

Leading University, Sylhet
Curriculum for B.Sc(Hons.) in Computer Science & Engineering Program

Requirements for B. Sc degree in Computer Science & Engineering

General Education Courses (GED)	30 Credits
Degree Core Courses	80 Credits
Concentration and Elective	18 Credits
Project/ Dissertation	<u>04 Credits</u>
	Total=132 Credits

G. Ed Courses (30 Credits)

Required Courses

<u>Code</u>	<u>Course Title</u>	<u>Credit Hours</u>
ELA – 099	Remedial English	0
UGE – 100	Bangladesh Studies	3
BuA – 100	Introduction to Business	3
MAT – 106	Calculus and Differential Equation	3
MAT – 107	Mathematical Methods (Prerequisite MAT-106)	3
ELA – 101	English Writing & Listening Skills (Prerequisite ENG-099)	3
ELA – 102	English Reading & Speaking Skills (Prerequisite ENG- 101)	3
STA – 201	Statistics and Probability (Prerequisite MAT-106)	3

Other G. Ed Courses (Any three)

MGT-112	Principles of Management	3
UGE-202	Introduction to Public Administration	3
UGE-203	Introduction to Philosophy	3
UGE-211	Introduction to Psychology	3
MGT-316	Organizational Behavior	3
MKT-216	Marketing Management	3

Core Courses (80 Credits)

<u>Code</u>	<u>Course Title</u>	<u>Credit Hours</u>
CSE-103	Computer Fundamentals	3
CSE-104	Computer Fundamentals Sessional	1
CSE-105	Structured Programming Language (C) (Prerequisite CSE-103,CSE-104)	3
CSE-106	Structured Programming Language Sessional (C)	1
CSE-107	Electrical Circuits	3
CSE-108	Electrical Circuits Sessional	1
CSE-109	Discrete Mathematics (Prerequisite CSE-103,MAT-107)	3
CSE-110	Data Structures and Algorithms (Prerequisite CSE-103,CSE-109,CSE-105)	3
CSE-111	Data Structures and Algorithms Sessional	1
CSE-201	Electronic Devices And Circuits (Prerequisite CSE-107)	3
CSE-202	Electronic Devices & Circuits Sessional	1
CSE-203	Computer Hardware (Prerequisite CSE-103)	3
CSE-204	Computer Hardware Sessional	1
CSE-205	Object Oriented Programming – I (C++) (Prerequisite CSE-201,CSE-105)	3
CSE-206	Object Oriented Programming – I Sessional (C++)	1
CSE-207	Digital Electronics (Prerequisite CSE-103,CSE-107, CSE-110)	3
CSE-208	Digital Electronics Sessional	1
CSE-209	Data Communications (Prerequisite CSE-207)	3
CSE-210	Microprocessor and Assembly Language (Prerequisite CSE-103, CSE-105, CSE-106)	3
CSE-211	Microprocessor and Assembly Language Sessional	1
CSE-231	Analytical Geometry	3
CSE 237	Numerical Methods	3
CSE-301	Database Management Systems (DBMS) (Prerequisite CSE-201)	3
CSE 302	Database Management Systems Sessional (DBMS)	1
CSE-303	Operating Systems (Prerequisite CSE-210)	3
CSE-304	Operating Systems Sessional	1
CSE-305	Theory of Computation(Prerequisite CSE-109)	3
CSE-306	Computer Network (Prerequisite CSE-203,CSE-209)	3
CSE-307	Computer Network Sessional	1
CSE-308	System Analysis and Design (Prerequisite CSE-301)	3
CSE-310	Object Oriented Programming–II (Java)(Prerequisite CSE-205,CSE- 206)	3
CSE-311	Object Oriented Programming–II Sessional (Java)	1
CSE-401	Computer Graphics (Prerequisite CSE-105,MAT-201)	3
CSE-402	Computer Graphics Sessional	1
CSE-403	Software Engineering (Prerequisite CSE-305,CSE-308,STA-201)	3
CSE-404	Computer Organization and Architecture (Prerequisite CSE-210,CSE-302)	3

Concentration and Elective Courses (18 credits)

Required Courses:

<u>Code</u>	<u>Course Title</u>	<u>Credit Hours</u>
CSE-408	Management Information System (Prerequisite CSE,103,CSE-308)	3
CSE-411	Compiler Design (Prerequisite CSE-109,CSE-304)	3

Project / Dissertation 4

(In the next academic council meeting, a course code for Project / Dissertation will be proposed as CSE 400)

Any four of the following courses:

CSE-405	Advanced Operating System (Prerequisite CSE-302)	3
CSE-406	Simulation and Modeling (Prerequisite CSE-401)	3
CSE-407	Satellite and Telecommunications	3
CSE-409	Artificial Intelligence (Prerequisite CSE-109,CSE-105)	3
CSE-410	VLSI Design (Prerequisite CSE-207,CSE-110)	3
CSE-412	Image Processing and Computer Vision	3
CSE-413	Distributed Database and Computing (Prerequisite CSE-309)	3
CSE-414	Web Development (prerequisite CSE-306, CSE-205)	3

Minor Courses offered to other Departments:

CSE 102	Introduction to Computer Science
CSE 219	Internet and E-Commerce
CSE 112	Introduction to Information Technology
CSE 504	E-Commerce (for MBA)
