



School of Engineering & Technology

Department of Computer Application

BCA

Semester I

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit C	Mark	
					L	T	P		CA	FA
T	1	DSCC	BCA23101T	Introduction to Programming	3	0	0	3	40	60
T	2	DSCC	BCA23102T	Digital Logic	3	1	0	4	40	60
T	3	DSCC	BCA23103T	Introduction to Web Technology	2	1	0	3	40	60
T	4	MDC		MDC-I	3	0	0	3	40	60
T	5	AEC		AECC – I	2	0	0	2	40	60
T	6	SEC		SEC – I	3	0	0	3	40	60
T	7	VAC		VAC – I	2	0	0	2	40	60
P	8	DSCC	BCA23101P	Laboratory-I (C Programming)	0	0	2	1	40	60
P	9	DSCC	BCA23103P	Laboratory-I (Web Technology)	0	0	2	1	40	60
Total					17	2	4	22	360	540

Semester II

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit C	Mark	
					L	T	P		CA	FA
T	1	DSCC	BCA23105T	Data structure and algorithms	3	0	0	3	40	60
T	2	DSCC	BCA23106T	Software Engineering	3	1	0	4	40	60
T	3	DSCC	BCA23107T	Fundamentals of Data Science	2	1	0	3	40	60
T	4	MDC		MDC-II	3	0	0	3	40	60
T	5	AEC		AECC –II	2	0	0	2	40	60
T	6	SEC		SEC – II	3	0	0	3	40	60
T	7	VAC		VAC – II	2	0	0	2	40	60
P	8	DSCC	BCA23105P	Laboratory-II(Data Structure)	0	0	2	1	40	60
P	9	DSCC	BCA23107P	Laboratory-II(Data Science using python)	0	0	2	1	40	60
Total					17	2	6	22	360	540

- Exit option with **CERTIFICATION in Computer Applications** after successfully undertaking Vocational Training of 8 weeks (4 credits).



GIRIJANANDA CHOWDHURY UNIVERSITY

Hathkhowapara, Azara, Guwahati - 781017, Assam

Semester III

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit	Mark	
					L	T	P		CA	FA
T	1	DSCC	BCA23201T	Object Oriented Programming	3	0	0	3	40	60
T	2	DSCC	BCA23202T	Database Management System	3	0	0	3	40	60
T	3	DSCC	BCA23203T	Operating Systems	3	1	0	4	40	60
T	4	AECC		AECC – III	2	0	0	2	40	60
T	5	SEC		SEC – III	3	0	0	3	40	60
T	6	MDC		MDC-III	3	0	0	3	40	60
P	7	DSCC	BCA23201P	Laboratory-III((Java)	0	0	4	2	40	60
P	8	DSCC	BCA23202P	Laboratory-III (DBMS)	0	0	2	1	40	60
Total					17	1	6	20	320	480

Semester IV

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit	Mark	
					L	T	P		CA	FA
T	1	DSCC	BCA23205T	Artificial Intelligence	3	0	0	3	40	60
T	2	DSCC	BCA23206T	Computer Architecture	3	1	0	4	40	60
T	3	DSE	BCA2320XT	Elective-I	3	1	0	4	40	60
T	4	DSCC	BCA23209T	Mathematics	3	0	0	3	40	60
T	5	DSCC	BCA23210T	Mobile Application Development	3	0	0	3	40	60
P	6	DSCC	BCA23205P	Laboratory-IV(OS Lab)	0	0	4	2	40	60
P	7	DSCC	BCA23207P / BCA23208P	Laboratory-IV (Advanced Web Technology) / Laboratory-IV (Machine Learning)	0	0	2	1	40	60
Total					15	3	4	20	280	420

ELECTIVE-I COURSES

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name
T	3	DSE	BCA23207T	Advanced Web Technology
T	3	DSE	BCA23208T	Machine Learning

Exit option with DIPLOMA in Computer Applications after successfully undertaking Vocational Training of 8 weeks (4 credits).



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Semester V

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit	Mark	
					L	T	P		CA	FA
T	1	DSCC	BCA23301T	Computer Network	3	1	0	4	40	60
T	2	DSCC	BCA23302T	Design and analysis of Algorithms	3	1	0	4	40	60
T	3	DSE	BCA2330XT	Elective-II	3	1	0	4	40	60
T	4	AECC		AECC-IV	3	0	0	3	40	60
P	5	VAC		VAC-III	0	0	6	3	40	60
P	6	DSCC	BCA23301P	Minor Project	0	0	4	2	40	60
P	7	DSCC	BCA23303P / BCA23304P	Laboratory-V (Web security) /Laboratory-V (Deep Learning)	0	0	4	2	40	60
Total					15	3	10	20	280	420

ELECTIVE-II COURSES

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name
T	3	DSE	BCA23303T	Cyber Security
T	3	DSE	BCA23304T	Deep Learning

Semester VI

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit	Mark	
					L	T	P		CA	FA
T	1	DSCC	BCA23306T	Cloud Computing	3	1	0	4	40	60
T	2	DSCC	BCA23307T/ BCA23308T	Elective-III	3	1	0	4	40	60
T	3	DSE	BCA23309T BCA23310T	Elective-IV	3	1	0	4	40	60
P	4	DSCC	BCA23307P / BCA23308P	Laboratory-VI (Web optimisation) Laboratory -VI(Data mining)	0	0	4	2	40	60
P	5	DSCC	BCA23311R	System Dev Project	0	0	0	6	40	60
Total					9	3	4	20	200	300

ELECTIVE-III COURSES

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name
T	3	DSE	BCA23307T	Web Performance optimisation
T	3	DSE	BCA23308T	Data Mining

ELECTIVE-IV COURSES

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name
T	3	DSE	BCA23309T	Cyber Crime and Laws and malware Analysis
T	3	DSE	BCA23310T	Natural Language Processing

After completion students will be offered Bachelor in Computer Applications with specialization in Data Science / Cyber security.