



TECNIA INSTITUTE OF ADVANCED STUDIES
GRADE "A" INSTITUTE
 Approved by AICTE, Ministry of Education Govt. of India, Affiliated to GGSIP University
 Recognized Under Sec. 2(f) of UGC Act 1956
INSTITUTIONAL AREA MADHUBAN CHOWK, ROHINI, DELHI 110085
 Tel: 91-11-27555121-24, E-Mail : directortias@tecnia.in, Website: www.tiaspg.tecnia.in



TIAS/BCA/VAC/2022-23/14

Date: 29/06/2023

Course Completion Certificate

This is to certify that the course module for the Certificate Course in Data Science Basics scheduled from 10/04/23 to 27/6/23, comprising of 30 Hours, deliverance has been completed by the resource person Ms. Arnima , with the module contents as under :-

S.No.	Contents Deliverance	Learning Outcomes
1	Introduction (1 Hr)	Understanding the Fundamentals of DataScience: Students should gain a solid understanding of the foundational concepts, principles, and techniques used in data science.
2	Python Programming (2 Hr)	Knowledge of Data Collection and Data Cleaning: Students should learn how to collect and clean raw data to make it suitable for analysis. This includes techniques for data extraction, transformation, and handling missing or inconsistent data.
3	Python Libraries (4 Hr)	Exploratory Data Analysis: Students should be able to perform exploratory data analysis to gain insights, detect patterns, and identify relationships within the data using various statistical and visualization techniques.
4	Statistical Methods for Decision Making (3 Hr)	Introduction to Statistical Concepts: Students should learn key statistical concepts and techniques used in data science, such as probability distributions, hypothesis testing, correlation, and regression analysis.
5	Classification & Regression Algorithms (6 Hrs)	Introduction to Machine Learning: Students should be introduced to the basics of machine learning, including different types of algorithms (supervised and unsupervised learning), model evaluation, and model selection.
6	Exploratory data analysis (2 Hr)	Data Visualization: Students should learn how to effectively communicate data insights through visualizations. This includes creating plots, charts, and graphs to represent data in a meaningful and informative manner.
7	Data Preprocessing (2 Hr)	Ethical Considerations: Students should develop an understanding of ethical considerations and best practices in data science, including data privacy, security, and responsible use of data.

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8	Feature Selection (3 Hr)	Hands-on Experience: Students should have the opportunity to apply the concepts and techniques learned through practical exercises and projects. This may involve working with real-world datasets and using data science tools and libraries, such as Python and its data science ecosystem.
9	Predictive Modelling (2 Hr)	Critical Thinking and Problem-Solving: Students should enhance their analytical and problem-solving skills by tackling data-related challenges and formulating data-driven solutions.
10	Types of Machine Learning (1 Hr)	Communication and Collaboration: Students should improve their ability to effectively communicate data insights, findings, and recommendations to both technical and non- technical audiences. Collaboration skills within a data science team may also be emphasized.
11	Machine Learning Algorithm (4 Hr)	Able to apply Machine Learning Algorithm

All the above contents are delivered to the best of my knowledge and belief and nothing is withheld.

Signature

Name of Faculty: Ms. Arzima Pathak

Submitted to HoD- Department of Information Communication and Technology, TIAS

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