

## B.Sc. in EEE Program Structure

### First Year 1<sup>st</sup> Semester

Sl. No.	Course Code	Course Title	Credits	Marks		
				CIE	SEE	Total
1	EEE 1101	Electrical Circuits I	3.00	50	50	100
2	EEE 1102	Electrical Circuit Simulation Sessional	1.50	25	25	50
3	PHY 1111	Physics I/Electricity and Magnetism	3.00	50	50	100
4	PHY 1101	Physics Laboratory	1.50	50	50	100
5	MEE 1101	Mechanical Engineering Fundamentals	3.00	50	50	100
6	MAT 1111	Differential and Integral Calculus	3.00	50	50	100
7	CEE 1152	Engineering Drawing	1.50	25	25	50
8	ENG 1135	English for Technical Communication	3.00	50	50	100
<b>Total</b>			<b>19.50</b>	<b>350</b>	<b>350</b>	<b>700</b>

### First Year 2<sup>nd</sup> Semester

Sl. No.	Course Code	Course Title	Credits	Marks		
				CIE	SEE	Total
1	EEE 1201	Electrical Circuits II	3.00	50	50	100
2	EEE 1202	Electrical Circuits II Sessional	1.50	25	25	50
3	PHY 1201	Physics/Optics, Modern Physics, Wave and Oscillation	3.00	50	50	100
4	PHY 1202	Physics Sessional	1.50	25	25	50
5	CSE 1201	Structured Programming Language	3.00	50	50	100
6	CSE 1202	Structured Programming Language Sesasional	1.50	25	25	50
7	MAT 1211	Ordinary & Partial Differential Equations	3.00	50	50	100
8	ENG 1236	Developing English Skills Sessional	1.50	25	25	50
<b>Total</b>			<b>18.00</b>	<b>300</b>	<b>300</b>	<b>600</b>

### Second Year 1<sup>st</sup> Semester

Sl. No.	Course Code	Course Title	Credits	Marks		
				CIE	SEE	Total
1	EEE 2105	Electronic Circuits I	3.00	50	50	100
2	EEE 2107	Electrical Machine I	3.00	50	50	100
3	CHE 2101	Chemistry	3.00	50	50	100
4	CHE 2102	Chemistry Sessional	1.50	25	25	50
5	MAT 2111	Linear Algebra and Complex Variable	3.00	50	50	100
6	MAT 2112	Coordinate Geometry and Vector Analysis	3.00	50	50	100
7	HUM 2177	History of Emergence of Independent Bangladesh	3.00	50	50	100
<b>Total</b>			<b>19.50</b>	<b>325</b>	<b>325</b>	<b>650</b>

**Second Year 2<sup>nd</sup> Semester**

Sl. No.	Course Code	Course Title	Credits	Marks		
				CIE	SEE	Total
1	EEE 2205	Electronic Circuits II	3.00	50	50	100
2	EEE 2206	Electronic Circuits II Sessional	1.50	25	25	50
3	EEE 2207	Electrical Machine II	3.00	50	50	100
4	EEE 2208	Electrical Machine II Sessional	1.50	25	25	50
5	EEE 2212	Signals and Linear System Analysis	3.00	50	50	100
6	EEE 2215	Electromagnetic Fields and Waves	3.00	50	50	100
7	STAT 2213	Statistics and Probability	3.00	50	50	100
8	HUM 2211	Engineering Professional Ethics	3.00	50	50	100
<b>Total</b>			<b>21.00</b>	<b>350</b>	<b>350</b>	<b>700</b>

**Third Year 1<sup>st</sup> Semester**

Sl. No.	Course Code	Course Title	Credits	Marks		
				CIE	SEE	Total
1	EEE 3103	Communication Theory I	3.00	50	50	100
2	EEE 3105	Communication Theory I Sessional	1.50	25	25	50
3	EEE 3106	Electrical Services Design	1.50	25	25	50
4	EEE 3109	Digital Electronics	3.00	50	50	100
5	EEE 3110	Digital Electronics Sessional	1.50	25	25	50
6	EEE 3111	Electrical Properties of Materials	3.00	50	50	100
7	MAT 3112	Numerical Analysis	3.00	50	50	100
8	ACT 3115	Financial and Managerial Accounting	3.00	50	50	100
<b>Total</b>			<b>19.50</b>	<b>325</b>	<b>325</b>	<b>650</b>

**Third Year 2<sup>nd</sup> Semester**

Sl. No.	Course Code	Course Title	Credits	Marks		
				CIE	SEE	Total
1	EEE 3201	Power System I	3.00	50	50	100
2	EEE 3202	Industrial and Power Electronics	3.00	50	50	100
3	EEE 3203	Industrial and Power Electronics Lab	1.50	25	25	50
4	EEE 3204	Microprocessors and Interfacing	3.00	50	50	100
5	EEE 3205	Microprocessors and Interfacing Lab	1.50	25	25	50
6	EEE 3207	Digital Signal Processing	3.00	50	50	100
7	EEE 3208	Digital Signal Processing Sessional	1.50	25	25	50
8	EEE 3213	Industrial and Operations Management	3.00	50	50	100
9	EEE 3270	Industrial Attachment	1.00	25	25	50
<b>Total</b>			<b>20.50</b>	<b>350</b>	<b>350</b>	<b>700</b>

**Forth Year 1<sup>st</sup> Semester**

Sl. No.	Course Code	Course Title	Credits	Marks		
				CIE	SEE	Total
1	EEE 4110A	Project and Thesis	3.00	50	50	100
2	EEE 4120	Capstone Project	1.50	25	25	50
3	EEE 4103	Communication Theory II	3.00	50	50	100
4	EEE 4117	Power System II	3.00	50	50	100
5	EEE 4118	Power System II Sessional	1.50	25	25	50
6	EEE 4151	Control System I	3.00	50	50	100
7	EEE 4152	Control System I Sessional	1.50	25	25	50
8	EEE 4133	Solid State Devices	3.00	50	50	100
9	EEE 41**	Elective I	3.00	50	50	100
<b>Total</b>			<b>22.50</b>	<b>375</b>	<b>375</b>	<b>750</b>

**Forth Year 2<sup>nd</sup> Semester**

Sl. No.	Course Code	Course Title	Credits	Marks		
				CIE	SEE	Total
1	EEE 4210B	Project and Thesis	3.0	50	50	100
2	EEE 4271	Switchgear and Protection	3.0	50	50	100
3	EEE 4272	Switchgear and Protection Sessional	1.5	25	25	50
4	EEE 42**	Elective II	3.0	50	50	100
5	EEE 42**	Elective II Sessional	1.5	25	25	50
6	EEE 42**	Elective III	3.0	50	50	100
7	EEE 42**	Elective IV	3.0	50	50	100
<b>Total</b>			<b>18.0</b>	<b>300</b>	<b>300</b>	<b>600</b>

**Elective (Major) Courses for Specialization:**

**Communication Group**

Sl. No.	Course Code	Course Title	Credit
1	EEE 4134	Digital Communication	3.0
2	EEE 4135	Mobile Cellular Communication	3.0
3	EEE 4236	Optical Fiber Communication	3.0
4	EEE 4237	Microwave Circuits and Devices	3.0
5	EEE 4238	Microwave Circuits and Devices Sessional	1.5
6	EEE 4239	Telecommunication Engineering	3.0
7	EEE 4240	Radio and Television Engineering	3.0
<b>Total Credits</b>			<b>19.5</b>

**Electronics Group**

Sl. No.	Course Code	Course Title	Credit
1	EEE 4136	Optoelectronics	3.0

2	EEE 4137	Semiconductor Device Theory	3.0
3	EEE 4241	Analog Integrated Circuits	3.0
4	EEE 4242	VLSI	3.0
5	EEE 4243	VLSI Sessional	1.5
6	EEE 4244	Semiconductor Technology	3.0
7	EEE 4245	Nanotechnology	3.0
<b>Total Credits</b>			<b>19.5</b>

### Power Group

Sl. No.	Course Code	Course Title	Credit
1	EEE 4138	Power Plant Engineering	3.0
2	EEE 4246	Renewable Energy	3.0
3	EEE 4247	Power System Reliability	3.0
4	EEE 4248	High Voltage Engineering	3.0
5	EEE 4249	High Voltage Engineering Sessional	1.5
6	EEE 4250	Power System Operation and Control	3.0
<b>Total Credits</b>			<b>16.5</b>

### Interdisciplinary Courses

Sl. No.	Course Code	Course Title	Credit
1	EEE 4220	Control System II	3.0
2	EEE 4221	Thin Film Engineering	3.0
3	EEE 4222	Biomedical Electronics	3.0
4	EEE 4223	Numerical Methods for Engineers	3.0
5	EEE 4224	Multimedia Communication	3.0
6	EEE 4225	Intelligent System	3.0
7	EEE 4226	Simulation and Modeling	3.0
<b>Total Credits</b>			<b>21.0</b>