

**PROGRAMME NAME: BACHELOR OF COMPUTER
APPLICATION PROGRAM CODE: 10DCAUG01
BACHELOR OF COMPUTER APPLICATION IN ARTIFICIAL INTELLIGENCE &
DATA SCIENCE PROGRAM CODE: 10DCAUG02
BACHELOR OF COMPUTER APPLICATION IN CYBER SECURITY & FORENSICS
SCIENCES PROGRAM CODE: 10DCAUG03**

Semester I		
S No	Course Code	Course Title
1	26BCA011C01	Problem-Solving Techniques using C
2	26BCA011C02	Problem-Solving Techniques using C Lab
3	26BCA011C03	Computer fundamentals
4	26BCA011C04	Computer fundamentals and Hardware Lab
5	26BCA011C05	Mathematics
6	26BCA011C06	Digital Electronics and Logic Design
7	26ENGL0AEC1	Communicative English I
8		Discipline Elective-I
9		Discipline Elective-I Lab
10	26ETPM0VAC1	Entrepreneurship Mindset -I
11	26UHVU0VAC1	Universal Human Values

Entrepreneurship Mind-set-I shall be delivered through blended and self-paced learning approaches, supported by experiential learning,

Basket – I Discipline Elective-I		
S. no	Course Code	Course Title
1	26BCAN012E01	Ecommerce and Digital Marketing
2	26BCAN012E02	Ecommerce and Digital Marketing Lab
3	26BCCS011E01	Introduction to Python Programming
4	26BCCS011E02	Introduction to Python Programming Lab
5	26BCAI011E01	Python Programming with Data Science
6	26BCAI011E02	Python Programming with Data Science Lab

Semester II		
S No	Course Code	Course Title
1	26BCA012C0 1	Object Oriented Programming Using C++
2	26BCA012C0 2	Object Oriented Programming Using C++ Lab
3	26BCA012C0 3	Operating System
4	26BCA012C0 4	Operating System LAB
5	26BCA012C0 5	Computer System Organization
6	26SOET0MD C5	Statistical Techniques
7	26ENGL0AE C2	Communicative English II
8	26PSUG0SEC 1	Professional Skills
9	26ETPM0VA C2	Entrepreneurship Mindset-II
10		Discipline Elective-II
11		Discipline Elective-II LAB

Entrepreneurship Mindset-II shall be delivered through blended and self-paced learning approaches, supported by experiential learning, mentoring, startup-oriented activities, and innovation practices.

Basket – II Discipline Elective-II		
S. no	Course Code	Course Title
1	26BCN012E01	Web Technologies
2	26BCN012E02	Web Technologies Lab
3	26BCAI012E0	Agile Methodologies
4	1	Machine Learning Lab
5	26BCAI012E0 2	Agile Methodologies Lab
6	26BCCS012E0 1	Introduction to Artificial Intelligence

Semester III		
S No	Course Code	Course Title
1	26BCA023C01	Python Programming
2	26BCA023C02	Python Programming Lab
3	26BCA023C03	Data Structure
4	26BCA023C04	Data Structure Lab
5	26BCA023C05	Software Engineering
6	26BCA023C07	Emerging AI Tools
7	26ETPM0VA C3	Entrepreneurship Mindset-III
8		Discipline Elective-III
9		Discipline Elective-III Lab
10		Open Elective-I
11		Open Elective-I Lab
Optional to choose (Open Elective Basket)*		
12		Learn-One-More-Bharatiya-Bhasha or Foreign Languages

- Learn One More Bharatiya Bhasha /Foreign Languages courses are optional. Students opting for these courses will earn 1 additional credit
- Entrepreneurship Mindset-III shall be delivered through blended and self-paced learning approaches, supported by experiential learning, mentoring, startup-oriented activities, and innovation practices.
- MOOCs courses from recognized platforms such as NPTEL/SWAYAM may be mapped or included after registration opens; total credits and contact hours may increase accordingly

Basket – III Discipline Elective-III		
S. no	Course Code	Course Title
1	26BCAN023E01	MERN Stack Development
2	26BCAN023E02	MERN Stack Development Lab
3	26BCAI023E01	Identity & Access Management (IAM)
4	26BCAI023E01	Identity & Access Management (IAM) Lab
5	26BCCS023E01	Applied Data Science
6	26BCCS023E02	Applied Data Science Lab

Basket – III Discipline Elective-III		
S. no	Course Code	Course Title
1	26BCN023E03	Basic of Data Analytics
2	26BCN023E04	Basic of Data Analytics Lab
3	26BCN023E05	Multimedia and Animation Production
4	26BCN023E06	Multimedia and Animation Production Lab
5	26BCCS023E0 3	Cyber Security Fundamentals and Ethics
6	26BCCS023E0 4	Cyber Security Fundamentals and Ethics Lab
7	26BCCS023E0 3	Digital Forensics and Productivity Tools
8	26BCCS023E0 4	Digital Forensics and Productivity Tools Lab
9	26BCAI023E0 3	Data Visualization
10	26BCAI023E0 4	Data Visualization Lab
11	26BCAI023E0 5	Feature Engineering
12	26BCAI023E0 6	Feature Engineering

Semester IV		
S No	Course Code	Course Title
1	26BCA024C01	Artificial Intelligence and Soft Computing
2	26BCA024C02	Artificial Intelligence and Soft Computing Lab
3	26BCA024C3	Computer Networks
4	26BCA024C04	Computer Networks Lab
5	26BCA024C5	Database Management System
6	26BCA024C06	Database Management System Lab
7		Discipline Elective-IV
8		Discipline Elective-IV Lab
9		Open Elective-II
10		Open Elective-II Lab
11	26ASUG0AE C3	Analytical Skills I
12		Environmental Science
Optional to choose (Non-Credit Course)		
14	26PRDV0AEC 1	Professional Development –I*
Summer Term Training 6 weeks (45 days) will be evaluated in Semester V		

- Professional Development–I is an optional, non-credit course. Evaluation shall be on a Satisfactory/Unsatisfactory basis.
- Entrepreneurship Mindset-IV shall be delivered through blended and self-paced learning approaches, supported by experiential learning, mentoring, startup-oriented activities, and innovation practices.
- MOOCs courses from recognized platforms such as NPTEL/SWAYAM may be mapped or included after registration opens; total credits and contact hours may increase accord

Basket – IV Discipline Elective-IV		
S. no	Course Code	Course Title
1	26BCAN024E01	Linux Administration
2	26BCAN024E02	Linux Administration Lab
3	26BCCS024E01	Big Data Security & Privacy
4	26BCCS024E02	Big Data Security & Privacy lab
5	26BCAI024E01	Artificial Intelligence Analyst
6	26BCAI024E02	Artificial Intelligence Analyst Lab

Basket – II		
Departmental /Open Elective-II		
Specialization	Course Code	Course Title
Normal	26BCAN024E03	Java Programming
	26BCAN024E04	Java Programming Lab
	26BCAN024E05	Data Mining and warehouse
	26BCAN024E06	Data Mining and warehousing lab
Cyber Security and Forensics	26BCCS024E03	Ethical Hacking
	26BCCS024E04	Ethical Hacking
	26BCCS024E05	Data security and Privacy
	26BCCS024E06	Data security and Privacy Lab
Data Science and Artificial Intelligence	26BCAI024E03	Big Data Analytics
	26BCAI024E04	Big Data Analytics lab
	26BCAI024E05	Data Mining and warehousing
	26BCAI024E06	Data Mining and warehousing lab

Semester V		
S No	Course Code	Course Title
1	26BCA035C0 1	Cloud Computing
2	26BCA035C0 2	Cloud Computing Lab
3	26BCA035C0 3	Network Security and Cryptography
4	26BCA035C0 4	Network Security and Cryptography Lab
5	26SSLA0MD C1	Technical Writing
6	26BCA035C0 6	Summer Training Evaluation
7	26BCA035C0 7	Capstone Project -I
8		Discipline Elective-V
9		Discipline Elective-V Lab
10		Open Elective-III
12		Open Elective-III Lab
	26ETPM0VA C5	Entrepreneurship Mindset -V
Optional to choose		
	26DRRM0SEC	Disaster Risk Reduction and Management
Optional to choose (Non-Credit Course)		
14	26PRDV0AEC 2	Professional Development –II

- Professional Development–II is an optional, non-credit course. Evaluation shall be on a Satisfactory/Unsatisfactory basis.
- Entrepreneurship Mindset-V shall be delivered through blended and self-paced learning approaches, supported by experiential learning, mentoring, startup-oriented activities, and innovation practices.
- MOOCs courses from recognized platforms such as NPTEL/SWAYAM may be mapped or included after registration opens; total credits and contact hours may increase accordingly
- Capstone Project-I emphasizes guided self-learning and project work; accordingly, the allotted hours are excluded from total teaching hours

Basket –V		
Departmental / Discipline Elective-V		
Specialization	Course Code	Course Title
Normal	26BCAN035E01	Mobile Application Development
	26BCAN035E02	Mobile Application Development Lab
Cyber Security and Forensics (IBM)	26BCCS035E01	Blockchain Security and Smart Contract Development
	26BCCS035E02	Blockchain Security and Smart Contract Development Lab
Data Science and Artificial Intelligence (IBM)	26BCAI035E01	Deep Learning and Neural Network
	26BCAI035E02	Deep Learning and Neural Network Lab

Basket –III		
Open Elective: Elective-III		
Specialization	Course Code	Course Title
Normal	26BCAN035E03	UI/UX Design
	26BCAN035E04	UI/UX Design Lab
	26BCAN035E05	Search Engine Optimization
	26BCAN035E06	Search Engine Optimization lab
Cyber Security and Forensics	26BCCS035E03	Web Security
	26BCCS035E04	Web Security Lab
	26BCCS035E05	Linux Administration
	26BCCS035E06	Linux Administration Lab
Data Science and Artificial Intelligence	26BCAI035E03	Generative AI
	26BCAI035E04	Generative AI Lab
	26BCAI035E05	Natural Language Processing
	26BCAI0035E06	Natural Language Processing Lab

**Semester VI
BASKET I (OPTION A)**

S No	Course Code	Course Title
1	25BCA036IN1	Internship / Industrial Training
	26BCA036C01	Capstone-II

**Semester VI
(OPTION B)**

S No	Course Code	Course Title
1	26BCA036C01	Information Security and Cyber Law
2	26BCA036C02	IOT
3	26BCA036C03	IOT Lab
4	26BCA036C04	Big Data
5	26BCA036C05	Big Data Lab
6	26BCA036C06	Version Control Lab
7		Open Elective-IV
8		Open Elective-IV Lab
9	26BCA036C08	Capstone Project-II

Basket—IV		
Open Elective-IV		
Specialization	Course Code	Course Title
Normal	26BCAN036E0 1	Core DevOps Foundations
	26BCAN036E0 2	Core DevOps Tools and Automation Lab
	26BCAN036E0 3	Wireless Technology
	26BCAN036E0 4	Wireless Technology Lab
Cyber Security and Forensics	26BCCS036E01	Software testing and quality Management
	26BCCS036E02	Software testing and quality Management Lab
	26BCCS036E03	Reverse Engineering
	26BCCS036E04	Reverse Engineering Lab
Data Science and Artificial Intelligence	26BCAI036E01	AI Ethics
	26BCAI036E02	AI Ethics Lab
	26BCAI036E03	Prompt Engineering
	26BCAI036E04	Prompt Engineering Lab

Open Elective Basket Course

	Course Code	Course Title	Type
1	26BFRN0AE C1	Basic French	Foreign Languages
2	26BKOR0AE C1	Basic Korean	
3	26BSPA0AE C1	Basic Spanish	
4	26BHIN0AEC 1	Basic Hindi	Learn-One-More-Bharatiya-Bhasha
5	26BPUN0AE C1	Basic Punjabi	
6	26BURD0AE C1	Basic Urdu	