Department of Computer Science and Engineering
School of Engineering and Computer Science
Brac University

Program Structure
Bachelor of Science in Computer Science (BS CS)
(Effective for students intake in Summer 2018 and onward)

TOTAL CREDIT HOURS		**124**
Category	*Course Code and Name*	*Credit Hours*
UNIVERSITY CORE *(General EDucation)*		**39**
Writing		**6**
	ENG 101 English Fundamentals	3
	ENG 102 English Composition	3
Arts, Humanities, Social Sciences		**21**
	BNG 103 Bangla Language & Literature	3
	HUM 103 Ethics and Culture	3
	EMB101 / DEV 101 Emergence of Bangladesh / Bangladesh Studies	3
	BUS201 Business and Human Communication	3
	Any two courses from the following: HUM101, ECO101, ANT101, HST102, SOC201	6
	Any one courses from the following: SOC101/ PSY101/ POL101/	3
Mathematics, Science		**6**
	MAT 110 Mathematics I	3
	PHY 111 Principles of Physics I	3
NON-MAJOR (minimum 2 courses - 6 credits)	Student may take any non-overlapping course from other departments as non-major course. Some of the suggested non-major courses are listed below: ECO101 , ECO102 , BUS101 , BCH101 , BIO101, BTE101, CHE101, CHE110, CHN101, FRN101, ANT101, GEO101, HST102, HUM101, LAW101, POL101, PSY101, SOC101, SOC201, ENV101/ ENV103, HUM111/HST407	**6**
SCHOOL CORE (Mathematics, Science)		**15**
	MAT 110 Mathematics I *	-
	MAT 120 Mathematics II	3
	MAT 215 Mathematics III	3
	MAT 216 Mathematics IV	3
	PHY 111 Principles of Physics I *	-
	PHY 112 Principles of Physics II	3
	STA 201 Elements of Statistics and Probability	3
	**** Credits counted toward University Core (GED)***	
PROGRAM CORE		**48**
	CSE 110 Programming Language I	3
	CSE 111 Programming Language II	3
	CSE 220 Data Structure	3
	CSE 221 Algorithm	3
	CSE 230 Discrete Mathematics	3
	CSE 260 Digital Logic Design	3
	CSE 321 Operating Systems	3
	CSE 330 Numerical Method	3
	CSE 331 Automata and Computability	3
	CSE 340 Computer Architecture	3
	CSE 370 Database Systems	3
	CSE 420 Compiler Design	3
	CSE 421 Computer Networks	3

CSE 422	Artifical Intelligence	3
CSE 423	Computer Graphics	3
CSE 470	Software Engineering	3
FINAL-YEAR PROJECT/INTERNSHIP/THESIS	**CSE 400**	**4**
PROGRAM ELECTIVE		**18**

Minimum one course (3 credits) from the following CSE Elective list. The remaining five (5) courses (15 credits) preferrably from the following CSE Elective list or from any other department as approved by advisor.

CSE 250	Circuits and Electronics	3
CSE 251	Electronic Devices and Circuits	3
CSE 310	Object Oriented Programming	3
CSE 320	Data Communication	3
CSE 341	Microprocessor	3
CSE 342	Computer Systems engineering	3
CSE 350	Digital Electronics and Pulse Techniques	3
CSE 360	Computer Interface	3
CSE 390	Technical Communication	3
CSE 391	Programming for the Internet	3
CSE 392	Signals and Systems	3
CSE 410	Advance Programming In UNIX	3
CSE 419	Programming Languages	3
CSE 424	Pattern Recognition	3
CSE 425	Neural Networks	3
CSE 426	Basic Graph Theory	3
CSE 427	Machine Learning	3
CSE 428	Image Processing	3
CSE 429	Basic Multimedia Theory	3
CSE 430	Digital Signal Processing	3
CSE 431	Natural Language Processing	3
CSE 432	Speech Recognition and Synthesis	3
CSE 460	VLSI Design	3
CSE 461	Digital System Design	3
CSE 462	Fault Tolerant Systems	3
CSE 471	System Analysis and Design	3
CSE 472	Human Computer Interface	3
CSE 473	Decision Support System	3
CSE 474	Simulation and Modeling	3
CSE 490	WAN Routing and Technologies (Special Topics)	3
CSE 490	Special Topics	3
CSE 491	Independent Study	3