



Bachelor of Computer Applications in Artificial Intelligence
Pattern 2025

4 Years – 8 Semesters Full Time Programme Effective from AY 2025 – 2026
Programme Structure (NEP)

Choice Based Credit System (CBCS) and Grading System Outcome-Based Education

SEMESTER 1		
Course Type	Course Name	Credit
DSC	Fundamentals of Mathematics	3
DSC	Programming in C	3
DSC	Programming in C-lab	1
DSC	Database Management System	3
DSC	Database Management System-lab	1
OE	Fundamentals of Computers/ Introduction of new edge technology	3
MT	VU Level Minor	3
SEC	Communicative English	2
VEC	Happiness & Positivity	2
TOTAL		21
Instructions, if any: 1 Theory/Tutorial Hour = 1 Credit, 2 Practical hours = 1 Credit *DSC- Department Specific Core Course		
* <u>Minor Track (MT), Open Elective (OE), Skill Enhancement Course (SEC), Value Education Course (VEC) Courses can be opted from a concerned department at VU level of SEM – I for various Disciplines,</u>		
* <u>Minor Track shall be continue till SEM-VI</u>		
SEMESTER 2		
Course Type	Course Name	Credit
DSC	Statistical Methods	3
DSC	Introduction to Python	3
DSC	Introduction to Python Lab	1
OE	Principles of Management	3
MT	VU Level Minor	3
SEC	Technical writing Communication	2
VEC	Environmental Science Fundamentals	4
TOTAL		19

* <u>Open Elective (OE), Skill Enhancement Course (SEC), Courses can be opted from concerned department at VU level of SEM – II for various Disciplines</u>		
SEMESTER 3		
Course Type	Course Name	Credit
DSC	Data Structure & Algorithm	3
DSC	Data Structure & Algorithm LAB	1
DSC	Software Engineering	3
DSC	Web Technology	3
DSC	Web Technology Lab	1
OE	Organizational Behaviour	3
MT	VU Level Minor	3
SEC	Critical Thinking	2
VEC	Computer Networks	3
TOTAL		22
<u>Open Elective (OE), Skill Enhancement Course (SEC), Courses can be opted from concerned department at VU level of SEM –III for various Disciplines</u>		
VSC- Vocational Skill Courses		
SEMESTER 4		
Course Type	Course Name	Credit
IKES	Indian Knowledge System	3
DSC	Advanced Web Technology	3
DSC	Advanced Web Technology	1
DSC	Digital Marketing	3
DSC	Big Data Analytics	3
DSC	Big Data Analytics lab	1
DSC	Java Programming	3
DSC	Java Programming-lab	1
MT	VU Level Minor	2
TOTAL		20
IKES-Indian Knowledge System		
SEMESTER 5		
Course Type	Course Name	Credit
DSC	Software Project Management	3
DSC	Data Modelling & Visualization	3
DSC	Research Methodology	4
MT	VU Level Minor	3
DSC	Introduction to AI	3
DSC	Data Modelling & Visualization-LAB	1
DSC	Data Analytics & Data warehousing	3
TOTAL		20

DSE- Department Specific Elective Course -Student have option to choice to select any one.
VSC- Vocational Skill Courses

SEMESTER 6		
Course Type	Course Name	Credit
DSE	Object Oriented Software Engineering OR Software Testing	4
DSC	Operating System	4
MT	VU Level Minor(Project)	3
DSC	Machine Learning algorithms	3
DSC	Machine Learning algorithms Lab	1
PROJ	Major Project	4
DSC	Aptitude Development Programming	2
TOTAL		21
SEMESTER 7 (Honours)		
Course Type	Course Name	Credit
DSE	Neural Networks & Deep Learning OR Cloud Computing and Visualization	3
DSC	Natural Language Processing (NLP)	3
DSC	AI for Sustainability & ethics	3
DSC	Robotics and AI Automation	3
DSC	Robotics and AI Automation Lab	1
DSC	Natural Language Processing (NLP) Lab	1
DSC	Personality Development & Technical Skill	3
PROJ	Mini Project	3
TOTAL		20
SEMESTER 8 (Honours)		
Course Type	Course Name	Credit
DSC	Technical Writing	4
DSC	Survey of Literature	4
DSC	Research Tools	3
DSE	Data Collection Techniques OR Web Scraping & Automated Data Collection	3
DSC	Research Design & Planning	3
DSC	Research Ethics	3
TOTAL		20

SEMESTER 7 (RESEARCH)		
Course Type	Course Name	Credit
DSE	Software Deployment and Maintenance OR Agile Development	4
DSC	Mobile and Web App development	3
DSC	Major Project/ Internship	8
DSC	Mobile and Web App development-LAB	1
DSC	AI in Gaming and simulation	3
DSC	AI in Gaming and simulation-LAB	1
TOTAL		20
SEMESTER 8 (RESEARCH)		
Course Type	Course Name	Credit
DSC	IPR	4
DSC	Patent Designing and Filling	3
DSE	Research Proposal Development OR AI Experimental Research	4
DSC	Report Writing and Thesis Preparation	3
DSC	Research Paper Writting	4
DSC	Research Paper Presentation Skills	2
TOTAL		20
MINOR TRACK DATA ANALYTICS		
Introduction to Data Science & Analytics		
Programming for Data Analytics		
Data Wrangling & Preprocessing		
Predictive Analytics & Time Series Forecasting		
Web and Social Media Analytics		
Data Analytics Capstone Project		