

# BCA

## (Bachelor of Computer Application) With Specialization in (Cyber Security)

### Syllabus

**2026-2029**



SCHOOL OF  
**ENGINEERING & TECHNOLOGY**  
SUSHANT UNIVERSITY

Department of Computer Applications

School of Engineering & Technology, Sushant University

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# BCA (CYBER SECURITY)

## Syllabus (1<sup>st</sup> Year\_1<sup>st</sup> & 2<sup>nd</sup> Semester)

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

Year	Semester-2						
First Year	Course Code	Course Title	L	T	P	H	Credit
	SU132	Environmental Studies	2	0	0	2	2
	CA142	Web Development-1	1	0	4	5	3
	CA154	Entrepreneurship	2	0	0	2	2
	CA152	Mathematics-I	3	0	2	5	4
	CA102	Data Structures	3	0	2	5	4
	CA104	Python for Problem Solving	2	0	4	6	4
	SE156	Sports and Yoga or NSS/NCC	0	0	2	2	1
	CA144	Design Thinking	1	0	2	3	2
		<b>Multidisciplinary Course -2</b>					<b>3</b>
		<b>Total Credits</b>					<b>25</b>



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## Syllabus (2<sup>nd</sup> Year\_ 3<sup>rd</sup> & 4<sup>th</sup> Semester)

		Semester-3					
Second Year	Course Code	Course Title	L	T	P	H	Credit
	CA153	Constitution of India	1	0	0	1	1
	CA241	Mathematics-II	3	0	2	5	4
	CA243	Statistics using Python	2	0	2	4	3
	CA210	Web Development-2	1	0	4	5	3
	CA205	Introduction to Database Systems	3	0	2	5	4
		<b>Multidisciplinary Course -3</b>					<b>3</b>
		<b>Specialization Elective-I</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>3</b>
		<b>Total Credits</b>					<b>21</b>

		Semester-4					
Second Year	Course Code	Course Title	L	T	P	H	Credit
	CA234	Professional Etiquettes	2	0	0	2	2
	CA204	Fundamentals of Computer Networks	3	0	2	5	4
	CA206	Operating Systems	3	0	2	5	4
	CA208	Object Oriented Programming	2	0	4	6	4
	CA203	Computer Architecture	3	0	0	3	3
		<b>Specialization Elective-II</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>3</b>
		<b>Total Credits</b>					<b>20</b>
		<b>Summer Internship * - 8 weeks</b>					

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## Syllabus (3<sup>rd</sup> Year\_5<sup>th</sup> & 6<sup>th</sup> Semester)

Third year	Semester-5						
	Course Code	Course Title	L	T	P	H	Credit
	CA215	Software Engineering	2	0	2	4	3
	CA495	Minor Project	0	0	14	14	7
	CA405	Artificial Intelligence	3	0	2	5	4
		Specialization Elective-III	2	0	2	4	3
	CA375	Internship	0	0	4	4	2
	<b>Total Credits</b>						<b>19</b>

Third year	Semester-6						
	Course Code	Course Title	L	T	P	H	Credit
	CA302	Blockchain Technology	3	0	2	5	4
	CA398	Major Project	0	0	24	24	12
		Specialization Elective-IV	2	0	2	4	3
		Specialization Elective-V	2	0	2	4	3
	<b>Total Credits</b>						<b>22</b>

Total no. of credit – 125

L = Lecture

T = Tutorial

P = Practical

H = Hours

C = Credits

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## Syllabus (Elective Subjects)

ELECTIVES LIST BCA									
S.NO	Year	Semester	Elective	Specialisation	Subject Name	L	T	P	Credits
1	II	III	Specialization Elective-I	CYBER	Fundamentals of Cyber Security	2	0	2	3
2	II	IV	Specialization Elective-II	CYBER	Fundamentals of Cloud	2	0	2	3
3	III	V	Specialization Elective-III	CYBER	Cloud storage and virtualization	2	0	2	3
4	III	VI	Specialization Elective-IV	CYBER	Web Security	2	0	2	3
5	III	VI	Specialization Elective-V	CYBER	Cryptography	2	0	2	3

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