



SIPNA COLLEGE OF ENGINEERING & TECHNOLOGY, AMRAVATI

SoE No.
24BTAD-01

**An Autonomous Institute Affiliated to
Sant Gadge Baba Amravati University, Amravati, Maharashtra (India)
(Approved by AICTE, New Delhi and Recognized by DTE, Maharashtra)
(Accredited With 'A+' Grade by NAAC)**

Bachelor of Technology (B. Tech.)

Programme Scheme of Examination (SoE)

Department of Artificial Intelligence (AI) and Data Science

**B. Tech. Artificial Intelligence (AI) and Data Science with Multidisciplinary Minor
(Semester Pattern)**

Effective from Academic Year 2025-26

Prepared by: Board of Studies - Artificial Intelligence (AI) and Data Science

Approved by: Academic Council - Sipna COET, Amravati

			25.07.2025	1.00
Chairman Board of Studies	Dean Academics	Chairman Academic Council	Date of Release	Version



Definition of Course Code

1st & 2nd letter (Degree Program)	3rd & 4th letter (Applicable to which students)	5th & 6th letter (Course category)	7th & 8th letter (Sr. no. of Subject)	9th & 10th letters (Teaching Dept.)	11th letter (Semester)	12th letter (Theory or Practical)
BT: B.Tech. MT: M. Tech. MB: MBA	AL: All branches CS: Computer Science and Engineering IT: Information Technology ME: Mechanical Engineering ET: Electronics and Telecommunication Engineering CE: Civil Engineering AD: Artificial Intelligence (AI) and Data Science For MDM 'AL' excluding Teaching Department students'	BS: Basic Science ES: Engineering Science VE: Value Education VS: Vocational and Skill Enhancement AE: Ability Enhancement IK: Indian Knowledge System CC: Cocurricular Course MD: Multidisciplinary Minor OE: Open Elective PC: Program Core PE: Program Elective FP: Field Project H: Humanities N: Entrepreneurship E: Economics M: Management II: Industry Internship RI: Research Internship EI: Entrepreneurship Internship RM: Research Methodology PS: Project and Seminar RP: Research Project and seminar MH: Minors & Honors	Sr. no. of course in the particular Course category from 1 st to 8 th semester.	SH: Science and Humanities CS: Computer Science and Engineering IT: Information Technology ME: Mechanical Engineering ET: Electronics and Telecommunication Engineering CE: Civil Engineering AD: Artificial Intelligence (AI) and Data Science	1: First Semester 2: Second Semester 3: Third Semester 4: Fourth Semester 5: Fifth Semester 6: Sixth Semester 7: Seventh Semester 8: Eighth Semester	T: Theory P: Practical



Category-wise Courses Master List

Course Category: Basic Science Course (BSC)		
Sr. No.	Course Name	Course Code
1	Engineering Mathematics -I	BTALBS01SH1T
2	Engineering Chemistry	BTALBS02SH1T
3	Engineering Chemistry Lab	BTALBS03SH1P
4	Engineering Mathematics -II	BTALBS04SH2T
5	Engineering Physics	BTADBS05SH2T
6	Engineering Physics Lab	BTADBS06SH2P
7	Engineering Mathematics - III	BTADBS07SH3T

Course Category: Engineering Science Course (ESC)		
Sr. No.	Course Name	Course Code
1	Engineering Graphics	BTALES01ME1T
2	Engineering Graphics Lab	BTALES02ME1P
3	Foundation of Data Science	BTADES03AD1T
4	Foundation of Data Science Lab	BTADES04AD1P
5	Basic Electrical Engineering	BTALES05ET2T
6	Basic Electrical Engineering Lab	BTALES06ET2P
7	Programming for Problem Solving	BTADES07AD2T
8	Programming for Problem Solving Lab	BTADES08AD2P
9	Workshop Idea Lab /Fab Lab	BTALES09ME2P

Approved in..... 3rd
Academic Council Meeting
Dated:-..... 25.11.2024.....



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Course Category: Vocational and Skill Enhancement Courses (VSEC)

Sr. No.	Course Name	Course Code
1	Web Technology Lab	BTADVS01AD1P
2	Design Thinking	BTADVS02AD1T
3	Basics of Python Lab	BTADVS03AD2P
4	Big Data Analytics	BTADVS04AD4P
5	IoT and Embedded Computing	BTADVS05AD6P

Course Category: Humanities, Social Science and Management Courses [HSSMC]

Sr. No.	Course Name	Course Code
1	Professional Communication	BTALAE01SH1P
2	Values and Ethics	BTALVE01SH1T
3	Environmental Studies	BTALVE02SH1T
4	Indian Knowledge System	BTALIK01SH2T
5	MIS (Management Information System)	BTADHM01AD3T
6	Entrepreneurship Development	BTADHN02AD4T
7	Modern Indian Language	BTALAE02SH6T

Course Category: Experiential Learning Courses

Sr. No.	Course Name	Course Code
1	Comm. Engg. Project/Field project	BTADFP01AD5P
2	Project and Seminar/Research Project and Seminar	BTADPS01AD7P/ BTADRP01AD7P
3	Research Methodology	BTADRM01AD8T
4	Industry Internship/Research Internship/Entrepreneurship	BTADII01AD8P/BTADRI01AD8P/ BTADEI01AD8P



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Course Category: Programme Core Course (PCC)

Sr. No.	Course Name	Course Code
1	Basics of Python	BTADPC01AD2T
2	Data Structures and Algorithms	BTADPC02AD3T
3	Data Structures and Algorithms - Lab	BTADPC03AD3P
4	Object Oriented Programming	BTADPC04AD3T
5	Object Oriented Programming- Lab	BTADPC05AD3P
6	Introduction to Artificial Intelligence	BTADPC06AD3T
7	Computer Skill Lab - I	BTADPC07AD3P
8	Theory of Computation	BTADPC08AD4T
9	Machine Learning	BTADPC09AD4T
10	Discrete Mathematics	BTADPC10AD4T
11	Operating Systems	BTADPC11AD4T
12	Operating Systems - Lab	BTADPC12AD4P
13	Computer Skill Lab - II	BTADPC13AD4P
14	Statistical Analysis and Computing	BTADPC14AD5T
15	Computer Organization and Design	BTADPC15AD5T
16	Data Base Management System	BTADPC16AD5T
17	Data Base Management System - Lab	BTADPC17AD5P
18	Computer Skill Lab - III	BTADPC18AD5P
19	Computer Skill Lab - IV	BTADPC19AD5P
20	Computer Networks	BTADPC20AD6T
21	Software Project Management	BTADPC21AD6T
22	Software Project Management - Lab	BTADPC22AD6P
23	Introduction to IoT and Embedded Computing - Lab	BTADPC23AD6P
24	Applied AI	BTADPC24AD7T
25	Deep Learning	BTADPC25AD7T
26	Deep Learning - Lab	BTADPC26AD7P
27	Business Intelligence	BTADPC27AD7T
28	Business Intelligence - Lab	BTADPC28AD7P



Course Category: Programme Elective Courses (PEC)

Sr. No.	Course Name	Course Code
1	Information Retrieval	BTADPE01AD5T
2	Information Retrieval - Lab	BTADPE02AD5P
3	Techniques of Data Mining	BTADPE03AD5T
4	Techniques of Data Mining - Lab	BTADPE04AD5P
5	Mathematics for Machine Learning	BTADPE05AD5T
6	Mathematics for Machine Learning - Lab	BTADPE06AD5P
7	Natural Language Processing	BTADPE07AD6T
8	Natural Language Processing - Lab	BTADPE08AD6P
9	Architectures for Management of Large Datasets	BTADPE09AD6T
10	Architectures for Management of Large Datasets - Lab	BTADPE10AD6P
11	Introduction to toolkits for Machine Learning	BTADPE11AD6T
12	Introduction to toolkits for Machine Learning - Lab	BTADPE12AD6P
13	Applications of Data Science	BTADPE13AD6T
14	Applications of Data Science - Lab	BTADPE14AD6P
15	Applications of Artificial Intelligence	BTADPE15AD6T
16	Applications of Artificial Intelligence - Lab	BTADPE16AD6P
17	Introduction to Data Analytics and Visualization	BTADPE17AD6T
18	Introduction to Data Analytics and Visualization - Lab	BTADPE18AD6P
19	Neural Networks Architectures for Data Analysis	BTADPE19AD7T
20	Neural Networks Architectures for Data Analysis - Lab	BTADPE20AD7P
21	Block Chain Technology	BTADPE21AD7T
22	Block Chain Technology - Lab	BTADPE22AD7P
23	Advanced Machine Learning	BTADPE23AD7T
24	Advanced Machine Learning - Lab	BTADPE24AD7P
25	Web Technologies for Advanced Data Visualization	BTADPE25AD7T
26	Image Processing & Computer Vision	BTADPE26AD7T
27	Real Time Embedded System	BTADPE27AD7T



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For the detailed list of Multidisciplinary Minor (MDM) courses, click here.

For the detailed list of Open Elective (OE) courses, click here.

For the detailed list of Co-curricular (CC) courses, click here.


Approved in..... 3rd
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Dated:-..... 05.01.2024



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Scheme Semester- I

Scheme for First Year B. Tech. in Artificial Intelligence (AI) & Data Science (Semester -I)															
Sr No	Course Name	Course Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Practical Evaluation		Total	ESE Time (Hrs.)
			L	P	T	Hrs.		MSE-I	MSE-II	TA	ESE	INT	EXT		
Basic Science Courses (BSC)															
1	Engineering Mathematics -I	BTALBS01SH1T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
2	Engineering Chemistry	BTALBS02SH1T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
3	Engineering Chemistry Lab	BTALBS03SH1P	0	2	0	2	1	-	-	-	-	30	20	50	-
Engineering Science Courses (ESC)															
4	Engineering Graphics	BTALES01ME1T	3	0	0	3	3	15	15	10	60	-	-	100	3
5	Engineering Graphics Lab	BTALES02ME1P	0	2	0	2	1	-	-	-	-	30	20	50	-
6	Foundation of Data Science	BTADES03AD1T	2	0	0	2	2	15	15	10	60	-	-	100	2.5
7	Foundation of Data Science Lab	BTADES04AD1P	0	2	0	2	1	-	-	-	-	30	20	50	-
Vocational and Skill Enhancement Courses (VSEC)															
8	Web Technology Lab	BTADVS01AD1P	0	2	0	2	1	-	-	-	-	50	-	50	-
9	Design Thinking	BTADVS02AD1T	1	0	0	1	1	-	-	50	-	-	-	50	-
Ability Enhancement Courses (AEC)															
10	Professional Communication	BTALAE01SH1P	0	2	1	3	2	-	-	-	-	30	20	50	-
Value Education Courses(VEC)															
11	Values and Ethics	BTALVE01SH1T	2	0	0	2	2	15	15	10	60	-	-	100	2.5
12	Environmental studies	BTALVE02SH1T	1	0	0	1	1	-	-	50	-	-	-	50	-
Cocurricular Courses (CC)															
13	Co-curricular course (CC1)	BTALCC01SH1P	-	2	1	2	1	-	-	-	-	50	-	50	-
TOTAL			15	12	1	28	22	75	75	150	300	220	80	900	

L: Lecture P: Practical T: Tutorial MSE: Mid Semester Exam ESE: End Semester Exam TA: Teacher Assessment INT: Internal EXT: External

Note: 1 Suitable number of hours per week are allotted for continuous evaluation process of all subjects from semester 3 to semester 8 (Total contact hours per week = 42 Hrs).

For the details of CC Courses, Refer the link given on page no 07


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Scheme Semester- II

Scheme for First Year B. Tech. in Artificial Intelligence (AI) & Data Science (Semester -II)

Sr No	Course Name	Course Code	Course Plan per Week (Hrs.)				Credits	Theory Evaluation				Practical Evaluation		Total	ESE Time (Hrs.)
			L	P	T	Hrs.		MSE- I	MSE-II	TA	ESE	INT	EXT		
Basic Science Courses (BSC)															
1	Engineering Mathematics -II	BTALBS04SH2T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
2	Engineering Physics	BTADBS05SH2T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
3	Engineering Physics Lab	BTADBS06SH2P	0	2	0	2	1	-	-	-	-	30	20	50	-
Engineering Science Courses (ESC)															
4	Basic Electrical Engineering	BTALES05ET2T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
5	Basic Electrical Engineering Lab	BTALES06ET2P	0	2	0	2	1	-	-	-	-	30	20	50	-
6	Programming for Problem Solving	BTADES07AD2T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
7	Programming for Problem Solving Lab	BTADES08AD2P	0	2	0	2	1	-	-	-	-	30	20	50	-
8	Workshop Idea Lab /Fab Lab	BTALES09ME2P	0	2	0	2	1	-	-	-	-	30	20	50	-
Vocational and Skill Enhancement Courses (VSEC)															
9	Basics of Python Lab	BTADVS03AD2P	0	2	0	2	1	-	-	-	-	50	-	50	-
Program Core Courses (PCC)															
10	Basics of Python	BTADPC01AD2T	2	0	0	2	2	15	15	10	60	-	-	100	2.5
Indian Knowledge System (IKS)															
11	Indian Knowledge System	BTALIK01SH2T	2	0	0	2	2	-	-	50	-	-	-	50	-
Cocurricular Courses (CC)															
12	Co-curricular course (CC2)	BTALCC02SH2P	-	2	-	2	1	-	-	-	-	50	-	50	-
TOTAL			16	12	0	28	22	75	75	100	300	220	80	850	-

L: Lecture P:Practical T : Tutorial MSE: Mid Semester Exam ESE: End Semester Exam TA: Teacher Assessment INT: Internal EXT: External

Note: 1 Suitable number of hours per week are allotted for continuous evaluation process of all subjects from semester 3 to semester 8 (Total contact hours per week = 42 Hrs).

For the details of CC Courses, Refer the link given on page no 07

Scheme for Multiple Entry and Exit

Exitoption1(L4.5): Award of One Year UG Certificate in Major with 44 credits and an additional 8 credits.

Exit Courses

1	Eight credit online courses from Swayam/ NPTEL /any other agency approved by BoS which provides certification/ evaluation.	Online certification Course	8 Credits
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Scheme Semester – III

Scheme for Second Year B. Tech. In Artificial Intelligence (AI) & Data Science (Semester-III)

Sr. No.	Course Name	Code	Course Plan per Week (Hrs)				Credits	Theory Evaluation				Practical Evaluation		Total	ESE Time (Hrs)
			L	P	T	Hrs		MSE I	MSE II	TA	ESE	INT	EXT		
Basic Science Courses (BSC)															
1	Engineering Mathematics – III	BTADBS07SH3T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
Program Core Courses (PCC)															
2	Data Structures and Algorithms	BTADPC02AD3T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
3	Data Structures & Algorithm – Lab	BTADPC03AD3P	0	2	0	2	1	-	-	-	-	30	20	50	-
4	Object Oriented Programming	BTADPC04AD3T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
5	Object Oriented Programming – Lab	BTADPC05AD3P	0	2	0	2	1	-	-	-	-	30	20	50	-
6	Introduction to Artificial Intelligence	BTADPC06AD3T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
7	Computer Skill Lab – I	BTADPC07AD3P	0	2	0	2	1	-	-	-	-	30	20	50	-
Multidisciplinary Minor Courses (MDM)															
8	Multidisciplinary Minor -I	--	3	0	0	3	3	15	15	10	60	-	-	100	2.5
Open Elective Courses (OEC)															
9	Open Elective-I	--	2	0	0	2	2	15	15	10	60	-	-	100	2.5
HSSMC (Entrepreneurship/ Economics/ Management Course)															
10	MIS (Management Information System)	BTADHM01AD3T	2	0	0	2	2	15	15	10	60	-	-	100	2.5
TOTAL			19	06	0	25	22	105	105	70	420	90	60	850	

L: Lecture P: Practical T: Tutorial MSE: Mid Semester Exam ESE: End Semester Exam TA: Teacher Assessment INT: Internal EXT: External

Note: 1 Suitable number of hours per week are allotted for continuous evaluation process of all subjects from semester 3 to semester 8 (Total contact hours per week = 42 Hrs).

For the details of OE/MDM Courses, Refer the link given on page no 07



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Scheme Semester - IV

Scheme for Second Year B. Tech. In Artificial Intelligence (AI) & Data Science (Semester -IV)															
Sr. No.	Course Name	Code	Course Plan per Week (Hrs)				Credits	Theory Evaluation				Practical Evaluation		Total	ESE Time (Hrs)
			L	P	T	Hrs		MSE-I	MSE-II	TA	ESE	INT	EXT		
Program Core Courses(PCC)															
1	Theory of Computation	BTADPC08AD4T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
2	Machine Learning	BTADPC09AD4T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
3	Discrete Mathematics	BTADPC10AD4T	2	0	0	2	2	15	15	10	60	-	-	100	2.5
4	Operating Systems	BTADPC11AD4T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
5	Operating Systems - Lab	BTADPC12AD4P	0	2	0	2	1	-	-	-	-	30	20	50	-
6	Computer Skill Lab - II	BTADPC13AD4P	0	2	0	2	1	-	-	-	-	30	20	50	-
Multidisciplinary Minor Courses(MDM)															
7	Multidisciplinary Minor -II	--	3	0	0	3	3	15	15	10	60	-	-	100	2.5
Vocational and Skill Enhancement Courses(VSEC)															
8	Big Data Analytics	BTADVS04AD4P	-	2	1	3	2	-	-	-	-	50	-	50	-
Open Elective Courses															
9	Open Elective-II	--	2	0	0	2	2	15	15	10	60	-	-	100	2.5
HSSMC (Entrepreneurship/ Economics/ Management Course)															
10	Entrepreneurship Development	BTADHN02AD4T	2	0	0	2	2	15	15	10	60	-	-	100	2.5
TOTAL			18	06	1	25	22	105	105	70	420	110	40	850	-

L: Lecture P: Practical T: Tutorial MSE: Mid Semester Exam ESE: End Semester Exam TA: Teacher Assessment INT: Internal EXT: External

Note: 1 Suitable number of hours per week are allotted for continuous evaluation process of all subjects from semester 3 to semester 8 (Total contact hours per week = 42 Hrs).

For the details of OE/MDM Courses, Refer the link given on page no 07

Scheme for Multiple Entry and Exit

Exit option 2 (L 5.0): Award of Two Years UG Diploma in Major with 88 credits and an additional 8 credits		
Exit Courses		
Minimum two online/offline certification courses of 4 credits each suggested by BOS of the department	Online/offline certification Course	8 credits

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Scheme Semester - V

Scheme for Third Year B. Tech. In Artificial Intelligence (AI) & Data Science (Semester -V)

Sr. No.	Course Name	Code	Course Plan per Week (Hrs)				Credits	Theory Evaluation				Practical Evaluation		Total	ESE Time (Hrs)
			L	P	T	Hrs		MSE I	MSE II	TA	ESE	INT	EXT		
Program Core Courses(PCC)															
1	Statistical Analysis and Computing	BTADPC14AD5T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
2	Computer Organization and Design	BTADPC15AD5T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
3	Data Base Management System	BTADPC16AD5T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
4	Data Base Management System-Lab	BTADPC17AD5P	0	2	0	2	1	-	-	-	-	30	20	50	-
5	Computer Skill Lab - III	BTADPC18AD5P	0	2	0	2	1	-	-	-	-	30	20	50	-
6	Computer Skill Lab - IV	BTADPC19AD5P	0	2	0	2	1	-	-	-	-	30	20	50	-
7	Program Elective Course	--	3	0	0	3	3	15	15	10	60	-	-	100	2.5
8	Program Elective Course - Lab	--	0	2	0	2	1	-	-	-	-	30	20	50	-
9	Comm. Engg. Project/ Field project	BTADFP01ADP	0	2	0	2	1	-	-	-	-	50	-	50	-
Multidisciplinary Minor Courses(MDM)															
10	Multidisciplinary Minor -III	--	3	0	0	3	3	15	15	10	60	-	-	100	2.5
Open Elective Courses(OEC)															
11	Open Elective-III	--	2	0	0	2	2	15	15	10	60	-	-	100	2.5
TOTAL			17	10	0	27	22	90	90	60	360	170	80	850	-

L: Lecture P: Practical T: Tutorial MSE: Mid Semester Exam ESE: End Semester Exam TA: Teacher Assessment INT: Internal EXT: External

Note: 1 Suitable number of hours per week are allotted for continuous evaluation process of all subjects from semester 3 to semester 8 (Total contact hours per week = 42 Hrs).

For the details of OE/MDM Courses, Refer the link given on page no 07

List of Program Elective (PEC) Semester-V (Choose course and its associated lab if any)

Sr. No.	Course Name	Course Code
1	Information Retrieval	BTADPE01AD5T
2	Information Retrieval - Lab	BTADPE02AD5P
3	Techniques of Data Mining	BTADPE03AD5T
4	Techniques of Data Mining - Lab	BTADPE04AD5P
5	Mathematics for Machine Learning	BTADPE05AD5T
6	Mathematics for Machine Learning - Lab	BTADPE06AD5P



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Scheme Semester – VI

Scheme for Third Year B. Tech. In Artificial Intelligence (AI) & Data Science (Semester -VI)															
Sr. No.	Course Name	Code	Course Plan per Week (Hrs)				Credits	Theory Evaluation				Practical Evaluation		Total	ESE Time (Hrs)
			L	P	T	Hrs		MSE-I	MSE-II	TA	ESE	INT	EXT		
Program Core Courses (PCC)															
1	Computer Networks	BTADPC20AD6T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
2	Software Project Management	BTADPC21AD6T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
3	Software Project Management-Lab	BTADPC22AD6P	0	2	0	2	1	-	-	-	-	30	20	50	-
4	Computer Skill Lab – V	BTADPC23AD6P	0	2	0	2	1	-	-	-	-	30	20	50	-
5	Program Elective Course – I	--	3	0	0	3	3	15	15	10	60	-	-	100	2.5
6	Program Elective Course – I Lab	--	0	2	0	2	1	-	-	-	-	30	20	50	-
7	Program Elective Course – II	--	3	0	0	3	3	15	15	10	60	-	-	100	2.5
8	Program Elective Course – II Lab	--	0	2	0	2	1	-	-	-	-	30	20	50	-
Ability Enhancement Courses (AEC)															
9	Modern Indian Language	BTALAE02SH6T	1	0	0	1	1	-	-	50	-	-	-	50	2.0
Multidisciplinary Minor Courses (MDM)															
10	Multidisciplinary Minor - IV	--	3	0	0	3	3	15	15	10	60	-	-	100	2.5
Vocational and Skill Enhancement Courses (VSEC)															
11	IoT and Embedded Computing	BTADVS05AD6P	-	2	1	3	2	-	-	-	-	50	-	50	2.5
TOTAL			16	10	1	27	22	75	75	100	300	170	80	800	-

L: Lecture P: Practical T: Tutorial MSE: Mid Semester Exam ESE: End Semester Exam TA: Teacher Assessment INT: Internal EXT: External

Note: 1 Suitable number of hours per week are allotted for continuous evaluation process of all subjects from semester 3 to semester 8 (Total contact hours per week = 42 Hrs).

List of Program Elective I (PEC) Semester-VI (Choose course and its associated lab if any)

Sr. No.	Course Name	Course Code	Sr. No.	Course Name	Course Code
1	Natural Language Processing	BTADPE07AD6T	4	Architecture for Management of Large Datasets - Lab	BTADPE10AD6P
2	Natural Language Processing - Lab	BTADPE08AD6P	5	Introduction to toolkits for Machine Learning	BTADPE11AD6T
3	Architecture for Management of Large Datasets	BTADPE09AD6T	6	Introduction to toolkits for Machine Learning - Lab	BTADPE12AD6P

Approved in..... 3rd
 Academic Council Meeting
 Dated:..... 25.11.2024.....



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SoE No.
24BTAD-01

List of Program Elective II (PEC) Semester-VI (Choose course and its associated lab if any)

Sr. No.	Course Name	Course Code	Sr. No.	Course Name	Course Code
1	Applications of Data Science	BTADPE13AD6T	4	Applications of Artificial Intelligence - Lab	BTADPE16AD6P
2	Applications of Data Science - Lab	BTADPE14AD6P	5	Introduction to Data Analytics and Visualization	BTADPE17AD6T
3	Applications of Artificial Intelligence	BTADPE15AD6T	6	Introduction to Data Analytics and Visualization - Lab	BTADPE18AD6P

Scheme for Multiple Entry and Exit

Exit option 3 (L 5.5): Award of Three Years Bachelor's Degree (B. Voc. or B.Sc.) in Major with 132 credits and an additional 8 credits		
Exit Courses		
Minimum two online/offline certification course of 4 credits each suggested by BOS of the department	Online/Offline Certification Course	8

For the details of OE/MDM Courses, Refer the link given on page no 07

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 Dated:-..... 05.01.2024



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Scheme Semester - VII

Scheme for Fourth Year B. Tech. In Artificial Intelligence (AI) & Data Science (Semester -VII)															
Sr No.	Course Name	Code	Course Plan per Week (Hrs)				Credits	Theory Evaluation				Practical Evaluation		Total	ESE Time (Hrs)
			L	P	T	Hrs		MSE-I	MSE-II	TA	ESE	INT	EXT		
Program Core Courses															
1	Applied AI	BTADPC24AD7T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
2	Deep Learning	BTADPC25AD7T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
3	Deep Learning - Lab	BTADPC26AD7P	0	2	0	2	1	-	-	-	-	30	20	50	-
4	Business Intelligence	BTADPC27AD7T	3	0	0	3	3	15	15	10	60	-	-	100	2.5
5	Business Intelligence - Lab	BTADPC28AD7P	0	2	0	2	1	-	-	-	-	30	20	50	-
6	Program Elective Course - I	--	3	0	0	3	3	15	15	10	60	-	-	100	2.5
7	Program Elective Course-I Lab	--	0	2	0	2	1	-	-	-	-	30	20	50	-
8	Program Elective Course - II	--	3	0	0	3	3	15	15	10	60	-	-	100	2.5
9	Project and Seminar/ Research Project and Seminar	BTADPS01AD7P/ BTADRP01AD7P	0	8	0	8	4	-	-	-	-	30	20	50	-
TOTAL			15	14	0	29	22	75	75	50	300	120	80	700	-

L: Lecture P: Practical T: Tutorial MSE: Mid Semester Exam ESE: End Semester Exam TA: Teacher Assessment INT: Internal EXT: External

Note: 1 Suitable number of hours per week are allotted for continuous evaluation process of all subjects from semester 3 to semester 8 (Total contact hours per week = 42 Hrs).

For the details of OE/MDM Courses, Refer the link given on page no 07

List of Program Elective I (PEC) Semester-VII (Choose course and its associated lab if any)

Sr. No.	Course Name	Course Code	Sr. No.	Course Name	Course Code
1	Neural Networks Architectures for Data Analysis	BTADPE19AD7T	4	Block Chain Technology - Lab	BTADPE22AD7P
2	Neural Networks Architectures for Data Analysis - Lab	BTADPE20AD7P	5	Advanced Machine Learning	BTADPE23AD7T
3	Block Chain Technology	BTADPE21AD7T	6	Advanced Machine Learning - Lab	BTADPE24AD7P

List of Program Elective II (PEC) Semester-VII (Choose course and its associated lab if any)

Sr. No.	Course Name	Course Code
1	Web Technologies for Advanced Data Visualization	BTADPE25AD7T
2	Image Processing & Computer Vision	BTADPE26AD7T
3	Real Time Embedded System	BTADPE27AD7T



Scheme Semester – VIII

Scheme for Fourth Year B. Tech. In Artificial Intelligence (AI) & Data Science (Semester -VIII)															
Sr. No.	Course Name	Code	Course Plan per Week (Hrs)				Credits	Theory Evaluation				Practical Evaluation		Total	ESE Time (Hrs)
			L	P	T	Hrs		MSE-I	MSE-II	TA	ESE	INT	EXT		
Program Core Courses															
1	Industry Internship/ Research Internship/ Entrepreneurship	BTADII01AD8P/ BTADRO1AD8P/ BTADEI01AD8P	0	24	0	24	12	-	-	-	-	20	80	100	-
2	Research Methodology	BTADRM01AD8T	3	0	1	4	4	15	15	10	60	-	-	100	2.5
Multidisciplinary Minor Courses(MDM)															
3	Multidisciplinary Minor -V	--	0	2	0	4	2	-	-	-	-	50	-	50	-
TOTAL			3	26	1	32	18	15	15	10	60	70	80	250	-

L: Lecture P: Practical T: Tutorial MSE: Mid Semester Exam ESE: End Semester Exam TA: Teacher Assessment INT: Internal EXT: External

Note: 1 Suitable number of hours per week are allotted for continuous evaluation process of all subjects from semester 3 to semester 8 (Total contact hours per week = 42 Hrs).

For the details of MDM Courses, Refer the link given on page no 7


 Approved in..... 3rd
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 Dated:-.....05.05.2024.....