

Bachelor of Technology Computer Science and Engineering in Artificial Intelligence & Data Science - Regular & Lateral (2026)

SEMESTER I		
S No	Course Code	Course Title
1	26BTCM11C01	Applied Chemistry
2	26BTCM11C02	Applied Chemistry Lab
3	26BTBE11C03	Basics of Electrical and Electronics Engineering
4	26BTBE11C04	Basics of Electrical and Electronics Engineering Lab
5	26BTAL11C03	Programming Concepts
6	26BTAL11C04	Programming Concepts Lab
7	26BTAL11C05	Engineering Mathematics-I
8	26BTAL11C06	Workshop Practices
9	26DOAS0VAC01	Environmental Studies
10	26ENGL0AEC1	Communicative English- I
11	26ETPM0VAC1	Entrepreneurship Mindset-I
12	26BTAI11E01	Python Programming with Data Science
13	26BTAI11E02	Python Programming with Data Science Lab

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

SEMESTER II		
S No	Course Code	Course Title
1	26BTPH12C01	Applied Physics
2	26BTPH12C02	Applied Physics Lab
3	26BTAL12C03	Engineering Mathematics- II
4	26BTAL12C04	Engineering Drawing
5	26UHVU0VAC1	Universal Human Value
6	26ENGL0AEC02	Communicative English II
7	26ETPM0VAC2	Entrepreneurship Mindset-II
8	26BTAL12E01	Introduction to Artificial Intelligence
9	26BTAL12E02	Introduction to Artificial Intelligence 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.

SEMESTER III		
S No	Course Code	Course Title
1	26BTCS23C01	Database Management System
2	26BTCS23C02	Database Management System Lab
3	26BTCS23C03	Data Structures and Algorithms
4	26BTCS23C04	Data Structures and Algorithms Lab
5	26BTCS23C05	Engineering Mathematics-III
6	26BTCS23C06	Advanced Python Programming
7	26BTCS23C07	Advanced Python Programming Lab
8	26ETPM0VAC3	Entrepreneurship Mindset-III
9	26BTAI23E01	Foundation of AI
10	26BTAI23E02	Foundation of AI Lab
11	26BTAI23E03	Machine Learning with Python
12	26BTAI23E04	Machine Learning with Python Lab

- 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

SEMESTER IV		
S No	Course Code	Course Title
1	26BTCS24C01	Analysis & Design of Algorithms
2	26BTCS24C02	Analysis & Design of Algorithms Lab
3	26BTCS24C03	Computer Networks
4	26BTCS24C04	Computer Networks Lab
5	26BTCS24C05	Discrete Structures
6	26BTCS24C06	Operating System
7	26BTCS24C07	Operating System Lab
8	26BTCS24C08	Computer Architecture and Organization
9	26BTAI24E01	Data Science
10	26BTAI24E02	Data Science Lab
11	26BTAI24E03	Applied Data Science
12	26BTAI24E04	Applied Data Science Lab
13	26ETPM0VAC4	Entrepreneurship Mindset -IV
Optional to choose (Open Elective Basket)		
14		Learn-One-More-Bharatiya-Bhasha or Foreign Languages
*Summer Term Training (45 days) will be evaluated in Semester V		

- Learn One More Bharatiya Bhasha /Foreign Languages courses are optional. Students opting for these courses will earn 1 additional credit
- Entrepreneurship Mindset-VI 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

SEMESTER V		
S No	Course Code	Course Title
1	26BTCS35C01	Software Engineering
2	26BTCS35C02	Theory of Computation
3	26BTCS35C03	Java Programming
4	26BTCS35C04	Java Programming Lab
5	26BTCS35C05	Information Security and Cyber Laws
6	26BTAI35E01	Machine Learning
7	26BTAI35E02	Machine Learning Lab
8	26BTAI35E03	Big Data Engineering
9	26BTAI35E04	Big Data Engineering Lab
10	26BTCS35C06	Summer Training-I Evaluation
11	26ASUG0SEC1	Analytical Skills - I
12	26ETPM0VAC 5	Entrepreneurship Mindset- V
Optional to choose		
13		Disaster Risk Reduction and Management

- Disaster Risk Reduction and Management is an optional course. Students who opt for this course will earn 2 additional credits.
- 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.

SEMESTER VI		
S No	Course Code	Course Title
1	26BTCS36C0 1	Network Security and Cryptography
2	26BTCS36C0 2	Network Security and Cryptography Lab
3	26BTCS36C0 3	Advanced Data Structure
4	26BTCS36C0 4	Advanced Data Structure Lab
5	26BTCS36C0 5	Compiler Design
6	26BTCS36C0 6	Artificial Intelligence
7	26BTCS36C0 7	Data Warehousing and Data Mining
8	26BTAI36E0 1	Deep Learning
9	26BTAI36E0 2	Deep Learning Lab
10	26BTAI36E0 3	Deep Learning & Neural Networks
11	26BTAI36E0 4	Deep Learning & Neural Networks Lab
12	26ASUG0AE C4	Analytical Skills - II
13	26BTCS36C0 8	Capstone Project - I
Optional to choose (Non-Credit Course)		
13	26PRDV0AE C1	Professional Development –I

- Professional Development–I 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

SEMESTER VII		
S No	Course Code	Course Title
1	26BTCS47C0 1	Computer Vision
2	26BTCS47C0 2	IOT
3	26BTCS47C0 3	IOT Lab
4	26BTCS47C0 4	System Design
5	26BTCS47C0 5	Blockchain
6	26BTCS47C0 6	Blockchain Lab
7	26BTCS47C0 7	Research Methodology
8	26BTAI47E01	Natural Language Processing
9	26BTAI47E02	Natural Language Processing Lab
10	26BTAI47E03	Generative AI & Large Language Models (LLMs)
11	26BTAI47E04	Generative AI & Large Language Models (LLMs) Lab
12	26BTCS47C0 8	Capstone Project - II
Optional to choose (Non Credit course)		
9	26PRDV0AE C2	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-II emphasizes guided self-learning and project work; accordingly, the allotted hours are excluded from total teaching hours

SEMESTER VIII		
S No	Course Code	Course Title
1	26BTCS048C01	Industrial Training

Open Elective Basket Course

S. no	Course Code	Course Title
1	26BFRN0AEC1	Basic French
2	26BKOR0AEC1	Basic Korean
3	26BSPA0AEC1	Basic Spanish
4	26BHIN0AEC1	Basic Hindi
5	26BPUN0AEC1	Basic Punjabi
6	26BURD0AEC1	Basic Urdu