Curriculum Version 1.00

Bachelor of Computer Applications (BCA)

(For AY 2026-27 onwards)

Credit distribution among baskets (Minimum credits to be earned = 120)		
Sl. No.	**Baskets**	**Credit Contribution**
1	School Core	34
2	Program Core	39
3	Discipline Elective	41
	Common Electives Basket	26
	Specialized Elective Baskets*	15
4	Open Elective	6
	Total Credits	**120**

Specialized Elective Baskets*		
Sl.No.	**Name of the Basket**	**Minimum Credit Requirement**
1	Artificial Intelligence and Machine Learning	3
2	Cyber Security	3
3	Data Analytics	3
4	Cloud Computing	3
5	Big Data	3
Total*		15

**** Remaining Credits, if any, to satisfy Specialized Elective Baskets credit requirement can be taken from any Specialized Elective Basket***

Sl. No.	Course Code	Course Name	L	P	Credits
A. School Core - Minimum Credits to be earned from this basket (A+B+C+D+E+F)=					**34**
1	MAT1008	Mathematics for Computer Applications	3	0	**3**
2	CSE1037	Fundamentals of C Programming	2	2	**3**
3	CSE1039	Principles of Java Programming	2	2	**3**
4	CSE1005	Programming in Python	2	2	**3**
5	CSE1022	Fundamentals of Data Structure and Algorithms	3	2	**4**
6	MAT1013	Statistics and Probability	2	2	**3**
7	CSE3035	BCA Capstone Project	0	0	**4**
8	CSE3036	BCA Internship	0	0	**3**
B. English Basket - Min. credits to be earned from this basket =					**2**
1	ENG1004	Functional English	0	2	**1**
2	ENG1005	Advanced Communicative English	0	2	**1**
C. Foreign Languages Basket - Min. credits to be earned from this basket =					**1**
1	FRE1002	Communicative French	0	2	**1**
2	GER1002	Communicative German	0	2	**1**
D. Behavioural Science Basket (All Courses in this basket are mandatory) - Minimum Credits to be earned from this basket =					**2**
1	PSY1001	Understanding Self for Effectiveness	0	2	**1**
2	PSY1002	Dynamics of Human Behaviour	0	2	**1**
E. Soft skill Basket (All Courses in this basket are mandatory) - Minimum Credits to be earned from this basket =					**3**
1	SSK2002	Being Corporate Ready	0	2	**1**
2	CSE3050	Programming Skills for Employment	0	2	**1**
3	SSK3001	Problem Solving through Aptitude	0	2	**1**
F. Non-Credit Pass/ Fail Type Core Courses (All Courses in this basket are mandatory)					**0**
1	CHE1001	Environmental Studies	2	0	**0**
2	CEA1001	Co-/ Extra-curricular Activities	0	0	**0**

G. Program Core (All Courses in this basket are mandatory) - Minimum Credits to be earned from this basket =					**39**
1	CSE1032	Linux Fundamentals	2	2	**3**
2	CSE2049	Analysis and Design of Algorithms	3	2	**4**
3	CSE1025	Computer Organization	3	0	**3**
4	CSE1027	Introduction to Operating Systems	3	2	**4**
5	CSE2050	Computer Networks	3	2	**4**
6	CSE2051	Introduction to Database Management Systems	3	2	**4**
7	CSE1028	Introduction to Software Engineering	3	0	**3**
8	CSE1038	Object Oriented Programming in C++	2	3	**3**
9	CSE1023	Web Programming	3	2	**4**
10	CSE3040	Full Stack Application Development	3	2	**4**
11	MAT1009	Discrete Mathematics	3	0	**3**

H. Discipline Electives - Minimum Credits to be earned from both Common and Specialized elective baskets (I+J) =					**41**
I. Common Electives Basket - Minimum Credits to be earned from this basket =					**26**
1	CSE2055	Graph Theory	3	0	**3**
2	CSE3037	Machine Vision	2	2	**3**
3	CSE3038	Digital Image Processing Techniques	2	2	**3**
4	CSE1031	C# Programming and .NET framework	0	4	**2**
5	CSE2056	Data Communications	2	2	**3**
6	CSE2057	User Interface and Xperience	2	2	**3**
7	CSE2058	E-Commerce	3	0	**3**
8	CSE2059	IoT and Applications	3	0	**3**
9	MGT1006	Financial Accounting	3	0	**3**
10	CSE2060	Blockchain Technology	3	0	**3**
11	CSE1033	Software Project Management	3	0	**3**
12	CSE3039	Wireless Communication	3	0	**3**
13	MGT2001	Business Analytics	2	2	**3**
14	MGT1101	Digital Entrepreneurship	2	0	**2**
15	CSE3041	Mobile Responsive Design	2	2	**3**
16	CSE2061	Computer Graphics	2	2	**3**
17	CSE2054	Software Testing	2	2	**3**
18	CSE2052	Introduction to AI and ML	3	2	**4**
19	CSE1030	Introduction to Cloud Computing	3	0	**3**
20	CSE1026	Computer Architecture	3	0	**3**
J. Specialized Electives Baskets - Minimum Credits to be earned from these baskets (K+L+M+N+O) =					**15**
K. AI & ML Basket - Minimum Credits to be earned from this basket =					**3**
1	CSE2062	AI Applications	2	2	**3**
2	CSE2063	Fundamentals of Deep Learning	2	2	**3**
3	CSE2064	Introduction to Reinforcement Learning	3	0	**3**
4	CSE2065	Introduction to Natural Language Processing	2	2	**3**
L. Cyber Security Basket - Minimum Credits to be earned from this basket =					**3**
1	CSE3042	Cryptography and Cyber Security	2	2	**3**
2	CSE3043	Security and Privacy for Social Media	3	0	**3**
3	CSE3044	Ethical Hacking Fundamentals	2	2	**3**
4	CSE2066	Introduction to Cloud Security	2	2	**3**
5	CSE3045	Vulnerability Assessment and Penetration Testing	2	2	**3**
M. Data Analytics Basket - Minimum Credits to be earned from this basket =					**3**
1	CSE2053	Introduction to Data Analytics	3	2	**4**
2	CSE2071	Introduction to Business Analytics	3	0	**3**
3	CSE2067	Web Analytics	2	2	**3**
4	CSE2068	Analytics for Healthcare	2	2	**3**
5	CSE1034	Statistical Computing with R	2	2	**3**
6	CSE2070	Data Visualisation Methods	2	2	**3**
N. Cloud Computing Basket- Minimum Credits to be earned from this basket =					**3**
1	CSE3046	Data Center Operations	3	0	**3**
2	CSE2072	Virtualization Techniques	3	0	**3**
3	CSE3047	Cloud Application Development	2	2	**3**
4	CSE2073	DevOps Fundamentals	3	0	**3**

O. Big Data Basket - Minimum Credits to be earned from this basket =					3
1	CSE2075	Big Data Fundamentals	2	2	**3**
2	CSE2074	Data Mining	3	0	**3**
3	CSE3048	NoSQL Databases	2	2	**3**
4	CSE3049	Data Ingestion	2	2	**3**

Open Elective basket - Minimum Credits to be earned from this basket =	**6**
Any course from another 'eligible'curriculum	
Any unused Discipline Elective from his/ her 'own' curriculum	
Any stand-alone course declared as "Open Elective" by School for a specific 'eligible' degree program	
School approved NPTEL/ Swayam courses for a maximum of 3-credits	