

**Curriculum Version 1.00**  
**Bachelor of Computer Applications (B.Sc. AI&ML)**  
 (For AY2026-27 onwards)

Credit distribution among baskets (Minimum credits to be earned = 120)		
Sl. No.	Baskets	Credit Contribution
1	School Core	34
2	Program Core	40
3	Discipline Elective	40
	Common Electives Basket	25
	Specialized Elective Baskets*	15
4	Open Elective	6
<b>Total Credits</b>		<b>120</b>

Specialized Elective Baskets*		
Sl.No.	Name of the Basket	Minimum Credit Requirement
1	Robotics	3
2	Cyber Security	3
3	Data Analytics	3
4	Cloud Computing	3
5	Full stack	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
<b>A. School Core - Minimum Credits to be earned from this basket (A+B+C+D+E+F)=</b>					<b>34</b>
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	CSE3051	B.Sc. Capstone Project	0	0	4
8	CSE3052	B.Sc. Internship	0	0	3
<b>B. English Basket - Min. credits to be earned from this basket =</b>					<b>2</b>
1	ENG1004	Functional English	0	2	1
2	ENG1005	Advanced Communicative English	0	2	1
<b>C. Foreign Languages Basket - Min. credits to be earned from this basket =</b>					<b>1</b>
1	FRE1002	Communicative French	0	2	1
2	GER1002	Communicative German	0	2	1
<b>D. Behavioural Science Basket (All Courses in this basket are mandatory) - Minimum Credits to be earned from this basket =</b>					<b>2</b>
1	PSY1001	Understanding Self for Effectiveness	0	2	1
2	PSY1002	Dynamics of Human Behaviour	0	2	1
<b>E. Soft skill Basket (All Courses in this basket are mandatory) - Minimum Credits to be earned from this basket =</b>					<b>3</b>
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
<b>F. Non-Credit Pass/ Fail Type Core Courses (All Courses in this basket are mandatory)</b>					<b>0</b>
1	CHE1001	Environmental Studies	2	0	0
2	CEA1001	Co-/ Extra-curricular Activities	0	0	0
<b>G. Program Core (All Courses in this basket are mandatory) - Minimum Credits to be earned from this basket =</b>					<b>40</b>
1	CSE3015	Natural Language Processing	3	0	3
2	CSE2049	Analysis and Design of Algorithms	3	2	4
3	CSE2052	Introduction to AI and ML	3	2	4
4	CSE2075	Big Data Fundamentals	2	2	3
5	CSE2074	Data Mining	3	0	3
7	CSE2051	Introduction to Database Management Systems	3	2	4
8	CSE3037	Machine Vision	2	2	3
9	CSE1038	Object Oriented Programming in C++	2	3	3
10	CSE1023	Web Programming	3	2	4
11	CSE1030	Introduction to Cloud Computing	3	0	3
12	CSE1032	Linux Fundamentals	2	2	3
13	MAT1009	Discrete Mathematics	3	0	3

<b>H. Discipline Electives - Minimum Credits to be earned from both Common and Specialized elective baskets (I+J) =</b>					<b>40</b>
<b>I. Common Electives Basket - Minimum Credits to be earned from this basket =</b>					<b>25</b>
1	CSE2081	Introduction to Neural Networks	3	0	3
2	CSE2055	Graph Theory	3	0	3
3	CSE1028	Introduction to Software Engineering	3	0	3
4	CSE3038	Digital Image Processing Techniques	2	2	3
5	CSE1031	C# Programming and .NET framework	0	4	2
6	CSE2056	Data Communications	2	2	3
7	CSE2057	User Interface and Xperience	2	2	3
8	CSE2058	E-Commerce	3	0	3
9	CSE2059	IoT and Applications	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	CSE1025	Computer Organization	3	0	3
19	CSE1026	Computer Architecture	3	0	3
20	CSE1027	Introduction to Operating Systems	3	2	4
21	CSE3048	NoSQL Databases	2	2	3
22	CSE2082	Fundamentals of Machine Learning Optimization	2	2	3
23	CSE2050	Computer Networks	3	2	4
24	CSE2080	Introduction to MLOps	3	0	3
<b>J. Specialized Electives Baskets - Minimum Credits to be earned from these baskets (K+L+M+N+O) =</b>					<b>15</b>
<b>K. Robotics Basket - Minimum Credits to be earned from this basket =</b>					<b>3</b>
1	CSE5098	Computer Vision	2	2	3
2	CSE5095	Robotic Operating System	2	2	3
3	CSE5097	Neural Networks and Fuzzy Logic	3	0	3
4	CSE5096	Robotic Process Automation	2	2	3
<b>L. Cyber Security Basket - Minimum Credits to be earned from this basket =</b>					<b>3</b>
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
<b>M. Data Analytics Basket - Minimum Credits to be earned from this basket =</b>					<b>3</b>
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
<b>N. Cloud Computing Basket- Minimum Credits to be earned from this basket =</b>					<b>3</b>
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

<b>O. Full Stack Basket - Minimum Credits to be earned from this basket =</b>					<b>3</b>
1	CSE2022	Front End Engineering	2	2	<b>3</b>
2	CSE2023	Backend Engineering	2	2	<b>3</b>
3	CSE3018	MEAN/ MERN Stack	2	2	<b>3</b>
4	CSE3040	Full Stack Application Development	3	2	<b>4</b>
<b>Open Elective basket - Minimum Credits to be earned from this basket =</b>					<b>6</b>
Any course from <b>another</b> 'eligible' curriculum					
Any <b>unused</b> Discipline Elective from his/ her 'own' curriculum					
Any <b>stand-alone</b> course declared as "Open Elective" by School for a specific 'eligible' degree program					
School approved NPTEL/ Swayam courses for a maximum of 3-credits					