

B.Sc. in Electrical & Electronic 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 EEE degree program, the student must undertake a minimum of 147 credits.

Fee Structure	
Total credit	147
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 (147 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
*Prerequisite ENG 101 & 102	
*Note: students not exempted from ENG 101 and ENG 102 will have to take ENG 101, ENG 102, and ENG 105	
*Note: students 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 three is mandatory	
Natural Sciences (7 Credits)	
PHY 111	Physics - I
PHY 121	Physics - II
PHY 121L	Physics Lab
Computer Skills (4 Credits)	
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 Credits)	
MAT 131	Mathematics - II
MAT 213	Mathematics - III
MAT 221	Mathematics - IV
Core Courses (63 Credits)	
EEE 131	Electrical Circuit - I
EEE 132	Introduction to Materials and Chemistry
EEE 211	Electrical Circuit - II
EEE 211L	Electrical Circuit Lab
EEE 221	Electronics - I
EEE 222L	Electrical & Electronic Circuits Simulation Lab
EEE 223	Mechanical Engineering Fundamentals

EEE 231	Signals and Systems
EEE 232	Digital Logic Design
EEE 232L	Digital Logic Design Lab
EEE 233	Energy Conversion - I
EEE 234	Electronics - II
EEE 234L	Electronics Lab
ETE 311	Communication Engineering - I
EEE 313	Electromagnetic Fields and Waves
EEE 314L	Numerical Technique Lab
EEE 315L	Electrical and Electronic Project Lab
EEE 316L	Engineering Drawing and Electrical Services Design Lab
EEE 321	Digital Signal Processing
EEE 321L	Digital Signal Processing Lab
ETE 322	Communication Engineering - II
ETE 322L	Communication Engineering Lab
EEE 323	Microprocessor and Interfacing
EEE 323L	Microprocessor and Interfacing Lab
ETE 331	Computer Networks
ETE 331L	Computer Networks Lab
EEE334	Embedded Systems
EEE 422	Ethics, Engineering Economics and Project Management
EEE 423L	Sensor and Instrumentation Lab
Concentration (28 Credits)	
Compulsory (19 Credits)	
EEE 312	Energy Conversion – II
EEE 312L	Energy Conversion Lab
EEE 332	Power Electronics and Drives
EEE 332L	Power Electronics and Drives Lab
EEE 333	Power System - I
EEE 411	Control Systems
EEE 411L	Control Systems Lab
EEE 419	Power System - II
EEE 419L	Power System Lab
Optional (any three) 9 Credits	

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

Course List of Concentration (Optional)	
Choose any three (3) courses with two (2) from one group and one (1) from another group.	
Group A (Power and Renewable Energy)	
EEE 432	Power Plant Engineering
EEE 433	Power System Planning and Optimization
EEE 434	High Voltage Engineering
EEE 436	Switchgear and Protection
EEE 437	Smart Power Grid
EEE 438	Renewable Energy Technology
EEE 440	Special Topics in Power and Renewable Energy
Group B (Telecommunications)	
ETE 442	Optical Fiber Communications
ETE 443	RF and Microwave Engineering
ETE 444	Cellular Mobile Communications
ETE 445	Antenna and Wave Propagation
ETE 446	Satellite Communications
ETE 447	Telecommunication Networks and Switching Systems
ETE 448	Cryptography and Network Security
ETE 452	Network Operating System and Administration
ETE 453	Telecommunication Policy and Management
ETE 454	Internet and Web Technology
ETE 460	Special Topics in Telecommunications
Group C (Electronics)	
EEE 463	Analog and Digital Integrated Circuits
EEE 464	Nanotechnology
EEE 465	Biomedical Signal Processing

EEE 466	VLSI Design
EEE 467	Optoelectronics
EEE 468	Measurement and Instrumentation
EEE 469	Robotics and Mechatronics
EEE 470	Biomedical Instrumentation
EEE 471	Electrical Properties of Materials
ETE 473	IC Fabrication Process Integration
ETE 475	Special Topics in Electronics
Group D (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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