Department: Data Science

I Year Advanced Diploma Program (Part Time)

(PG) Data Analytic Tools (Tableau)

1. Title: Data Analytic Tools (Tableau)
2. Year of Implementation: 2022-2023
3. Duration: One Year
4. Pattern: Semester
5. Medium of Instruction: English
6. Contact hours: 7 hours/week
7. Eligibility: Graduate (Science)
8. Structure of Course:

Syllabus Structure (PG)

Year	Semester	Paper No.	Paper Code	Contact Hours	Credits (1Credit=15 H)	Total Marks
1	I	CT I	ADDST 101	30	2	75
		CL I	ADDSL101	60	2	150
	II	CT II	ADDST 202	30	2	75
		CL II	ADDSL202	60	2	150
	Annual	CP I	ADDSP101	60	2	150
	Total			**240**	**10**	**600**
2	III	CT III	ADDST 303	30	2	75
		CL III	ADDSL303	60	2	150
	IV	CT IV	ADDST 404	30	2	75
		CL IV	ADDSL404	60	2	150
	Annual	CP II	ADDSP202	60	2	150
	Industrial and or Incubation and or Research and or Field Training			60	2	-
	Total			**300**	**12**	**600**
Total				**540**	**22**	**1200**

Total No. of Courses: Theory: 6, Practical: 3, Project: 3

Number of Lectures per week: 08

Theory: Semester, Practical and Project: Annual

CT: Course Theory, CL: Course Lab, CP: Course Project, AD: Advance Diploma, *: Name of Subject,

Semester I

CT I: ADDST 101: Tableau I
(Contact Hrs. 30 Credits: 2)

Course Objectives: Students should be able to…

1. Master in Business Intelligence (BI) tool, Data Visualization, reporting and SQL with real-life industry Projects in Health care, Retail and Banking domains
2. Working on menues of Tableau

Unit 1: Basic Tableau

Introduction, environment set up, tableau navigation, design flow , file types ,data types, Show Me , data terminology , Data source (Excel , Sql server) 15

Unit 2: Working on Tableau

Working on worksheet (Add, Rename, save, delete, reorder, paged workbook), extracting data, field operation, editing metadata, data joining, Data Blending 15

Course Outcomes: Students will be able to…

1. Learn basic operations of Tableau
2. Work on Tableau software

Reference Books:

1. Dr. Gaurav Aroraa ,Data Analytics: Principles, Tools, and Practices: A Complete Guide for Advanced Data Analytics Using the Latest Trends, Tools, and Technologies, 23 January 2022
2. ajit roy, Applied Big Data Analytics: Evolution, Platforms & Tools, Use cases, Benefits, Impact and Paradox, 18 August 2015
3. Dr Polala Niranjan siripuri Kiran , BIG DATA ANALYTICS USING R-TOOLS REPORT: AICTE ISTE Induction/Refresher Program, 13 December 2019

CLI: ADDSL 101: **(Practical)**

(Contact Hrs: 60 Credits: 02)

Course Objectives: Students should be able to…

1. Learn GUI of Tableau`
2. Connection to excel , sql and text
3. Creating and operation of worksheet
4. Working of database operations.

List of Practical's

1. Study of GUI of Tableau
2. Connecting to excel and working on it
3. Connecting to text file and working on it
4. Connecting to SQL server and working on it
5. Creating worksheet and operate it
6. Joining Tables
7. Data Blending

Course Outcomes: Students will be able to…

1. Understand Tableau GUI
2. Working on different type of data source

Reference Books:

1. Tableau Strategies: Solving Real, Practical Problems with Data Analytics
2. Practical Tableau: 100 Tips, Tutorials, and Strategies from a Tableau Zen Master 1st Edition
3. Tableau Desktop Pocket Reference: Essential Features, Syntax, and Data Visualizations 1st Edition

Semester II

CT II: ADDSL 202: Tableau II

(Contact Hrs: 30 Credits: 2)

Course Objectives: Students should be able to…

1. Learn different operations on Tableau
2. Apply different techniques on Tableau

Unit I: Operator, functions, calculation (15)

Operators, functions, Calculation: numeric calculation, string calculation, dat2e calculation, table calculation, and LOD expression

Unit II: Sort and filter (15)

Basic Sorting, Basic filters, Quick filters, context filters, conditional filters, top filters, filter operations

Course Outcomes: Students will be able to…

1. Learn basic operations of Tableau
2. Work on Tableau software

Reference Books:

1. Dr. Gaurav Aroraa ,Data Analytics: Principles, Tools, and Practices: A Complete Guide for Advanced Data Analytics Using the Latest Trends, Tools, and Technologies, 23 January 2022
2. ajit roy, Applied Big Data Analytics: Evolution, Platforms & Tools, Use cases, Benefits, Impact and Paradox, 18 August 2015
3. Dr Polala Niranjan siripuri Kiran , BIG DATA ANALYTICS USING R-TOOLS REPORT: AICTE ISTE Induction/Refresher Program, 13 December 2012

Practical

Course Objectives: Students should be able…

1. Learn GUI of Tableau`
2. Connection to excel , sql and text
3. Creating and operation of worksheet
4. Working of database operations.

List of Practical's

1. Implementation of Operators
2. Create the Functions
3. Perform basic Calculation
4. Perform Sorting Operation
5. Creating Filters
6. Perform String Calculation
7. Perform LOD Expression
8. Perform of data Visualization

Course Objectives: Student will be able to…

1. Understand Tableau GUI
2. Working on different type of data source

Reference Books:

1. Dr. Gaurav Aroraa ,Data Analytics: Principles, Tools, and Practices: A Complete Guide for Advanced Data Analytics Using the Latest Trends, Tools, and Technologies, 23 January 2022
2. ajit roy, Applied Big Data Analytics: Evolution, Platforms & Tools, Use cases, Benefits, Impact and Paradox, 18 August 2015
3. Dr Polala Niranjan siripuri Kiran , BIG DATA ANALYTICS USING R-TOOLS REPORT: AICTE ISTE Induction/Refresher Program, 13 December 2012

BOS Sub-Committee Expert Committee

1.Dr. B.T. Jadhav (Chairman)
2.Mr. R.P. Waghamare (Member)
3.Mr. S.B. Khandagale
4.Ms. G.P. Shendage

1. Mr. Mehul Jadhav (Academic Expert)
2.Mr. Vijayendra Shinde (Industrial Expert)