

PERI INSTITUTE OF TECHNOLOGY

(AUTONOMOUS)

REGULATIONS 2024**B.Tech- Artificial Intelligence and Data Science****SEMESTER - I**

S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	24SH108106	Life Skill - I	EEC	1	0	0	1	1
2.	24SH101105	Engineering Mathematics - I	BSC	3	1	0	4	4
3.	24CS101101	Introduction to Advanced Computer Technologies	PCC	3	0	0	3	3
4.	24CS101102	Fundamentals of Programming for Problem Solving	ESC	3	0	0	3	3
5.	24ME105101	Engineering Graphics and Design	ESC	2	0	4	6	4
6.	24SH108108	Personal and Professional Competencies for Engineers	EEC	1	0	0	1	1
LAB INTEGRATED COURSE								
7.	24SH102101	Physics for Information Science	BSC	3	0	2	5	4
PRACTICALS								
8.	24CS103103	Basic Programming lab	ESC	0	0	4	4	2
9.	24SH103107	Communication Laboratory - I	HSMC	0	0	2	2	1
TOTAL				16	1	12	29	23

SEMESTER - II

S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.	24SH108205	Life Skills - II	EEC	1	0	0	1	1
2.	24EE101202	Basic Electrical & Electronics Engineering	ESC	4	0	0	4	4
3.	24CS101201	Python Programming	PC	3	0	0	3	3
4.	24SH101206	Tamil and Technology	HSMC	1	0	0	1	1
LAB INTEGRATED COURSE								
5.	24SH102202	Engineering Mathematics - II	BSC	3	0	2	5	4
6.	24SH102204	Engineering Chemistry	BSC	3	0	2	5	4
PRACTICALS								
7.	24CS103202	Python Programming Lab	PC	0	0	4	4	2
8.	24ME103203	IDEA Lab	ESC	0	0	4	4	2
9.	24SH103207	Communication Laboratory-II	HSMC	0	0	2	2	1
MANDATORY COURSE								
9.	24SH112203	Environmental Science and Engineering	BSC	2	0	0	2	0
TOTAL				17	0	14	31	22

SEMESTER - III

S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Discrete Mathematics For AI	BSC	3	1	0	4	4
2.		Principles of Artificial Intelligence	PC	3	0	0	3	3
3.		Computer Architecture	PC	3	0	0	3	3
4.		Life Skill - III	EEC	1	0	0	1	1
5.		Holistic Personality Development and Behavioral Skills	EEC	1	0	0	1	1
LAB INTEGRATED COURSE								
6.		Advanced Python Programming	PC	3	0	2	5	4
7.		Data Structures	PC	3	0	2	5	4
8.		Introduction to Data Science	PC	3	0	2	5	4
MANDATORY COURSE								
9.		Indian Constitution	BSC	2	0	0	2	0
TOTAL				22	1	6	29	24

SEMESTER - IV

S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Probability and Statistics	BSC	3	1	0	4	4
2.		Design Analysis of Algorithms	PC	3	0	0	3	3
3.		Open Elective – I	OE	3	0	0	3	3
4.		Life Skill – IV	EEC	1	0	0	1	1
5.		Invention – Principles and Practices	EEC	1	0	0	1	1
LAB INTEGRATED COURSE								
6.		Machine Learning	PC	3	0	2	5	4
7.		Operating Systems	PC	3	0	2	5	4
8.		Professional Elective - I	PE	3	0	2	5	4
MANDATORY COURSE								
9.		Social Services	BSC	2	0	0	2	0
TOTAL				22	1	06	29	24

SEMESTER - V

S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Database Management Systems	PC	3	0	0	3	3
2.		Information & Network Security	PC	3	0	2	5	4
3.		Distributed Systems and Cloud Computing	PC	3	0	0	3	3
4.	24SH108509	Life Skill – V	EEC	1	0	0	1	1
5.		Professional Elective - II	PE	3	0	0	3	3
6.		Open Elective – II	OE	3	0	0	3	3
PRACTICALS								
7.		Database Management Systems Lab	PC	0	0	4	4	2
8.		Professional Elective- II Lab	PE	0	0	4	4	2
MANDATORY COURSE								
9.		Quantitative Aptitude – I / GRE TOFEL - I	MC	2	0	0	2	0
10.		Essence of Indian Traditional Knowledge and Science	MC	2	0	0	2	0
TOTAL				20	0	10	30	21

SEMESTER - VI

S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Data Visualization	PC	3	0	0	3	3
2.		Social and Ethical Issues in AI	PC	3	0	0	3	3
3.		Big Data Analytics	PC	3	0	0	3	3
4.		Deep Learning	PC	3	0	0	3	3
5.		Professional Elective - III	PE	3	0	0	3	3
6.		Open Elective – III	OE	3	0	0	3	3
7.	24SH108610	Life Skill – VI	L6	1	0	0	1	1
PRACTICALS								
8.		Professional Elective – III Lab	PC	0	0	4	4	2
9.		Data Visualization Lab	PC	0	0	4	4	2
MANDATORY COURSE								
10.		Quantitative Aptitude – II / GRE TOFEL - II	MC	2	0	0	2	0
11.		Behavioural Science and Psychology	MC	2	0	0	2	0
TOTAL				23	0	08	31	23

SEMESTER - VII

S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Professional Elective - IV	PE	3	0	0	3	3
2.		Open Elective -IV	OE	3	0	0	3	3
PRACTICALS								
3.		Internship	EEC	0	0	5	5	4
TOTAL				6	0	5	11	10

SEMESTER - VIII

S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1.		Elective - Management	HS	3	0	0	3	3
2.		Human Values and Ethics	HS	3	0	0	3	3
PRACTICALS								
3.		Internship	EEC	0	0	4	4	4
4.		Project Work	EEC	0	0	4	4	6
TOTAL				6	0	8	14	16

PERI INSTITUTE OF TECHNOLOGY

B.Tech- Artificial Intelligence and Data Science

LIST OF PROFESSIONAL ELECTIVES: VERTICALS

Sno	PE1 Emerging Technologies	PE2 Full Stack Development	PE3 Data Science	PE4 Cloud Computing & Data Center Technologies	PE5 Creative Media	PE6 Artificial Intelligence
1	Quantum Computing	Web Technologies	Data Mining Techniques	Virtualization	Multimedia and Animation	Knowledge Engineering
2	Explainable AI	Advanced Java Programming	Storage Technologies	Cloud Services Management	Augmented Reality / Virtual Reality	Advanced Artificial Intelligence
3	Next Generation Computing	C# and .Net Programming	Advanced Database Management System	Security and Privacy in Cloud	Game Theory for AI and Data Science	Neural Networks and Deep Learning
4	Free and Open Source Software	UI and UX Design	Data Science in Intelligent Healthcare	Cloud and Big data Architecture	Digital marketing	Recommender system
5	Generative AI	DevOps	Business Data Analytics	Business Intelligence	Multimedia Data Compression	Optimization Techniques for AI

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OPEN ELECTIVE COURSES: VERTICALS

Vertical I	Vertical II	Vertical III	Vertical IV
Open Elective offered by Electronics and communication Engineering	Open Elective offered by Civil Engineering	Open Elective offered by Mechanical Engineering	Open Elective offered by Electrical and Electronics Engineering
Microcontroller and Embedded System (3) E1	Civil Engineering Drawing Laboratory	Autocad	Electrical CAD
Advanced Embedded System and IoT (4) E2	Civil Engineering Modelling Laboratory I	Solid Works	Design Implementation and Commissioning of Solar and Wind Energy Systems
VLSI Design and MEMS Technology (4) V1	Computational Structural Analysis Laboratory	ANSYS	PLC and SCADA Systems
Digital Design by using VHDL/Verilog V2	Plan Analysis & Design of Structure		Electrical Vehicle Design
	HVAC		

Structure of UG Program										
B.Tech-Artificial Intelligence and Data Science										
S.No	Course Category	Credits Per Semester								Total Credits
		I	II	III	IV	V	VI	VII	VIII	
1	HS	1	2						6	9
2	BS	8	8	4	4					24
3	ES	9	6							15
4	PC	3	5	18	11	12	16			65
5	PE				4	5	3	3		15
6	OE				3	3	3	3		12
7	EEC	2	1	2	2	1	1	4	10	23
8	MC									0
		23	22	24	24	21	23	10	16	
									Total	163