Scholarship & Waiver Policy

100%	A+ in all subject in SSC & HSC (Conditions apply) For the rest 50%
40%	For GPA 10 in SSC & HSC For GPA 9.0 in SSC & Diploma
30%	For GPA 9.5 in SSC & HSC For GPA 8.5 in SSC & Diploma
20%	For GPA 9.0 in SSC & HSC For GPA 8.0 in SSC & Diploma
15%	For GPA 8.5 in SSC & HSC For GPA 7.5 in SSC & Diploma
10%	For GPA 8.0 in SSC & HSC For GPA 7.0 in SSC & Diploma

75% For physically challenged students

20% For Siblings

20% For Spouses

Up to **100%** Scholarships

☑ **Sufi Mizanur Rahman Foundation Scholarship Fund**
(For meritorious students suffering from financial hardship)

☑ **Ratnagarbha Tahmina Rahman Scholarship Fund**
(Based on semester results)

☑ **Hon'ble Chairman/BoT/Vice Chancellor's Scholarship**

∗ Terms and conditions apply

Laboratory Resources in the Department of ECE

Department of ECE is highly equipped with all modernized equipment for physics, chemistry, electronics, electrical, machine, instrumentation, computation, computer, analog and digital communication, telecommunication, VLSI, optical fiber, microprocessor, simulation laboratories etc.

Faculty Information

The Department of ECE has highly qualified faculty members with higher degrees obtained from around the world. The faculty members in the department are individuals who are deep researchers, qualified writers and critics of contemporary textbooks in the area they teach. The faculty members as well as students of the department have published numerous peer-reviewed articles in peer-reviewed journals like IEEE, Springer, Elsevier etc.

Specific Job Fields

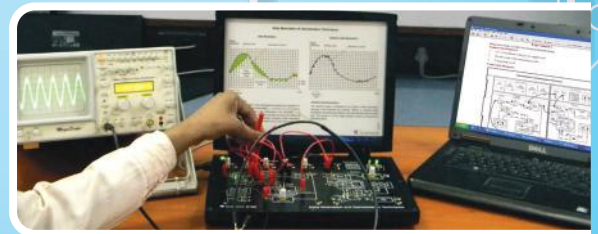The expanded fields of ECE play vital roles in the progress of the country in the fields of:
• Network design and operation for public and private telecom operators etc.
• Network solutions & applications for banks, financial services etc.
• Telecommunication industries & research organizations.
• Government & military communications, services etc.
• Satellite communication design & engineering.
• Software development for telecom industries.
• Electronic industries, VLSI applications etc.
• Microcontrollers and embedded systems.
• Mobile companies, service providers etc.
• Radio Engineering, TV broadcasting etc.
• Industrial automation, PLC, SCADA etc.
• Antenna & RADAR engineering.
• Biomedical engineering.

Own Campus with world class facilities

Transportation Facilities

Quality Education at Affordable Cost

Full-Time & Highly Qualified Faculty Members with Foreign Degrees.

Bachelor of Science in
Electronic and Communication Engineering
ECE

UITS
Future will be better than thy past

An initiative of *PHP Family*

The Bachelor of Science (B.Sc.) program in Electronic and Communication Engineering is designed to provide students with discipline-specific knowledge and technical skills in electronics engineering, communication engineering, application specific knowledge in telecommunication sectors, to develop them to become efficient and skilled engineers in the fields of networking, telephone & telecom industries, internet technologies, satellite engineering, mobile communication, computers and information technology and above all: produce morally upright graduates for nation.

The graduates will be able to analyze, design, implement, maintain and manage the telecommunication systems and business in telecom sectors. There are three major sections of study are available in this program which are *electronics, telecommunication and computer science*.

Courses in the first four semesters are usually basic courses that are to strengthen students' engineering foundation, but then the rest of the higher semester courses diverge to allow students to focus more intently on specific interests. This objective based curriculum ensures graduates to become innovative engineers of tomorrow. Technical electives in various specialties are available for students to pursue their particular interests.

Graduation Requirement

Categories	Credits
Language & General Education	09
Basic Sciences	11
Mathematics & Statistics	15
Interdisciplinary Engineering	10
Core Courses	60
Concentration: Compulsory Courses	18
Concentration: Elective Courses	15
Thesis / Project / Internship	06
Total Credits = 144	

Admission Eligibility

- According to the UGC rules applicants must have at least 2nd Division or GPA 2.5 in both SSC and HSC (or equivalent). If there is any GPA 2.00 in SSC/HSC (or equivalent) then the total GPA must have to be GPA 6.00.
- For O level & A level, at least for 5 subjects in O level and 2 subjects in A level, the applicants must have GPA 4.00 or B Grade in 4 subjects & GPA 3.5/C Grade on the other 3 subjects.
- For Freedom Fighters' children, the total GPA may be considered as 5.00 for each applicant.

Expenditure

Admission Fees (One time)

Application Form	500
Admission Fee	10,000
Student Welfare	200

Tuition Fees

Tuition Fee (per credit)	3,500
Total Tuition Fees (144 Credits)	5,04,000
Total Program Cost	**5,54,700**

Other Fees (Per Semester): 5,000
Including Library Fee, Laboratory Fee, Transport Fee and Co-curriculum Fee.

List of Courses

Language & General Education

GED 101	The Four Skills of Communication in English
GED 102	Developing English Language Skills Lab
GED 119*	History of Emergence of Bangladesh
Any two from the courses below	
GED 107	Introduction to Sociology
GED 109	Ethics: Theory and Practice
GED 113*	Financial and Managerial Accounting
GED 115	Industrial and Operation Management

Basic Science

PHY 171*	Waves, Optics and Thermodynamics
PHY 173	Electricity, Magnetism and Modern Physics
PHY 174*	Electricity, Magnetism and Modern Physics Lab
CHE 175	Engineering Chemistry
CHE 176*	Engineering Chemistry Lab

Mathematics and Statistics

MAT 163	Differentials and Integral Calculus
MAT 165	Ordinary and Partial Differential Equations
MAT 261	Coordinate Geometry and Vector Analysis
MAT 265	Linear Algebra & Complex Variables, Fourier Analysis and Laplace Transform
STAT 263	Probability and Statistics

Interdisciplinary Engineering

ME 102*	Engineering Drawing
ME 291	Fundamental of Mechanical Engineering
CSE 151*	Computer Fundamentals and Web Technology
CSE 251	Computer Programming
CSE 252	Computer Programming Lab

Core Courses

ECE 101	Electrical Circuits I
ECE 103	Electrical Circuits II
ECE 104	Electrical Circuits Lab
ECE 105	Electronic Circuits I
ECE 108	Circuit Simulation Lab
ECE 201	Digital Electronics
ECE 202	Digital Electronics Lab
ECE 203	Electronic Circuits II
ECE 204	Electronic Circuits Lab
ECE 205	Electrical Machines
ECE 206	Electrical Machines Lab
ECE 207	Electronic Measurement and Instrumentation
ECE 208	Electronic Measurement and Instrumentation Lab
ECE 267	Numerical Analysis Lab
ECE 253	Computer Networking and Data Communication
ECE 301	Electromagnetic Fields and Waves
ECE 305	Signals and Systems
ECE 307	Solid State Devices
ECE 309	Communication Theory
ECE 312	Communication Theory Lab
ECE 313	Microprocessor and Microcontroller
ECE 314	Microprocessor and Microcontroller Lab
ECE 315	Digital Signal Processing
ECE 316	Digital Signal Processing Lab

ECE 317	Electrical Services Design & Drafting Lab
ECE 405	Control Systems
ECE 406	Control Systems Lab
ECE 467	Project Management

Concentration: Compulsory Courses

ECE 423	VLSI
ECE 424	VLSI Lab
ECE 429	Wireless Communication
ECE 431	Optical Fiber Communication
ECE 432	Optical Fiber communication Lab
ECE 433	Telecommunication Engineering
ECE 434	Telecommunication Engineering Lab
ECE 437	Digital Communication

Concentration: Elective Courses

Elective courses are classified into three specialized groups (concentrations). Every student must take 05 (five) courses from these elective groups: (Group I, Group II and Group III).

Group I: Electronics

ECE 417	Optoelectronics
ECE 419	Analog Integrated Circuits
ECE 421	Digital Integrated Circuits Design
ECE 425	Processing and Fabrication Technology
ECE 443	Semiconductor Technology
ECE 445	Biomedical Instrumentation
ECE 471	Nanotechnology
ECE 473	Robotics and Mechatronics
ECE 475	Electrical Properties of Materials
ECE 477	Power Electronics

Group II: Telecommunication

ECE 435	RF & Microwave Engineering
ECE 439	Information Theory and Coding
ECE 447	Antennas and Wave Propagation
ECE 449	Multimedia Communications
ECE 463	Satellite Communication
ECE 479	Cellular Network Planning
ECE 481	Digital Modulation Technique
ECE 483	Tele-traffic Engineering
ECE 485	Internet Engineering
ECE 487	Broadband Networks

Group III: Computer Science

CSE 203	Object Oriented Programming Language
CSE 301	Database Management System
CSE 401	Artificial Intelligence
CSE 417	Digital Image Processing
CSE 427	Algorithm Engineering
CSE 433	Computational Geometry
CSE 435	Machine Learning
CSE 437	Pattern Recognition
CSE 441	Computer Interfacing
CSE 451	Software Engineering

Thesis / Project / Internship

ECE 490	Thesis / Project / Internship