

M.SC DS & BA - COURSE OUTCOME(CO)

Business Fundamentals - I	CO1	To developed working knowledge of fundamental terminology and frameworks in the four functions of management: Planning, Organizing, Leading and Controlling
	CO2	To Analyze organizational case situations in each of the four functions of management
	CO3	To Identify the appropriate management techniques for managing contemporary organizations
	CO4	To apply appropriate management techniques for managing contemporary organizations
	CO5	To Understand the skills, abilities, and tools needed to obtain a job on a management track in an organization of their choice.
Business Statistics and Probability	CO1	To able to know the importance of statistics in different research areas.
	CO2	To able to know the basic concepts of Statistics and its evolution.
	CO3	To able to apply suitable statistical measures to describe and summarize the data
	CO4	To able to apply t and f test for testing the statistical measures to know the significance.
	CO5	To able to apply ANOVA for testing significance of arithmetic mean and regression coefficients.
Operating System	CO1	To Understand Operating System Structure and Operations
	CO2	To Understand Process concept and multithreaded programming
	CO3	To Process Synchronization in Operating System
	CO4	To Process Memory Management Strategies and File System
	CO5	To Understand the Distributed System Architecture
R Programming Language	CO1	To Know the procedure to read and write different format of data set into R environment.
	CO2	To Understand the uniqueness in R programming with the help of apply function in R programming language.
	CO3	To apply different options in I/O operations in R programming Language.

	CO4	To Know the interpretation of summary statistics and testing of hypothesis.
	CO5	To Know the built-in functions for graphs and non-parametric testing of hypothesis in R.
Business Economics	CO1	To equip the students to Design competition strategies, including costing, pricing, product differentiation.
	CO2	To develop economic way of thinking in dealing with practical business problems.
	CO3	To understand the market environment according to the natures of products
	CO4	To develop economic way of thinking in dealing with practical business challenges.
	CO5	To understand the market environment according to the natures of the structures of the markets.
Database Management System	CO1	To understand the database and database management system and Explain physical and logical view of a database management system
	CO2	To understand List various types of database management systems and Design database using different database design models
	CO3	To understand Create ER Diagram for a database and Write SQL queries to manipulate database
	CO4	To understand Describe ACID properties of transactions
	CO5	To Implement transactions in a database.
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Big Data Analytics	CO1	To Apply data processing techniques and analyze the Importance of Big Data
	CO2	To Analyze Hadoop tools to process big data on Hadoop cluster
	CO3	To Apply the HDFS Design while processing very huge volume of data
	CO4	To Apply the YARN Concepts and Resource Manager to optimize heavy jobs
	CO5	To Analyze the various techniques/types of Execution Types in Apache Pig and Understand the concept of different types of tables in Apache Hive.
Machine Learning	CO1	To Understand the difference between continuous class label and discrete class label classification methods.
	CO2	To Predict the continuous class variable using linear regression analysis.
	CO3	To Predict the binary class variable using decision tree and random forest.
	CO4	To Understand the importance of Logistic regression and its application in business.
	CO5	To Apply the assessment method to find the better fit model for classification techniques.
Analytics using Excel	CO1	To successful completion of all modules students get the knowledge of create flexible data aggregations.
	CO2	To Students get the knowledge how to represent the data visually <i>using</i> pivot charts.
	CO3	To completion of modules and get the knowledge of create flexible data aggregations <i>using</i> pivot tables.
	CO4	To understand and able to do Statistical Analysis techniques on data using Excel.
	CO5	To understand Various Simulation techniques, Analysis and Forecasting methods will be taught.
Python Programming	CO1	To Understand the core programming concepts of Python Programming Language.

	CO2	To Know the Looping and condition statements in Python Programming Language
	CO3	To Understand the different options in Data Management in Python Programming Language.
	CO4	To Understand the importance of data transformation and its need in Python Programming Language
	CO5	To Know elementary to advanced statistical methods in Python Programming environment.
Data Mining Techniques	CO1	Understand the important difference between CRISP –DM and KDD process of data mining.
	CO2	Understand the data pre-processing technique for the data mining projects and its importance in reduction of time in completing the project.
	CO3	Apply association rule mining for the appropriate data set and conclude the results for decision making process.
	CO4	Learn the different data classification techniques and its practical use in data mining project.
	CO5	Understand the basic concepts of text mining and able to cluster the text using statistical programming language.
Business Fundamentals - II	CO1	Equip the students to understand and implement different cultures, ethics and motivation required in organization management.
	CO2	Develop leadership, group behavior, reaction and handling situations during conflict in a professional way
	CO3	To understanding of the principles of human behavior in organizations
	CO4	To understanding of the principles of relevance to the Indian business context.
	CO5	To understanding of different organizational behavior concepts like motivation, communication, culture, human resource and conflict
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Market Research and Analytics	CO1	Understand what marketing research is and how it is used by management.
	CO2	Define research problems and understanding of different concept of Market Measurement
	CO3	Understand different digital marketing platform
	CO4	Understand and analyze global market
	CO5	To introduce the basic concepts and techniques of Digital Marketing analytics
Exploratory Data Analysis	CO1	To Understand the data and its types for the appropriate exploratory data analysis.
	CO2	To Understand the importance of Exploratory Data Analysis over summary statistics.
	CO3	To Understand the importance Univariate statistics in EDA
	CO4	To Plot Univariate statistical graphs for the better representation and interpretation.

	CO5	To understand Plot bivariate statistical graphs for the better representation and interpretation.
Financial Econometrics	CO1	To Understand the different elementary models related to time series analysis and apply technique to identify better model to forecast.
	CO2	To Apply VAR model to the dynamic behaviour of financial time series conditions and Select the order of Vector Auto Regression model for better forecast of time series data.
	CO3	To Understand the importance of stationarity in building time series models and use of Granger Causality and Johansen Cointegration method.
	CO4	To Apply VECM in the appropriate place to overcome the Cointegration problem.
	CO5	To Build the model using ARCH and GARCH technique for non-constant variance data.
Operations Research	CO1	To Solve Linear Equations
	CO2	To Work with Linear Programming
	CO3	To Work with Network Models and Solving Problems
	CO4	To Work with gaming and queuing theory
	CO5	To Solve and examine situations that generate queuing problems
Market Research and Analytics Seminar	CO1	To Gain perspective and practice in applying techniques and interpreting findings.
	CO2	To Develop, design and execute marketing research projects.
	CO3	To Study emerging trends in marketing research
	CO4	To Implement the process of research design through collection of data.
	CO5	To understanding of what marketing research can and cannot realistically achieve for management decisions.
Financial Econometrics Lab	CO1	To understand the basic concepts of time series analysis
	CO2	To understand the elementary time series models and model evaluation techniques
	CO3	To understand the integration process of non-stationary data set

	CO4	To understand the importance of ARMA and ARIMA models for forecasting
	CO5	To understand the basic concepts and estimation procedure for VAR models
Project Management	CO1	To know the importance of flawless execution of project which requires intense & detailed planning & resourcing.
	CO2	To Understand how short term and long term goals fit within the broader strategic plan.
	CO3	Able to deal with and manage any type of project.
	CO4	To proceed with a project with a clear and efficient step-by-step methodology.
	CO5	To know the importance the principles of project management.
Business Intelligence	CO1	To Understand the important terminologies and architecture of Business Intelligence system.
	CO2	To Understand the important difference between business performance management and business intelligence.
	CO3	To Understand the different OLAP systems used in Business Intelligence Report creations and analytics.
	CO4	To Learn the different business intelligence types, and importance of report creation and dashboard design.
	CO5	To Understand implementation procedure for business intelligence systems
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Artificial Neural Networks	CO1	To Know the basic concepts of neural networks and its components
	CO2	To Know neural network learning and adaption techniques

	CO3	To Know the detailed concepts of single layer perceptron neural networks
	CO4	To Know the detailed concepts of multilayer perceptron neural networks
	CO5	To Explain the different field of application on neural network models
Predictive Analytics	CO1	To Understand the important terminologies and need for predictive analytics for business organization
	CO2	To Apply data pre-processing techniques for predictive analytics
	CO3	To Apply data wrangling techniques for predictive analytics
	CO4	To Build linear regression analysis and fine tune the model for higher accuracy
	CO5	To Build classification techniques and fine tune the model for higher accuracy
Cloud Computing	CO1	To Analyze the Cloud computing setup with its vulnerabilities and applications using different architectures.
	CO2	To Design different workflows according to requirements and apply map reduce programming model.
	CO3	To Apply and design suitable Virtualization concept, Cloud Resource Management and design scheduling algorithms and design scheduling algorithms for computing clouds
	CO4	To Create combinatorial auctions for cloud resources and design scheduling algorithms for computing clouds
	CO5	To educate to know the impact of engineering on legal and societal issues involved in addressing the security issues of cloud computing
Cloud Infrastructure Services	CO1	Understand the Cloud Service Models and Cloud Deployment Models
	CO2	Create and configure the compute, storage and database services in the cloud which help them to work with analytic services.
	CO3	Monitor and get the logs related to various services.
	CO4	Deploy and configure the data analytics projects.
	CO5	Select Cloud services to analyse big data and create statistical models.
Text Analytics	CO1	To Know the basic concepts of text analytics and its important terminologies

	CO2	To Know the key role of syntactic parsing and semantic analysis in text analytics
	CO3	To Know the importance of corpus creation in text analytics
	CO4	To Know the important statistical techniques used in text analytics
	CO5	To understand the mechanism of text analytics generation in processing of natural language.
Social and Web Media Analytics	CO1	To Understand the important terminologies and analytics techniques in social media analytics.
	CO2	To Analyse the twitter data and conclude the important finding and insights of the society thought on particular issues.
	CO3	To Analyse the facebook data and conclude the important finding and insights of the society thought on particular issues.
	CO4	To Analyse the Instagram profile and find out the interesting insights.
	CO5	To Analyse the GitHub profile and find out the latest trending article in GitHub