# **SUST CSE Curriculum (8 Semesters + Optional Courses)**

#### 1st Year: 1st Semester

Course Code	Course Title	Credits
CSE 133	Structured Programming Language	3.0
CSE 134	Structured Programming Language Lab	1.5
CSE 143	Discrete Mathematics	3.0
EEE 109D	Electrical Circuits	3.0
EEE 110D	Electrical Circuits Lab	1.5
MAT 101D	Coordinate Geometry And Linear Algebra	3.0
ENG 101D	Effective Communication in English	2.0
ENG 102D	English Language Lab 1	1.0
SSS 100D	History of the Emergence of Independent Bangladesh	3.0

#### 1st Year: 2nd Semester

Course Code	Course Title	Credits
CSE 135	Object Oriented Programming	3.0
CSE 136	Object Oriented Programming Lab	1.5
CSE 144	Digital Logic Design	3.0
CSE 145	Digital Logic Design Lab	1.5
MAT 102D	Differential and Integral Calculus	3.0
STA 101D	Statistics & Probability	3.0
ENG 103D	English Language Lab 2	1.0
SOC 101D	Sociology	3.0

#### 2nd Year: 1st Semester

Course Code	Course Title	Credits
CSE 211	Data Structures	3.0

CSE 212	Data Structures Lab	1.5
CSE 213	Algorithms	3.0
CSE 214	Algorithms Lab	1.5
CSE 215	Computer Architecture	3.0
MAT 201D	Ordinary and Partial Differential Equations	3.0
ACT 101D	Accounting and Management	3.0

#### 2nd Year: 2nd Semester

Course Code	Course Title	Credits
CSE 221	Database Management Systems	3.0
CSE 222	Database Management Systems Lab	1.5
CSE 223	Theory of Computation	3.0
CSE 224	Microprocessors and Assembly Language	3.0
CSE 225	Microprocessors and Assembly Language Lab	1.5
CSE 226	Software Engineering	3.0
MAT 202D	Numerical Methods	3.0
MAT 203D	Numerical Methods Lab	1.0

### 3rd Year: 1st Semester

Course Code	Course Title	Credits
CSE 311	Operating Systems	3.0
CSE 312	Operating Systems Lab	1.5
CSE 313	Computer Networks	3.0
CSE 314	Computer Networks Lab	1.5
CSE 315	Web Programming	1.5
CSE 316	Web Programming Lab	0.75
CSE 317	Artificial Intelligence	3.0

CSE 318	Artificial Intelligence Lab	1.5
EEE 209D	Electronic Devices and Circuits	3.0
EEE 210D	Electronic Devices and Circuits Lab	1.5

### 3rd Year: 2nd Semester

Course Code	Course Title	Credits
CSE 321	Machine Learning	3.0
CSE 322	Machine Learning Lab	1.5
CSE 323	Software Project I	1.5
CSE 324	Information System Analysis and Design	3.0
CSE 325	Computer Graphics	3.0
CSE 326	Computer Graphics Lab	1.5
CSE 327	Digital Signal Processing	3.0
CSE 328	Digital Signal Processing Lab	1.5
ECO 101D	Economics	3.0

#### 4th Year: 1st Semester

Course Code	Course Title	Credits
CSE 411	Research Methodology	3.0
CSE 412	Software Project II	1.5
CSE 413	Computer and Network Security	3.0
CSE 414	Computer and Network Security Lab	1.5
CSE 415	Data Mining	3.0
CSE 416	Data Mining Lab	1.5
CSE 417	Multimedia Systems	3.0
CSE 418	Multimedia Systems Lab	1.5

4th Year: 2nd Semester

Course Code	Course Title	Credits
CSE 421	Software Project III	3.0
CSE 422	Project/Thesis	6.0

# **Optional (Elective) Courses**

Course Code	Course Title	Credits
CSE 439	Compiler Construction	3.0
CSE 440	Compiler Construction Lab	1.5
CSE 453	Cloud Computing	3.0
CSE 454	Cloud Computing Lab	1.5
CSE 455	Advanced Database System	3.0
CSE 456	Advanced Database System Lab	1.5
CSE 457	Mobile & Wireless Communication	3.0
CSE 458	Mobile & Wireless Communication Lab	1.5
CSE 459	Advanced Data Structure & Algorithm	3.0
CSE 460	Advanced Data Structure & Algorithm Lab	1.5
CSE 463	Security Engineering	3.0
CSE 464	Security Engineering Lab	1.5
CSE 465	Internet of Things	3.0
CSE 466	Internet of Things Lab	1.5
CSE 467	VLSI Design	3.0
CSE 468	VLSI Design Lab	1.5
CSE 469	Bio-informatics	3.0
CSE 470	Bio-informatics Lab	1.5
CSE 471	Digital Image Processing	3.0
CSE 472	Digital Image Processing Lab	1.5
CSE 473	Natural Language Processing	3.0

CSE 474	Natural Language Processing Lab	1.5
CSE 477	Contemporary Course on CSE I	3.0
CSE 478	Lab on Contemporary Course on CSE I	1.5
CSE 485	Distributed & Parallel Computing	3.0
CSE 486	Distributed & Parallel Computing Lab	1.5
CSE 495	Human Computer Interaction	3.0
CSE 496	Human Computer Interaction Lab	1.5
CSE 497	Neural Network & Deep Learning	3.0
CSE 498	Neural Network & Deep Learning Lab	1.5