

# Punjab Technical University

B. Tech Electrical Engineering (EE) Part-Time Batch 2013

## Semester-I

Course Code	Course Title	L	T	P	Marks Distribution		Total Marks	Credits
					Internal	External		
BTAM-301	Engineering Mathematics-III	4	1	-	40	60	100	5
BTEE-301	Circuit Theory	4	1	-	40	60	100	5
BTEE-302	Transformers & Direct Current Machines	4	1	-	40	60	100	5
<b>Total</b>		<b>12</b>	<b>3</b>		<b>120</b>	<b>180</b>	<b>300</b>	<b>15</b>

## Semester-II

Course Code	Course Title	L	T	P	Marks Distribution		Total Marks	Credits
					Internal	External		
BTEE-303	Electrical Measurements & Instrumentation	4	1	-	40	60	100	5
BTEE-304	Electronic Devices and Circuits	4	1	-	40	60	100	5
BTEE-403	Electromagnetic Fields	3	1	-	40	60	100	4
BTEE-305	Laboratory-I (Semiconductor Devices and Circuit Theory)	-	-	2	30	20	50	1
<b>Total</b>		<b>11</b>	<b>3</b>	<b>2</b>	<b>150</b>	<b>200</b>	<b>350</b>	<b>15</b>

## Semester-III

Course Code	Course Title	L	T	P	Marks Distribution		Total Marks	Credits
					Internal	External		
<b>BTEE-401</b>	Asynchronous Machines	3	1	-	40	60	100	4
<b>BTEC-404</b>	Digital Electronics	3	1	-	40	60	100	4
<b>BTEE-405</b>	Power System-I (Transmission & Distribution)	3	1	-	40	60	100	4
<b>BTEE-306</b>	Laboratory-II (Electrical Machines -I)	-	-	2	30	20	50	1
<b>BTEE-307</b>	Laboratory-III (Electrical Measurements )	-	-	2	30	20	50	1
Industrial Training *					60	40	100	
<b>Total</b>		<b>9</b>	<b>3</b>	<b>4</b>	<b>240</b>	<b>260</b>	<b>500</b>	<b>14</b>

\*The marks will be awarded on the basis of 4 weeks industrial training conducted after 2<sup>nd</sup> Semester

**Semester-IV**

Course Code	Course Title	L	T	P	Marks Distribution		Total Marks	Credits
					Internal	External		
<b>BTEE-402</b>	Linear Control Systems	4	1	-	40	60	100	5
<b>BTEE-406</b>	Power Plant Engineering	3	1	-	40	60	100	4
<b>BTEE-407</b>	Laboratory-IV (Instrumentation & Measuring Devices)	-	-	2	30	20	50	1
<b>BTEE-408</b>	Laboratory-V (Control System)	-	-	2	30	20	50	1
<b>BTEC-409</b>	Laboratory-VI (Electronic Circuits)	-	-	2	30	20	50	1
General Fitness					100	-	100	S/US
<b>Total</b>		<b>7</b>	<b>2</b>	<b>6</b>	<b>270</b>	<b>180</b>	<b>450</b>	<b>12</b>

**Semester-V**

Course Code	Course Title	L	T	P	Marks Distribution		Total Marks	Credits
					Internal	External		
<b>BTEE-501</b>	Synchronous Machines	4	1	-	40	60	100	5
<b>BTEE-502</b>	Electric Generation & Economics	4	1	-	40	60	100	5
<b>BTEE-503</b>	Microprocessors	4	1	-	40	60	100	5
<b>Total</b>		<b>12</b>	<b>3</b>	<b>0</b>	<b>120</b>	<b>180</b>	<b>300</b>	<b>15</b>

**Semester-VI**

Course Code	Course Title	L	T	P	Marks Distribution		Total Marks	Credits
					Internal	External		
<b>BTEE-504</b>	Power Electronics	4	1	-	40	60	100	5
<b>BTEE-505</b>	Numerical & Statistical Methods	4	1	-	40	60	100	5
<b>BTEE-506</b>	Laboratory-VII (Electrical Machines-II)	-	-	2	30	20	50	1
<b>BTEE-507</b>	Laboratory-VIII (Numerical Analysis)	-	-	2	30	20	50	1
<b>BTEE-508</b>	Laboratory-IX (Electrical: Estimation & Costing)	-	-	2	30	20	50	1
<b>Total</b>		<b>8</b>	<b>2</b>	<b>6</b>	<b>170</b>	<b>180</b>	<b>350</b>	<b>13</b>

**Semester-VII**

Course Code	Course Title	L	T	P	Marks Distribution		Total Marks	Credits
					Internal	External		
<b>BTEE-601</b>	Electric Power Utilization	3	1	-	40	60	100	4
<b>BTEE-602</b>	Power System-II (Switch Gear & Protection)	3	1	-	40	60	100	4
<b>BTEE-604</b>	Microcontroller and PLC	3	1	-	40	60	100	4
<b>BTEE-606</b>	Laboratory-X (Power Electronics & Drives)	-	-	2	30	20	50	1
<b>BTEE-607</b>	Laboratory-XI (Power System-I)	-	-	2	30	20	50	1
<b>Total</b>		<b>9</b>	<b>3</b>	<b>4</b>	<b>180</b>	<b>220</b>	<b>400</b>	<b>14</b>

**Semester-VIII**

Course Code	Course Title	L	T	P	Marks Distribution		Total Marks	Credits
					Internal	External		
<b>BTEE-603</b>	Non-Linear & Digital Control Systems	4	1	-	40	60	100	5
<b>BTEE-OPX</b>	Open Elective	3	1	-	40	60	100	4
<b>BTEE-605X</b>	Elective-I	3	1	-	40	60	100	4
<b>BTEE-608</b>	Laboratory-XII (Micro controller & PLC )	-	-	2	30	20	50	1
General Fitness					100	-	100	S/US
<b>Total</b>		<b>10</b>	<b>3</b>	<b>2</b>	<b>250</b>	<b>200</b>	<b>450</b>	<b>14</b>

## Semester-IX

Course Code	Course Title	L	T	P	Marks Distribution		Total Marks	Credits
					Internal	External		
<b>BTEE-801</b>	Power System Analysis	3	1	-	40	60	100	4
<b>BTEE-802</b>	High Voltage Engineering	4	1	-	40	60	100	5
<b>BTEE-803</b>	Non-conventional Energy and Auditing	3	1	-	40	60	100	4
<b>BTEE-806</b>	Lab-XIII (Power System Analysis)	-	-	2	30	20	50	1
<b>BTEE-808</b>	Seminar	-	-	2	100	-	100	2
<b>BTEE-701</b>	<b>For Software Training *</b>				150	100	250	8
<b>BTEE-702</b>	<b>For Industry Oriented Project Training</b>				300	200	500	10
<b>Total</b>		<b>10</b>	<b>3</b>	<b>4</b>	<b>700</b>	<b>500</b>	<b>1200</b>	<b>34</b>

Note:

\*The institution may provide training on any of the softwares from amongst

- MATLAB,
- Labview
- PS CAD

## Semester-X

Course Code	Course Title	L	T	P	Marks Distribution		Total Marks	Credits
					Internal	External		
<b>BTEE-804Y</b>	Elective-II	3	1	-	40	60	100	4
<b>BTEE-805Z</b>	Elective-III	3	1	-	40	60	100	4
<b>BTEE-807</b>	Project Work	-	-	6	60	40	100	4
General Fitness					100	-	100	S/US
<b>Total</b>		<b>6</b>	<b>2</b>	<b>6</b>	<b>240</b>	<b>160</b>	<b>400</b>	<b>12</b>