Class – X			Subject – Artificial Intelligence	
S. No.	Month	No of Working Days	Name of the Chapter/Topic to be Covered	
1	APRIL / MAY	23	**Part-A Employability Skills**	Communication Skills-II
			Part-B Subjective Skills Unit -1-Revisiting AI Project Cycle & Ethical Frameworks for AI **Part-B Subjective Skills** Unit 2. Advanced concepts of Modeling in AI	1.1 AI Project Cycle The overview of the six stages of the AI Project Cycle
				1.2 Introduction to AI Domains The three domains of AI and their applications
				1.3 Ethical Frameworks of AI 2.1 Revisiting AI, ML and DL Frameworks Ethical frameworks Need of Ethical Frameworks for AI Factors that influence our decision-making Types of Ethical Frameworks Bioethics and its principles A use case of Bioethics Differentiate between AI, ML and DL Common terminologies used with data
3	JUNE	8		2.2 Modelling Types of AI models –Rule based, Learning based Categories of Machine learning based models – Supervised, Unsupervised and Reinforcement learning models Sub-categories of Supervised Learning Model – Classification, Regression Sub-categories of Unsupervised Learning Model – Clustering, Association
				2.3 Neural Networks What is neural network? How does AI make a decision?
4	JULY	25	**Part-A Employability Skills**	Self-management Skills-II

				3.1 Importance of Model Evaluation What is evaluation? Why do we need a model evaluation?
				3.2 Splitting the training set data for Evaluation What is Train-test split? Why do we need to do Train- test split?
			Part-B **Subjective** **Skills** Unit 3: Evaluating Models	3.3 What is Accuracy and Error? Accuracy Error
				3.4 Evaluation metrics for classification What is Classification? Classification metrics Confusion matrix Accuracy from Confusion matrix Precision from Confusion matrix Recall from Confusion matrix F1 Score
				3.5 Ethical concerns around model evaluation Bias Transparency Accountability
5	AUGUST	23	**Part-A** **Employabilit** **y Skills**	Information and Communication Technology Skills - II
			Part-B **Subjective** **Skills** Unit 4: Statistical Data	4.1 No code AI for Statistical Data Meaning of No-Code AI No-Code and Low-Code. Some no-code tools
				4.2 Statistical Data: Use Case Walk through Important concepts in Statistics. Orange data mining AI project cycle in Orange data mining (Palmer penguins case study)
6	SEPTEMBE R	24	**Part-A** **Employabilit** **y Skills**	Entrepreneurial Skills- II
			Part-B **Subjective** **Skills** Unit 5: Computer Vision	5.1 Introduction to Computer Vision CV open-source tool A Quick overview of computer vision Computer Vision and Artificial Intelligence Computer Vision v/s Image Processing

					5.2 Applications of CV
					Facial Recognition
					Face Filters
					Google Search by Image
					Computer Vision in retail
					Self-Driving cars
					Medical Imaging
					Google Translate App
					5.3 Computer Vision Tasks
					Classification
					Classification + Localisation
					Object Detection
					Image Segmentation
					Basics of Images and Pixels
					Resolution & Pixel Value
					Grayscale & RGB Images
					Classification
					Classification + Localisation
					Object Detection
					Image Segmentation
					Basics of Images and Pixels
					Resolution & Pixel Value
					Grayscale & RGB Images
					5.4 No-Code AI tools
					Introduction to Lobe
					Teachable Machine
					Smart Sorter Activity
					Orange Data Mining Tool
					Use Case Walkthrough
					Steps to project development
					5.5 Image Features
					Introduction to image features
					Examples
					Conclusion
					5.6 Convolution
					Convolution
					What is Kernel?
					5.7 Convolution Neural Network
					Introduction
					Convolution Layer
					Rectified Linear Unit
					Pooling Layer
					Fully Connected Layer

				5.8 Python libraries in Computer Vision TensorFlow Keras OpenCV Applications of OpenCV
7	OCTOBER	20	**Part-A Employability Skills**	Green Skills- II
			Part-B Subjective Skills Unit-6 Natural Language Processing Unit-7 Advance Python	6.1 Introduction to NLP Features of natural language Computer language Importance of NLP
				6.2 Applications of Natural Language Processing Voice Assistants Autogenerated captions Language translation Sentiment analysis Text classification Keyword extraction
				6.3 Stages of Natural Language Processing (NLP) Lexical Analysis Syntactic Analysis Semantic Analysis Discourse Integration Pragmatic Analysis
				6.4 Chatbots Differences between a Script bot and a Smart bot
				6.5 Text Processing Text Normalisation Bag of words TFIDF Applications of TFIDF
				6.6 Natural Language Processing: Use Case Walkthrough Examples of code and no-code tools Applications of Sentiment Analysis Sentiment Analysis using the Orange Data Mining tool
8	NOVEMBER	23		Advance Python
9	DECEMBER	18	REVISION	
10	FEBURARY	23	REVISION	
11	JANUARY	24	REVISION	

12	MARCH	23	BOARD EXAM	

CLASS-XI	**SUBJECT-ENGLISH**