

Department of Computer Science & Engineering
Curriculum for 4 Year (8 Semester) of Bachelor of Technology course in Artificial Intelligence
B.Tech AI
w.e.f AY- 2026-27

SEMESTER-I													
3 WEEKS COMPULSORY INDUCTION PROGRAM													
Sl No.	Code	Subject	Periods			Evaluation Scheme for Sessional				End Semester Exam		Total	Credit
			L	T	P	CT	TA	Total	PS	Theory	Practical		
1	APS101/ APS102	Physics/Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	APS101/ APS102	Mathematics-I	3	1	0	30	20	50	-	100	-	150	4
3	EEB101/ EEB102	Basic Electrical Engineering / Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	MEB101/ MEB102	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
5	ECB101/ MEB101	*Fundamentals of Electronics Engineering/ *Basic Mechanical Engineering	3/2	0	0	30	20	50	-	100	-	150	3/2
		TOTAL										750	20.5/ 19.5
SEMESTER-II													
Sl No.	Code	Subject	Periods			Evaluation Scheme for Sessional				End Semester Exam		Total	Credit
			L	T	P	CT	TA	Total	PS	Theory	Practical		
1	APS201/ APS202	Physics/Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	APS201/ APS202	Mathematics-II	3	1	0	30	20	50	-	100	-	150	4
3	EEB201/ EEB202	Basic Electrical Engineering / Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	APS201/ APS202	Professional English	2	0	0	30	20	50	-	100	-	150	3
5	MEB201/ MEB202	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
6	ECB201/ MEB201	*Fundamentals of Electronics Engineering/ *Basic Mechanical Engineering	3/2	0	0	30	20	50	-	100	-	150	3/2
		TOTAL										900	23.5/ 22.5

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SEMESTER - III													
Sl. No	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	SOEC01	Technical Communication	3	0	0	30	20	50		100		150	3
2	SAID01	Introduction to Artificial Intelligence	2	1	0	30	20	50		100		150	3
3	SAID01	Data Structures and Algorithms	3	1	0	30	20	50		100		150	4
4	SAID02	Digital Logic and Design	3	1	0	30	20	50		100		150	4
5	BAIS01	Discrete Structures & Theory of Logic	3	0	0	30	20	50		100		150	3
6	BAIS01	Data Structures and Algorithms Lab	0	0	2				25		25	50	1
7	BAIS02	Digital Logic and Design Lab	0	0	2				25		25	50	1
8	BAIS03	Discrete Structures & Logic Lab	0	0	2				25		25	50	1
9	BAIB01	Summer Internship / NPTEL Course*	0	0	2			50				50	1
10	BAINC1	Computer System Security	2	0	0	15	10	25		50		0	
Total												950	21

*Summer Internship / NPTEL Course (4 weeks) during summer break after II semester and will be assessed during III semester.

SEMESTER - IV													
Sl. No	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	APSA02	Numerical Method & Optimization Techniques	3	1	0	30	20	50		100		150	4
2	APSA01	Human Values and Professional Ethics	2	1	0	30	20	50		100		150	3
3	BAIA01	Operating Systems	3	0	0	30	20	50		100		150	3
4	BAIA02	Theory of Computation	3	1	0	30	20	50		100		150	4
5	BAIA03	Machine Learning	3	1	0	30	20	50		100		150	4
6	BAIA01	Operating Systems Lab	0	0	2				25		25	50	1
7	BAIA02	Machine Learning Lab	0	0	2				25		25	50	1
8	BAIA03	Python Language Programming Lab	0	0	2				25		25	50	1
9	BAIRC2	Python Programming	2	0	0	15	10	25		50		0	
Total												900	21

*Summer Internship / NPTEL Course (4 weeks) during summer break after II semester and will be assessed during III semester.

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SEMESTER - V													
Sr. No	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	BAIS01	Database Management Systems	3	1	0	30	20	50		100		150	4
2	BAIS02	Deep learning & Neural Network	3	1	0	30	20	50		100		150	4
3	BAIS03	Artificial Intelligence (Knowledge Representation and Reasoning) and its tools	3	1	0	30	20	50		100		150	4
4	BAISDE1	Departmental Elective-I	3	0	0	30	20	50		100		150	3
5	BAISDE2	Departmental Elective-II	3	0	0	30	20	50		100		150	3
6	BAISL1	Database Management Systems Lab	0	0	2				25		25	50	1
7	BAISL2	Deep learning & Neural Network Lab	0	0	2				25		25	50	1
8	BAISL3	Artificial Intelligence Lab	0	0	2				25		25	50	1
9	BAISS1	Seminar	0	0	2			50				50	1
10	APHNC2	Constitution of India, Law and Engineering	2	0	0	15	10	25		50		0	
Total												900	22

Departmental Elective-I

1. Image Processing & Computer vision
2. Internet and Web Programming
3. Computer Graphics and Multimedia
4. Multi Agent System

Departmental Elective-II

1. Digital Forensics
2. Virtualization
3. Human Computer Interaction
4. Distributed AI

SEMESTER - VI													
Sr. No	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	BAI601	Natural language processing	3	1	0	30	20	50		100		150	4
2	BAI602	Internet of things	3	1	0	30	20	50		100		150	4
3	BAI603	Data Engineering (Modelling & Visualization)	3	1	0	30	20	50		100		150	4
4	BAI6DE1	Departmental Elective-III	3	0	0	30	20	50		100		150	3
5	BAI6OE1	Open Elective-I	3	0	0	30	20	50		100		150	3
6	BAI6L1	Natural language processing Lab	0	0	2				25		25	50	1
7	BAI6L2	Internet of things Lab	0	0	2				25		25	50	1
8	BAI6L3	Data Engineering Lab	0	0	2				25		25	50	1
9	APIUNC3	Indian Tradition, Culture and Society	2	0	0	15	10	25		50		0	
Total												900	21

Departmental Elective-III

1. Large Scale Data Processing
2. Network and Communication
3. Real Time Systems
4. Social and Information Networks

Open Elective-I

1. Idea to Business Model
2. Introduction to MEMS
3. Software Project Management
4. Probability & Statistics

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SEMESTER - VII													
Sr. No	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	BAE1701	Business Environment	3	0	0	30	20	50		100		150	3
2	BAE1704	Departmental Elective-IV	3	0	0	30	20	50		100		150	3
3	BAE1705	Departmental Elective-V	3	0	0	30	20	50		100		150	3
4	BAE1702	Open Elective-II	3	0	0	30	20	50		100		150	3
5	BAE1701	Departmental Elective IV / V Lab	0	0	2				25		25	50	1
6	BAE1701	Industrial Training	0	0	2				25		25	50	1
7	BAE1701	Project-I	0	0	8				50		100	150	4
Total												850	18

Departmental Elective-IV

1. Advanced Machine Learning
2. AI for Robotics
3. Cryptography and Network Security
4. High Performance Computing

Departmental Elective-V

1. Generative AI
2. Service Oriented Architecture
3. Pattern Recognition
4. Block Chain

Open Elective-II

1. Bioinformatics
2. Operations Research
3. Renewable Energy Resource
4. Vision for Humane Society

SEMESTER - VIII													
Sr. No	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	BAE1801	Project Management & Entrepreneurship	3	0	0	30	20	50		100		150	3
2	BAE1806	Department Elective-VI	3	0	0	30	20	50		100		150	3
3	BAE1807	Department Elective-VII	3	0	0	30	20	50		100		150	3
4	BAE1802	Project-2	0	0	18				100		300	400	9
Total												850	18

Departmental Elective-VI

1. Big Data Analytics and Applications
2. AI System Development & Software Engg
3. Precision Farming
4. Smart Digital Healthcare System

Departmental Elective-VII

1. Open Source AI
2. AI Ethics & Security Risks
3. Green AI & Energy
4. Autonomous Vehicle

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Department of Computer Science & Engineering
Curriculum for 4 Year (8 Semester) of Bachelor of Technology course in Data Science
B.Tech DS
w.e.f AY- 2026-27

SEMESTER-I													
3 WEEKS COMPULSORY INDUCTION PROGRAM													
Sr No.	Code	Subject	Periods			Evaluation Scheme for Sessional				End Semester Exam		Total	Credit
			L	T	P	CT	TA	Total	PS	Theory	Practical		
1	APS101/ APS102	Physics/ Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	APS103	Mathematics-II	3	1	0	30	20	50	-	100	-	150	4
3	EEB101/ CSB101	Basic Electrical Engineering / Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	MEB101/ MED102	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
5	ECB101/ MEB101	*Fundamentals of Electronics Engineering/ *Basic Mechanical Engineering	3/2	0	0	30	20	50	-	100	-	150	3/2
		TOTAL										750	20.5/ 19.5

SEMESTER-II													
Sr No.	Code	Subject	Periods			Evaluation Scheme for Sessional				End Semester Exam		Total	Credit
			L	T	P	CT	TA	Total	PS	Theory	Practical		
1	APS201/ APS202	Physics/Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	APS203	Mathematics-II	3	1	0	30	20	50	-	100	-	150	4
3	EEB201/ CSB201	Basic Electrical Engineering / Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	APH 201	Professional English	2	0	0	30	20	50	-	100	-	150	3
5	MEB201/ MED202	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
6	EEB201/ MEB201	*Fundamentals of Electronics Engineering/ *Basic Mechanical Engineering	3/2	0	0	30	20	50	-	100	-	150	3/2
		TOTAL										900	23.5/ 22.5

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SEMESTER - III													
Sr. No	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	BDE031	Technical Communication	3	0	0	30	20	50		100		150	3
2	BDS301	Introduction to Artificial Intelligence	2	1	0	30	20	50		100		150	3
3	BDS301	Data Structures and Algorithms	3	1	0	30	20	50		100		150	4
4	BDS302	Digital Logic and Design	3	1	0	30	20	50		100		150	4
5	BDS303	Discrete Structures & Theory of Logic	3	0	0	30	20	50		100		150	3
6	BDS3L1	Data Structures and Algorithms Lab	0	0	2				25		25	50	1
7	BDS3L2	Digital Logic and Design Lab	0	0	2				25		25	50	1
8	BDS3L3	Discrete Structures & Logic Lab	0	0	2				25		25	50	1
9	BDS3I1	Summer Internship / NPTEL Course*	0	0	2			50				50	1
10	BDSNC1	Computer System Security	2	0	0	15	10	25		50			0
Total												950	21

*Summer Internship / NPTEL Course (4 weeks) during summer break after II semester and will be assessed during III semester.

SEMESTER - IV													
Sr. No	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	APS402	Numerical Method & Optimization Techniques	3	1	0	30	20	50		100		150	4
2	APS401	Human Values and Professional Ethics	2	1	0	30	20	50		100		150	3
3	BDS401	Operating Systems	3	0	0	30	20	50		100		150	3
4	BDS402	Data Analysis	3	1	0	30	20	50		100		150	4
5	BDS403	Pattern Recognition	3	1	0	30	20	50		100		150	4
6	BDS4L1	Operating Systems Lab	0	0	2				25		25	50	1
7	BDS4L2	Data Analysis Lab	0	0	2				25		25	50	1
8	BDS4L3	Python Language Programming Lab	0	0	2				25		25	50	1
9	BDSINC2	Python Programming	2	0	0	15	10	25		50			0
Total												900	21

*Summer Internship / NPTEL Course (4 weeks) during summer break after II semester and will be assessed during III semester.

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SEMESTER - V													
Sr. No	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	BDS501	Database Management Systems	3	1	0	30	20	50		100		150	4
2	BDS502	Cloud Computing	3	1	0	30	20	50		100		150	4
3	BDS503	Machine Learning	3	1	0	30	20	50		100		150	4
4	BDS50E1	Departmental Elective-I	3	0	0	30	20	50		100		150	3
5	BDS50E2	Departmental Elective-II	3	0	0	30	20	50		100		150	3
6	BDS5L1	Database Management Systems Lab	0	0	2				25		25	50	1
7	BDS5L2	Cloud Computing Lab	0	0	2				25		25	50	1
8	BDS5L3	Machine Learning Lab	0	0	2				25		25	50	1
9	BDS5S1	Seminar	0	0	2			50				50	1
10	APPHNC2	Constitution of India, Law and Engineering	2	0	0	15	10	25		50			0
Total												950	22

Departmental Elective-I

1. Image Processing & Computer vision
2. Internet and Web Programming
3. Computer Graphics and Multimedia
4. Multi Agent System

Departmental Elective-II

1. Digital Forensics
2. Virtualization
3. Human Computer Interaction
4. Distributed AI

SEMESTER - VI													
Sr. No	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	BDS 601	Natural language processing	3	1	0	30	20	50		100		150	4
2	BDS 602	Deep learning & Neural Network	3	1	0	30	20	50		100		150	4
3	BDS 603	Data Engineering (Modelling & Visualization)	3	1	0	30	20	50		100		150	4
4	BDS 6E 3	Departmental Elective-III	3	0	0	30	20	50		100		150	3
5	BDS 6OE 1	Open Elective-I	3	0	0	30	20	50		100		150	3
6	BDS 6L1	Natural language processing Lab	0	0	2				25		25	50	1
7	BDS 6L2	Deep learning & Neural Network Lab	0	0	2				25		25	50	1
8	BDS 6L3	Data Engineering Lab	0	0	2				25		25	50	1
9	APPHNC3	Indian Tradition, Culture and Society	2	0	0	15	10	25		50			0
Total												900	21

Departmental Elective-III

1. Pattern Recognition
2. Network and Communication
3. Real Time Systems
4. Serial and Information Networks

Open Elective-I

1. Idea to Business Model
2. Introduction to MEMS
3. Software Project Management
4. Probability & Statistics

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SEMESTER - VII													
Sl. No.	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	APB701	Business Environment	3	0	0	30	20	50		100		150	3
2	BDS7DE4	Departmental Elective-IV	3	0	0	30	20	50		100		150	3
3	BDS7DE5	Departmental Elective-V	3	0	0	30	20	50		100		150	3
4	BDS7OE2	Open Elective-II	3	0	0	30	20	50		100		150	3
5	BDS7L1	Departmental Elective IV / V Lab	0	0	2				25		25	50	1
6	BDS7IT	Industrial Training	0	0	2				25		25	50	1
7	BDS7P1	Project-1	0	0	8				50		100	150	4
Total												850	18

Departmental Elective-IV	Departmental Elective-V	Open Elective-II
1. Reinforcement Learning 2. AI in Robotics 3. Cryptography and Network Security 4. High Performance Computing	1. Generative AI 2. Service Oriented Architecture 3. Data Warehouse & Data Mining 4. Block Chain	1. Bioinformatics 2. Operations Research 3. Renewable Energy Resource 4. Vision for Humane Society

SEMESTER - VIII													
Sl. No.	Subject Code	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	APH801	Project Management & Entrepreneurship	3	0	0	30	20	50		100		150	3
2	BDS8DE6	Department Elective-VI	3	0	0	30	20	50		100		150	3
3	BDS8DE7	Department Elective-VII	3	0	0	30	20	50		100		150	3
4	BDS8P2	Project-2	0	0	18				100		300	400	9
Total												850	18

Departmental Elective-VI	Departmental Elective-VII
1. Big Data Analytics and Applications 2. AI System Development & Software Engrg 3. Precision Farming 4. Smart Digital Healthcare System	1. Open Source AI 2. AI Ethics & Security Risks 3. Green AI & Energy 4. Human Computer Interface & Information Retrieval

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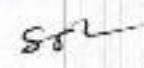
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INSTITUTE OF ENGINEERING & TECHNOLOGY
DR. RAMMANOHAR LOHIA AVADH UNIVERSITY, AYODHYA (U.P.)



CURRICULUM AND SYLLABI
(2026-2027)
Integrated M.Tech.
Computer Science and Engineering

On
Choice Based Credit System
(Effective from the Session: 2026-2027)

    
DIRECTOR
Institute of Engineering & Technology
Dr. R.M.L. Avadh University
Ayodhya, U.P. - 224001

VISION OF INSTITUTE OF ENGINEERING & TECHNOLOGY

Transforming life through excellence in education and research.

MISSION OF INSTITUTE OF ENGINEERING & TECHNOLOGY

World class Education: Excellence in education, grounded in ethics and critical thinking, for improvement of life.

Cutting edge Research: An innovation ecosystem to extend knowledge and solve critical problems.

Impactful People: Happy, accountable, caring and effective workforce and students.

Rewarding Co-creations: Active collaboration with national & international industries & universities for productivity and economic development.

Service to Society: Service to the region and world through knowledge and compassion.

VISION OF THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

To be a world-renowned centre of education, research and service in computing and allied domains.

MISSION OF THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- To offer computing education programs with the goal that the students become technically competent and develop lifelong learning skill.
- To undertake path-breaking research that creates new computing technologies and solutions for industry and society at large.
- To foster vibrant outreach programs for industry, research organizations, academia and society.

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INSTITUTE OF ENGINEERING & TECHNOLOGY
DR. RAMMANOHAR LOHIA AVADH UNIVERSITY, AYODHYA (U.P.)

**Integrated M.Tech, Computer Science and Engineering
Evaluation Scheme 2026-27**

CREDIT STRUCTURE

Category-wise Credit distribution

Category	Credits
Program Core (PC)	112
University Core (UC)	66
Program Elective (PE)	23
University Elective (UE)	12
Total Credits	213

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Category	Full Form	Description in Integrated M.Tech CSE Subject Categories
Program Core (PC)	Program Core	These are the fundamental and compulsory subjects directly related to the Computer Science & Engineering discipline. They build the technical foundation of a CSE student. Examples include Data Structures, Operating Systems, DBMS, Computer Networks, Algorithms, Software Engineering, AI, Projects, Labs, Internship, and Dissertation work.
University Core (UC)	University Core	These are compulsory subjects prescribed by the university for all students across different branches to develop basic science, mathematics, communication, ethics, management, and human values. Examples include Mathematics, Physics, Chemistry, Professional English, Universal Human Values, Constitution of India, and Project Management.
Program Elective (PE)	Program Elective	These are elective subjects offered by the CSE department that allow students to specialize in advanced or emerging areas of Computer Science according to their interests and career goals. Examples include Artificial Intelligence, Cloud Computing, Deep Learning, Blockchain, NLP, Quantum Computing, Cyber Security, and IoT.
University Elective (UE)	University Elective	These are open elective subjects offered by the university that students can choose from outside their core discipline to gain interdisciplinary knowledge and broader exposure. Examples include Machine Learning, Renewable Energy, Operations Research, Digital Marketing, Smart Grid, Women's Studies, and Entrepreneurship-related courses.

Key Features of Each Category in Integrated M.Tech CSE

- PC: Develops strong technical and practical competency in Computer Science.
- UC: Builds analytical ability, communication skills, ethics, and overall personality development.
- PE: Helps students gain specialization in chosen technical domains.
- UE: Encourages multidisciplinary learning and industry-oriented exposure.

CL PE UC UE
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INTEGRATED M.TECH (COMPUTER SCIENCE AND ENGINEERING)													
SEMESTER-1													
3 WEEKS COMPULSORY INDUCTION PROGRAM													
Sr. No.	Code	Subject	Periods			Evaluation Scheme for Sessional				End Semester Exam		Total	Credit
			L	T	P	CT	TA	Total	PS	Theory	Practical		
1	APS101/APS102	Physics/Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	APS103	Mathematics-I	3	1	0	30	20	50	-	100	-	150	4
3	EEB101/CSB101	Basic Electrical Engineering / Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	MEB101/MEB102	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
5	ECB101/MEB101	*Fundamentals of Electronics Engineering/ *Basic Mechanical Engineering	3/2	0	0	30	20	50	-	100	-	150	3/2
**MOOCs(For B.Tech. Hons. Degree)*												0	
TOTAL												750	20.5/19.5
INTEGRATED M.TECH (COMPUTER SCIENCE AND ENGINEERING)													
SEMESTER-2													
Sr. No.	Code	Subject	Periods			Evaluation Scheme for Sessional				End Semester Exam		Total	Credit
			L	T	P	CT	TA	Total	PS	Theory	Practical		
1	APS201/APS202	Physics/Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	APS203	Mathematics-II	3	1	0	30	20	50	-	100	-	150	4
3	EEB201/CSB201	Basic Electrical Engineering / Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	APH 201	Professional English	2	0	0	30	20	50	-	100	-	150	3
5	MEB201/MEB202	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
6	*ECB201/*MEB201	*Fundamentals of Electronics Engineering/ *Basic Mechanical Engineering	3/2	0	0	30	20	50	-	100	-	150	3/2
**MOOCs(For B.Tech. Hons. Degree)*												0	
TOTAL												900	23.5/22.5

List of MOOCs (NPTEL) Based Recommended Courses for first Year B. Tech Students

1. Developing Soft Skills and personality-Odd Semester-8 Weeks-3 Credits 2. Enhancing Soft Skills and personality-Even Semester-8 Weeks-3 Credits

MOOCs Guidelines in Model curriculum:

After successful completion of 160 credits, a student shall be eligible to get Under Graduate degree in Engineering. A student will be eligible to get Under Graduate degree with Honours only, if he/she completes additional university recommended courses only (Equivalent to 20 credits, NPTEL Courses of 4 Weeks, 8 Weeks and 12 Weeks shall be of 2, 3 and 4 Credits respectively) through MOOCs. For registration to MOOCs Courses, the students shall follow NPTEL Site <http://nptel.ac.in/> as per the NPTEL policy and norms. The students can register for these courses through NPTEL directly as per the course offering in Odd/Even Semesters at NPTEL. These NPTEL courses (recommended by the University) may be cleared during the B. Tech degree program (not necessary one course in each semester). After successful completion of these MOOCs courses the students shall provide their successful completion NPTEL status/certificates to the University (COE) through their college of study only. The student shall be awarded Hons. Degree (on successful completion of MOOCs based 20 credit) only if he/she secures 7.50 or above CGPA and passed each subject of that Degree Programme in single attempt without any grace marks.

Note:

In First Sem: CS, ME and EE Branch Subject Combination is "Physics, Mathematics-I, Basic Electrical Engineering and Engineering Graphics & Design and Fundamentals of Electronics Engineering" And ECE, IT and CE Branch Subject Combination is "Chemistry, Mathematics-I, Programming for Problem Solving and Workshop Practices and Basic Mechanical Engineering". In Second Sem: ECE, IT and CE Branch Subject Combination is "Physics, Mathematics-II, Basic Electrical Engineering, Engineering Graphics & Design, Professional English and Fundamentals of Electronics". And CS, ME and EE Branch Subject Combination is "Chemistry, Mathematics-II, Programming for Problem Solving, Workshop Practices, Professional English and Basic Mechanical Engineering".

CS PR
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**INTEGRATED M.TECH (COMPUTER SCIENCE AND ENGINEERING) -
SEMESTER- III**

Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	IMOE031	Engineering Science Course [Energy Science & Engineering]	3	1	0	30	20	50		100		150	4
2	IMAS201	Technical Communication	2	1	0	30	20	50		100		150	3
3	IMCS301	Data Structures and Algorithms	3	1	0	30	20	50		100		150	4
4	IMCS302	Digital Logic and Design	3	1	0	30	20	50		100		150	4
5	IMCS303	Discrete Structures & Theory of Logic	3	0	0	30	20	50		100		150	3
6	IMCS3L1	Data Structures and Algorithms Lab	0	0	2				25		25	50	1
7	IMCS3L2	Digital Logic and Design Lab	0	0	2				25		25	50	1
8	IMCS3L3	Discrete Structures & Logic Lab	0	0	2				25		25	50	1
9	IMCS3S1	Summer Internship/ NPTEL Course*	0	0	2			50				50	1
10	IMCSNC301	Computer System Security	2	0	0	15	10	25		50			0
11													
		Total										950	22

*Summer Internship / NPTEL Course (4 weeks) during summer break after II semester and will be assessed during III semester.

**INTEGRATED M.TECH (COMPUTER SCIENCE AND ENGINEERING) -
SEMESTER- IV**

Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	IMAS402	Maths IV	3	1	0	30	20	50		100		150	4
2	IMVE401	Universal Human Values	2	1	0	30	20	50		100		150	3
3	IMCS401	Operating Systems	3	0	0	30	20	50		100		150	3
4	IMCS402	Theory of Computation	3	1	0	30	20	50		100		150	4
5	IMCS403	Computer Architecture and Organization	3	1	0	30	20	50		100		150	4
6	IMCS4L1	Operating Systems Lab	0	0	2				25		25	50	1
7	IMCS4L2	Computer Organization Lab	0	0	2				25		25	50	1
8	IMCS4L3	Python Language Programming Lab	0	0	2				25		25	50	1
9	IMCSNC402	Python Programming	2	0	0	15	10	25		50			0
10		MOOCs (Universal Human Values)											
		Total										900	21

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**INTEGRATED M.TECH (COMPUTER SCIENCE AND ENGINEERING) -
SEMESTER- V**

Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	IMCS501	Database Management Systems	3	1	0	30	20	50		100		150	4
2	IMCS502	Compiler Design	3	1	0	30	20	50		100		150	4
3	IMCS503	Design and Analysis of Algorithms	3	1	0	30	20	50		100		150	4
4	IMCSE1	Departmental Elective-I	3	0	0	30	20	50		100		150	3
5	IMCSE2	Departmental Elective-II	3	0	0	30	20	50		100		150	3
6	IMCS5L1	Database Management Systems Lab	0	0	2				25		25	50	1
7	IMCS5L2	Compiler Design Lab	0	0	2				25		25	50	1
8	IMCS5L3	Design and Analysis of Algorithms Lab	0	0	2				25		25	50	1
9	IMCS5S4	Seminar-2	0	0	2			50				50	1
10	IMVANC503	Constitution of India, Law and Engineering	2	0	0	15	10	25		50			0
		Total										950	22

Departmental Elective-I

1. Artificial Intelligence
2. Internet and Web Programming
3. Computer Graphics and Multimedia
4. Object Oriented System Design

Departmental Elective-II

1. Digital Forensics
2. Virtualization
3. Human Computer Interaction
4. Parallel and Distributed Computing

**INTEGRATED M.TECH (COMPUTER SCIENCE AND ENGINEERING) -
SEMESTER- VI**

Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	IMCS601	Software Engineering	3	1	0	30	20	50		100		150	4
2	IMCS602	Java Programming	3	1	0	30	20	50		100		150	4
3	IMCS603	Network and Communication	3	1	0	30	20	50		100		150	4
4	IMCSE3	Departmental Elective-III	3	0	0	30	20	50		100		150	3
5	IMOEL	Open Elective-I	3	0	0	30	20	50		100		150	3
6	IMCS6L1	Software Engineering Lab	0	0	2				25		25	50	1
7	IMCS6L2	Java Programming Lab	0	0	2				25		25	50	1
8	IMCS6L3	Network and Communication Lab	0	0	2				25		25	50	1
9	IMNC604	Indian Tradition, Culture and Society	2	0	0	15	10	25		50			0
		Total										900	21

Departmental Elective-III

1. Large Scale Data Processing
2. Image Processing
3. Real Time Systems
4. Social and Information Networks

Open Elective-I

1. Idea to Business Model
2. Introduction to MEMS
3. Software Project Management
4. Machine Learning

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 2. A signature that appears to be "TDe".

INTEGRATED M.TECH (COMPUTER SCIENCE AND ENGINEERING) -

SEMESTER- VII

Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1.	IMHU01	Rural Development: Administration and Planning	3	0	0	30	20	50		100		150	3
2.	IMCS702	Advanced Algorithms	3	0	0	30	20	50		100		150	3
3.	IMCS703	Evolutionary Computing	3	0	0	30	20	50		100		150	3
4.	IMCSE4	Departmental Elective-IV	3	0	0	30	20	50		100		150	3
5.	IMCSE5	Departmental Elective-V	3	0	0	30	20	50		100		150	3
6.	IMOE2	Open Elective-II	3	0	0	30	20	50		100		150	3
7.	IMCS7L1	Advanced Algorithm Lab	0	0	2				25		25	50	1
8.	IMCS7L2	Evolutionary Computing Lab	0	0	2				25		25	50	1
9.	IM3IT1	Industrial Training	0	0	2				25		25	50	1
10.	IMCS7P1	Project-1	0	0	4				50		100	150	2
		Total										1200	23

Departmental Elective-IV

1. Distributed Systems
2. Natural Language Processing
3. Cryptography and Network Security
4. High Performance Computing

Departmental Elective-V

1. Deep Learning
2. Service Oriented Architecture
3. Quantum Computing
4. Blockchain and It's Applications

Open Elective-II

1. Bioeconomic
2. Operations Research
3. Renewable Energy Resources
4. Vision for Humane Society

INTEGRATED M.TECH (COMPUTER SCIENCE AND ENGINEERING) - SEMESTER- VIII

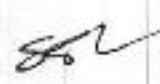
Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1.	IMHU802	Project Management & Entrepreneurship	3	0	0	30	20	50		100		150	3
2.	IMCS802	Advanced DBMS	3	0	0	30	20	50		100		150	3
3.	IMCS803	Advanced Digital Image Processing	3	0	0	30	20	50		100		150	3
4.	IMOE3	Open Elective-III	3	0	0	30	20	50		100		150	3
5.	IMOE4	Open Elective-IV	3	0	0	30	20	50		100		150	3
6.	IMCS8L1	Advanced Digital Image Processing Lab			2				25	25		50	1
7.	IMCS8P2	Project-2	0	0	14				100		200	400	7
		Total										1200	23

Open Elective-III

1. Fundamentals of Drone Technology
2. Cloud Computing
3. Bio Medical Signal Processing
4. Introduction to Smart Grid

Open Elective-IV

1. Electric Vehicles
2. Computerized Process Control
3. Data Warehousing & Data Mining
4. Digital and Social Media Marketing


**INTEGRATED M.TECH (COMPUTER SCIENCE AND ENGINEERING) -
SEMESTER- IX**

Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	IMCS901	Internet of Things	3	0	0	30	20	50		100		150	3
2	IMCS902	Data Science and Its Applications	3	0	0	30	20	50		100		150	3
3	IMCS903	Advances in AI and Machine Learning	3	0	0	30	20	50		100		150	3
4	IMCS9L1	Data Science Lab			2				25	75		50	1
5	IMCS9L2	AI and Machine Learning Lab	0	0	2				25	25		50	1
6	IMCS9D1	Pre- Dissertation	0	0	12				100		150	350	6
Total												900	17

**INTEGRATED M.TECH (COMPUTER SCIENCE AND ENGINEERING) -
SEMESTER- X**

Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
4	IMCS10S3	Seminar-2	0	0	10				100	100		200	5
5	IMCS10D2	Dissertation	0	0	30				250	450		700	15
Total												900	20

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DIRECTOR
Institute of Engineering & Technology
Dr. R.M.L. Avadh University
Ayodhya, U.P. - 224001

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T. Dew

People

+ Add people

Search for people

IN THE MEETING

Contributors

Chanda, (You Meeting host)

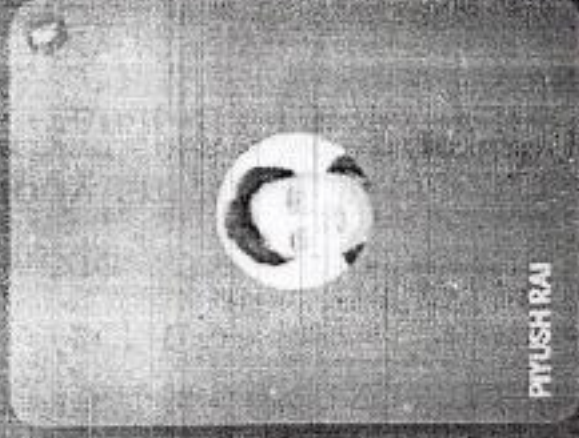
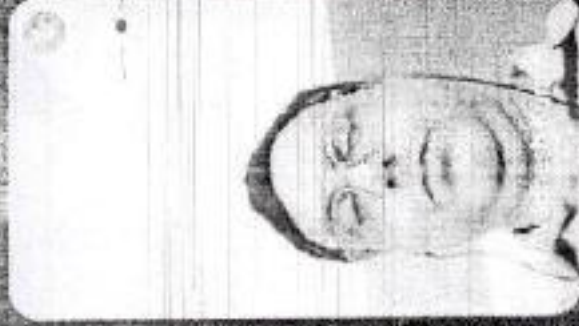
Dr. Avadhoot K

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List of AICTE approved books in Hindi

S. No.	Title of the book	Author
1	Programming for problem solving	Dr. Ratish Agarwal
2	Mathematics - I	Dr. Reena Garg
3	Engineering Graphics & Design	Prof. Pradeep Jain
4	Chemistry-I	Dr. Manisha Agarwal
5	Workshop	Prof. Veeranna D.K.
6	Basic Electrical Engineering	S.K. Sahdev
7	Physics Mechanics (Hindi)	Dr. A.B. Bhattacharya
8	Physics (Theory & Lab) (Hindi)	Dr. A.B. Bhattacharya

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