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

Program Structure

Bachelor of Science in Computer Science and Engineering (BS CSE)

(Effective for students intake in Spring 2018)

TOTAL CREDIT HOURS			**136**
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			**18**
	HUM 103	Ethics and Culture	3
	EMB 101/ DEV 101	Emergence of Bangladesh/ Bangladesh Studies	3
	BUS201	Business and Human Communication	3
	Any two (2) courses (6 credits) from the following courses: HUM101, ECO101, ANT101, HST102, SOC201		6
	Any one (1) course (3 credits) 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 3 courses - 9 credits) Student may take any non-overlapping courses from other departments as non-major course. Some of the suggested non-major courses are:			**9**
	ECO101 , ECO102 , BUS101 , BCH101 , BIO101, BTE101, CHE101, CHE110, CHN101, FRN101, ANT101, GEO101, HST102, HUM101, LAW101, POL101, PSY101, SOC101, SOC201, ENV101/ ENV103, HUM111/HST407		
SCHOOL CORE			**15**
	MAT 110	Mathematics I *	3
	MAT 120	Mathematics II	3
	MAT 215	Mathematics III	3
	MAT 216	Mathematics IV	3
	PHY 111	Principles of Physics I *	3
	PHY 112	Principles of Physics II	3
	STA 201	Elements of Statistics and Probability	3
	**** Credits counted toward University Core (GED)***		
CSE PROGRAM CORE			**75**
	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 250	Circuits and Electronics	3
	CSE 251	Electronic Devices and Circuits	3
	CSE 260	Digital Logic Design	3
	CSE 320	Data Communication	3
	CSE 321	Operating Systems	3
	CSE 330	Numerical Method	3
	CSE 331	Automata and Computability	3
	CSE 340	Computer Architecture	3
	CSE 341	Microprocessor	3
	CSE 350	Digital Electronics and Pulse Techniques	3
	CSE 360	Computer Interface	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 460	VLSI Design	3
	CSE 461	Digital System Design	3
	CSE 470	Software Engineering	3
	CSE 471	System Analysis and Design	3
FINAL-YEAR PROJECT/INTERNSHIP/THESIS		**CSE400**	**4**
PROGRAM ELECTIVE	- Minimum one (1) course (3 credits) from the following:		**3**
	CSE 310	Object Oriented Programming	3
	CSE 342	Computer Systems engineering	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 462	Fault Tolerant Systems	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