

Annual & Weekly Syllabus Split-Up - 2026-27

Grade XII

Subject: Artificial Intelligence

S.No	Month	No. of Working Days	No. of Days	Topic	Sub Topic	Teaching Aids/Resources	Classroom teaching Video Link	Activities	Art Integrated project	Pedagogy Process/Teaching Strategy	Chapterwise Notes link	Assessment		
1	APRIL	25	Week 1	4	PART-B: UNIT 1: PYTHON PROGRAMMING - II	Introduction to Python Programming, Variables, Datatypes, Control Statements, Libraries installation -	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos YFNIKB14	https://www.youtube.com/watch?v=9QYFNIKB14	Hands on Activities in IT lab	Poster – “Python Basics”	Experiential Learning	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Practical	
			Week 2	6	PART-B: UNIT 1: PYTHON PROGRAMMING - II	Pandas Data Structure - Series, dataframe	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos		Hands on Activities in IT lab	Flowchart Drawing – “Python Program Flow”	Experiential Learning	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Practical	
			Week 3	5	PART-B: UNIT 1: PYTHON PROGRAMMING - II	Importing and Exporting Data between CSV Files and DataFrames, Linear Regression, Streamlit Library	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos		Hands on Activities in IT lab			Experiential Learning	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Practical
			Week 4	6	PART-A: Unit 1: Communication Skills-IV	Active Listening , Listening Skills , Effective Communication, Writing Sentences, Parts of Speech, Simple , Complex Sentences	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos					Group Discussion	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Presentation
			Week 5	4	Mid April Test									
2	JUNE	20	Week 1	0	Unit 3: ICT Skills-IV	Spreadsheet, Basic Operation in a Spreadsheet, Workbook, Data manipulation, Advance features in Calc, Impress, Advantages of Presentation software	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos					https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Oral Assessment Worksheet / Written Assessment	
			Week 2	6	Unit 2: Self-Management Skills-IV	Optimism, Stress Management, Being result oriented, Self Awareness	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos						https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Oral Assessment
			Week 3	6	UNIT 2:DATA SCIENCE METHODOLOGY: AN ANALYTIC APPROACH TO CAPSTONE PROJECT	Introduction to Data Science Methodology Steps for Data Science Methodology Model Validation Techniques, Model Validation Techniques, Model Performance- Evaluation Metrics	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos	https://www.youtube.com/watch?v=g3woDVJxPD0&list=PLLS50bU1A55_URieVRJLQYDc0egOO0ymdx		Poster: CAPSTONE PROJECT	Visual + Activity-Based + Demonstration Learning	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Oral Assessment Worksheet / Written Assessment	
			Week 4	6	UNIT 2:DATA SCIENCE METHODOLOGY: AN ANALYTIC APPROACH TO CAPSTONE PROJECT	K-Fold, Confusion Matrix, Cross Validation, MAE, RMSE, MSE, Evaluating model using Python.	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos	https://www.youtube.com/watch?v=tka_o_nwcZbc			Visual + Activity-Based + Demonstration Learning	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Oral Assessment Worksheet / Written Assessment	
			Week 5	2	Revision									Class Activities & Oral Quiz
3	JULY	27	Week 1	4	Periodic Test 1									
			Week 2	6	UNIT 3: MAKING MACHINES SEE	How Machines See, Working of Computer Vision Computer Vision Process, Applications of Computer Challenges of Computer Vision.The Future of Computer Vision, Working with OpenCV (**For Advanced	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos	https://www.youtube.com/watch?v=98bv2E9Vns		Presentation	Group Discussion	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Worksheet / Written Assessment	
			Week 3	6	UNIT 3: MAKING MACHINES SEE	Challenges of Computer Vision.The Future of Computer Vision, Working with OpenCV (**For Advanced	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos				Case-Study Based Learning	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Worksheet / Written Assessment	
			Week 4	6	Unit 4 Entrepreneurial Skills -IV			https://www.youtube.com/watch?v=aYfP3vZOROU					https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Worksheet / Written Assessment
			Week 5	5	Pre Mid Term Exam									Presentation
4	AUGUST	24	Week 1	1	UNIT 5: Introduction to Big Data and Data Analytics	Demystifying Data Types: Structured, Semi-structured, and Unstructured, benefits and limitations of Big Data.	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos	https://www.youtube.com/watch?v=Lku0D4uQzQ		Case-Study Based Learning	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Worksheet / Written Assessment		
			Week 2	6	UNIT 5: Introduction to Big Data and Data Analytics	Big Data Careers and Growth, What is Big Data? Types of Big Data, Advantages and Disadvantages of Big Data.	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos					https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Worksheet / Written Assessment	
			Week 3	5	Unit 5: Green Skills -IV	Protecting our Environment, Green Jobs, Significance of Green Jobs, 17 SGD Goals	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos	https://www.youtube.com/watch?v=qTrm90ajYsY				https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Oral Assessment	
			Week 4	6	Revision									
			Week 5	5+1	Revision									
5	SEPTEMBER	23	Week 1	5	Term 1									
			Week 2	6	Term 1									
			Week 3	5	UNIT 4: AI with Orange Data Mining Tool	KEY DOMAINS OF AI WITH ORANGE DATA MINING TOOL -Data science with Orange Data	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos	https://www.youtube.com/watch?v=mlKOVIs7SZQ	Hands on Activities in IT lab			https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Practical	
			Week 4	5	UNIT 4: AI with Orange Data Mining Tool	Computer Vision with Orange Data Mining , Natural Language Process with Orange Data Mining.	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos		Hands on Activities in IT lab		Activity-Based + Experiential Learning	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Practical	
			Week 5	3	UNIT 7: Generative AI	Introduction to Generative AI, Working of Generative AI.	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos		ChatGPT, Gemini, Claude, and DALL-E. , Deepfake Technology:		Activity-Based + Experiential Learning	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Practical	
6	OCTOBER	25	Week 1	2	UNIT 7: Generative AI	LLM- Large Language Model, Transformers in LLMs: Applications of LLMs: Text Generation, Audio	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos			Activity-Based + Experiential Learning	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Practical		
			Week 2	6	UNIT 6: NEURAL NETWORK	Neural Networks, Parts of Neural Networks, Components, Working with neural networks, Types of Neural Network, CNN, RNN, GAN., Impact on Society	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos		Using Google Gemini's AI Text Generation, to create a customized Chatbot with the help of Gemini API.		Activity-Based + Experiential Learning	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Practical	
			Week 3	6	UNIT 8: Data Storytelling	Introduction to Storytelling, benefits of stories, storytelling a powerful tool, Essential elements of Data	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos			Group Discussion	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Worksheet / Written Assessment		
			Week 4	5	UNIT 8: Data Storytelling	Visualizations for different data , Freytag's Pyramid	Text Book, E-Book, Practice Worksheet, Synopsis(Summary), Comp Lab, Videos				Group Discussion	https://drive.google.com/drive/folders/1amU0vcp-m915p9aAdRj3n8J4u5mGnJ7s?usp=drive_link	Worksheet / Written Assessment	
			Week 5	5	Revision									
7	NOVEMBER	12	Week 1	0	Revision									
			Week 2	0	Revision									
			Week 3	0	Revision									

