

THE CURRICULUM

The details of course codes and titles organized in different levels and terms are as follows:

Level 1 (Freshman Year), Term 1

Course Code	Course Title	Credit Hour	Contact Hour	Pre-requisite
CSE 1101	Computer Programming Techniques	3.00	3.00 – 0.00	
CSE 1102	Computer Programming Techniques Sessional	1.50	0.00 – 3.00	
ENG 1161	English	3.00	3.00 – 0.00	
MATH 1163	Differential and Integral Calculus	3.00	3.00 – 0.00	
PHY 1165	Physics	3.00	3.00 – 0.00	
HUM 1263	Engineering Economics	3.00	3.00 – 0.00	
BNG 1161	Bangla	3.00	3.00 – 0.00	
Total Credit Hour		19.50	12.00 – 3.00	

Level 1 (Freshman Year), Term 2

Course Code	Course Title	Credit Hour	Contact Hour	Pre-requisite
CSE 1201	Structured Programming Language	3.00	3.00 – 0.00	
CSE 1202	Structured Programming Language Sessional	1.50	0.00 – 3.00	
MATH 1261	Differential Equations and Coordinate Geometry	3.00	3.00 – 0.00	MATH 1141
CE 1364	Engineering Drawing and AutoCAD	1.50	0.00 – 3.00	
EEE 1265	Electrical Circuit Analysis	3.00	3.00 – 0.00	
EEE 1266	Electrical Circuit Analysis Sessional	1.50	0.00 – 3.00	
HUM XXXX	Emergence of Bangladesh	3.00	3.00 – 0.00	
CSE 1301	Discrete Mathematics	3.00	3.00 – 0.00	
Total Credit Hour		19.50	12.00 – 6.00	

Level 2 (Freshman Year), Term 1

Course Code	Course Title	Credit Hour	Contact Hour	Pre-requisite
CSE 1303	Object Oriented Programming Language	3.00	3.00 – 0.00	CSE 1201
CSE 1304	Object Oriented Programming Language Sessional	1.50	0.00 – 3.00	
EEE 1361	Electronics Devices and Circuits	3.00	3.00 – 0.00	EEE 1265
EEE 1362	Electronics Devices and Circuits Sessional	1.50	0.00 – 3.00	
CSE 2103	Data Structures	3.00	3.00 – 0.00	CSE 1201
CSE 2104	Data Structures Sessional	1.50	0.00 – 3.00	
MATH 2161	Matrices and Vector Analysis	3.00	3.00 – 0.00	
HUM XXXX	Bangladesh Studies	3.00	3.00 – 0.00	
Total Credit Hour		19.50	9.00 – 9.00	

Level 2 (Sophomore Year), Term 2

Course Code	Course Title	Credit Hour	Contact Hour	Pre-requisite
CSE 2101	Digital Logic Design	3.00	3.00 – 0.00	
CSE 2102	Digital Logic Design Sessional	1.50	0.00 – 3.00	
CSE 2201	Numerical Analysis	3.00	3.00 – 0.00	
CSE 2206	Java and Socket Programming Sessional	1.50	0.00 – 3.00	
CSE 2303	Theory of Computation	3.00	3.00 – 0.00	
CSE 3105	Data Communication	3.00	3.00 – 0.00	
CSE 3205	Applied Statistics and Queuing Theory	3.00	3.00 – 0.00	
CSE XXXX	Web Technology Sessional	1.50	3.00 – 0.00	
Total Credit Hour		19.50	12.00 – 6.00	

Level 3 (Sophomore Year), Term 1

Course Code	Course Title	Credit Hour	Contact Hour	Pre-requisite
CSE 2203	Computer Organization and Architecture	3.00	3.00 – 0.00	CSE 2101
CSE 2204	Computer Organization and Architecture Sessional	1.50	0.00 – 3.00	
CSE 2305	Algorithm	3.00	3.00 – 0.00	CSE 1201
CSE 2306	Algorithm Sessional	1.50	0.00 – 3.00	
MATH 2361	Complex Variable and Fourier Transformation	3.00	3.00 – 0.00	MATH 1141
CSE 3203	Operating System	3.00	3.00 – 0.00	
CSE 3204	Operating System Sessional	1.50	0.00 – 3.00	
CSE 3301	System Analysis and Design	3.00	3.00 – 0.00	
CSE 3302	System Analysis and Design Sessional	1.50	0.00 – 3.00	
Total Credit Hour		21.00	9.00 – 6.00	

Level 3 (Sophomore Year), Term 2

Course Code	Course Title	Credit Hour	Contact Hour	Pre-requisite
CSE 2301	Microprocessor and Interfacing	3.00	3.00 – 0.00	
CSE 2302	Microprocessor and Assembly Programming	1.50	0.00 – 3.00	
CSE 3101	Database Management System	3.00	3.00 – 0.00	
CSE 3102	Database Management System Sessional	1.50	0.00 – 3.00	
CSE 3103	Compiler	3.00	3.00 – 0.00	
CSE 3104	Compiler Sessional	1.50	0.00 – 3.00	
CSE 3201	Computer Network	3.00	3.00 – 0.00	
CSE 3202	Computer Network Sessional	1.50	0.00 – 3.00	
Total Credit Hour		21.00	12.00 – 6.00	

Level 4 (Junior Year), Term 1

Course Code	Course Title	Credit Hour	Contact Hour	Pre-requisite
CSE 3303	Computer Graphics	3.00	3.00 – 0.00	
CSE 3304	Computer Graphics Sessional	1.50	0.00 – 3.00	
CSE 3305	Software Engineering	3.00	3.00 – 0.00	
CSE 3306	Software Engineering Sessional	1.50	0.00 – 3.00	
CSE 4101	Artificial Intelligence	3.00	3.00 – 0.00	
CSE 4102	Artificial Intelligence Sessional	1.50	0.00 – 3.00	
CSE 4000	Project and Thesis*	2.00	0.00 – 4.00	
CSE 3207	Cyber Crime and Security	3.00	3.00 – 0.00	
CSE 44XO	Option - I	3.00	3.00 – 0.00	
Total Credit Hour		21.50	12.00 – 6.00	

Level 4 (Senior Year), Term 2

Course Code	Course Title	Credit Hour	Contact Hour	Pre-requisite
CSE 4000	Project and Thesis*	2.00	0.00 – 4.00	
CSE 4200	Mobile Apps Development Sessional	2.00	0.00 – 4.00	
CSE 4201	Technical Writing	1.50	0.00 – 3.00	
CSE 44XO	Option - II	3.00	3.00 – 0.00	
CSE 44XE	Option – II Sessional	1.50	0.00 – 3.00	
CSE 4300	Industrial Training**	2.00	0.00 – 4.00	
CSE 44XO	Option - II	3.00	3.00 – 0.00	
CSE 44XE	Option – II Sessional	1.50	0.00 – 3.00	
Total Credit Hour		16.50	3.00 – 14.00	

*The student has to complete the course CSE 4000: Project and Thesis taking over the three trimesters in level 4 (Senior Year). The course shall be evaluated in each trimester but the grade “X”, i.e., continuation grade shall be awarded in Term 1 and Term 2 if the progress is satisfactory. Grade “I” shall be provided if the progress is not satisfactory. The final grade shall be awarded at the end of the Term 3 of level 4.

CSE 44XO/44XE: The values of digits “XO” or “XE” shall depend on the theory or sessional courses to be offered. “X” may be any digit, “O” stands for an odd digit and “E” stands for an even digit.

** Each student has to submit an evaluation report at the end of the training. This report shall be endorsed by the respective industry and shall be evaluated by the supervisor to be incorporated in the tabulation sheet.

Optional/Elective Courses

A. Option -I

Course Code	Course Title	Credit Hour	Contact Hour	Pre-requisite
CSE 4401	IT Entrepreneurship Development	3.00	3.00 – 0.00	
CSE 4403	E-Commerce and E-Governance	3.00	3.00 – 0.00	
CSE 4405	IT Laws, Regulations and Ethics	3.00	3.00 – 0.00	
CSE 4407	Software Testing and Quality Assurance	3.00	3.00 – 0.00	
CSE 4409	Software Project Management	3.00	3.00 – 0.00	
CSE 4411	Basic Graph Theory	3.00	3.00 – 0.00	
CSE 4413	Fault Tolerant System	3.00	3.00 – 0.00	
CSE 4415	Basic Multimedia Theory	3.00	3.00 – 0.00	
CSE 4417	Machine Learning	3.00	3.00 – 0.00	
CSE 4419	Bioinformatics	3.00	3.00 – 0.00	
CSE 4421	Robotics	3.00	3.00 – 0.00	
CSE 4423	Data and Web Mining	3.00	3.00 – 0.00	
CSE 4425	Cloud Computing	3.00	3.00 – 0.00	

B. Option -II

Course Code	Course Title	Credit Hour	Contact Hour	Pre-requisite
CSE 4451	Digital Signal Processing	3.00	3.00 – 0.00	
CSE 4452	Digital Signal Processing Sessional	1.50	0.00 – 3.00	
CSE 4453	Network and Server Administration	3.00	3.00 – 0.00	
CSE 4454	Network and Server Administration Sessional	1.50	0.00 – 3.00	
CSE 4455	Wireless Network	3.00	3.00 – 0.00	
CSE 4456	Wireless Network Sessional	1.50	0.00 – 3.00	
CSE 4457	Software Architecture	3.00	3.00 – 0.00	
CSE 4458	Software Architecture Sessional	1.50	0.00 – 3.00	
CSE 4459	Distributed Database Management System	3.00	3.00 – 0.00	
CSE 4460	Distributed Database Management System Sessional	1.50	0.00 – 3.00	
CSE 4461	Digital Image Processing	3.00	3.00 – 0.00	
CSE 4462	Digital Image Processing Sessional	1.50	0.00 – 3.00	
CSE 4463	Simulation and Modeling	3.00	3.00 – 0.00	
CSE 4464	Simulation and Modeling Sessional	1.50	0.00 – 3.00	
CSE 4465	Pattern Recognition	3.00	3.00 – 0.00	
CSE 4466	Pattern Recognition Sessional	1.50	0.00 – 3.00	
CSE 4467	Communication Engineering	3.00	3.00 – 0.00	
CSE 4468	Communication Engineering Sessional	1.50	0.00 – 3.00	
CSE 4469	Internet Engineering	3.00	3.00 – 0.00	
CSE 4470	Internet Engineering Sessional	1.50	0.00 – 3.00	
CSE 4471	Embedded Systems	3.00	3.00 – 0.00	
CSE 4472	Embedded Systems Sessional	1.50	0.00 – 3.00	