

**Mahatma Gandhi University Revised Scheme For  
B Tech Syllabus Revision 2010 (Civil Engineering)**

**Common for All Branches  
SCHEME S1&S2**

Code	Subject	Hours/week			Marks		End-sem duration- hours	Credits
		L	T	P/D	Inte- rnal	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
<i>EN010 110</i>	<i>Mechanical Workshop</i>	-	-	3	50	-	3	1
<i>EN110 111</i>	<i>Electrical and Civil Workshops</i>	-	-	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	Credits
		L	T	P/D	Inte- rnal	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)
CE010 303	Fluid Mechanics	2	2	-	50	100	3	4
CE010 304	Mechanics of Solids I	3	1	-	50	100	3	4
CE010 305	Surveying I	3	1	-	50	100	3	4
CE010 306	Engineering Geology	3	1		50	100	3	4
CE010 307	<i>Material Testing Lab I</i>	-	-	3	50	100	3	2
CE010 308	<i>Surveying Practical I</i>	-	-	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
CE010 402	Construction Engineering and Management	3	1	-	50	100	3	4
CE010 403	Mechanics of Solids II	2	2	-	50	100	3	4
CE010 404	Open Channel Flow and Hydraulic Machines	3	1	-	50	100	3	4
CE010 405	Surveying II	3	1	-	50	100	3	4
CE010 406	Civil Engineering Drawing			4	50	100	3	4
CE010 407	<i>Surveying Practical II</i>	-	-	3	50	100	3	2
CE010 408(ME)	<i>Hydraulics Lab</i>	-	-	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
CE010 502	Computer Programming	3	1		50	100	3	4
CE010 503	Design of Concrete Structures I	2	2	-	50	100	3	4
CE010 504	Geotechnical Engineering I	3	1	-	50	100	3	4
CE010 505	Quantity Surveying and Valuation	3	1	-	50	100	3	4
CE010 506	Structural Analysis I	3	1	-	50	100	3	4
CE010 507	<i>Computing Techniques Lab</i>	-	-	3	50	100	3	2
CE010 508	<i>Geotechnical Engineering Lab</i>	-	-	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		
CE010 601	Design of Steel Structures	2	2	-	50	100	3	4
CE010 602	Geotechnical Engineering II	2	2	-	50	100	3	4
CE010 603	Structural Analysis II	3	1	-	50	100	3	4
CE010 604	Transportation Engineering I	3	1	-	50	100	3	4
CE010 605	Water Resources Engineering	3	1	-	50	100	3	4
CE010 606Lxx	Elective I	2	2	-	50	100	3	4
CE010 607	Computer Aided Design and Drafting Lab	-	-	3	50	100	3	2
CE010 608	<i>Material Testing Lab II</i>	-	-	3	50	100	3	2
	<b>Total</b>	<b>15</b>	<b>9</b>	<b>6</b>				<b>28</b>

### Elective I

- CE010 606L01 Advanced Surveying
- CE010 606L02 Open Channel and Coastal Hydraulics
- CE010 606L03 Airport Engineering
- CE010 606L04 Advanced Mechanics of Materials
- CE010 606L05 Concrete Technology
- CE010 606L06 Soil Stability Analysis.

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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
CE010 701	Design of Hydraulic Structures	2	2	-	50	100	3	4
CE010 702	Environmental Engineering I	2	2	-	50	100	3	4
CE010 703	Design of Concrete Structures II	2	1	-	50	100	3	3
CE010 704	Architecture and Town Planning	2	1	-	50	100	3	3
CE010 705	Transportation Engineering II	2	1	-	50	100	3	3
CE010 706Lxx	Elective II	2	2	-	50	100	3	4
CE010 707	Computer Applications Lab	-	-	3	50	100	3	2
CE010 708	<i>Transportation Engineering Lab</i>	-	-	3	50	100	3	2
CE010 709	Seminar	-	-	2	50	-	-	2
CE010 710	<i>Project</i>	-	-	1	50	-	-	1
	<b>Total</b>	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>

### Elective II

- CE010 706L01 Building Automation and Smart Structures
- CE 010 706L02 Ground Improvement Techniques
- CE 010 706L03. Prestressed Concrete.
- CE 010 706L04 Environmental Impact Assessment
- CE 010 706L05 Theory of Plates and Shells
- CE 010 706L06 Traffic Engineering and Management

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

Code	Subject	Hours/week			Marks		End-sem duration -hours	Credits
		L	T	P/D	Inte-rnal	End-sem		
CE010 801	Advanced Structural Design	3	2	-	50	100	3	4
CE010 802	Building Technology and Management	2	2	-	50	100	3	4
CE010 803	Environmental Engineering II	2	2	-	50	100	3	4
CE010 804Lxx	Elective III	2	2	-	50	100	3	4
CE010 805Gxx	Elective IV	2	2	-	50	100	3	4
CE010 806	Environmental Engineering Lab	-	-	3	50	100	3	2
CE010 807	Project	-	-	6	100	-	-	4
CE010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

### **Electives III**

- CE010 804L01 Advanced Foundation Design
- CE010 804L02 Environmental Geotechniques
- CE010 804L03 Earthquake Engineering and Design
- CE010 804L04 Advanced Hydrology and System Analysis
- CE010 804L05 Highway and Airfield Pavements
- CE010 804L06 Structural Dynamics and Stability Analysis

### **Electives IV**

- CE010 805G01 Finite Element Analysis
- CE010 805G02 Environmental Pollution Control Techniques
- CE010 805G03 Optimization Techniques
- CE010 805G04 Land Use Planning
- CE010 805G05 Numerical Methods
- CE010 805G06 Remote Sensing and GIS Applications

**Mahatma Gandhi University Revised Scheme For**  
**B Tech Syllabus Revision 2010 (Mechanical 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	<i>Mechanical Workshop</i>	-	-	3	50	-	3	1
EN110 111	<i>Electrical and Civil Workshops</i>	-	-	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 301A	Engineering Mathematics II	2	2	-	50	100	3	4
EN010 302	Economics and Communication Skills	2	2	-	50	100	3	4 (3+1)
ME010 303	Fluid Mechanics	2	2	-	50	100	3	4
ME 010 304	Metallurgy & Material Science	3	1	-	50	100	3	4
ME 010 305	Programming in C	3	1	-	50	100	3	4
ME 010 306(CE)	Strength of Materials & Structural Engineering	3	1	-	50	100	3	4
ME 010 307	<i>Computer Programming Lab</i>	-	-	3	50	100	3	2
ME 010 308	<i>Fluid Mechanics Lab</i>	-	-	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
ME 010 403	Hydraulic Machines	2	2	-	50	100	3	4
ME 010 404	Manufacturing Process	3	1	-	50	100	3	4
ME 010 405	Machine Drawing			4	50	100	3	4
ME 010 406(EE)	Electrical Technology	3	1	-	50	100	3	4
ME 010 407	<i>Hydraulic Machines Lab</i>	-	-	3	50	100	3	2
ME 010 408(CE)	<i>Strength of Materials Lab</i>	-	-	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
ME 010 502	Computer Aided Design & Manufacturing	3	1		50	100	3	4
ME 010 503	Advanced Mechanics of Materials	2	2	-	50	100	3	4
ME 010 504	Kinematics of Machinery	3	1	-	50	100	3	4
ME 010 505	I.C.Engines & Combustion	3	1	-	50	100	3	4
ME 010 506	Thermodynamics	3	1	-	50	100	3	4
ME 010 507	<i>CAD/CAM Lab</i>	-	-	3	50	100	3	2
ME 010 508	<i>Electrical &amp; Electronics Lab</i>	-	-	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	Inte- rnal	End- sem		
ME 010 601	Mechanics of Machines	2	2	-	50	100	3	4
ME 010 602	Heat & Mass transfer	2	2	-	50	100	3	4
ME 010 603	Thermal Systems & Applications	3	1	-	50	100	3	4
ME 010 604	Metrology & Machine Tools	3	1	-	50	100	3	4
ME 010 605	Mechatronics & Control System	3	1	-	50	100	3	4
ME 010 606Lxx	Elective I	2	2	-	50	100	3	4
ME 010 607	Heat Engines Lab	-	-	3	50	100	3	2
ME 010 608	<i>Machine Tools Lab</i>	-	-	3	50	100	3	2
	<b>Total</b>	<b>15</b>	<b>9</b>	<b>6</b>				<b>28</b>

### Elective I

- ME 010 606L01 Computational Fluid Dynamics
- ME 010 606L02 Composite MatériaIs Technology
- ME 010 606L03 Automobile engineering
- ME 010 606L04 Advanced strength of materials
- ME 010 606L05 Industrial Hydraulics
- ME 010 606L06 Project management

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

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Inte- rnal	End- sem		
ME 010 701	Design of Machine Elements	2	1	1	50	100	3	4
ME 010 702	Dynamics of Machines	2	2	-	50	100	3	4
ME 010 703	Gas Dynamics & Jet Propulsion	2	1	-	50	100	3	3
ME 010 704	Refrigeration & Air Conditioning	2	1	-	50	100	3	3
ME 010 705	Industrial Engineering	2	1	-	50	100	3	3
ME 010 706Lxx	Elective II	2	2	-	50	100	3	4
ME 010 707	Mechanical Measurements Lab	-	-	3	50	100	3	2
ME 010 708	<i>Advanced Machine Tools Lab</i>	-	-	3	50	100	3	2
ME 010 709	Seminar	-	-	2	50	-	-	2
ME 010 710	<i>Project</i>	-	-	1	50	-	-	1
	<b>Total</b>	<b>12</b>	<b>8</b>	<b>10</b>				<b>28</b>

### Elective II

- ME010 706L01 Plant Engineering & Maintanance
- ME010 706L02 Turbomachines
- ME010 706L03 Theory of vibration
- ME010 706L04 Sales & Marketing Management
- ME010 706L05 Failure analysis & design
- ME010 706L06 Foundary & Welding Technology

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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
ME010 801	Design of Transmission Elements	2	2	1	50	100	3	4
ME010 802	Operations Management	2	2	-	50	100	3	4
ME010 803	Production Engineering	2	2	-	50	100	3	4
ME010 804Lxx	Elective III	2	2	-	50	100	3	4
ME010 805Gxx	Elective IV	2	2	-	50	100	3	4
ME010 806	Mechanical Systems Lab	-	-	3	50	100	3	2
ME010 807	Project	-	-	6	100	-	-	4
ME010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>10</b>	<b>10</b>	<b>10</b>				<b>28</b>

### **Electives III**

ME010 804L01 Aerospace Engineering  
ME010 804L02 Advanced Machining Process  
ME010 804L03 Cryogenics  
ME010 804L04 Acoustics & noise control  
ME010 804L05 Non Destructive Testing  
ME010 804L06 Advance operations research

### **Electives IV**

ME010 805G01 Industrial Safety  
ME010 805G02 Disaster Management  
ME010 805G03 Nano Technology  
ME010 805G04 Finite element analysis  
ME010 805G05 Optimization methods in design  
ME010 805G06 Petrochemical Engineering



**Mahatma Gandhi University Revised Scheme For**  
**B Tech Syllabus Revision 2010**

**Electrical & Electronics 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	-	-	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	Credits
		L	T	P/D	Internal	End-sem		
EN010 301A	Engineering Mathematics II	2	2	-	50	100	3	4
EN010 302	Economics and Communication Skills	2	2	-	50	100	3	4 (3+1)
EE 010 303	Electric Circuit Theory	2	2	-	50	100	3	4
EE010 304	Electrical Measurements and Measuring Instruments	3	1	-	50	100	3	4
EE 010 305	Electronic Circuits	3	1	-	50	100	3	4
EE 010 306(ME)	Mechanical Technology	3	1	-	50	100	3	4
EE010 307	Electrical Measurements Lab	-	-	3	50	100	3	2
EE 010 308	Mechanical 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
EE 010 402	DC Machines and Transformers	3	1	-	50	100	3	4
EE 010 403	Linear System Analysis	2	2	-	50	100	3	4
EE010 404	Electromagnetic Theory	3	1	-	50	100	3	4
EE 010 405	Digital Systems and Computer Organization	3	1	-	50	100	3	4
EE 010 406	Computer Programming	3	1	-	50	100	3	4
EE 010 407	Computer Programming Lab			3	50	100	3	2
EE 010 408	Electronic Circuits 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
EN 010 502(ME)	Principles of Management	3	1		50	100	3	4
EE 010 503	Signals and Systems	2	2	-	50	100	3	4
EE010 504	Power Electronics	3	1	-	50	100	3	4
EE 010 505	Linear Integrated Circuits	3	1	-	50	100	3	4
EE 010 506	Microprocessors and Applications	3	1	-	50	100	3	4
EE010 507	Electrical Machines Lab I	-	-	3	50	100	3	2
EE010 508	Integrated Circuits 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	Inte- rnal	End- sem		
EE 010 601	Power Generation and Distribution	2	2	-	50	100	3	4
EE 010 602	Induction Machines	3	1	-	50	100	3	4
EE 010 603	Control Systems	2	2	-	50	100	3	4
EE 010 604	Digital Signal Processing	3	1	-	50	100	3	4
EE 010 605	Microcontrollers and Embedded Systems	3	1	-	50	100	3	4
EE 010 606Lxx	Elective I	2	2	-	50	100	3	4
EE 010 607	Power Electronics Lab	-	-	3	50	100	3	2
EE 010 608	Microprocessor and Microcontroller Lab	-	-	3	50	100	3	2
	Total	15	9	6				<b>28</b>

### Elective I

EE 010 606L01	High Voltage Engineering
EE 010 606L02	VLSI systems
EE 010 606L03	Artificial Neural Networks
EE 010 606L04	Object Oriented Programming
EE 010 606L05	Bio - medical engineering
EE 010 606L06	Renewable energy Sources

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

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Inte- rnal	End- sem		
EN010 701	Electrical Power Transmission	2	<b>2</b>	-	50	100	3	4
EE 010 702	Synchronous Machines	2	<b>1</b>	-	50	100	3	4
EE010 703	Drives and Control	2	<b>2</b>	-	50	100	3	3
EE010 704	Modern Control Theory	2	<b>1</b>	-	50	100	3	3
EE010 705	Communication Engineering	2	<b>1</b>	-	50	100	3	3
EE 010 706Lxx	Elective II	2	<b>2</b>	-	50	100	3	4
EE010 707	Electrical CAD	-	-	<b>3</b>	50	100	3	2
EE 010 708	Control and Simulation Lab	-	-	<b>3</b>	50	100	3	2
EE010 709	Seminar	-	-	<b>2</b>	50	-	-	2
EE 010 710	Project	-	-	-	50	-	-	1
	Total	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>

**Elective II**

EE010 706L01	H V D C Transmission
EE010 706L02	Industrial Instrumentation
EE010 706L03	Power Quality
EE010 706L04	PLC Based systems
EE010 706L05	MEMS Technology
EE010 706L06	Special Electrical Machines

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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
EE010 801	Power System Analysis	2	2	-	50	100	3	4
EE010 802	Switch Gear and Protection	2	2	-	50	100	3	4
EE 010 803	Electrical System Design	3	2	-	50	100	3	4
EE010 804Lxx	Elective III	2	2	-	50	100	3	4
EE 010 805Gxx	Elective IV	2	2	-	50	100	3	4
EE 010 806	Electrical Machines Lab II	-	-	3	50	100	3	2
EE010 807	Project	-	-	6	100	-	-	4
EE 010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

**Electives III**

EE010 804L01	Advanced Power System
EE010 804L02	Computer Networks
EE010 804L03	Generalized Machine Theory
EE010 804L04	Finite Element applications in Electrical Engineering.
EE010 804L05	Digital Signal Processors
EE010 804L06	Opto Electronics

**Electives IV**

EE010 805G01	Soft Computing Techniques
EE010 805G02	Intellectual property rights
EE010 805G03	Advanced Mathematics
EE010 805G04	Virtual Instrumentation
EE010 805G05	Digital Image Processing
EE010 805G06	Distributed Power Systems

**Mahatma Gandhi University Revised Scheme For**  
**B Tech Syllabus Revision 2010 (Electronics & Communication**  
**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
<i>EN010 110</i>	<i>Mechanical Workshop</i>	0	-	3	50	-	3	1
<i>EN010 111</i>	<i>Electrical and Civil Workshops</i>	-	-	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 301A	Engineering Mathematics II	2	2	-	50	100	3	4
EN010 302	Economics and Communication Skills	2	2	-	50	100	3	4 (3+1)
EC010 303	Network Theory	2	2	-	50	100	3	4
EC010 304	Solid State Devices	3	1	-	50	100	3	4
EC010 305	Analog Circuits - I	3	1	-	50	100	3	4
EC010 306	Computer Programming	3	1	-	50	100	3	4
EC010 307	<i>Analog Circuits Lab</i>	-	-	3	50	100	3	2
EC010 308	<i>Programming Lab</i>	-	-	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(C,M,P,L,A,T)	3	1	-	50	100	3	4
EC010 403	Signals and Systems	2	2	-	50	100	3	4
EC010 404	Digital Electronics	3	1	-	50	100	3	4
EC010 405	Analog Communication	3	1	-	50	100	3	4
EC010 406	Analog Circuits -II	3	1	-	50	100	3	4
EC010 407	<i>Analog Circuits -II Lab</i>	-	-	3	50	100	3	2
EC010 408	<i>Analog Communication Lab</i>	-	-	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
EC010 502	Control Systems	2	2		50	100	3	4
EC010 503	Digital System Design	3	1	-	50	100	3	4
EC010 504(EE)	Electrical Drives and Control	3	1	-	50	100	3	4
EC010 505	Applied Electromagnetic Theory	3	1	-	50	100	3	4
EC010 506	Microprocessors and Applications	3	1	-	50	100	3	4
EC010 507	<i>Digital Electronics Lab</i>	-	-	3	50	100	3	2
EC010 508(EE)	<i>Electrical Drives and Control Lab</i>	-	-	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	Inte- rnal	End- sem		
EC010 601	Digital Communication Techniques	2	2	-	50	100	3	4
EC010 602	Digital Signal Processing	2	2	-	50	100	3	4
EC010 603	Radiation and Propagation	3	1	-	50	100	3	4
EC010 604	Computer Architecture and Parallel Processing	3	1	-	50	100	3	4
EC010 605	Microcontrollers and Applications	3	1	-	50	100	3	4
EC010 606Lxx	Elective I	3	1	-	50	100	3	4
EC010 607	<i>Microprocessor and Microcontroller Lab</i>	-	-	3	50	100	3	2
EC010 608	<i>Mini Project Lab</i>	-	-	3	50	100	3	2
	<b>Total</b>	<b>16</b>	<b>8</b>	<b>6</b>				<b>28</b>

### Elective I

EC010 606L01 – Data Structures and Algorithms

EC010 606L02 – Data Base Management Systems

EC010 606L03 – High Speed Digital Design

EC010 606L04 – Medical Electronics

EC010 606L05 – Soft Computing Techniques

EC010 606L06 – Television and Radar Engineering

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

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Inte- rnal	End- sem		
EC010 701	VLSI Design	2	2	-	50	100	3	4
EC010 702	Information Theory and Coding	2	2	-	50	100	3	4
EC010 703	Microwave Engineering	2	1	-	50	100	3	3
EC010 704	Electronic Instrumentation	2	1	-	50	100	3	3
EC010 705	Embedded Systems	2	1	-	50	100	3	3
EC010 706Lxx	Elective II	2	2	-	50	100	3	4
EC010 707	<i>Advanced Communication Lab</i>	-	-	3	50	100	3	2
EC010 708	<i>Signal Processing Lab</i>	-	-	3	50	100	3	2
EC010 709	Seminar	-	-	2	50	-	-	2
EC010 710	<i>Project</i>	-	-	1	50	-	-	1
	<b>Total</b>	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>

### **Elective II**

EC010 706L01 – Optimization Techniques  
EC010 706L02 – Speech and Audio Processing  
EC010 706L03 – Digital Image Processing  
EC010 706L04 – Wavelets and Applications  
EC010 706L05 – Antenna Theory and Design  
EC010 706L06 – System Software

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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
EC010 801	Wireless Communication	3	2	-	50	100	3	4
EC010 802	Communication Networks	2	2	-	50	100	3	4
EC010 803	Light Wave Communication	2	2	-	50	100	3	4
EC010 804Lxx	Elective III	2	2	-	50	100	3	4
EC010 805Gxx	Elective IV	2	2	-	50	100	3	4
EC010 806	<i>VLSI and Embedded Systems Lab</i>	-	-	3	50	100	3	2
EC010 807	Project	-	-	6	100	-	-	4
EC010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

### **Electives III**

EC010 804L01 – Nano Electronics  
EC010 804L02 – Micro Electro Mechanical Systems  
EC010 804L03 – Secure Communication  
EC010 804L04 – Management Information Systems  
EC010 804L05 – Pattern Recognition  
EC010 804L06 – R F Circuits

### **Electives IV**

EC010 805G01 – Test Engineering  
EC010 805G02 – E-Learning  
EC010 805G03 – Mechatronics  
EC010 805G04 – Bio Informatics  
EC010 805G05 – Intellectual Property Rights  
EC010 805G06 – Professional Ethics



**Mahatma Gandhi University Revised Scheme For**  
**B Tech Syllabus Revision 2010 (Electronics & Instrumentation**  
**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
<i>EN010 110</i>	<i>Mechanical Workshop</i>	-	-	3	50	-	3	1
<i>EN010 111</i>	<i>Electrical and Civil Workshops</i>	-	-	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 301A	Engineering Mathematics II	2	2	-	50	100	3	4
EN010 302	Economics and Communication Skills	2	2	-	50	100	3	4 (3+1)
EI010 303	Network Theory	2	2	-	50	100	3	4
EI010 304	Electronic Devices and Circuits I	3	1	-	50	100	3	4
EI010 305	Basic Instrumentation	3	1	-	50	100	3	4
EI010 306	Computer Programming	3	1	-	50	100	3	4
EI010 307	<i>Electronic circuits lab I</i>	-	-	3	50	100	3	2
EI010 308	<i>Programming Lab(C,C++,Matlab)</i>	-	-	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
EI010 403	Signals&Systems	2	2	-	50	100	3	4
EI010 404	Digital Electronics	3	1	-	50	100	3	4
EI010 405	Electronic instrumentation	3	1	-	50	100	3	4
EI010 406	Electronic Devices and Circuits II	3	1	-	50	100	3	4
EI010 407	<i>Electronic circuits Lab II</i>	-	-	3	50	100	3	2
EI010 408	<i>Basic Instrumentation Lab</i>	-	-	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
EI010 502	Industrial electronics and applications	3	1		50	100	3	4
EI010 503	Linear integrated circuits and applications	3	1	-	50	100	3	4
EI010 504	Transducer engineering	3	1	-	50	100	3	4
EI010 505	Control engineering I	2	2	-	50	100	3	4
EI010 506	Microprocessors and Microcontrollers	3	1	-	50	100	3	4
EI010 507	<i>Instrumentation lab I</i>	-	-	3	50	100	3	2
EI010 508	<i>Integrated circuits lab</i>	-	-	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	Credits
		L	T	P/D	Internal	End- sem		
EI010 601	Process Control Instrumentation	3	1	-	50	100	3	4
EI010 602	Digital Signal Processing	2	2	-	50	100	3	4
EI010 603	Industrial instrumentation I	3	1	-	50	100	3	4
EI010 604	Data acquisition and communication	3	1	-	50	100	3	4
EI010 605	Control engineering II	2	2	-	50	100	3	4
EI010 606Lxx	Elective I	3	1	-	50	100	3	4
EI010 607	<i>Microprocessor and Microcontroller Lab</i>	-	-	3	50	100	3	2
EI010 608	<i>Mini Project</i>	-	-	3	50	100	3	2
	<b>Total</b>	<b>16</b>	<b>8</b>	<b>6</b>				<b>28</b>

### Elective I

- EI010 606L01 – Digital system design
- EI010 606L02 – Data Base Management Systems
- EI010 606L03 – Computer networks
- EI010 606L04 – micro controller based system design
- EI010 606L05 – Telimetry and remote control
- EI010 606L06 – Robotics and automation

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

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Internal	End- sem		
EI010 701	Fibre Optics and Laser Instrumentation	2	2	-	50	100	3	4
EI010 702	Computerised Process Control	2	2	-	50	100	3	4
EI010 703	Biomedical Instrumentation	2	1	-	50	100	3	3
EI010 704	Analytical Instrumentation	2	1	-	50	100	3	3
EI010 705	Industrial Instrumentation II	2	1	-	50	100	3	3
EI010 706Lxx	Elective II	2	2	-	50	100	3	4
EI010 707	<i>Instrumentation lab II</i>	-	-	3	50	100	3	2
EI010 708	<i>System simulation lab</i>	-	-	3	50	100	3	2
EI010 709	Seminar	-	-	2	50	-	-	2
EI010 710	<i>Project</i>	-	-	1	50	-	-	1
	<b>Total</b>	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>

## **Elective II**

- EI010 706L01 – Optimization Techniques
- EI010 706L02 – VLSI Technology
- EI010 706L03 – Digital Image Processing
- EI010 706L04 – Applied soft computing
- EI010 706L05 – Instrumentation in petrochemical industries
- EI010 706L06 – Reliability and safety engineering

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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
EI010 801	Instrumentation System Design	3	2	-	50	100	3	4
EI010 802	Instrumentation in Process Industries	2	2	-	50	100	3	4
EI010 803	Advanced Instrumentation and Applications	2	2	-	50	100	3	4
EI010 804Lxx	Elective III	2	2	-	50	100	3	4
EI010 805Gxx	Elective IV	2	2	-	50	100	3	4
EI010 806	<i>Process control lab</i>	-	-	3	50	100	3	2
EI010 807	Project	-	-	6	100	-	-	4
EI010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

## **Electives III**

- EI010 804L01 – Nano Electronics
- EI010 804L02 – Micro Electro Mechanical Systems
- EI010 804L03 – Biomedical signal processing
- EI010 804L04 – Real time embedded systems
- EI010 804L05 – Environmental monitoring instruments
- EI010 804L06 – Air craft instrumentation

## **Electives IV**

- EI010 805G01 – Test Engineering
- EI010 805G02 – Total quality management
- EI010 805G03 – Human factors engineering
- EI010 805G04 – Bio Informatics
- EI010 805G05 – Intellectual Property Rights
- EI010 805G06 – Professional Ethics

**Mahatma Gandhi University Revised Scheme For**  
**B Tech Syllabus Revision 2010**  
**Instrumentation & Control 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
<i>EN010 110</i>	<i>Mechanical Workshop</i>	-	-	3	50	-	3	1
<i>EN010 111</i>	<i>Electrical and Civil Workshops</i>	-	-	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 301A	Engineering Mathematics II	2	2	-	50	100	3	4
EN010 302	Economics and Communication Skills	2	2	-	50	100	3	4 (3+1)
IC010 303	Network Theory	2	2	-	50	100	3	4
IC010 304	Analog Devices & Circuits	3	1	-	50	100	3	4
IC010 305	Basic Instrumentation & Measurements Engineering	3	1	-	50	100	3	4
IC010 306	Computer Programming	3	1	-	50	100	3	4
IC010 307	<i>Basic Electronics Laboratory</i>	-	-	3	50	100	3	2
IC010 308	<i>Programming Lab(C,C++,Matlab)</i>	-	-	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
IC010 403	Transducer Engineering	2	2	-	50	100	3	4
IC010 404	Digital Electronics	3	1	-	50	100	3	4
IC010 405	Electrical Engineering	3	1	-	50	100	3	4
IC010 406	Mechanical Engineering	3	1	-	50	100	3	4
IC010 407	<i>Electrical Machines Laboratory</i>	-	-	3	50	100	3	2
IC010 408	<i>Digital IC Laboratory</i>	-	-	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
IC010 502	Industrial Electronics & Applications	2	2		50	100	3	4
IC010 503	Electronic Instrumentation	3	1	-	50	100	3	4
IC010 504	Linear Integrated Circuits	3	1	-	50	100	3	4
IC010 505	Linear Control System	3	1	-	50	100	3	4
IC010 506	Microprocessors and Microcontrollers	3	1	-	50	100	3	4
IC010 507	<i>Microprocessor &amp; Microcontroller Lab</i>	-	-	3	50	100	3	2
IC010 508	<i>Linear Integrated Circuits Lab</i>	-	-	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	Credits
		L	T	P/D	Internal	End- sem		
IC010 601	Process Control Instrumentation	2	2	-	50	100	3	4
IC010 602	Principles of Telemetry & Communication	2	2	-	50	100	3	4
IC010 603	Industrial Instrumentation – I	3	1	-	50	100	3	4
IC010 604	Signals & Systems with Processing	3	1	-	50	100	3	4
IC010 605	Advanced Control Systems	3	1	-	50	100	3	4
IC010 606Lxx	Elective-I	3	1	-	50	100	3	4
IC010 607	<i>Industrial Instrumentation Laboratory</i>	-	-	3	50	100	3	2
IC010 608	<i>Mini Project</i>	-	-	3	50	100	3	2
	<b>Total</b>	<b>16</b>	<b>8</b>	<b>6</b>				<b>28</b>

### Elective I

- IC010 606L01 – Mechatronics
- IC010 606L02 – Computer Networks & Protocols
- IC010 606L03 – Advanced Microcontrollers
- IC010 606L04 – Embedded System Design
- IC010 606L05 – Digital System Design
- IC010 606L06 – Data Structures & Algorithm

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

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Internal	End- sem		
IC010 701	Computer Control of Industrial Process	2	2	-	50	100	3	4
IC010 702	Optical and opto Electronic Instrumentation	2	2	-	50	100	3	4
IC010 703	Biomedical Instrumentation	2	1	-	50	100	3	3
IC010 704	Analytical Instrumentation	2	1	-	50	100	3	3
IC010 705	Industrial Instrumentation-II	2	1	-	50	100	3	3
IC010 706Lxx	Elective II	2	2	-	50	100	3	4
IC010 707	<i>Process Control Laboratory</i>	-	-	3	50	100	3	2
IC010 708	<i>Mechanical Measurements Laboratory</i>	-	-	3	50	100	3	2
IC010 709	Seminar	-	-	2	50	-	-	2
IC010 710	<i>Project</i>	-	-	1	50	-	-	1
	<b>Total</b>	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>

### **Elective II**

IC010 706L01 – Artificial Intelligence & Expert Systems

IC010 706L02 – Robotics & Automation

IC010 706L03 – Embedded Instrumentation System

IC010 706L04 – Ultrasonic Instrumentation

IC010 706L05 – VLSI Design

IC010 706L06 – Virtual Instrumentation

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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
IC010 801	Instrumentation System Design	3	2	-	50	100	3	4
IC010 802	Power Plant Instrumentation	2	2	-	50	100	3	4
IC010 803	Instrumentation & Control in Petrochemical Industries	2	2	-	50	100	3	4
IC010 804Lxx	Elective III	2	2	-	50	100	3	4
IC010 805Gxx	Elective IV	2	2	-	50	100	3	4
IC010 806	<i>System Simulation Laboratory</i>	-	-	3	50	100	3	2
IC010 807	Project	-	-	6	100	-	-	4
IC010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

### **Electives III**

IC010 804L01 – Intelligent Control System

IC010 804L02 – Automotive Instrumentation

IC010 804L03 – Instrumentation & Control Paper Industries

IC010 804L04 – Digital Image Processing techniques

IC010 804L05 – Instrumentation & Control in Aerospace & Navigation

IC010 804L06 – Telecommunication & Switching networks

### **Electives IV**

IC010 805G01 – Test Engineering

IC010 805G02 – Multimedia Systems

IC010 805G03 – Total Quality Management

IC010 805G04 – Bio Informatics

IC010 805G05 – Intellectual Property Rights

IC010 805G06 – Professional Ethics



**Mahatma Gandhi University Revised Scheme For**  
**B Tech Syllabus Revision 2010**

**Applied Electronics and Instrumentation 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	<i>Mechanical Workshop</i>	-	-	3	50	-	3	1
EN110 111	<i>Electrical and Civil Workshops</i>	-	-	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	Credits
		L	T	P/D	Internal	End-sem		
EN010 301A	Engineering Mathematics II	2	2	-	50	100	3	4
EN010 302	Economics and Communication Skills	2	2	-	50	100	3	4 (3+1)
AI010 303	Network Theory	2	2	-	50	100	3	4
AI010 304	Solid State devices	3	1	-	50	100	3	4
AI010 305	Analog Circuits I	3	1	-	50	100	3	4
AI010 306	Computer Programming	3	1	-	50	100	3	4
AI010 307	Analog circuits Lab	-	-	3	50	100	3	2
AI010 308	Programming 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
AI010 403	Signals and Systems	2	2	-	50	100	3	4
AI010 404	Digital Electronics	3	1	-	50	100	3	4
AI010 405	Signal Communication	3	1	-	50	100	3	4
AI010 406	Analog circuits II	3	1	-	50	100	3	4
AI010 407	Analog circuits II lab			3	50	100	3	2
AI010 408	Digital IC 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	-	<b>50</b>	<b>100</b>	3	4
AI010 502	Industrial Electronics and Applications	3	1	-	<b>50</b>	<b>100</b>	3	4
AI010 503	Basic Instrumentation & recording system	3	1	-	50	100	3	4
AI010 504	Data Acquisition system	3	1	-	50	100	3	4
AI010 505	Control Engineering I	2	2	-	50	100	3	4
AI010 506	Microprocessors and microcontrollers	3	1	-	50	100	3	4
AI010 507	Industrial Electronics Lab	-	-	3	50	100	3	2
AI010 508	Measurements 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	Inte- rnal	End- sem		
AI010 601	Process Control Instrumentation	3	1	-	50	100	3	4
AI010 602	Digital Signal Processing	2	2	-	50	100	3	4
AI010 603	Industrial Instrumentation I	3	1	-	50	100	3	4
AI010 604	Microcontroller based system design	3	1	-	50	100	3	4
AI010 605	Control Engineering II	2	2	-	50	100	3	4
AI010 606Lxx	Elective I	3	1	-	50	100	3	4
AI010 607	Microprocessors & microcontrollers lab	-	-	3	50	100	3	2
AI010 608	Mini Project	-	-	3	50	100	3	2
	Total	15	9	6				<b>28</b>

### Elective I

AI 010 606L01	Mechatronics
AI 010 606L02	Micro Electronics
AI 010 606L03	Digital system design
AI 010 606L04	Industrial safety engineering
AI 010 606L05	Reliability Engineering
AI 010 606L06	Energy management

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

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Inte- rnal	End- sem		
AI010 701	VLSI	2	2	-	50	100	3	4
AI010 702	Computerised Process control	2	2	-	50	100	3	4
AI010 703	Biomedical Instrumentation	2	1	-	50	100	3	3
AI010 704	Analytical instrumentation	2	1	-	50	100	3	3
AI010 705	Industrial Instrumentation II	2	1	-	50	100	3	3
AI010 706Lxx	Elective II	2	2	-	50	100	3	4
AI010 707	Industrial Instrumentation Lab	-	-	3	50	100	3	2
AI010 708	DSP lab	-	-	3	50	100	3	2
AI010 709	Seminar	-	-	2	50	-	-	2
AI010 710	Project	-	-	-	50	-	-	1
	Total	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>

**Elective II**

AI010 706L01	Robotics
AI010 706L02	Real Time system
AI010 706L03	Optimization techniques
AI010 706L04	Fuzzy Logic
AI010 706L05	Digital Image processing
AI010 706L06	Advanced microcontrollers

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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
AI010 801	Instrumentation system design	3	2	-	50	100	3	4
AI010 802	Instrumentation in process industries	2	2	-	50	100	3	4
AI010 803	Computer Networks	2	2	-	50	100	3	4
AI010 804 Lxx	Elective III	2	2	-	50	100	3	4
AI010 805 Gxx	Elective IV	2	2	-	50	100	3	4
AI010 806	Process Control Lab	-	-	3	50	100	3	4
AI010 807	Project	-	-	6	100	-	-	2
AI010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

**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 (Computer Science & 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 Engg. & Information Technology	2	1	-	50	100	3	5
EN010 110	Mechanical Workshop	-	-	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			
		L	T	P/D	Internal	End-sem		
EN010 301B	Engineering Mathematics II	2	2	-	50	100	3	4
EN010 302	Economics and Communication Skills	2	2	-	50	100	3	4 (3+1)
CS010 303	Problem Solving and Computer Programming	2	2	-	50	100	3	4
CS010 304	Computer Organization	3	1	-	50	100	3	4
CS010 305	Switching Theory and Logic Design	3	1	-	50	100	3	4
CS010 306(EC)	Electronics Devices and Circuits	3	1	-	50	100	3	4
CS010 307	Programming lab	-	-	3	50	100	3	2
CS010 308(EC)	Logic Design lab	-	-	3	50	100	3	2
	<b>Total</b>	<b>16</b>	<b>8</b>	<b>6</b>				<b>28</b>

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

Code	Subject	Hours/week			Marks		End- sem duration -hours	Cred its
		L	T	P/D	Inte- rnal	End- sem		
EN010 401	Engineering Mathematics III	2	2	-	50	100	3	4
CS010 402	Object Oriented Programming	3	1		50	100	3	4
CS010 403	Data Structures and Algorithms	2	2	-	50	100	3	4
CS010 404(EC)	Signals & Communication Systems	3	1	-	50	100	3	4
CS010 405	Microprocessor Systems	3	1	-	50	100	3	4
CS010 406	Theory of Computation	3	1	-	50	100	3	4
CS010 407	Data Structures lab	-	-	3	50	100	3	2
CS010 408(EC)	Electronic Circuits 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 -hour s	Cred its
		L	T	P/D	Inte- rnal	End- sem		
EN010 501B	Engineering Mathematics IV	2	2	-	50	100	3	4
EN010 502(ME)	Principles of Management	3	1		50	100	3	4
CS010 503	Database Management Systems	2	2	-	50	100	3	4
CS010 504(EC)	Digital Signal Processing	3	1	-	50	100	3	4
CS010 505	Operating Systems	3	1	-	50	100	3	4
CS010 506	Advanced Microprocessors & Peripherals	3	1	-	50	100	3	4
CS010 507(P)	Database Lab	-	-	3	50	100	3	2
CS010 508(P)	Hardware & Microprocessors 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		
CS010 601	Design and Analysis of Algorithms	2	2	-	50	100	3	4
CS010 602	Internet Computing	2	2	-	50	100	3	4
CS010 603	System Software	3	1	-	50	100	3	4
CS010 604	Computer Networks	3	1	-	50	100	3	4
CS010 605	Software Engineering	3	1	-	50	100	3	4
CS010 606Lxx	Elective I	2	2	-	50	100	3	4
CS010 607	Operating Systems Lab	-	-	3	50	100	3	2
CS010 608	Mini Project	-	-	3	50	100	3	2
	<b>Total</b>	<b>15</b>	<b>9</b>	<b>6</b>				<b>28</b>

### **Elective I**

CS010 606L01	Distributed Systems
CS010 606L02	Micro controller Based Systems
CS010 606L03	User Interface Design
CS010 606L04	Unix Shell Programming
CS010 606L05	Embedded Systems
CS010 606L06	Advanced Software Environments

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

Code	Subject	Hours/week			Marks		End-sem duration -hours	Credits
		L	T	P/D	Internal	End-sem		
CS010 701	Web Technologies	2	2	-	50	100	3	4
CS010 702	Compiler Construction	2	2	-	50	100	3	4
CS010 703	Computer Graphics	2	1	-	50	100	3	3
CS010 704	Object Oriented Modelling & Design	2	1	-	50	100	3	3
CS010 705	Principles of Programming Languages	2	1	-	50	100	3	3
CS010 706Lxx	Elective II	2	2	-	50	100	3	4
CS010 707	Systems Programming Lab	-	-	3	50	100	3	2
CS010 708	Networking lab	-	-	3	50	100	3	2
CS010 709	Seminar	-	-	2	50	-	-	2
CS010 710	Project	-	-	1	50	-	-	1
	<b>Total</b>	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>

**Elective II**

CS010 706L01	Real Time Systems
CS010 706L02	Data Mining and Data Warehousing
CS010 706L03	Operating System Kernel Design
CS010 706L04	Digital image processing
CS010 706L05	Data Processing and File Structures
CS010 706L06	Client Server Architecture and Applications

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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
CS010 801	High Performance Computing	3	2	-	50	100	3	4
CS010 802	Artificial Intelligence	2	2	-	50	100	3	4
CS010 803	Security in Computing	2	2	-	50	100	3	4
CS010 804Lxx	Elective III	2	2	-	50	100	3	4
CS010 805Gxx	Elective IV	2	2	-	50	100	3	4
CS010 806	Computer Graphics Lab	-	-	3	50	100	-	2
CS010 807	Project	-	-	6	100	0	3	4
CS010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

**Elective III**

CS010 804L01	E-commerce
CS010 804L02	Grid Computing
CS010 804L03	Bioinformatics
CS010 804L04	Optimization Techniques
CS010 804L05	Mobile Computing
CS010 804L06	Advanced Networking Trends

**Elective IV**

CS010 805G01	Multimedia Techniques
CS010 805G02	Neural networks
CS010 805G03	Advanced Mathematics
CS010 805G04	Software Architecture
CS010 805G05	Natural Language Processing
CS010 805G06	Pattern Recognition



**Mahatma Gandhi University Revised Scheme For**  
**B Tech Syllabus Revision 2010**  
**Information Technology**  
**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
<i>EN010 110</i>	<i>Mechanical Workshop</i>	-	-	3	50	-	3	1
<i>EN110 111</i>	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 301B	Engineering Mathematics II	2	2	-	50	100	3	4
EN010 302	Economics and Communication Skills	2	2	-	50	100	3	4 (3+1)
IT010 303 (EC)	Discrete and Integrated Electronic Circuits	2	2	-	50	100	3	4
IT010 304	Switching Theory and Logic Design	3	1	-	50	100	3	4
IT010 305(EC)	Principles of Communication Engineering	3	1	-	50	100	3	4
IT010 306	Problem Solving and Computer Programming	3	1	-	50	100	3	4
IT010 307 (EC)	<i>Electronic Circuits and Communication Lab</i>	-	-	3	50	100	3	2
IT010 308	<i>Programming Lab</i>	-	-	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
IT010 403	Computer Organisation and Architecture	2	2	-	50	100	3	4
IT010 404	Theory of Computation	3	1	-	50	100	3	4
IT010 405	Data Structures and Algorithms	3	1	-	50	100	3	4
IT010 406	Object Oriented Techniques	3	1	-	50	100	3	4
IT010 407	<i>Logic Design Lab</i>	-	-	3	50	100	3	2
IT010 408	<i>Data Structures and Programming Lab</i>	-	-	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 501B	Engineering Mathematics IV	2	2	-	50	100	3	4
IT010 502	Microprocessors and Microcontrollers	3	1		50	100	3	4
IT010 503	Data Communication	2	2	-	50	100	3	4
IT010 504	Operating Systems	3	1	-	50	100	3	4
IT010 505	Language Translators	3	1	-	50	100	3	4
IT010 506	Database Management Systems	3	1	-	50	100	3	4
IT010 507	<i>PC Hardware and Microprocessors Lab</i>	-	-	3	50	100	3	2
IT010 508	<i>Systems Lab</i>	-	-	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		
IT010 601	Computer Networks	2	2	-	50	100	3	4
IT010 602(EC)	Digital Signal Processing	2	2	-	50	100	3	4
IT010 603(EC)	Information Theory and Coding	3	1	-	50	100	3	4
IT010 604	Software Engineering	3	1	-	50	100	3	4
IT010 605	Design and Analysis of Algorithms	3	1	-	50	100	3	4
IT010 606Lxx	Elective I	2	2	-	50	100	3	4
IT010 607	Network Programming Lab	-	-	3	50	100	3	2
IT010 608	<i>Mini Project</i>	-	-	3	50	100	3	2
	<b>Total</b>	<b>15</b>	<b>9</b>	<b>6</b>				<b>28</b>

#### Elective I

- IT010 606L01 Simulation and Modelling
- IT010 606L02 Management Information Systems
- IT010 606L03 UNIX Shell Programming
- IT010 606L04 Advanced Database Systems
- IT010 606L05 Parallel Computing
- IT010 606L06 Optimization Techniques

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

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Inte- rnal	End- sem		
IT010 701	Financial Management and E-Banking	2	2	-	50	100	3	4
IT010 702	Object Oriented Modelling and Design	2	2	-	50	100	3	4
IT010 703	Computer Graphics and Multimedia Systems	2	1	-	50	100	3	3
IT010 704	Internetworking	2	1	-	50	100	3	3
IT010 705	Web Applications Development	2	1	-	50	100	3	3
IT010 706Lxx	Elective II	2	2	-	50	100	3	4
IT010 707	Internetworking Lab	-	-	3	50	100	3	2
IT010 708	Computer Aided Software Engineering Lab	-	-	3	50	100	3	2
IT010 709	Seminar	-	-	2	50	-	-	2
IT010 710	<i>Project</i>	-	-	1	50	-	-	1
	<b>Total</b>	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>

### Elective II

- IT010 706L01 Software Project Management
- IT010 706L02 Optical Communication Networks
- IT010 706 L03 Digital Speech and Image Processing
- IT010 706L04 Real Time Systems
- IT010 706L05 Operating System Kernel Design
- IT010 706L06 Data Mining and Data Warehousing

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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
IT010 801	Wireless Communication	3	2	-	50	100	3	4
IT010 802	Cryptography and Network Security	2	2	-	50	100	3	4
IT010 803	Artificial Intelligence	2	2	-	50	100	3	4
IT010 804Lxx	Elective III	2	2	-	50	100	3	4
IT010 805Gxx	Elective IV	2	2	-	50	100	3	4
IT010 806	Web Applications Lab	-	-	3	50	100	3	2
IT010 807	Project	-	-	6	100	-	-	4
IT010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

### **Electives III**

- IT010 804L01 Software Testing
- IT010 804L02 Information Retrieval
- IT010 804L03 High Speed Networks
- IT010 804L04 Network Administration and Management
- IT010 804L05 Enterprise Resource Planning
- IT010 804L06 Grid Computing

### **Electives IV**

- IT010 805G01 Software Architecture
- IT010 805G02 Advanced Mathematics
- IT010 805G03 Ad Hoc and Sensor Networks
- IT010 805G04 Electronic Business and Services
- IT010 805G05 Neural Networks
- IT010 805G06 Soft Computing

**Mahatma Gandhi University Revised Scheme For  
B Tech Syllabus Revision 2010 (Polymer Engineering)**

**Common for All Branches  
SCHEME S1&S2**

Code	Subject	Hours/week			Marks		End-sem duration- hours	Credits
		L	T	P/D	Inte- rnal	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	Inte- rnal	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)
PO010 303	Polymer Science - I	2	2	-	50	100	3	4
PO010 304 (CS)	Computer Programming	3	1	-	50	100	3	4
PO010 305	Organic Chemistry	3	1	-	50	100	3	4
PO010 306 (CE)	Strength of Materials & Structural Engineering	3	1	-	50	100	3	4
PO010 307	Chemistry Lab	-	-	3	50	100	3	2
PO010 308 (CS)	Computer 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 (ME,AU,PO,EC,IT)	3	1	-	50	100	3	4
PO010 403	Polymer Physics	2	2	-	50	100	3	4
PO010 404	Polymer Science - II	3	1	-	50	100	3	4
PO010 405	Chemical Engineering - I	3	1	-	50	100	3	4
PO010 406 (EE)	Electrical Technology	3	1	-	50	100	3	4
PO010 407	Polymer Preparation & Characterisation Lab	-	-	3	50	100	3	2
PO010 408 (EE)	Electrical Machines 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 501	Engineering Mathematics IV	2	2	-	50	100	3	4
PO010 502	Plastics – Science & Technology	3	1		50	100	3	4
PO010503	Polymer Processing - I	2	2	-	50	100	3	4
PO010 504	Chemical Engineering - II	3	1	-	50	100	3	4
PO010 505	Latex Technology	3	1	-	50	100	3	4
PO010 506	Rubbers – Science & Technology	3	1	-	50	100	3	4
PO010 507	Specification Tests Lab	-	-	3	50	100	3	2
PO010 508	Polymer Analysis 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		
PO010 601	Engineering Statistics & Quality Control	2	2	-	50	100	3	4
PO010 602	Polymer Processing –II	2	2	-	50	100	3	4
PO010 603	Industrial Engineering	3	1	-	50	100	3	4
PO010 604	Chemical Engineering - III	3	1	-	50	100	3	4
PO010 605	Polymer Blends & Composites	3	1	-	50	100	3	4
PO010 606L	Elective I	2	2	-	50	100	3	4
PO010 607	Latex Product Lab	-	-	3	50	100	3	2
PO010 608	Product Manufacturing Lab	-	-	3	50	100	3	2
	<b>Total</b>	<b>15</b>	<b>9</b>	<b>6</b>				<b>28</b>

**Elective I**

- PO010 606L01... Bio Medical & Bio Polymers  
 PO 010 606L02..... Information Technology  
 PO 010 606L03.....Engineering Economics & Industrial Management.  
 PO 010 606L04.....Total Quality Management & Reliability Engineering  
 PO 010 606L05.....Production Engineering  
 PO 010 606L06.....Project Management

**7<sup>th</sup> Semester**

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Internal	End- sem		
PO010 701	Polymer Machinery, Moulds & Dies	2	2	-	50	100	3	3
PO010 702	Polymer Testing	2	2	-	50	100	3	3
PO010 703	Plastic Products - Design & Testing	2	1	-	50	100	3	3
PO010 704	Chemical Engineering - IV	2	1	-	50	100	3	4
PO010 705	Tyre Technology	2	1	-	50	100	3	4
PO010 706 L	Elective II	2	2	-	50	100	3	4
PO010 707	Chemical Engineering Lab	-	-	3	50	100	3	2
PO010 708	Polymer Testing Lab	-	-	3	50	100	3	2
PO010 709	Seminar	-	-	2	50	-	-	2
PO010 710	Project	-	-	1	50	-	-	1
	<b>Total</b>	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>



**Elective II**

PO 010 706L01... Paints & Surface Coatings  
 PO 010 706L02.....Plastics Packaging Technology  
 PO 010 706L03.....Process Engineering Economics & Management  
 PO 010 706L04.....Process Control & Instrumentation  
 PO 010 706L05..... Object Oriented Programming  
 PO 010 706L06.....Introduction to Photonics

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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
PO010 801	Polymers & Environment	3	2	-	50	100	3	4
PO010 802	Rubber Products - Design & Testing	2	2	-	50	100	3	4
PO010 803	Speciality Polymers	2	2	-	50	100	3	4
PO010 804 L	Elective III	2	2	-	50	100	3	4
PO010 805 G	Elective IV	2	2	-	50	100	3	4
PO010 806	Polymer Blends & Composites Lab	-	-	3	50	100	3	2
PO010 807	Project	-	-	6	100	-	-	4
PO010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

**Electives III**

PO 010 804L01... Adhesive Technology  
 PO 010 804L02 ...Dynamics of Machinery  
 PO 010 804L03 ...Computer Aided Design & Manufacturing  
 PO 010 804L04 ...Combustion  
 PO 010 804L05 ...Industrial Hydraulics  
 PO 010 804L06... Cryogenics

**Electives IV**

PO 010 805G01..... Fibre Technology  
 PO 010 805G02..... Marketing & Sales Management  
 PO 010 805G03... Structural Analysis  
 PO 010 805G04..... Environmental Impact Analysis  
 PO 010 805G05..... Air Pollution Control  
 PO 010 805G06..... Nanotechnology

**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	<i>Mechanical Workshop</i>	-	-	3	50	-	3	1
EN110 111	<i>Electrical and Civil Workshops</i>	-	-	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	<i>Computer Lab</i>	-	-	3	50	100	3	2
AU010 308(ME)	<i>Fluid Mechanics Lab</i>	-	-	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	<i>Auto Workshop I</i>	-	-	3	50	100	3	2
AU010 408(CE)	<i>Strength of Materials Lab</i>	-	-	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
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	<i>Computer Graphics &amp; Drafting</i>	-	-	3	50	100	3	2
AU010 508(EE)	<i>Electrical &amp; Electronics Lab</i>	-	-	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	<i>Machine Tool Lab</i>	-	-	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	1	1	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>8</b>	<b>10</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	2	2	1	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>10</b>	<b>10</b>	<b>10</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 (Aeronautical 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
<i>EN010 110</i>	<i>Mechanical Workshop</i>	-	-	3	50	-	3	1
<i>EN110 111</i>	<i>Electrical and Civil Workshops</i>	-	-	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)
AN010 303	Fluid Mechanics	2	2	-	50	100	3	4
AN 010 304	Basic Thermodynamics	3	1	-	50	100	3	4
AN 010 305	Elements of Aeronautics	3	1	-	50	100	3	4
AN010 306	Basic Strength of Materials	3	1	-	50	100	3	4
AN 010 307(CE)	<i>Basic Strength of materials Lab</i>	-	-	3	50	100	3	2
AN 010 308(ME)	<i>Fluid Mechanics Lab</i>	-	-	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
AN010 402	Gas Dynamics	3	1	-	50	100	3	4
AN 010 403	Propulsion I	2	2	-	50	100	3	4
AN 010 404	Aerodynamics I	3	1	-	50	100	3	4
AN 010 405	Aircraft Structures I	3	1	-	50	100	3	4
AN 010 406	Electrical technology & Machines	3	1	-	50	100	3	4
AN 010 407	<i>Structures Lab</i>	-	-	3	50	100	3	2
AN 010 408	<i>Propulsion Lab</i>	-	-	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
EN 010 502(ME)	Principles of Management	3	1		50	100	3	4
AN 010 503	Computer Programming	2	2	-	50	100	3	4
AN 010 504	Flight Dynamics I	3	1	-	50	100	3	4
AN 010 505	Aerodynamics II	3	1	-	50	100	3	4
AN 010 506	Propulsion II	3	1	-	50	100	3	4
AN 010 507	<i>Wind tunnel Lab</i>	-	-	3	50	100	3	2
AN 010 508	<i>Propulsion LabII</i>	-	-	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	Inte- rnal	End- sem		
AN 010 601	Avionics	2	2	-	50	100	3	4
AN 010 602	Experimental Aerodynamics	2	2	-	50	100	3	4
AN 010 603	Aircraft Structures II	3	1	-	50	100	3	4
AN 010 604	Heat Transfer	3	1	-	50	100	3	4
AN 010 605	Theory of Vibration	3	1	-	50	100	3	4
AN 010 606Lxx	Elective I	2	2	-	50	100	3	4
AN 010 607	<i>Heat Engines Lab</i>	-	-	3	50	100	3	2
AN 010 608	<i>Aero EnginesLab</i>	-	-	3	50	100	3	2
	<b>Total</b>	<b>15</b>	<b>9</b>	<b>6</b>				<b>28</b>

### Elective I

- AN 010 606L01 Composite structures
- AN 010 606L02 Fatigue and fracture
- AN 010 606L03 Finite Elément Analysis
- AN 010 606L04 Operation Research
- AN 010 606L05 Ecology & Environment
- AN 010 606L06 Non Destructive Testing

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

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Inte- rnal	End- sem		
AN 010 701	Computational Fluid Dynamics	2	2	-	50	100	3	4
AN 010 702	Experimental stress analysis	2	2	-	50	100	3	4
AN 010 703	Aircraft design	2	1	-	50	100	3	3
AN 010 704	Flight dynamics II	2	1	-	50	100	3	3
AN 010 705	Aircraft systems and instrumentation	2	1	-	50	100	3	3
AN 010 706Lxx	Elective II	2	2	-	50	100	3	4
AN 010 707	<i>Experimental stress analysis Lab</i>	-	-	3	50	100	3	2
AN 010 708	<i>Vibration Lab</i>	-	-	3	50	100	3	2
AN 010 709	Seminar	-	-	2	50	-	-	2
AN 010 710	<i>Project</i>	-	-	1	50	-	-	1
	<b>Total</b>	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>

### Elective II

- AN 010 706L01 Theory of plates and shells
- AN 010 706L02 Advanced Materials in aircraft manufacturing
- AN 010 706L03 Failure analysis
- AN 010 706L04 Helicopter Aerodynamics
- AN 010 706L05 Optimization methods in Design
- AN 010 706L06 Rotor Dynamics



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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
AN 010 801	Rockets & Missiles	3	2	-	50	100	3	4
AN 010 802	Introduction to space technology	2	2	-	50	100	3	4
AN 010 803	Air transportation & Aircraft maintenance	2	2	-	50	100	3	4
AN 010 804Lxx	Elective III	2	2	-	50	100	3	4
AN 010 805Gxx	Elective IV	2	2	-	50	100	3	4
AN 010 806	Aerodynamics Lab	-	-	3	50	100	3	2
AN 010 807	Project	-	-	6	100	-	-	4
AN 010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

### **Electives III**

AN 010 804L01	Project management & TQM
AN 010 804L02	Air navigation
AN 010 804L03	Aircraft rules & regulations
AN 010 804L04	Industrial aerodynamics
AN 010 804L05	Acoustics & Noise control
AN 010 804L06	Transport process in reacting flows

### **Electives IV**

AN 010 805G01	Boundary layer theory
AN 010 805G02	Disaster Management
AN 010 805G03	Cryogenics
AN 010 805G04	Advanced strength of materials
AN 010 805G05	High temperature gas dynamics
AN 010 805G06	Turbo Machines

**Mahatma Gandhi University Revised Scheme For**  
**B Tech Syllabus Revision 2010 (Production 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
<i>EN010 110</i>	<i>Mechanical Workshop</i>	-	-	3	50	-	3	1
<i>EN110 111</i>	<i>Electrical and Civil Workshops</i>	-	-	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 301A	Engineering Mathematics II	2	2	-	50	100	3	4
EN010 302	Economics and Communication Skills	2	2	-	50	100	3	4 (3+1)
PE010 303	Fluid Mechanics	2	2	-	50	100	3	4
PE 010 304	Metallurgy & Material Science	3	1	-	50	100	3	4
PE 010 305	Programming in C	3	1	-	50	100	3	4
PE 010 306(CE)	Strength of Materials & Structural Engineering	3	1	-	50	100	3	4
PE 010 307	<i>Strength of Materials Lab</i>	-	-	3	50	100	3	2
PE 010 308	<i>Fluid Mechanics Lab</i>	-	-	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
PE 010 403	Hydraulic Machines	2	2	-	50	100	3	4
PE 010 404	Manufacturing Process	3	1	-	50	100	3	4
PE 010 405	Machine Drawing			4	50	100	3	4
PE 010 406(EE)	Electrical Technology	3	1	-	50	100	3	4
PE 010 407	<i>Hydraulic Machines Lab</i>	-	-	3	50	100	3	2
PE 010 408	<i>Computer Programming Lab</i>	-	-	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	-	<b>50</b>	<b>100</b>	3	4
PE 010 502	Theory of Metal Cutting	2	2	-	<b>50</b>	<b>100</b>	3	4
PE 010 503	Advanced Mechanics of Materials	2	2	-	50	100	3	4
PE 010 504	Industrial Engineering	3	1	-	50	100	3	4
PE 010 505	Metrology & Instrumentation	3	1	-	50	100	3	4
PE 010 506	Thermodynamics	3	1	-	50	100	3	4
PE 010 507	<i>Thermal Engineering Lab</i>	-	-	3	50	100	3	2
PE 010 508	<i>Electrical &amp; Electronics Lab</i>	-	-	3	50	100	3	2
	<b>Total</b>	<b>15</b>	<b>9</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	Inte- rnal	End- sem		
PE 010 601	Kinematics of Machinery	2	2	-	50	100	3	4
PE 010 602	Heat & Mass Transfer	2	2	-	50	100	3	4
PE 010 603	Control & Automation	3	1	-	50	100	3	4
PE 010 604	Computer Aided Design & Manufacturing	3	1		50	100	3	4
PE 010 605	Production Engineering	3	1	-	50	100	3	4
PE 010 606Lxx	Elective I	2	2	-	50	100	3	4
PE 010 607	<i>Metrology Lab</i>	-	-	3	50	100	3	2
PE 010 608	<i>Machine Tools Lab</i>	-	-	3	50	100	3	2
	<b>Total</b>	<b>15</b>	<b>9</b>	<b>6</b>				<b>28</b>

### Elective I

- PE 010 606L01 Computational Fluid Dynamics
- PE 010 606L02 Foundry and Welding Technology
- PE 010 606L03 Finite Element Analysis
- PE 010 606L04 Financial Management
- PE 010 606L05 Industrial Hydraulics
- PE 010 606L06 Micro Electro Mechanical Systems (MEMS)

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

Code	Subject	Hours/week			Marks		End- sem duration -hours	Credits
		L	T	P/D	Inte- rnal	End- sem		
PE 010 701	Tool Engineering & Design	2	2	-	50	100	3	4
PE 010 702	Operations Management	2	2	-	50	100	3	4
PE 010 703	Bulk Deformation Processes	2	1	-	50	100	3	3
PE 010 704	Theory of Metal Forming	2	1	-	50	100	3	3
PE 010 705	Advanced Manufacturing Process	2	1	-	50	100	3	3
PE 010 706Lxx	Elective II	2	2	-	50	100	3	4
PE 010 707	<i>Metallurgy Lab</i>	-	-	3	50	100	3	2
PE 010 708	<i>CAD/CAM Lab</i>	-	-	3	50	100	3	2
PE 010 709	Seminar	-	-	2	50	-	-	2
PE 010 710	<i>Project</i>	-	-	1	50	-	-	1
	<b>Total</b>	<b>12</b>	<b>9</b>	<b>9</b>				<b>28</b>

### Elective II

- PE010 706L01 Design of Cellular Manufacturing
- PE010 706L02 Industrial Tribology
- PE010 706L03 Lean and Agile Manufacturing
- PE010 706L04 Supply Chain Management
- PE010 706L05 Plant Engineering & Maintenance
- PE010 706L06 Rapid Prototyping

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

Code	Subject	Hours/week			Marks		End-sem duration-hours	Credits
		L	T	P/D	Internal	End-sem		
PE010 801	Composite Materials & Manufacturing	3	2	-	50	100	3	4
PE010 802	Non Conventional Machining Processes	2	2	-	50	100	3	4
PE010 803	Machine Design	2	2	-	50	100	3	4
PE010 804Lxx	Elective III	2	2	-	50	100	3	4
PE010 805Gxx	Elective IV	2	2	-	50	100	3	4
PE010 806	<i>Production Process Laboratory</i>	-	-	3	50	100	3	2
PE010 807	Project	-	-	6	100	-	-	4
PE010 808	Viva Voce	-	-	-	-	50	-	2
	<b>Total</b>	<b>11</b>	<b>10</b>	<b>9</b>				<b>28</b>

### **Electives III**

- PE010 804L01 Surface Engineering
- PE010 804L02 Advanced Machining Process
- PE010 804L03 Cost Estimation and Optimization
- PE010 804L04 Management Information Systems
- PE010 804L05 Non Destructive Testing
- PE010 804L06 Simulation of Manufacturing Systems

### **Electives IV**

- PE010 805G01 Industrial Safety
- PE010 805G02 Disaster Management
- PE010 805G03 Nano Technology
- PE010 805G04 Human Resources Management
- PE010 805G05 Optimization methods in design
- PE010 805G06 Reliability engineering