

LESSON PLAN

Contact Hour (Cumulative)	Unit No.	Topic	Teaching(*) Methodology	Remarks
30/12/24 6(1)	I	Data Science :- Definition Data fiction	Chalk & Talk	
2/1/25 1(2)		Exploratory Data Analysis The Data Science Process	"	
2(3)		Data Scientist Role in this Process	"	
1(4)		Numpy Basics: The Num Py ndarray	"	
6(5)		A multidimensional array object, creating ndarrays	"	
1(6)		Data types of ndarray & operations between arrays	"	
2(7)		Basic indexing & slicing Boolean Indexing	"	
1(8)		Fancy Indexing Data Processing using arrays	"	
6(9)		Expressing conditional logic & array operations Methods for Boolean arrays	"	
1(10)		Sorting, unique.	"	
2(11)	II	Getting started with Pandas:	PPT	
		Introduction to Pandas	PPT	
1(12)		Library Architecture, features	Chalk & Talk	
6(13)		Applications, Data Structures Series	"	
1(14)		Data Frame Index objects	"	
2(15)		Essential functionality Reindexing	"	
1(16)		Dropping entries from an axis, Indexing	"	
6(17)		Selection and filtering Sorting and Ranking	"	
1(18)		Summarizing and Computing Descriptive Statistics	"	
2(19)		unique values, Value counts	"	

*Black Board / LCD / OHP / Other Method

Contact Hour (Cumulative)	Date
6(1)	30/12/24
1(2)	2/1/25
2(2)	3/1/25
1(3)	
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Contact Hour (Cumulative)	Unit No.	Topic	Teaching(*) Methodology	Remarks
1 (20)		Handling missing data	chalk & talk	
		filtering and missing data	"	
6 (21)	<u>III</u>	Data loading, storage and file formats	chalk & talk	
1 (22)		Reading & writing Data in text format	"	
2 (23)		Reading text files in pieces	"	
1 (24)		writing Data out to text format	"	
6 (25)		Manually working with Delimited formats	PPT	
		JSON Data		
1 (26)		XML and HTML: web scraping	PPT	
2 (27)		Binary Data formats	PPT	
1 (28)		using HDFS format, Reading Microsoft Excel files	chalk & talk	
6 (29)		Interacting with Data bases	"	
1 (30)		Storing & loading Data in Mongo DB	"	
2 (31)	<u>IV</u>	Data wrangling:	chalk & talk	
1 (32)		Combining & merging Datasets	"	
6 (33)		Database style Data frame merges	"	
1 (34)		Merging on index	"	
2 (35)		Concatenating Along an axis	"	
1 (36)		Combining Data with overlap	"	
6 (37)		Reshaping and pivoting	"	

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Contact Hour (Cumulative)	Date
1 (34)	24/11
1 (35)	25/11
2 (36)	26/11
1 (37)	27/11
2 (38)	28/11
1 (39)	29/11
6 (40)	30/11
2 (41)	01/12
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