques

## 7<sup>th</sup> Semester

Code	Subject	Hours/week			Marks		End-sem duration -hours	Credits
		L	T	P/D	Internal	End-sem		
AU010 701(ME)	Design of Machine Elements	2	2	-	50	100	3	4
AU010 702	Advanced Automotive Technology	2	2	-	50	100	3	4
AU010 703	Auto Electrical & Electronics	2	1	-	50	100	3	3
AU010 704(ME)	Refrigeration & Air Conditioning	2	1	-	50	100	3	3
AU010 705(ME)	Industrial Engineering	2	1	-	50	100	3	3
AU010 706Lxx	Elective II	2	2	-	50	100	3	4
AU010 707(ME)	Mechanical Measurements Lab	-	-	3	50	100	3	2
AU010 708	<i>Auto Workshop II</i>	-	-	3	50	100	3	2
AU010 709	Seminar	-	-	2	50	-	-	2
AU010 710	<i>Project</i>	-	-	1	50	-	-	1
	<b>Total</b>	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>

## Elective II

AU010 706L01 Vehicle Body Engineering

AU010 706L02 Vehicle Performance and Testing

AU010 706L03 Automotive Pollution and Control

AU010 706L04 Project Management

AU010 706L05 Industrial Safety

AU010 706L06 Non Traditional Machining Processes

### **8<sup>th</sup> Semester**

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
AU010 801(ME)	Design of Transmission Elements	3	2	-	50	100	3	4
AU010 802(ME)	Operations Management	2	2	-	50	100	3	4
AU010 803	Special Types of Vehicles	2	2	-	50	100	3	4
AU010 804Lxx	Elective III	2	2	-	50	100	3	4
AU010 805Gxx	Elective IV	2	2	-	50	100	3	4
AU010 806	Auto Workshop III	-	-	3	50	100	3	2
AU010 807	Project	-	-	6	100	-	-	4
AU010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

### **Electives III**

AU010 804L01 Transport Refrigeration and Air Conditioning

AU010 804L02 Engineering Economics and Automotive Cost Estimation

AU010 804L03 Vehicle Dynamics

AU010 804L04	Finite Element Method
AU010 804L05	Microprocessor Application in Automobiles
AU010 804L06	Foundry and Welding Technology

#### **Electives IV**

AU010 805G01	System Modeling and Simulation
AU010 805G02	Robotics and Robot Application
AU010 805G03	Farm Machinery and Equipment
AU010 805G04	Aerospace Engineering
AU010 805G05	Management Information systems
AU010 805G06	Petrochemical Engineering

### **Mahatma Gandhi University Revised Scheme For**

### **B Tech Syllabus Revision 2010**

**Common for All Branches**

#### **SCHEME S1S2**

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
EN010 101	Engineering Mathematics I	2	1	-	50	100	3	5
EN010 102	Engineering Physics	1	1	-	50	100	3	4
EN010 103	Engineering. Chemistry & Environmental Studies	1	1	-	50	100	3	4
EN010 104	Engineering Mechanics	3	1	-	50	100	3	6
EN010 105	Engineering Graphics	1	3	-	50	100	3	6