

SYLLABI
For
Value Added Course
Certificate Course in Data Analytics

Offered by
Department of Management Sciences
Bachelors of Business Administration
(Session: 2020-21)



TECNIA INSTITUTE OF ADVANCED STUDIES
NAAC ACCREDITED 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



GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, DELHI
BACHELOR OF BUSINESS ADMINISTRATION (BBA)

Certificate Course in Data Analytics Module Examination

Course Code: BBA- 411

L-2, T-0 Credits 2

Objectives: The course seeks to provide the knowledge of data analytics and the details of the tools used in analyzing the data.

Learning Outcomes:

- Understand the fundamental concepts of data analytics and its tools
- Evaluate analytics problem solving to lead teams and design
- Develop skills to tackle big data and leverage it for better business outcomes
- Develop the critical thinking and analytical skills for solving business problems along with practical knowledge of data models

Course Contents:

Unit I

(7 Hours)

Introduction to data analytics, introduction to BIG DATA, foundations of big data, big data processing tools, modern data ecosystem, key players in the data ecosystem, responsibilities of a data analyst, qualities and skills to be a data analyst, life of a data analyst, applications of data analytics, tools for data analytics, data analytics vs. data analysis, types of data, data analyst ecosystem, different types of file formats.

Unit II

(7 Hours)

Mining Data Streams, Sources of Data, Data Repositories, RDBMS, MySQL, Data Marts, Data Lakes, ETL, and Data Pipelines, data analysis leverage, analytic applications, introduction to databases, introduction to RDBMS, explain RDBMS through normalization, different types of RDBMS, software installation (MySQL Workbench), SQL commands and data type.

Unit III

(8 Hours)

Frequent item sets and clustering, algorithms, their appropriate applications across domains, and their limitations, data sources, gather and import data, data wrangling, tools for data wrangling, data cleaning, data preparation and reliability, statistical analysis, data mining, tools for data mining, communicating and sharing data analysis findings, introduction to data visualization, visualization and dash boarding software, visualization tools.

Unit IV

(8 Hours)

Frameworks and visualization, visual data analysis techniques, opportunities in data analysis, data profession, paths to data analysis, descriptive statistics, probability and normal distribution, inferential statistics, data cleaning and insights, imputation techniques(mean and median), scatter diagram, correlation analysis career options for data professionals, advice for aspiring data analysts, women in data professions.

Note: Latest Provisions to be taught.

Suggested Readings (All latest editions to be referred):

- Anand Rajarman. (2020). Mining of Massive Datasets, Cambridge University Press.
- Bill Franks & John Wiley. (2018). The Big Data Tidal Wave: Finding Opportunities in Huge Data Streams with advance analysis.
- Michael Bethold & David J. Hand. (2017). Intelligent Data Analysis.
- Tom Fawcett. (2017). Data Science for Business: What You Need to Know about Data Mining and Data-Analytic Thinking.

Evaluation Pattern: On the basis of MCQ exam followed by Viva Voce