# **B.Sc. in Electronic & Telecommunication Engineering**

#### **Course Duration**

The is an open credit program and is designed for four years, but the course duration may vary depending on how many prerequisite courses a student has to undertake. Each year consists of three regular semesters: Spring, Summer & Autumn.

Upon admission, a faculty adviser is assigned to each student for guidance and direction in meeting degree requirements and academic goals.

### Degree Requirements

The requirements listed below are the minimum requirements for a Bachelor's degree set by IUB. Students are advised to consider their specific requirements.

For the B.Sc. in ETE degree program, the student must undertake a minimum of 145 credits.

Fee Structure	
Total credit	145
Application fee	Tk. 1000
Admission fee (one time)	Tk. 25,000
Student Activities fees including lab: (per semester)	Tk. 7,000
Tuition per credit	Tk. 6,000

Total (145 Credits)		
Foundation Courses (41 Credits)		
Communication Skills (9 Credits)		
ENG 101	Listening and Speaking Skills	
ENG 102	English Reading Skills	
ENG 105	Business English	
ENG 106	Advanced English Skills	
ENG 201	Introduction to English Literature	
	G 101 & 102 not exempted from ENG 101 and ENG 102 will have to take ENG 101, ENG 102, and ENG 105 exempted from ENG 101 and ENG 102 will have to take ENG 105, ENG 106, ENG201	
Social Sciences (any two) 6 Credits		
ANT 101	Introduction to Anthropology	
SOC 101	Introductory Sociology	
HEA 101	Health and Society	
ECN 200	Introduction to Economics	
CMN 201	Introduction to Communication	
SOC 202	Social Psychology	
Humanities (any two) 6 Credits		
*NCH 101	National Culture and Heritage-I	

*BPH 101	Bangladesh Political History		
*BLA 101	Bangla Literature & Art		
HST 103	History and Civilization		
AAT 101	Art and Aesthetics		
MUS 101	Music Appreciation		
FRN 101	Elementary French		
PHL 101	Introduction to Philosophy		
GSG 101	Global Studies		
KRN 101	Korean Language		
PHL 206	Philosophy of Religion		
*Any one of the first	*Any one of the first three is mandatory		
Natural Sciences (7 C	Credits)		
PHY 111	Physics - I		
PHY 121	Physics - II		
PHY 121L	Physics Lab		
Computer Skills (4 C	redits)		
CSC 121	Introduction to Computer Science		
CSC 121L	Lab For CSC 121		
LFE (3 Credits)			
LFE 201	Live-in-Field Experience		
Numeracy (6 Credits)			
MAT 111	Mathematics - I		
MAT 121	Probability & Statistics for Science & Engineering		
Mathematics (9 Credi	its)		
MAT 131	Mathematics - II		
MAT 213	Mathematics - III		
MAT 221	Mathematics - IV		
Core Courses (59 Cre	edits)		
EEE 131	Electrical Circuit - I		
ETE 132	Introduction to Materials and Chemistry		
EEE 211	Electrical Circuit - II		
EEE 211L	Electrical Circuit Lab		
ETE 221	Electronics-I		
EEE 225	Energy Conversion Engineering		
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ETE 231	Signals and Systems	
ETE 232	Digital Logic Design	
ETE 232L	Digital Logic Design Lab	
ETE 234	Electronics - II	
ETE 234L	Electronics Lab	
ETE 235L	Circuits, Signals and Systems Simulation Lab	
ETE 312	Communication Engineering Fundamentals	
ETE 312L	Communication Engineering Fundamentals Lab	
ETE 313	Electromagnetic Fields and Waves	
ETE 314L	Numerical Technique Lab	
ETE 315L	Electronic and Telecommunication Project Lab	
ETE 316	Microprocessor and Interfacing	
ETE 316L	Microprocessor and Interfacing Lab	
ETE 321	Computer Networks	
ETE 321L	Computer Networks Lab	
ETE 324	Digital Signal Processing	
ETE 324L	Digital Signal Processing Lab	
ETE 334	Embedded Systems	
ETE 413	Sensor and Instrumentation	
ETE 413L	Sensor and Instrumentation Lab	
ETE 422	Ethics, Engineering Economics and Project Management	
Concentration (30 Cre	edits)	
Compulsory (21 Cred	lits)	
ETE 323	Digital Communications	
ETE 323L	Digital Communication Lab	
ETE 332	RF and Microwave Engineering	
ETE 333	Telecommunication Networks and Switching Systems	
ETE 335	Wireless Communications	
ETE 335L	Wireless Communications and Microwave Engineering Lab	
ETE 411	Optical Fiber Communications	
ETE 411L	Optical Fiber Communications Lab	
ETE 423	Network Operating System & Administration	
Optional (any three) 9 Credits		
Optional - I		

Optional - II		
Optional - III		
Final Year Design Project (6 Credits)		
ETE 400	Final Year Design Project	
Internship (3 Credits)		
ETE 497	Internship*	
*Can be taken as an optional course		

Course List of Concentration (Optional)		
Group A (Telecommunications)		
ETE 445	Antenna and Wave Propagation	
ETE 446	Satellite Communications	
ETE 448	Cryptography and Network Security	
ETE 451	Telecommunication Policy and Management	
ETE 452	Internet and Web Technology	
ETE 460	Special Topics in Telecommunications	
Group B (Electronic	es)	
ETE 461	Power Electronics and Drives	
ETE 462	Control Systems	
ETE 463	Analog and Digital Integrated Circuits	
ETE 464	Nanotechnology	
ETE 465	Biomedical Signal Processing	
ETE 466	VLSI Design	
ETE 467	Optoelectronics	
ETE 469	Robotics and Mechatronics	
ETE 470	Biomedical Instrumentation	
ETE 471	Electrical Properties of Materials	
ETE 473	IC Fabrication Process Integration	
ETE 475	Special Topics in Electronics	
Group C (Computer	and Software Engineering)	
CSE 476	Data Structures	
CSE 477	Algorithms	
CSE 478	Object Oriented Programming	
CSE 479	Database Management Systems	
CSE 480	Computer Graphics and Multimedia	

CSE 481	Software Engineering Concepts
CSE 482	Software Project Management
CSE 483	Software Testing and Reliability
CSE 484	Intelligent System Engineering
CSE 485	Parallel and Distributed Computing
CSE 486	Digital Image Processing
CSE 487	Numerical Methods
CSE 490	Special Topics in Computer and Software Engineering

## Degree programs offered by the EEE department

B.Sc. in Electrical & Electronic Engineering

B.Sc. in Electronic & Telecommunication Engineering

M.Sc. in Electrical & Electronic Engineering M.Eng. in Electrical & Electronic Engineering M.Sc. in Telecommunication Engineering M.Sc. in Computer Networks & Communications

### For further information please contact

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