

Symbiosis Institute of Computer Studies and Research, Pune
Bachelor of Computer Applications
Programme Structure 2019-22

1.	OBJECTIVE	BCA offers the prequalification for professionals heading for smart career in the IT field, which measures up to international standards. On completing this course one can do higher studies such as MCA, MBA etc., in any UGC recognized universities or in any other reputed institution in India or abroad.				
2.	DURATION (IN MONTHS)	36 (Full Time)				
3.	INTAKE	60				
4.	RESERVATION	I. Within the sanctioned intake	a) SC (In Percentage)	b) ST (In Percentage)	c) Differently abled (In Percentage)	d) Defence (In Percentage)
			15	7.5	3	5
		II. Over and above the sanctioned intake	a) Kashmiri Migrants (In Seats)		b) International Students (In Percentage)	
			2		15	
5.	ELIGIBILITY	Candidate should have passed Standard XII (10+2) or equivalent government approved diploma in Engineering/ Technology from any recognized Board with a minimum of 50% marks (45% for SC/ST). A candidate who has appeared for his/her Standard XII (10+2) or equivalent government approved diploma in Engineering/ Technology examination can apply. However, his/ her admission will be subject to obtaining a minimum of 50% marks (45% for SC/ST) A candidate who has completed qualifying qualification from any Foreign Board /University must obtain an equivalence certificate from Association of Indian Universities (AIU).				
6.	SELECTION PROCEDURE	Symbiosis Entrance Test, Personal Interaction and Writing Ability Test (PI-WAT)				
7.	MEDIUM OF INSTRUCTION	English				
8.	PROGRAMME PATTERN	Semester				
9.	COURSE SPECIALIZATION	& As per Annexure A				
10.	FEE		Academic Fee p.a	Institute Deposit	Total	
		Indian Students	155000	10000	165000	
		International Students (USD equivalent to INR)	235000	10000	245000	
11.	ASSESSMENT	All internal courses will have 100% component as internal evaluation at the institute level. All external courses will have 40% internal component and 60%				

		external component [University] examination.
12.	STANDARD PASSING	OF The assessment of students for each examination is done, based on relative performance. Maximum Grade Point (GP) is 10 corresponding to O (Outstanding). For all courses, a student is required to pass both internal and external examination separately with a minimum Grade Point of 4 corresponding to Grade P. Students securing less than 40% absolute marks in each head of passing will be declared FAIL. The University awards a degree to the student who has achieved a minimum CGPA of 4 out of maximum of 10 CGPA for the programme.
13.	AWARD OF DEGREE/ DIPLOMA/ CERTIFICATE	Bachelor of Computer Applications will be awarded at the end of semester VI examination by taking into consideration the performance of all semester examinations after obtaining minimum 4.00 CGPA out of 10 CGPA.

14. NATURE WISE DISTRIBUTION OF CREDITS

Semester	Generic Core	Generic Elective	Specialization Core	Specialization Elective	Open Elective	Audit	Total
1	18	0	0	0	0	1*	18
2	22	0	0	0	0	0	22
3	8	12	0	0	0	0	20
4	14	14	0	0	0	0	28
5	4	12	0	0	0	0	16
6	0	16	0	0	0	0	16
Total	66	54	0	0	0	0	120

* Satisfactory completion of the letter grade course 'Integrated Disaster Management' is mandatory for award of degree.

Programme Structure is approved by the Academic Council subject to its norms & conditions. Any provision in the Programme Structure which violates the basic rules & regulations is deemed to be termed "Null & Void".

Head-Academics

THIS IS SYSTEM GENERATED DOCUMENT AND REQUIRES NO SIGNATURE.

Symbiosis Institute of Computer Studies and Research, Pune
Bachelor of Computer Applications
Programme Structure 2019-22

Annexure A

Catalog Course Code	Course Code	Course Title	Specialization	Credit	Internal Marks	External Marks	Total Marks
Semester : 1							
Generic Core Courses							
T3586	030121101	Web Technologies		4	100	0	100
T3593	030121102	Computational Thinking		4	40	60	100
T2495	030121103	Business Communication		2	50	0	50
T3322	030121104	Elements of Mathematics		2	20	30	50
T3244	030121105	Introduction to Database Management System		2	20	30	50
T3213	030121106	Introduction to Operating System		2	20	30	50
T3198	030121107	Introduction to Python		2	20	30	50
T4005	030121108	Integrated Disaster Management *		0	0	0	Letter Grade
Total				18	270	180	450
Semester : 2							
Generic Core Courses							
T3594	030121201	Digital Systems and Computer Organization		4	40	60	100
T3610	030121202	Applications of Spreadsheets in Business		4	100	0	100
T3206	030121203	Advanced Programming in Python		2	20	30	50
T3209	030121204	Data Structures		2	20	30	50
T3224	030121205	Network Essentials		2	20	30	50
T3205	030121206	Web Development using CMS		2	50	0	50
F0002	030121207	Flexi-Credit Course		2	50	0	50
T3605	030121208	Elements of System and Software Development		2	20	30	50
T3609	030121209	Structured Query Language		2	20	30	50
T2883	030121210	Core Environmental Studies *		0	0	0	Letter Grade
Total				22	340	210	550
Semester : 3							
Generic Core Courses							
T3202	030121301	Object Oriented Programming		4	40	60	100
T3595	030121302	Design and Implementation of Algorithms		4	40	60	100
Total				8	80	120	200
Generic Elective Courses Group							
T3237	030121303	Foundations of Data Warehousing and Data Mining		4	40	60	100
T3221	030121304	Introduction to Cloud Computing		4	40	60	100
T3201	030121305	Mobile Programming		4	40	60	100
T3486	030121306	Network Infrastructure Essential		4	40	60	100
TE7019	030121307	Big Data Analytics		4	40	60	100
T3587	030121308	Advance Web Scripting		4	40	60	100
T3596	030121309	Real Time Operating System		4	40	60	100
T3606	030121310	Software Engineering Practices		4	40	60	100
Total Required Credits				12	120	180	300
Semester : 4							
Generic Core Courses							

Symbiosis Institute of Computer Studies and Research, Pune
Bachelor of Computer Applications
Programme Structure 2019-22

Annexure A

Catalog Course Code	Course Code	Course Title	Specialization	Credit	Internal Marks	External Marks	Total Marks
T8000	030121401	Service Learning		4	100	0	100
T3258	030121402	Current Trends and Practices in IT		3	75	0	75
T3803	030121403	Project		3	75	0	75
T3371	030121404	Introduction to Java Enterprise Framework		2	20	30	50
F0002	030121405	Flexi-Credit Course		2	50	0	50
Total				14	320	30	350
Generic Elective Courses Group							
T7527	030121406	Internet of Things		4	40	60	100
T3487	030121407	Network Security Essentials		4	40	60	100
T3204	030121408	Server Side Web Technology		4	40	60	100
TE7023	030121409	Machine learning		4	40	60	100
T3589	030121410	IoT Application Development		4	40	60	100
T3599	030121411	Cloud Application Development		4	40	60	100
T3601	030121412	Network Administration		4	40	60	100
T3607	030121413	Software Project Practices		4	40	60	100
Total Required Credits				12	120	180	300
Generic Elective Courses Group							
T6096	030121414	Creative Writing		2	50	0	50
T6181	030121415	Understanding Cinema		2	50	0	50
T6182	030121416	Appreciating Cinema		2	50	0	50
T6246	030121417	Music in Media I		2	50	0	50
T6255	030121418	Introduction to Theatre		2	50	0	50
T6274	030121419	Foundations of Ethics		2	50	0	50
T6334	030121420	Basic Sociology		2	50	0	50
T6307	030121421	Basic Psychology		2	50	0	50
Total Required Credits				2	50	0	50
Semester : 5							
Generic Core Courses							
T1234	030121501	Information Technology and Regulatory Compliance		2	20	30	50
F0002	030121502	Flexi-Credit Course		2	50	0	50
Total				4	70	30	100
Generic Elective Courses Group							
T3222	030121503	Introduction to Vulnerability Assessment Penetration Testing		4	40	60	100
T3521	030121504	Advanced Internet of Things		4	40	60	100
T3588	030121505	Game Design		4	40	60	100
T3590	030121506	Design of Content Management System		4	40	60	100
T3612	030121507	Data Visualization		4	40	60	100
T3600	030121508	Cloud Architectures and Security		4	40	60	100
T3602	030121509	Network Monitoring and Troubleshooting		4	40	60	100
T3608	030121510	Software Testing		4	40	60	100
Total Required Credits				12	120	180	300
Semester : 6							

Symbiosis Institute of Computer Studies and Research, Pune
Bachelor of Computer Applications
Programme Structure 2019-22

Annexure A

Catalog Course Code	Course Code	Course Title	Specialization	Credit	Internal Marks	External Marks	Total Marks
Choose any One Group							
Generic Elective Courses							
T3912	030121601	Industry Internship		12	120	180	300
F0004	030121602	Flexi-Credit Course		4	100	0	100
Generic Elective Courses							
F0004	030121602	Flexi-Credit Course		4	100	0	100
T3808	030121603	Project		8	80	120	200
T3009	030121604	Best Programming Practices		2	20	30	50
T3387	030121605	Introduction to Design Patterns		2	20	30	50
Total Required Credits				16	220	180	400

Symbiosis Institute of Computer Studies and Research, Pune
Bachelor of Computer Applications
Programme Structure 2019-22

Semester	Internal Credits	External Credits	Total Credits	Total Marks
Semester1	6	12	18	450
Semester2	8	14	22	550
Semester3	0	20	20	500
Semester4	14	14	28	700
Semester5	2	14	16	400
Semester6	4	12	16	400
Total	34	86	120	3000