

<b>Semester wise Course list</b>				
<b>Semester 01</b>				
<b>Code</b>	<b>Topics</b>	<b>Theory Credit</b>	<b>Lab Credit</b>	
CSE0613111	Structured Programming Language	3		

21

CSE0613112	Structured Programming Language Lab		1.5	
MATH0541111	Differential and Integral Calculus	3		
PHY0533111	Engineering Physics	3		
PHY0533112	Engineering Physics Lab		1	
CHEM0531111	Engineering Chemistry	3		
GED0232111	Communicative English	3		
GED0232112	Communicative English Lab		1	
<b>Total</b>		<b>15</b>	<b>3.5</b>	<b>18.5</b>

<b>Semester 02</b>				
<b>Code</b>	<b>Topics</b>	<b>Theory Credit</b>	<b>Lab Credit</b>	<b>Total</b>

CSE0613121	Object Oriented Programming Language	3		
CSE0613122	Object Oriented Programming Language Lab		1.5	
CSE0541123	Discrete Mathematics	3		
EEE0713121	Fundamental of Electrical Engineering	3		
EEE0713122	Fundamental of Electrical Engineering Lab		1	
MATH0541121	Ordinary and Partial Differential Equations	2		
ME0715 122	Engineering Drawing		1	
GED0222121	Bangladesh Studies: History and Culture	2		

22

<b>Total</b>	<b>14</b>	<b>3.5</b>	<b>17.5</b>
--------------	-----------	------------	-------------

<b>Semester 03</b>				
<b>Code</b>	<b>Topics</b>	<b>Theory Credit</b>	<b>Lab Credit</b>	<b>Total</b>
CSE0613211	Data Structures and Algorithms I	3		

CSE0613212	Data Structures and Algorithms I Lab		1.5	
CSE0613214	Web Application Design		1.5	
CSE0611215	Digital Logic Design	3		
CSE0611216	Digital Logic Design Lab		1	
EEE0714211	Electronic Devices and Circuits	3		
EEE0714212	Electronic Devices and Circuits Lab		1	
MATH0541211	Coordinate Geometry, Linear Algebra, and Vector Analysis	3		
MATH0542213	Probability and Statistics for Engineers	3		
<b>Total</b>		<b>15</b>	<b>5</b>	<b>20</b>

<b>Semester 04</b>				
<b>Code</b>	<b>Topics</b>	<b>Theory Credit</b>	<b>Lab Credit</b>	<b>Total</b>
CSE0613221	Data Structures and Algorithms II	3		
CSE0613222	Data Structures and Algorithms II Lab		1.5	
CSE0612223	Data Communication	3		

CSE0612225	Database Management System	3		
CSE0612226	Database Management System Lab		1.5	

23

CSE0541227	Numerical Methods and Analysis	3		
MATH0541221	Complex Variables, Fourier Analysis and Laplace Transform	3		
CSE***	Elective I		1	
<b>Total</b>		<b>15</b>	<b>4</b>	<b>19</b>

<b>Semester 05</b>				
<b>Code</b>	<b>Topics</b>	<b>Theory Credit</b>	<b>Lab Credit</b>	<b>Total</b>
CSE0613311	Artificial Intelligence	3		
CSE0613312	Artificial Intelligence Lab		1	
CSE0612313	Computer Networks	3		
CSE0612314	Computer Networks Lab		1	
CSE0613315	Software Engineering and System Analysis	3		

CSE0613316	Software Engineering and System Analysis Lab		1.5	
CSE0611317	Computer Architecture	3		
CSE0611319	Theory of Computation	2		
GED***	General Education (Any one)	2		
CSE***	Elective I		1	
<b>Total</b>		<b>16</b>	<b>4.5</b>	<b>20.5</b>

<b>Semester 06</b>				
<b>Code</b>	<b>Topics</b>	<b>Theory Credit</b>	<b>Lab Credit</b>	<b>Total</b>
CSE0613321	Compiler	3		

CSE0613322	Compiler Lab		1	
CSE0611323	Microprocessors, Microcontrollers and Assembly Language	3		
CSE0611324	Microprocessors, Microcontrollers and Assembly Language Lab		1	
CSE0612325	Cyber Security	3		

CSE0612326	Cyber Security Lab		1	
CSE0611327	Computer Graphics & Multimedia	3		
CSE0611328	Computer Graphics & Multimedia Lab		1	
CSE0611342	Simulation & Modeling Lab		1	
CSE0613344	Software Project Design and Development Lab		1.5	
<b>Total</b>		<b>12</b>	<b>6.5</b>	<b>18.5</b>

<b>Semester 07</b>				
<b>Code</b>	<b>Topics</b>	<b>Theory Credit</b>	<b>Lab Credit</b>	<b>Total</b>
CSE0611411	Operating Systems	3		
CSE0611412	Operating Systems Lab		1	
CSE0613414	Scientific Research & Methodologies Lab		1	
CSE0613416	Industrial Attachment		1	
CSE0613400	Thesis/CAPSTONE Project		4.5	
CSE***	Elective II	3		

CSE***	Elective II Lab		1	
CSE***	Specialization Course 1	3		
CSE***	Specialization Course 1 Lab		1	
<b>Total</b>		<b>9</b>	<b>9.5</b>	<b>18.5</b>

<b>Semester 08</b>				
<b>Code</b>	<b>Topics</b>	<b>Theory Credit</b>	<b>Lab Credit</b>	<b>Total</b>
CSE***	Elective I		1	
CSE***	Specialization Course 2	3		
CSE***	Specialization Course 2 Lab		1	
CSE***	Specialization Course 3	3		
CSE***	Specialization Course 3 Lab		1	
GED***	General Education (Any one)	2		
<b>Total</b>		<b>8</b>	<b>3</b>	<b>11</b>

<b>Total (All Semester)</b>		<b>107</b>	<b>37</b>	<b>144</b>
-----------------------------	--	------------	-----------	------------

<b>General Education Courses</b>				
<b>Code</b>	<b>Topics</b>	<b>Theory Credit</b>	<b>Lab Credit</b>	<b>Total</b>
GED0411311	Financial & Managerial Accounting	2		
GED0223421	Professional Ethics and Communications for Engineering	2		
GED0311313	Engineering Economics	2		
GED0413321	Industrial and Operation Management	2		
GED0421323	Business Law	2		

<b>Elective Courses</b>				
<b>Elective I (Any three Courses)</b>				
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
<b>Elective II(Any one Course with Lab)</b>			
CSE0612401	Internet of Things	3	1
CSE0612403	Foundation of Data Science	3	1
CSE0613405	Mobile Application Development	3	1
CSE0613407	Geographical Information Systems & Applications	3	1
CSE0612497	Graph Theory	3	1
<b>Specialization Groups (Any Three Courses)</b>			
A student will select a Specialization group. From that group s/he will choose three courses from the selected group.			
<b>Code</b>	<b>Topics</b>	<b>Theory Credit</b>	<b>Lab Credit</b>
<b>Intelligent Systems</b>			
CSE0611431	Machine Learning	3	1
CSE0611433	Pattern Recognition	3	1
CSE0611435	Computer Vision	3	1
CSE0611437	Digital Image Processing	3	1
CSE0612439	Information Retrieval	3	1
CSE0611451	Neural Networks	3	1
CSE0611453	Theory of Fuzzy Systems	3	1

CSE0612455	Data Mining & Warehouse	3	1
CSE0612457	Big Data Analytics	3	1
CSE0611459	Bioinformatics & Computational Biology	3	1

<b>Software Engineering</b>			
CSE0613441	Software Requirements Specification and Analysis	3	1
CSE0613443	Software Project Management	3	1
CSE0613445	Software Testing & Quality Assurance	3	1
CSE0613447	Software Security and Maintenance	3	1
CSE0612449	Enterprise Resource Planning & Content Management System	3	1
CSE0612495	Innovation Management and Entrepreneurship	3	1
<b>Networks &amp; Security</b>			
CSE0612461	Satellite Communications	3	1
CSE0612463	Telecommunication Systems Engineering	3	1
CSE0612465	Mobile & Wireless Networks	3	1
CSE0612467	Optical Fiber Communications	3	1
CSE0612469	Computer Data & Network Security	3	1

CSE0612471	Cloud Computing and Distributed System	3	1
CSE0612475	Cryptography	3	1
CSE0612477	Digital Signal Processing	3	1
CSE0612479	Network Operations and Management	3	1
<b>Systems and Hardware</b>			
CSE0611473	Real-time Control Systems	3	1
CSE0619481	Robotics	3	1
CSE0611483	Human Computer Interaction	3	1
CSE0611485	Embedded Systems	3	1
CSE0619487	VLSI	3	1