

MANNAR THIRUMALAI NAICKER COLLEGE (AUTONOMOUS)**CERTIFICATE COURSE****FOR THOSE WHO JOINED IN 2024-2025 AND AFTER**

Course Name	Data Science with Python Programming			
Course Code	24UMSCP23	L	P	C
Core	Certificate Course	1	-	1
NATURE OF COURSE: EMPLOYABILITY SKILL ORIENTED ENTREPRENEURSHIP				
Course Objective: <ol style="list-style-type: none"> 1. To Learn the basics of data, databases, tables, data frames, functions, and data preparation techniques. 2. To Explore linear functions, plotting, slope & intercept, percentiles, deviation, variance, and correlation concepts. 3. To Gain insights into statistics, data visualization, machine learning, and deep learning techniques. 4. To Understand linear regression, interpret regression tables, coefficients, p-values, and R-squared values. 5. To Apply regression models and analytical methods to real-world datasets for data-driven decision-making. 				
Unit: I	Introduction What is Data-Database Table-Data Frame-Functions-Data Preparation			
Unit: II	Mathematical Functions Linear Functions-Plotting Functions-Slop& Intercept			
Unit: III	Statistical Functions Introduction – Percentiles -Deviation – Variance – Correlation – Correlation Matrix – Correlation Vs Causality.			
Unit: IV	Data Science Components Statistics – Visualization – Machine Learning – Deep Learning			
Unit: V	Advanced Data Science Linear Regression – Regression Table – Regression info – Regression Co efficients - Regression P Value – Regression R Squared – Linear Regression Case			