



**NPI University of Bangladesh**  
**Department of Computer Science and Engineering**  
**We Offer the Following Courses for B. Sc. in CSE (HSC Students)**

1 <sup>st</sup> Year 1 <sup>st</sup> Semester			3 <sup>rd</sup> Year 1 <sup>st</sup> Semester		
CSE 1001	Introduction to Computer Systems	1.50	CSE 3101	Mobile Application Development	3.00
CSE 1101	Structured Programming	3.00	CSE 3102	Mobile Application Development Laboratory	0.75
CSE 1102	Structured Programming Laboratory	1.50	CSE 3103	Operating Systems	3.00
EEE 1131	Basic Electrical Engineering	3.00	CSE 3104	Operating Systems Laboratory	1.50
EEE 1132	Basic Electrical Engineering Laboratory	0.75	CSE 3111	Computer Networks	3.00
PHY 1151	Physics	3.00	CSE 3112	Computer Networks Laboratory	1.50
PHY 1152	Physics Laboratory	0.75	CSE 3115	Software Engineering	3.00
MATH 1141	Differential and Integral Calculus	3.00	CSE 3116	Software Engineering Laboratory	1.50
HUM 1171	English and Human Communication	3.00	CSE 3107	Theory of Computation	3.00
HUM 1172	English Skills Laboratory	1.50	IPE 3171	Industrial Management	3.00
1 <sup>st</sup> Year 2 <sup>nd</sup> Semester			3 <sup>rd</sup> Year 2 <sup>nd</sup> Semester		
CSE 1205	Object Oriented Programming	3.00	CSE 3217	Information System Design	3.00
CSE 1206	Object Oriented Programming Laboratory	1.50	CSE 3218	Information System Design Laboratory	0.75
CSE 2101	Data Structures	3.00	CSE 3205	Applied Statistics and Queuing Theory	3.00
CSE 2102	Data Structures Laboratory	1.50	ETE 3231	Data Communication	3.00
CSE 1103	Discrete Mathematics	3.00	CSE 3237	Peripherals and Interfacing	3.00
EEE 1233	Analog Electronics	3.00	CSE 3238	Peripherals and Interfacing Laboratory	0.75
EEE 1234	Analog Electronics Laboratory	0.75	CSE 3209	Compiler Design	3.00
MATH 1243	Coordinate Geometry and Differential Equations	3.00	CSE 3210	Compiler Design Laboratory	0.75
ME 1251	Computer Aided Design Laboratory	1.50	CSE 3257	Big Data Analytics	3.00
2 <sup>nd</sup> Year 1 <sup>st</sup> Semester			4 <sup>th</sup> Year 1 <sup>st</sup> Semester		
CSE 2120	Advanced Programming	1.50	CSE 4100	System Development Project	1.50
CSE 2103	Algorithm Analysis and Design	3.00	CSE 4103	Artificial Intelligence	3.00
CSE 2104	Algorithm Analysis and Design Laboratory	0.75	CSE 4104	Artificial Intelligence Laboratory	0.75
CSE 2115	Microprocessors, Microcontrollers and Embedded Systems	3.00	CSE 4115	Computer Graphics	3.00
CSE 2116	Microprocessors, Microcontrollers and Embedded Systems Laboratory	1.50	CSE 4116	Computer Graphics Laboratory	0.75
CSE 1115	Digital Logic Design	3.00	CSE 4200	Project / Thesis	3.00
CSE 1116	Digital Logic Design Laboratory	1.50	CSE 4117	Digital Image Processing and Computer Vision	3.00
MATH 2141	Fourier Analysis and Linear Algebra	3.00	CSE 4118	Digital Image Processing and Computer Vision Laboratory	0.75
HUM 2171	Economics and Accounting	3.00	CSE 4111	Computer and Network Security	3.00
			CSE 4112	Computer and Network Security Laboratory	0.75
2 <sup>nd</sup> Year 2 <sup>nd</sup> Semester			4 <sup>th</sup> Year 2 <sup>nd</sup> Semester		
CSE 2230	Web Programming	1.50	CSE 4200	Project / Thesis	3.00
CSE 2205	Database Systems	3.00	CSE 4281	Human Computer Interaction	3.00
CSE 2206	Database Systems Laboratory	1.50	CSE 4207	Machine Learning	3.00
CSE 2207	Numerical Methods	2.00	CSE 4208	Machine Learning Laboratory	0.75
CSE 2208	Numerical Methods Laboratory	0.75	CSE 4243	System Automation	3.00
CSE 2213	Computer Architecture	3.00	CSE 4244	System Automation Laboratory	0.75
CSE 2231	Digital Electronics	3.00	CSE 4220	Technical Writing and Seminar	0.75
CSE 2232	Digital Electronics Laboratory	1.50	HUM 3177	Entrepreneurship for IT Business	2.00
MATH 2243	Complex Variable, Vector Analysis and Statistics	3.00	GEN 303	Bangladesh Studies	3.00

**Total Course and Credits in summary:**

Semester	No. of Course with Lab (Theory+Practicle=Total)	Total
1 <sup>st</sup> Year 1 <sup>st</sup> Semester	5+5=10	21
1 <sup>st</sup> Year 2 <sup>nd</sup> Semester	5+4=9	20.25
2 <sup>nd</sup> Year 1 <sup>st</sup> Semester	5+4=9	20.25
2 <sup>nd</sup> Year 2 <sup>nd</sup> Semester	5+4=9	19.25
3 <sup>rd</sup> Year 1 <sup>st</sup> Semester	6+3=9	23.25
3 <sup>rd</sup> Year 2 <sup>nd</sup> Semester	5+4=9	20.25
4 <sup>th</sup> Year 1 <sup>st</sup> Semester	5+4=10	19.5
4 <sup>th</sup> Year 2 <sup>nd</sup> Semester	4+4=8	19.25
<b>Total Credits: 163</b>		

Head (act.), Dept. of CSE, NPIUB.