

BCA

(Bachelor of Computer Application) With Specialization in Cyber Security

Syllabus

2026-2029



Department of Computer Applications

School of Engineering & Technology, Sushant University

Gurugram Sector 55, 122003

www.sushantuniversity.edu.in

BCA (CYBER SECURITY)

Syllabus (1st Year/1st & 2nd Semester)

Year	Semester-1							
First Year	Course Code		Course Title	L	T	P	H	Credit
	SU131	AEC	Communication in English	1	0	2	3	2
	SE143	Minor	Introduction to Data Analytics	2	0	2	4	3
	SE151	VAC	Universal Human Values	2	0	0	2	2
	CA101	DSC	Fundamentals of Programming	2	0	4	6	4
		MDC	Multidisciplinary Course -1					3
	CA105	SEC	IT Workshop	0	0	2	2	1
	CA121	DSC	Computer Fundamentals	2	0	2	4	3
	Total Credits							18

Year	Semester-2							
First Year	Course Code		Course Title	L	T	P	H	Credit
	SU132	VAC	Environmental Studies	2	0	0	2	2
	CA142	DSC	Web Development-1	1	0	4	5	3
	CA154	AEC	Entrepreneurship	2	0	0	2	2
	CA152	DSC	Mathematics-I	3	0	2	5	4
	TBA	DSC	Data Structures	3	0	2	5	4
	TBA	Minor	Python for Problem Solving	2	0	4	6	4
	SE156	VAC	Sports and Yoga or NSS/NCC	0	0	2	2	1
	TBA	SEC	Design Thinking	1	0	2	3	2
		MDC	Multidisciplinary Course -2					3
Total Credits							25	

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Syllabus (2nd Year/3rd & 4th Semester)

		Semester-3						
Second Year	Course Code		Course Title	L	T	P	H	Credit
	CA153	AEC	Constitution of India	1	0	0	1	1
	CA241	DSC	Mathematics-II	3	0	2	5	4
	TBA	DSC	Statistics using Python	2	0	2	4	3
	CA210	DSC	Web Development-2	1	0	4	5	3
	CA205	DSC	Introduction to Database Systems	3	0	2	5	4
		MDC	Multidisciplinary Course -3					3
		Minor	Minor-3	2	0	2	4	3
	Total Credits							

		Semester-4						
Second Year	Course Code		Course Title	L	T	P	H	Credit
	CA234	SEC	Professional Etiquettes	2	0	0	2	2
	CA204	DSC	Fundamentals of Computer Networks	3	0	2	5	4
	CA206	DSC	Operating Systems	3	0	2	5	4
	CA208	DSC	Object Oriented Programming	2	0	4	6	4
	CA203	DSC	Computer Architecture	3	0	0	3	3
		Minor	Minor-4	2	0	2	4	3
	Total Credits							
Summer Internship * - 8 weeks								

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Syllabus (3rd Year/5th & 6th Semester)

		Semester-5						
		Course Code		Course Title	L	T	P	H
Third year	CA215	DSC	Software Engineering	2	0	2	4	3
		Project	Minor Project	0	0	12	12	6
	CA405	DSC	Artificial Intelligence	3	0	2	5	4
		Minor	Minor-5	2	0	2	4	3
	CA375	INT	Internship	0	0	8	8	4
	Total Credits							
TOTAL CREDITS								

		Semester-6						
		Course Code		Course Title	L	T	P	H
Third year	CA302	Minor	Blockchain Technology	3	0	2	5	4
		Project	Major Project	0	0	20	20	10
		Minor	Minor-6	2	0	2	4	3
		Minor	Minor-7	2	0	2	4	3
	Total Credits							

Total no. of credit – 124

L = Lecture

T = Tutorial

P = Practical

H = Hours

C = Credits

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Minor Subject List

MINORS LIST BCA											
S.NO	Year	Semester	Elective	Specialisation	Subject Code	Subject Name	L	T	P	Credits	
1	I	I	Minor-1	CYBER	SE143	Introduction to Data Analytics	2	0	2	3	
2	I	II	Minor-2	CYBER	TBA	Python for Problem Solving	2	0	4	4	
3	II	III	Minor-3	CYBER	CA123	Fundamentals of Cyber Security	2	0	2	3	
4	II	IV	Minor-4	CYBER	CA221	Fundamentals of Cloud	2	0	2	3	
5	III	V	Minor-5	CYBER	CA225	Cloud storage and virtualization	2	0	2	3	
6	III	VI	Minor-6	CYBER	CA328	Web Security	2	0	2	3	
7	III	VI	Minor-7	CYBER	CA304	Cryptography	2	0	2	3	
8	III	VI	Minor-8	CYBER	CA302	Blockchain Technology	3	0	2	4	

DSC - Discipline Specific Course

AEC - Ability Enhancement Course

SEC - Skill Enhancement Course

VAC - Value Added Course

MDC - Multidisciplinary Course

INT - Internship

Minor - Minor