The Department of Computer Science and Engineering (CSE) has been established in 2005. It has a growing, dynamic, research-oriented faculty who take great pride in their longstanding record of excellence in teaching styles in undergraduate education. The department of CSE offers a 4-years program of Bachelor of Science in CSE. It is a 144 credits program requiring about four years to complete the undergraduate objective.

The vision of the department of CSE is to scaffold the next generation engineers and scientists in a student-centered learning environment to reach digital fluency in Computer Science & Engineering. The challenge is to make the students competent, skilled leader in the wake of the ever-changing and challenging global work environment of the 21st century.

B.Sc. Engg. in CSE

Scholarship & Waiver policy

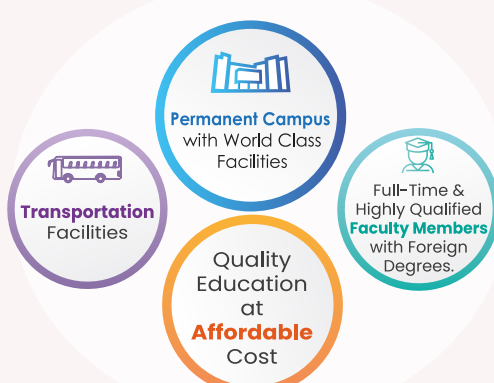| 100% | A+ in all subject in SSC & HSC (Conditions apply) For the rest 50% |
40%	For GPA 10 in SSC & HSC For GPA 9.0 in SSC & Diploma
30%	For GPA 9.5 in SSC & HSC For GPA 8.5 in SSC & Diploma
20%	For GPA 9.0 in SSC & HSC For GPA 8.0 in SSC & Diploma
15%	For GPA 8.5 in SSC & HSC For GPA 7.5 in SSC &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

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

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

∗ Terms and conditions apply

Transportation Facilities

Permanent Campus with World Class Facilities

Quality Education at Affordable Cost

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

Modern Laboratories

UITS Cultural Center

UITS Language Center

Indoor Games

UITS Computer Club

UITS Research Center

UITS Playground

Science & Engineering Library

Programming Contest

Canteen Prayer Room WiFi

Total 144 Credits | 6 Months Semester

Streams	Theory	Lab
Language Courses	3	1
Non-Engineering Skill Courses	6	
Basic Science and Mathematics	21	2
Core Courses	62	24.5
Elective Courses		
Elective - I		3
Elective - II	3	1
Specialization Courses	9	3
Industrial Attachment		1
CAPSTONE Project		4.5
Total	104	40

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.

Total Cost

Admission Fees (One time)	
Admission form	500
Admission Fee	12,000
Student welfare	200
Other Fees (Per Semester)	**5,500**
Including Library Fee, Laboratory Fee, Transport Fee and Co-curriculum Fee.	
For HSC/equivalent Student	
Tuition Fees (per credit)	3,500
Total Tuition Fees (144 Credits)	5,04,000
Total Program Cost	**5,60,700**
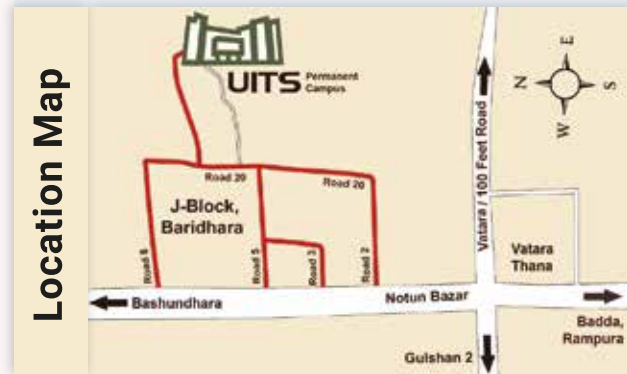
Location Map

B.SC in Computer Science and Engineering
List of Courses
Semester-wise Course Distribution

1st Semester		18.5 Cr.	
Code	Course Title	T	L
CSE0613111	Structured Programming Language	3.0	1.5
MATH0541111	Differential and Integral Calculus	3.0	
PHY0533111	Engineering Physics	3.0	1
CHEM0531111	Engineering Chemistry	3.0	
GED0232111	Communicative English	3.0	1

2nd Semester		17.5 Cr.	
Code	Course Title	T	L
CSE0613121	Object Oriented Programming Language	3.0	1.5
CSE0541123	Discrete Mathematics	3.0	
EEE0713121	Fundamental of Electrical Engineering	3.0	1
MATH0541121	Ordinary and Partial Differential Equations	3.0	
ME0715 122	Engineering Drawing		1
GED0222121	Bangladesh Studies: History and Culture	2.0	

3rd Semester		20 Cr.	
Code	Course Title	T	L
CSE0613211	Data Structures and Algorithms I	3.0	1.5
CSE0613214	Web Application Design		1.5
CSE0611215	Digital Logic Design	3.0	1
EEE0714211	Electronic Devices and Circuits	3.0	1
MATH0541211	Coordinate Geometry, Linear Algebra, and Vector Analysis	3.0	
MATH0542213	Probability and Statistics for Engineers	3.0	

4th Semester		19 Cr.	
Code	Course Title	T	L
CSE0613221	Data Structures and Algorithms II	3.0	1.5
CSE0612223	Data Communication	3.0	
CSE0612225	Database Management System	3.0	1.5
CSE0541227	Numerical Methods and Analysis	3.0	
MATH0541221	Complex Variables, Fourier Analysis and Laplace Transform	3.0	
CSE***	Elective I		1

5th Semester		20.5 Cr.	
Code	Course Title	T	L
CSE0613311	Artificial Intelligence	3.0	1
CSE0612313	Computer Networks	3.0	1
CSE0613316	Software Engineering and System Analysis	3.0	1.5
CSE0611317	Computer Architecture	3.0	
CSE0611319	Theory of Computation	2.0	
GED***	General Education (Any one)	2.0	
CSE***	Elective I		1

6th Semester		19 Cr.	
Code	Course Title	T	L
CSE0613321	Compiler	3.0	1
CSE0611323	Microprocessors, Microcontrollers and Assembly Language	3.0	1
CSE0612325	Cyber Security	3.0	1
CSE0611327	Computer Graphics & Multimedia	3.0	1.5
CSE0611342	Simulation & Modeling Lab		1
CSE0613344	Software Project Design and Development Lab		1.5

7th Semester		18.5 Cr.	
Code	Course Title	T	L
CSE0611411	Operating Systems	3.0	1
CSE0613414	Scientific Research & Methodologies Lab		1
CSE0613416	Industrial Attachment		1
CSE0613400	CAPSTONE Project		4.5
CSE***	Elective II	3.0	1
CSE***	Specialization Course 1	3.0	1

8th Semester		11 Cr.	
Code	Course Title	T	L
CSE***	Elective I		1
CSE***	Specialization Course 2	3.0	1
CSE***	Specialization Course 3	3.0	1
GED***	General Education (Any one)	2	
		Total	144.0

General Education Courses

(Any Two Courses)			
Code	Course Title	T	L
GED0411311	Financial & Managerial Accounting	2.0	
GED0311313	Engineering Economics	2.0	
GED0413321	Industrial and Operation Management	2.0	
GED0421323	Business Law	2.0	
GED 0223421	Professional Ethics and Communication for Engineering	2.0	

Elective Courses

Elective I (Any three Courses)		
CSE0613204	Advanced Problem-Solving Strategies Lab	1
CSE0613208	Internet Programming Lab	1
CSE0611302	Prototype and User Experience Design Lab	1
CSE0611304	Linux Programming Lab	1
CSE0619492	Technical Writings and Presentation Lab	1
CSE0613494	Software Project Management Lab	1

Elective II (Any one Course)			
Code	Course Title	T	L
CSE0612401	Internet of Things	3.0	1
CSE0612403	Foundation of Data Science	3.0	1
CSE0613405	Mobile Application Development	3.0	1
CSE0613407	Geographical Information Systems & Applications	3.0	1
CSE0612497	Graph Theory	3.0	1

Specialization Groups (Any Three Courses)

A student will select a Specialization group. From that group s/he will choose three courses from the selected group.

Intelligent Systems			
Code	Course Title	T	L
CSE0611431	Machine Learning	3.0	1
CSE0611433	Pattern Recognition	3.0	1
CSE0611435	Computer Vision	3.0	1
CSE0611437	Digital Image Processing	3.0	1
CSE0612439	Information Retrieval	3.0	1
CSE0611451	Neural Networks	3.0	1
CSE0611453	Theory of Fuzzy Systems	3.0	1
CSE0612455	Data Mining & Warehouse	3.0	1
CSE0612457	Big Data Analytics	3.0	1
CSE0611459	Bioinformatics & Computational Biology	3.0	1

Software Engineering			
Code	Course Title	T	L
CSE0613441	Software Requirements Specification and Analysis	3.0	1
CSE0613443	Software Project Management	3.0	1
CSE0613445	Software Testing & Quality Assurance	3.0	1
CSE0613447	Software Security and Maintenance	3.0	1
CSE0612449	Enterprise Resource Planning & Content Management System	3.0	1
CSE0612495	Innovation Management and Entrepreneurship	3.0	1
CSE0612451	Software Measurement and Metrics	3.0	1
CSE0612453	Software Architecture and Design	3.0	1

Networks & Security			
Code	Course Title	T	L
CSE0612461	Satellite Communications	3.0	1
CSE0612463	Telecommunication Systems Engineering	3.0	1
CSE0612465	Mobile & Wireless Networks	3.0	1
CSE0612467	Optical Fiber Communications	3.0	1
CSE0612469	Computer Data & Network Security	3.0	1
CSE0612471	Cloud Computing and Distributed System	3.0	1
CSE0612475	Cryptography	3.0	1
CSE0612477	Digital Signal Processing	3.0	1
CSE0612479	Network Operations and Management	3.0	1

Systems and Hardware			
Code	Course Title	T	L
CSE0611473	Real-time Control Systems	3.0	1
CSE0619481	Robotics	3.0	1
CSE0611483	Human Computer Interaction	3.0	1
CSE0611485	Embedded Systems	3.0	1
CSE0619487	VLSI	3.0	1

Minimum credit requirement for B.Sc. in CSE: 144