TECNIA INSTITUTE OF ADVANCED STUDIES

NAAC ACCREDITED GRADE "A" INSTITUTE

Master of Computer Applications

TIAS/MCA/VAC/2019-20/32   Dated: 24/10/2019

Academic Session: 2019-20

Status on Date 24/10/2019

This is to certify that the course module for Value Added Course, entitled Certificate Course in Data Science scheduled from 16.09.2019 to 24.10.2019 comprising of 30 hours deliverance has been completed by the resource person Ms. Sania, Faculty in Department of Computer Applications with the module contents as under:

S.No.	Contents Deliverance	Learning Outcomes
1	Introduction to Data Science (1 Hrs)	Understand the fundamental concepts and techniques used in data science, including data manipulation, cleaning, and exploration.
2	Mathematics and Statistics for Data Science (2 Hrs)	Apply statistical analysis to explore and analyze data, identify patterns, and make data-driven decisions.
3	Programming for Data Science (4 Hrs)	Use programming languages such as Python or R to implement data science tasks, including data preprocessing, modeling, and evaluation.
4	Data Wrangling and Pre-processing (2 Hrs)	Apply machine learning algorithms to solve predictive and classification problems, including linear regression, logistic regression, decision trees, and clustering.
5	Exploratory DataAnalysis(EDA) (2 Hrs)	Understand and use popular data science libraries and frameworks, such as pandas, scikit-learn, and TensorFlow.
6	Machine Learning Algorithms (5 Hrs)	Create data visualizations and effectively communicate data insights and findings using tools like matplotlib, seaborn, or Tableau.
7	Big Data Technologies (3Hrs)	Work with real-world datasets, clean and preprocess data, and apply appropriate feature engineering techniques.

8	Data Mining and Pattern Recognition (3 Hrs)	Understand the ethical considerations and best practices in data science, including data privacy, security, and responsible data usage.
9	Deep Learning and Neural Networks (4 Hrs)	Collaborate effectively in a team environment, working on data science projects and applying a systematic and iterative approach to problem-solving.
10	Data Visualization and Communication (2 Hrs)	Continuously update their knowledge and skills in data science through self-learning and staying current with new technologies ,algorithms, and industry trends.
11	Ethical and Legal Considerations in Data Science (2 Hrs)	Apply critical thinking and analytical skills to frame data-driven questions, design experiments, and interpret results.

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

Signature of Faculty

Name of Faculty: Ms. Sania

Dated: 24/10/2019

Submitted to HoD-MCA, Department of Computer Applications

Students' Declaration

We would like to declare, that the course module for Value Added Course for the Certificate Course in Data Science scheduled from 16.09.2019 to 24.10.2019 comprising of 30 hours, has been completed by the resource person Ms. Sania, Faculty in Department of Computer Applications to our satisfaction and is able to help in developing our domain knowledge and capacity building.

S.No.	Enrollment No.	Student's Name	Signature
1	00117004418	ABHISHEK KUMAR	
2	00117024418	AASHNA CHOUDHARY	
3	00217004418	HIMANSHI RATHI	
4	00317004418	MANIK BHARDWAJ	
5	00317024418	KARTIK SANG	
6	00417004418	PRABAL SETHI	
7	00517004418	PRATEEK MITTAL	
8	00517024418	ANKIT SHARMA	
9	00617024418	PRATEEK CHHITORIA	
10	00817024418	ANJALI DOGRA	
11	35117004418	ANKITA BAJPAI	
12	35217004418	ASHIKA KARIWAL	
13	35317004418	GAURAV KRISHAN	
14	35417004418	RASHMI	
15	35517004418	UTKARSH AWASTHI	
16	90117004418	SUSHMITA	
17	00617004418	PRIYA	
18	00521324418	SAJAL TRIPATHI	
19	00621324418	ARJAN SINGH	
20	00721324418	PRIYAM MONDAL	
21	00821324418	ANJALI GUPTA	
22	00921324418	PULKIT GUPTA	
23	40117004418	RIJO ABRAHIM ROY	
24	00117002019	MANAV GUPTA	
25	00217002019	SHIVAM BHANDARI	
26	00317002019	ANANDITA	

27	00417002019	YASH PARASHAR	
28	00517002019	VANSHITA VERMA	
29	00617002019	NITIKA BHOLA	
30	00717002019	ISHA BATRA	
31	00917002019	DARSH VERMA	
32	01017002019	AYUSH JAGGA	
33	01117002019	SHUBHAM CHAUDHARY	
34	01217002019	TUSHAR SOHAL	
35	01317002019	YASH BISHT	
36	01417002019	SHIVAM THAKRAN	
37	01517002019	SARTHAK VIJ	
38	01617002019	ADITYA GOYAL	
39	01717002019	BHUMIKA GOGNA	
40	01817002019	SANTOSH VERMA	
41	01917002019	ANJALI JAIN	
42	02017002019	ADITYA TIWARI	
43	02117002019	ROHIT VERMA	
44	02217002019	ABHINAV PAL	
45	02317002019	ROHANDEEP	
46	02417002019	DIKSHA DUREJA	
47	02117002019	KESHAV GULATI	
48	02217002019	VANSHIKA AGGARWAL	
49	02317002019	JANUAL	
50	02417002019	KUNIKA	