C	_	Scheme For B.Sc.	(71) 1101	ıou	12					
	ester –	· ] 	Ъ		1					
S. No.	Cod e	Title	Pre- requisite	L	Т	P	S	Н	C	Category
1		Computational Thinking with Python		2	0	1	0	4	3	SEC
2		Mathematics for Intelligent System		3	0	0	0	3	3	IDC
3	+	Database Management System		3	0	1	0	5	4	DSM
4		Foundation of Artificial Intelligence		3	0	1	0	5	4	DSC
5		Data Preprocessing and Exploratory Data Analysis		1	0	1	0	3	2	VAC
6		Communication Skills		2	0	0	0	2	2	AEC
7		Innovation Lab		0	0	2	0	4	2	VAC
	Credi	its in Semester-I		14	0	6	0	26	20	
Seme	ester –						•			
S. No.	Cod e	Title	Pre-requisite	L	Т	P	S	Н	С	
1		Problem Solving using C programming		3	0	1	0	5	4	DSM
2		Machine Learning		3	0	1	0	5	4	DSC
3		Fundamentals of Operating Systems		2	0	1	0	4	3	IDC
4		Next Generation application Lab		0	0	2	0	4	2	AEC
5		Environment and Sustainability		2	0	0	0	2	2	VAC
6		Data Visualization and Dashboards		2	0	1	0	4	3	SEC
7		Indian Knowledge system		2	0	0	0	2	2	VAC
		its in Semester-II		14		6	0	26	20	
"Certi	ficate in the sur	s who choose to exit after the second semester and han Artificial Intelligence", subject to successful complementerm								
	ester –	III T	I							
C	Cod									
	e	Title	Pre- requisite	L	Т	P	S	Н	C	
No. 1	e	Title Problem Solving using Data Structures		3		P 1	S 0	H 5	C 4	DSC
No. 1 2	e			3					4 4	DSC
No. 1	e	Problem Solving using Data Structures Deep Learning Natural Language Processing		3 3 2	0	1	0	5	4 4 3	
No. 1 2 3 4	e	Problem Solving using Data Structures  Deep Learning		3 3 2 2	0 0 0 0	1	0 0 0 0	5 5 4 4	4 4 3 3	DSC
No. 1 2 3	e	Problem Solving using Data Structures Deep Learning Natural Language Processing		3 3 2	0 0 0 0	1	0 0 0	5 5 4	4 4 3	DSC DSC
No. 1 2 3 4	e	Problem Solving using Data Structures Deep Learning Natural Language Processing General Elective 1		3 3 2 2	0 0 0 0 0	1	0 0 0 0	5 5 4 4	4 4 3 3	DSC DSC SEC
2 3 4 5	e	Problem Solving using Data Structures Deep Learning Natural Language Processing General Elective 1 Specialization Core 1		3 3 2 2 2 3	0 0 0 0 0	1 1 1 1 1	0 0 0 0 0	5 5 4 4 5	4 4 3 3 4	DSC DSC SEC DSC
No. 1 2 3 4 5 6	e	Problem Solving using Data Structures  Deep Learning  Natural Language Processing  General Elective 1  Specialization Core 1  Ethics, Patents, Copyrights and IPR  its in Semester-III		3 3 2 2 2 3 2	0 0 0 0 0	1 1 1 1 1 0	0 0 0 0 0 0	5 5 4 4 5 2	4 4 3 3 4 2	DSC DSC SEC DSC
No.  1 2 3 4 5 6 Seme	e Credi	Problem Solving using Data Structures  Deep Learning  Natural Language Processing  General Elective 1  Specialization Core 1  Ethics, Patents, Copyrights and IPR  its in Semester-III	requisite Pre-	3 3 2 2 3 2 15	0 0 0 0 0 0	1 1 1 1 1 0	0 0 0 0 0 0	5 5 4 4 5 2	4 4 3 3 4 2	DSC DSC SEC DSC
No.  1 2 3 4 5 6	e Credi	Problem Solving using Data Structures  Deep Learning  Natural Language Processing  General Elective 1  Specialization Core 1  Ethics, Patents, Copyrights and IPR  its in Semester-III  IV  Title	requisite	3 3 2 2 3 2 15	0 0 0 0 0 0 0 T	1 1 1 1 1 0 5	0 0 0 0 0 0 0	5 5 4 4 5 2 25	4 4 3 3 4 2 20	DSC DSC SEC DSC
No.  1 2 3 4 5 6 Seme S. No. 1	Credi	Problem Solving using Data Structures  Deep Learning  Natural Language Processing  General Elective 1  Specialization Core 1  Ethics, Patents, Copyrights and IPR  Its in Semester-III  IV  Title  Generative AI	requisite Pre-	3 3 2 2 3 2 15	0 0 0 0 0 0 0 T	1 1 1 1 1 0 5	0 0 0 0 0 0 0 0 0	5 4 4 5 2 25	4 4 3 3 4 2 20 C	DSC DSC SEC DSC AEC DSC
No.  1 2 3 4 5 6 Seme S. No. 1 2	Crediester –	Problem Solving using Data Structures  Deep Learning  Natural Language Processing  General Elective 1  Specialization Core 1  Ethics, Patents, Copyrights and IPR  its in Semester-III  IV  Title  Generative AI  Cloud Computing fundamentals for AI	requisite Pre-	3 3 2 2 3 2 15	0 0 0 0 0 0 0 T	1 1 1 1 1 0 5	0 0 0 0 0 0 0 0	5 5 4 4 5 2 25 H	4 4 3 3 4 2 20 C	DSC DSC DSC AEC DSC DSC AEC
No.  1 2 3 4 5 6 Seme S. No. 1 2 3	Crediester –	Problem Solving using Data Structures  Deep Learning  Natural Language Processing  General Elective 1  Specialization Core 1  Ethics, Patents, Copyrights and IPR  its in Semester-III  IV  Title  Generative AI  Cloud Computing fundamentals for AI  Design and Analysis of Algorithms	requisite Pre-	3 3 2 2 3 2 15 L	0 0 0 0 0 0 0 T 0 0	1 1 1 1 1 0 5	0 0 0 0 0 0 0 0	5 5 4 4 5 2 25 H	4 4 3 3 4 2 20 C 4 4 4	DSC DSC DSC AEC  DSC DSC DSC DSC DSC DSC DSC
No.  1 2 3 4 5 6 Seme S. No. 1 2 3 4	Crediester –	Problem Solving using Data Structures  Deep Learning  Natural Language Processing  General Elective 1  Specialization Core 1  Ethics, Patents, Copyrights and IPR  its in Semester-III  IV  Title  Generative AI  Cloud Computing fundamentals for AI  Design and Analysis of Algorithms  General Elective 2	requisite Pre-	3 3 2 2 3 2 15	0 0 0 0 0 0 0 0 0	1 1 1 1 0 5 P	0 0 0 0 0 0 0 0 0	H 5 5 2 25 H 5 5 4	4 4 3 3 4 2 20 C 4 4 4 3	DSC DSC DSC AEC  DSC DSC DSC DSC DSC DSC DSC DSC DSC
No.  1 2 3 4 5 6 Seme S. No. 1 2 3	Crediester –	Problem Solving using Data Structures  Deep Learning  Natural Language Processing  General Elective 1  Specialization Core 1  Ethics, Patents, Copyrights and IPR  its in Semester-III  IV  Title  Generative AI  Cloud Computing fundamentals for AI  Design and Analysis of Algorithms	requisite Pre-	3 3 2 2 3 2 15 L	0 0 0 0 0 0 0 0 0 0 0 0	1 1 1 1 1 0 5	0 0 0 0 0 0 0 0	5 5 4 4 5 2 25 H	4 4 3 3 4 2 20 C 4 4 4	DSC DSC SEC DSC AEC  DSC DSC DSC DSC DSC DSC

	липстаг	Intelligence," provided they successfully complete the offered during the summer to		credi	its (	of vo	catio	nal c	courses	
Seme	ester –									
S. No.	Cod e	Title	Pre-requisite	L	Т	P	S	Н	Cr	
1		MLOPs		3	0	1	0	5	4	DSC
2		Computer Network		2	0	1	0	4	3	DSC
3		Comptitive Programming		2	0	1	0	4	3	DSM
4		Specialization Elective 1		3	0	1	0	5	4	DSC
5		Specialization Elective 2		3	0	1	0	5	4	DSC
6		Summer Internship		0	0	0	2	4	2	SI
	Cred	its in Semester-V		13	0	5	2	27	20	
Seme	ester –	VI	•							
S. No.	Cod e	Title	Pre- requisite	L	Т	P	S	Н	Cr	
1		Industrial Project/R&D Project/Start-up Project		0	0	5	5	10	10	Project
2		Specialization Elective 3		3	0	1	0	5	4	DSC
3		Open Elective 1		2	0	1	0	4	3	IDC
4		Open Elective 2		2	0	1	0	4	3	IDC
	Cred	its in Semester-VI	•	7	0	8	0	23	20	
	Student	s exiting at the end of the sixth semester and earning 1 of Science (Artificial Intelligence		be a	ıwa	rded	a "E	Bache	elor	
Seme	ester –	of Science (Artificial Intelligence VII ( Honours)	e)" degree.		1					
Seme		of Science (Artificial Intelligence VII ( Honours) Title		be a	T	P	a "E	Bache	Cr	
Seme	ester –	of Science (Artificial Intelligence VII ( Honours)	e)" degree.		1					DSC
Seme S. No.	ester – Cod e	of Science (Artificial Intelligence  VII ( Honours)  Title  Reinforcement Learning Concepts and	e)" degree.	L	Т	P 1	S	Н	Cr	DSC
Seme S. No.	ester – Cod e	of Science (Artificial Intelligence VII ( Honours)  Title  Reinforcement Learning Concepts and Applications	e)" degree.	L 3	T 0	P 1	S 0	H 5	Cr 4	
Seme S. No.	ester – Cod e	of Science (Artificial Intelligence VII ( Honours)  Title  Reinforcement Learning Concepts and Applications AI for Computer Vision	e)" degree.	L 3	T 0 0	P 1 1 1 1	S 0 0	H 5	Cr 4 4	DSC
Seme S. No. 1 2 3	ester – Cod e	of Science (Artificial Intelligence  VII ( Honours)  Title  Reinforcement Learning Concepts and Applications  AI for Computer Vision  Intelligent Model Design using AI  Emerging Topics in Artificial Intelligence  Seminar on Emerging AI Technology for	e)" degree.	L 3 3	T 0 0 0	P 1 1 1 1	S 0 0 0 0	H 5 5 5 5	Cr 4 4 4 4	DSC DSC
Seme S. No. 1 2 3 4	ester – Cod e	of Science (Artificial Intelligence  VII ( Honours)  Title  Reinforcement Learning Concepts and Applications  AI for Computer Vision  Intelligent Model Design using AI  Emerging Topics in Artificial Intelligence	e)" degree.	L 3 3 4	T 0 0 0 0 0	P 1 1 1 0	S 0 0 0 0 0	H 5 5 5 4	Cr 4 4 4 4 4	DSC DSC DSC
Seme S. No. 1 2 3 4	ester – Cod e	of Science (Artificial Intelligence  VII ( Honours)  Title  Reinforcement Learning Concepts and Applications  AI for Computer Vision  Intelligent Model Design using AI  Emerging Topics in Artificial Intelligence  Seminar on Emerging AI Technology for Society  its in Semester-VII	e)" degree.	L 3 3 4 2	T 0 0 0 0 0	P 1 1 1 0 0 0	S 0 0 0 0 0 2	H 5 5 4 6	Cr 4 4 4 4 4 4	DSC DSC DSC
Seme S. No. 1 2 3 4	ester – Cod e	of Science (Artificial Intelligence  VII ( Honours)  Title  Reinforcement Learning Concepts and Applications  AI for Computer Vision  Intelligent Model Design using AI  Emerging Topics in Artificial Intelligence  Seminar on Emerging AI Technology for Society  its in Semester-VII	e)" degree.	L 3 3 4 2	T 0 0 0 0 0	P 1 1 1 0 0 0	S 0 0 0 0 0 2	H 5 5 4 6	Cr 4 4 4 4 4 4	DSC DSC DSC
Seme S. No. 1 2 3 4 5 Seme S. No.	Cred  Cred  Cod e	of Science (Artificial Intelligence  VII ( Honours)  Title  Reinforcement Learning Concepts and Applications  AI for Computer Vision  Intelligent Model Design using AI  Emerging Topics in Artificial Intelligence  Seminar on Emerging AI Technology for Society  its in Semester-VII	Pre-requisite  Pre-	L 3 3 4 2	T 0 0 0 0 0 0	P 1 1 1 0 0 3	S 0 0 0 0 2 2 2	H 5 5 5 4 6 6 25	Cr 4 4 4 4 4 20	DSC DSC DSC
Seme S. No. 1 2 3 4 5 Seme S. No. 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Cred	of Science (Artificial Intelligence  VII ( Honours)  Title  Reinforcement Learning Concepts and Applications  AI for Computer Vision  Intelligent Model Design using AI  Emerging Topics in Artificial Intelligence  Seminar on Emerging AI Technology for Society  its in Semester-VII  VIII  Title  Capstone Project / Professional Internship  AI for Agriculture	Pre-requisite  Pre-	L 3 3 4 2 15	T 0 0 0 0 0 T T	P 1 1 1 0 0 3	S 0 0 0 0 2 2 2	H 5 5 5 4 6 6 25	Cr 4 4 4 4 20 Cr	DSC DSC DSC DSM
Seme S. No. 1 2 3 4 5 Seme S. No. 1	Cred	of Science (Artificial Intelligence  VII ( Honours)  Title  Reinforcement Learning Concepts and Applications  AI for Computer Vision  Intelligent Model Design using AI  Emerging Topics in Artificial Intelligence  Seminar on Emerging AI Technology for Society  its in Semester-VII  VIII  Title  Capstone Project / Professional Internship	Pre-requisite  Pre-	L 3 3 4 2 15	T 0 0 0 0 0 T 0	P 1 1 0 0 3	S 0 0 0 0 2 2 2 S 12	H 5 5 5 4 6 6 25 H 24	Cr 4 4 4 4 20 Cr 12	DSC DSC DSM Project/Internship
Seme S. No. 1 2 3 4 5 Seme S. No. 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Cred  Cred  Cod e	of Science (Artificial Intelligence  VII ( Honours)  Title  Reinforcement Learning Concepts and Applications  AI for Computer Vision  Intelligent Model Design using AI  Emerging Topics in Artificial Intelligence  Seminar on Emerging AI Technology for Society  its in Semester-VII  VIII  Title  Capstone Project / Professional Internship  AI for Agriculture	Pre-requisite  Pre-	L 3 3 4 2 15	T 0 0 0 0 0 T 0 0	P 1 1 0 0 3	S 0 0 0 0 2 2 2 12 0	H 5 5 5 4 6 25 H 24 4	Cr 4 4 4 4 20 Cr 12 4	DSC DSC DSM  Project/ Internship DSC
Seme 1 2 3 4 5 Seme S. No. 1 2 3 4 5	Cred  Cred  Cred  Cred	of Science (Artificial Intelligence  VII ( Honours)  Title  Reinforcement Learning Concepts and Applications  AI for Computer Vision  Intelligent Model Design using AI  Emerging Topics in Artificial Intelligence  Seminar on Emerging AI Technology for Society  its in Semester-VII  VIII  Title  Capstone Project / Professional Internship  AI for Agriculture  AI for Healthcare	Pre-requisite  Pre-	L 3 3 4 2 15 L 0 4 4	T 0 0 0 0 0 T 0 0 0	P 1 1 0 0 3 P 0 0 0 0	S 0 0 0 0 2 2 2 S 12 0 0	H 5 5 4 6 25 H 24 4 4	Cr 4 4 4 4 20  Cr 12 4 4	DSC DSC DSM  Project/ Internship DSC

S.	Cod	Title	Pre-	L	Т	P	S	Н	Cr	
1		Undergraduate Research in Artificial		0	0	0	6	12	6	DSC
2		Research Methodology		4	0	0	0	4	4	DSC
3		AI in Healthcare		3	0	0	0	3	3	DSC
4		AI for Society		3	0	0	0	3	3	DSC
5		Seminar on Emerging AI Technology for		4	0	0	0	4	4	DSM
	Credi	ts in Semester-VII		14	0	0	6	26	20	22111
	Crear	to in Semester vii		1	V	Ů	Ü	20	20	
Seme	ster –	VIII								
S.	Cod	Title	Pre-	L	Т	P	S	Н	Cr	
1		Research Project		0	0	0	12	24	12	Research
2		AI for Agriculture		4	0	0	0	4	4	DSC
3		AI for Robotics		4	0	0	0	4	4	DSC
_	Credi	ts in Semester-VIII		8	0	40	12	32	20	
					Г				-	
				111		`	I		1.60	
Т	otal Cre	edits at the end of Fourth year for Bachelor of Science (	Artificial Into	ellig	enc	е)-Н	onou	ırs –	160	
1	Speci	ilization- Digital Twin and XR ( Extended								
	Cour	se		L	Т	Р	S	Н	С	
	1	Foundations of Digital Twin Systems		3	0	1	0	5	4	CORE1
	2	Extended Reality (XR) Technologies and		2	_	1	0	5	4	CORE2
		Applications		3	0	1	"	3	4	COREZ
	3	IoT and Edge Computing for Digital Twins		3	0	1	0	5	4	Elective 1
	4	3D Modelling and Simulation for XR		3	0	1	0	5	4	Elective 1
	5	Unity/Unreal Engine for XR Development		3	0	1	0	5	4	Elective 2
	6	AI and Machine Learning for Predictive Digital Twins		3	0	1	0	5	4	Elective 2
	7	Human-Computer Interaction in Immersive Environments		3	0	1	0	5	4	Elective 3
	8	Ethics, Privacy, and Security in XR and Digital Twin Systems		3	0	1	0	5	4	Elective 3
2.	Sneci	ilization- Agentic AI								
_	1	Foundations of Agentic AI Systems		3	0	1	0	5	4	CORE1
	2	Design and Development of Autonomous Agents		3	0	1	0	5	4	CORE2
	3	Multi-Agent Systems and Collaboration		3	0	1	0	5	4	Elective 1
		Cognitive Architectures for Intelligent								
	4	Agents		3	0	1	0	5	4	Elective 1
	5	Reinforcement Learning for Agentic Behavior		3	0	1	0	5	4	Elective 2
	6	Human-Agent Interaction and Trustworthy AI Agents		3	0	1	0	5	4	Elective 2
	7	Agentic AI in Digital Twins and Simulated Environments		3	0	1	0	5	4	Elective 3
	8	Ethics, Governance, and Regulation of Autonomous Agents		3	0	1	0	5	4	Elective 3
3	Speci	ialization: Robotics and Intelligent Systems					1			

	1 1	Migra controller & Dohat Operation System			اما	1	٥			CORE1
		Microcontroller & Robot Operation System		3	0	1	0	5	4	CORE1
		Artificial Intelligence for Robotics		3	-		0	-	·	Elective 1
		Mobile Robots Humanoid Robots		3	0	1	0	5	4	Elective 1
				3	0	1	0	5	4	
		Cognitive Robotics		3	0	1	0	5	4	Elective 2
		Bio-Inspired Robotics		3	0	1	0	5	4	Elective 2
		Robot Vision and Perception		3	0	1	0	5	4	Elective 3
	8 A	Assistive Robotics		3	0	1	0	5	4	Elective 3
4	Snecia	lization: Data Science and Advanced Ana	lytics							
		Data Visualization and Dashboards	ly ties	3	0	1	0	5	4	CORE1
		Fime Series Analysis		3	0	1	0	5	4	CORE2
	T	Big Data Analytics and Business		-	Н				-	COREZ
		Intelligence		3	0	1	0	5	4	Elective 1
		Optimization Theory		3	0	1	0	5	4	Elective 1
		Data Analytics using R		3	0	1	0	5	4	Elective 2
		Geo-Spatial Data Analysis		3	0	1	0	5	4	Elective 2
		Social Network Analysis		3	0	1	0	5	4	Elective 3
		Cloud Platforms for Data Science		3	0	1	0	5	4	Elective 3
5		lization : Agritech and Smart Farming		-						Elective 3
		AI for Precision Agriculture		3	0	1	0	5	4	CORE1
		ToT and Remote Sensing in Agriculture		3	0	1	0	5	4	CORE2
		Climate-Smart Agriculture		3	0	1	0	5	4	Elective 1
		Data Analytics for Crop Yield Prediction		3	0	1	0	5	4	Elective 1
		Blockchain and Supply Chain Management			П	1				Elective 1
		n Agritech		3	0	1	0	5	4	Elective 2
		Agri-Biotech and AI Applications		3	0	1	0	5	4	Elective 2
	1	Financial Technologies (Fintech) in								
		Agriculture		3	0	1	0	5	4	Elective 3
		Agricultural Robotics and Automation	•	3	0	1	0	5	4	Elective 3
		<u> </u>								
		lization : Healthcare AI and								
		ormatics			Ш					
		AI for Medical Diagnosis and Decision			$ _0 $	1	0	5	4	CORE1
		Support		3	Ш					
		Healthcare Data Analytics and Informatics		3	0	1	0	5	4	CORE2
		Medical Imaging and Computer Vision		3	0	1	0	5	4	Elective 1
	- 1	Wearable Devices and Remote Patient			$ _0 $	1	0	5	4	Elective 1
		Monitoring		3		1		_	4	F1 .: 0
		Natural Language Processing in Healthcare		3	0	1	0	5	4	Elective 2
		AI in Drug Discovery and Personalized			$ _0 $	1	0	5	4	Elective 2
$\vdash$		Medicine		3		1		<u> </u>		Elasti 2
$\vdash$		Robotics in Surgery and Rehabilitation		3	0	1	0	5	4	Elective 3
		Ethical, Legal, and Regulatory Aspects in Healthcare AI		3	$ _0 $	1	0	5	4	Elective 3
Conc	8   I ral Elec				Ш					
Gene				2		1	Δ		2	Elective 1
		Soft Computing		2	0	1	0	4	3	Elective 1
	1	Prompt Engineering		<u> </u>	ĮΨ	1	U	4	<u> </u>	Liective I

	Advances in AI		2	0	1	0	4	3	Elective 2
	Image and Video Processing		2	0	1	0	4	3	Elective 2
	Big Data Analytics and Business Intelligence		2	0	1	0	4	3	Elective 3
	AI and Society		2	0	1	0	4	3	Elective 3
Schoo	ol's Open Elective : (Other schools' students c	an opt )							_
	Applications of AI		3	0	0	0	3	3	Open Elective
	AI Tools for society		3	0	0	0	3	3	Open Elective

## **Course Summery**

Course Category	Credits
DSC (Disipiline Specific Core)	82
DSM (Disipiline Specific Minor)	18
AEC (Ability Enhancement Course)	7
SEC (Skill Enhancement Course)	9
IDC (Multidiciplinary)	12
VAC (Value Added Course)	8
SI(Summer Internship)	2
Project	10
Professional Internship/ Research	12
Total	160