Jaipur School of Business

Syllabus and Course Structure

Bachelor of Business Administration (Data Analytics and data visualization)

Academic Program

Batch (2024-2027)

About the University:

JECRC University (formerly Jaipur Engineering College & Research Centre) is an Indian private university located in Jaipur, Rajasthan. It is established by the Act No. 15 of 2012 of Rajasthan Legislative Assembly. JECRC University offers several undergraduate and postgraduate-level courses and PhD programmes in science and technology, arts, commerce, health and medicine, law, etc. Established in 2012, the JECRC University is a private higher education institution located in the urban setting of the metropolis of Jaipur (population range of 1,000,000-5,000,000 inhabitants), Rajasthan. Officially recognized by the University Grants Commission of India, JECRC University (JU) is a co-educational Indian higher education institution. JECRC University (JU) offers courses and programs leading to officially recognized higher education degrees in several areas of study. JU also provides several academic and non-academic facilities and services to students including a library, as well as administrative services.

Planning and development of the **JECRC University Campus** underscores our belief in creation of a sound infrastructure for both learning and living. The JECRC University has excellent academic and residential facilities that make up a vibrant campus. The style of the buildings is unique with large rectangular and linear structures dotted around the 32 acre campus with large courtyards. It has been designed keeping in mind the climatic conditions, still connecting the past with modern and contemporary design. The concept of the JU building and landscape is to create an environment with liveliness as a playground for dreams and a place for inspiration to the students.

The campus is built to bring together world class experience which truly represents the character of the University. This commitment reflects in everything that you see here architecture and layout, landscaping, training and technology infrastructure, residential and recreational facilities. The design of the campus demarcating different zones – Residential, Public Buildings and the Academic Blocks – breaks the monotony with a transitional space and experience. A striking highlight of the campus is the classical-style exposed brick-wall buildings with sun-lit and well-ventilated interiors which divulge a monumental structure. The cavity wall exposed brick concept ensures that the building gives a temperature difference of almost 8 to 10 degrees between the indoor and the outdoor temperature. Adding to the social aspect of green movement, natural materials like traditional Kota and Jodhpur stones are used. The identity of the campus is large courtyards between the buildings and the presence of more than 90 different species of plantation around the campus. At JU, students may choose to live in the residential housing at the campus itself, soaking in the vibrant neighborhood or they can live off campus as paying guests in the city

area. The campus is built to bring experience of belongingness which truly represents the character of the University.

About the Department: The **Bachelor of Business Administration** (**BBA**) is a bachelor's degree in business administration awarded by the universities after completion of three years and typically 120 credits of undergraduate study in the fundamentals of business administration, usually including advanced courses in business analytics, business communication, corporate finance, financialaccounting macroeconomics, management, managementaccounting, marketing, microeconomics, strategic management, supply chain management, and other key academic subjects associated with the academic discipline of business management.

The degree is designed to give a broad knowledge of the functional aspects of a company and their interconnection, while also allowing specialization in a particular business-related academic discipline.[1] BBA programs expose students to a range of core subjects and generally allow students to specialize in a specific business-related academic discipline or disciplines.

The BBA degree also develops a student's practical, managerial, and communication skills, and business decision-making capabilities that prepare them for the management of a business entity. Many programs incorporate training and practical experience in the form of case projects, presentations, internships, industrial visits, and interaction with established industry experts.[2]

General educational requirements emphasize humanities and social sciences, including history, economics, and literature. Core mathematics curriculum are usually required and business-related, including quantitative mathematics accounting, statistics, and related courses. Calculus and business statistics are usually required.

University provides various specialization like BBA in BFSI(Banking and Financial Services institution),BBA (DADV) Data analysis and data visualization .

Programme Vision and Mission:
Vision

- To be a preeminent center of academic excellence, creating and imparting knowledge in management education through holistic development of the students.

Mission

- To offer quality education that enables students to meet the challenges and demands of the complex competitive world, leading to a happy life.
- To develop innovative and ethical future leaders capable of managing change and transformation in a globally competitive environment and to advance the theory and practice of management.
- To Shape a better future for mankind by developing effective and socially responsible individuals and organizations by imparting value-based education
- It endeavours to recognize the potential of each student and to ensure that they receive the best preparation and training for achieving their career ambitions and life goals.

Program Outcomes:

- **PO1:** To equip the students with professional competence to do higher studies, research, lifelong, learning for continuous growth and development.
- **PO2:** Acquire knowledge and skills in the filed of management to understand the business problems and design its solutions.
- **PO3**: Acquiring Conceptual Clarity of Various Functional Areas.
- **PO4:** Show proficiency in basic accounting concepts, conventions and understanding of the accounting process.
- **PO5:** Understand the process and preparation of financial statements for Sole Proprietorship and Company and Departmental Business Organizations.
- **PO6:** Students should acquire the basic knowledge required for application of tools for decision making.
- **PO7:** To understand and appreciate the practical relevance of various basic statistical tools in the field of finance, economics, marketing, human resources, manufacturing and so on.

Semester I

FIRST SEMESTER						
Sub Code	**Sub Name**	**L**	**T**	**P**	**C**	**Type**
BBA701A	Foundation to AI, Data Science, BI and Data Analytics	2	0	2	3	Major
BBA004D	Managerial Economics	3	0	2	4	Major
BCM114C	Minor 1 (Accounting For Manager)	4	0	0	4	Minor
DEN001A	Communication Skills	2	0	0	2	AEC
DEN001B	Communication Skill Lab	0	0	2	1	AEC
DIN001A	Culture Education – 1	0	0	4	2	VAC
DCA002A	Web Development	2	0	2	3	SEC
	TOTAL	**13**	**0**	**12**	**19**	

Semester II

SECOND SEMESTER						
Sub Code	**Sub Name**	**L**	**T**	**P**	**C**	**Type**
BBA702A	Data Analysis using Python	3	0	2	4	Major
BBA431D	Operation Management	3	0	2	4	Major
BCM113B	Minor 2(Quantitative Technique)	4	0	0	4	Minor
DEN002A	Professional Skills	2	0	0	2	AEC
DEN002B	Professional Skills Lab	0	0	2	1	AEC
DIN002A	Culture Education – 2	0	0	4	2	VAC
DCH001A	ENVIRONMENTAL STUDIES	3	0	2	4	VAC
JIC002A	Entrepreneurship Skills	0	0	2	1	SEC
	TOTAL	**15**	**0**	**14**	**22**	

THIRD SEMESTER						
Sub Code	**Sub Name**	**L**	**T**	**P**	**C**	**Type**
BBA703A	Statistics & Computational Data Analysis	3	0	2	4	Major
BBA704A	R Programming for Data Science and Data Analysis	3	0	2	4	Major
	Minor 3	4	0	0	4	Minor
DEN003A	Life Skills - 1 (Personality Development)	1	0	2	2	AEC
DIN003A	Value Education -1	1	0	0	1	VAC
DCA004A	Advanced Excel	0	0	2	1	SEC
	Open Course 1	3	0	0	3	Multidisciplinary
	TOTAL	**15**	**0**	**8**	**19**	

FOURTH SEMESTER						
Sub Code	**Sub Name**	**L**	**T**	**P**	**C**	**Type**
BBA705A	Data Analytics and Visualization-Tools & Techniques	3	0	2	4	Major
BBA706A	Machine Learning for Business	3	0	2	4	Major
	Minor 4	4	0	0	4	Minor
DEN004A	Life Skills - 2 (Aptitude)	1	0	2	2	SEC
DIN004A	Value Education – 2	1	0	0	1	VAC
DCA012A	Vlogging / Blogging	0	0	2	1	AEC
	Minor 5	4	0	0	4	Minor
	Open Course 2	3	0	0	3	Multidisciplinary
	TOTAL	**19**	**0**	**8**	**23**	

FIFTH SEMESTER						
Sub Code	**Sub Name**	**L**	**T**	**P**	**C**	**Type**
	Risk & Fraud Analytics	3	0	2	4	Major
	Supply Chain Analytics & HR Analytics	3	0	2	4	Major
	Research Methodology	3	0	2	4	Major
	Minor 6	4	0	0	4	Major
	Open Course 3	3	0	0	3	Minor
	TOTAL	3	0	0	3	Multidisciplinary
		19	**0**	**6**	**22**	

SIXTH SEMESTER						
Sub Code	**Sub Name**	**L**	**T**	**P**	**C**	**Type**
BBA 621A	Banking & financial services	3	0	0	3	Major
BBA 622A	Training and development	3	0	0	3	Major
BBA 623 A	Digital marketing	3	0	0	3	Major
BBA 624 A	Global Business Environment	3	0	0	3	Major
BBA 625 A	Data Analysis using SPSS	3	0	0	3	Major
BBA	Seminar	0	0	1	1	
	Case study and Project					
	TOTAL	**0**	**0**	**15**	**16**	

Foundation to AI, Data Science, BI and Data Analytics

Course: BBA	**Semester-II**
Subject - Foundation to AI, Data Science, BI and Data Analytics	**Subject Code:**
Credit -3	**Marks:100**

The objective of this course is to teach students the concepts of current main conceptual frameworks at use in AI Business Intelligence and Data Analytics.

Course Rationale: The course begins with the theoretical understanding of AIML and usage, Ethics present and future. The course helps students understand the key concepts of Artificial Intelligence, Machine Learning, Data Science, and Data Analytics. The unit on AI introduces the concepts such as Turing Test, assumptions behind the intelligence, the history of AI. The unit on Machine learning teaches the key machine learning concepts such as supervised learning, unsupervised learning, and reinforcement learning. The unit on data science helps student understand the concepts of structured and unstructured data, SQL and nonSQL databases, Distributed programming framework. The unit on data science process helps student understand the key steps required to complete a data science project.

Course Objectives:

• To learn about the Artificial Intelligence and its evolution

• To differentiate between different learning algorithms and analytics frameworks

• To understand different data science processes, tools and techniques

• To know the processes that are required to execute a data science project successfully

• To extract information from different data sets using Excel

Learning Outcomes: After completion of the course students would be able to :

• Outline the key concepts of AI and how AI has evolved

• Identify the key concepts of Machine Learning and will be able to differentiate between key algorithms such as supervised learning and unsupervised learning

• Distinguish key Data Science concepts such as structured and unstructured data, SQL and NoSQL Database

• Examine the process required the successfully execute a Machine Learning or Data Science project • Infer the large scale data using Excel

Prerequisite(s): Basic knowledge of Excel.

Unit	Particulars
Unit-1	Introduction to Data Science: Defining Data Science and Big Data, Benefits and Uses of Data Science and Big Data, Facets of Data, Structured Data, Unstructured Data, Natural Language, Machine- generated Data, Graph based or Network Data, Audio, Image, Video, Streaming data, Data Science Process, Big data ecosystem and data science, Distributed file systems, Distributed programming framework, data integration framework, machine learning framework, No SQL Databases, scheduling tools, benchmarking tools, system deployments
Unit-2	Data Science Processes: Six steps of data science processes, define research goals, data retrieval, cleansing data, correct errors as early as possible, integrating – combine data from different sources, transforming data, exploratory data analysis, Data modelling, model and variable selection, model execution, model diagnostic and model comparison, presentation and automation.
Unit-3	Introduction to AI: What is AI, Turing test, cognitive modelling approach, law of thoughts, the relational agent approach, the underlying assumptions about intelligence, techniques required to solve AI problems, level of details required to model human intelligence, successfully building an intelligent problem, history of AI
Unit-4	Data Analytics: Working with Formula and Functions, Introduction to Power BI & Charts, Logical functions using Excel, Analyzing Data with Excel. Power BI Analytics, Data Validation & data models, Power Map for visualize data , Power BI-Business Intelligence
Unit-5	SQL Introductory Functions: 10 hours (Each hour 4-5 functions only) SQL HOME, SQL Intro, SQL Syntax, SQL Select, SQL Select Distinct, SQL Where, SQL Order By, SQL And, SQL Or SQL Not, SQL, Insert Into, SQL Null Values SQL Update SQL Delete SQL Select Top SQL Aggregate Functions SQL Min and Max SQL Count SQL Sum SQL Avg SQL Like SQL Wildcards SQL In SQL Between SQL Aliases SQL Joins SQL Inner Join SQL Left Join SQL Right Join SQL Full Join SQL Self Join SQL Union SQL Group By SQL Having SQL Exists SQL Any, All SQL Select Into SQL Insert Into Select SQL Case SQL Null Functions SQL Stored Procedures SQL Comments SQL Operators
Reference Books:	• Artificial Intelligence 3e: A Modern Approach Paperback – By Stuart J Russell & Peter Norvig; Publisher – Pearson • Artificial Intelligence Third Edition By Kevin Knight, Elaine Rich, B. Nair – McGrawHill • Artificial Intelligence Third Edition By Patrick Henry Winston – Addison-Wesley Publishing Company

MANAGERIAL ECONOMICS

Course: BBA	**Semester-1**
Subject -Managerial Economics	**Subject Code: BBA004D**
Credit -4	**Marks:100**

Learning Objective: The purpose of this course is to apply microeconomics concepts and techniques in evaluating business decisions taken by firms. The emphasis is on explaining how the tools of standard price theory can be employed to formulate a decision problem, evaluate alternative courses of action and finally choose among alternatives. Simple geometry and basic concepts of mathematics will be used in course of teaching.

Course outcomes (CO)

I CO1: To understand how to apply microeconomics, concept, and technique in evaluating business decisions.

II CO 2: Understanding the nature, significance and scope of managerial economics

III CO3: Knowing to demand, supply and market equilibrium,

IV CO4: Knowing about production technology and theory of firm & market organization.

V CO5: To understand and analyze market structure.

Unit	**Particulars**
Unit I	Introduction to Managerial economics, nature, significance, scope of managerial economics, role of economics in business decision making. Macro and Micro economics, Macro Economic Variables, Demand & Supply, determinants of demand and supply, movement vs. shift in demand curve, movement along a supply curve vs. shift in supply curve. Elasticity of Demand &Supply. Price, Income & cross elasticity & advertising elasticity. Methods to calculate price elasticity.
Unit II	Utility: Cardinal & Ordinal, Law of diminishing marginal utility, law of equi-marginal utility. Theory of Consumer Behaviour, Indifference curve theory, Indifference curves & its properties
Unit III	Production: Technology of Production; Production with one variable input, Production with two variable input, Returns to Scale.
Unit IV	Cost: Measuring Costs, Costs in the Short & long run, Long run vs. Short run cost curves, profit maximization & cost minimization, equilibrium of the firm; Economies of Scale.
Unit V	Theory of Firm & Market Organization: Perfect Competition: Perfectly Competitive markets, Profit Maximization, Marginal revenue, Marginal Cost, Output in the short run & long run. Monopoly: Monopoly Power & its sources, Monopolistic Competition &OligopolyKinked demand curve, price leadership of a firm.

Text books:

1. D.N. Dwivedi, Managerial Economics, Vikas Publications
2. SPS Chauhan, *Micro Economics, An Advanced Treatise*, Prentice Hall of India, 2009.

3. R.G.Lipsey and K.A. Chrystal. (2008). *Principle of Economics*. (11th ed.). Oxford University Press.
4. Deepashree, *Principle of Micro Economics, Ane Books Pvt. Ltd, New Delhi.*

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	L	H				M	H
CO2		M		M			M
CO3	H				M		
CO4		M			L		L
CO5			L	L		M	

H = Highly Related; M = Medium L = Low

Web Development

Course: BBA	**Semester-1**
Subject - Web Development	**Subject Code:DCA002A**
Credit -2L	**Marks:100**

Course Objectives:
Students will be able to understand and be familiar with client server architecture.
Students will be able to understand and able to develop a web application using java technologies.
Students will be able to learn the skills and project-based experience needed for entry into web application.
Students will be able to learn the concepts of developing a dynamic webpage by the use of java script and CSS.
Students will be able to learn the concept of XML, MySql and server side scripting.
Course Outcomes (CO's): After the completion of the course the student will be able to
CO1:To create a dynamic webpage by the use of java script and DHTML.
CO2: To create a well formed / valid XML document.
CO 3: To connect a java program to a DBMS and perform insert, update and delete operations on DBMS table.
CO 4. Tocreate a server side java application called JSP to catch form data sent from client and store it on database.
CO 5. To write a server side java application called servlet to catch form data sent from client, process it and store it on database.

Unit	**Particulars**
Unit -1	HTML5 and CSS3 HTML5- Basic Tags, Tables,Forms.HTML5 Tags,HTML Graphics, HTML media, HTML Graphics, HTML APIs. CSS - Background, Borders, margin, Box model. Styling text, fonts, list, links, tables. CSS overflow, float, inline blocks, pseudoclasses,pseudoelements.CSS border images,rounded corners
Unit-2	Java Script Client side scripting using java script, Introduction to java script, internal and external Java script files, variables, control statements, loops, Arrays , string handling , How to write functions in JavaScript, inputting and outputting from form elements to

	JavaScript. DOM concept, creating html elements using java script. Drawing 2D shapes, handling events. Introduction to AJAX
Unit-3	Building Single page applications with Angular JS Single page application – Introduction , two way data binding, MVC in angular JS, controllers, getting user inputs , loops , Client side routing – accessing URL data , various ways to provide data in angular JS.
Unit -4	Server Side Programming Server side scripting, Difference between client side and server side scripting languages. Introduction to PHP, variables, control statements, loops, Arrays, string handling, PHP forms, Global variables in PHP, Regular expression and pattern matching, Database programming: inputting and outputting data from MySQL using PHP, insertion ,deletion and updating data. State management in web applications, cookies, Application and session state.
Unit-5	Introduction to Xml, usage of XML, XML tags, elements and attributes, attribute type, XML validation: DTD and XSD, XML DOM Case study:-Application Development using Laravel framework
Textbook/Reference:	The Complete Reference, HTML and CSS by Thomas A Powell latest edition

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	**Program Outcome**						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	M						
CO2	H						
CO3	M						
CO4	H						
CO5	M						

H = Highly Related; M = Medium; L = Low

Data Analysis using Python

Course: BBA	**Semester-II**
Subject - Data Analysis using Python	**Subject Code:**
Credit -	**Marks:100**

Objectives:
The objective of this course is to teach students the concepts of Python Programming Language with Libraries

Unit	Particulars
Unit -1	Python programming Basic: Python interpreter, IPython Basics, Tab completion, Introspection, %run command, magic commands, matplotlib integration, python programming, language semantics, scalar types. Control flow.
Unit-2	Data Structure, functions, files: tuple, list, built-in sequence function, dict, set, functions, namescape, scope, local function, returning multiple values, functions are objects, lambda functions, error and exception handling, file and operation systems
Unit-3	NumPy: Array and vectorized computation: Multidimensional array object. Creating ndarrays, arithmetic with numpy array, basic indexing and slicing, Boolean indexing, transposing array and swapping axes, universal functions, array-oriented programming with arrays, conditional logic as arrays operations, file input and output with array
Unit -4	Pandas: Pandas data structure, series, DataFrame, Index Object, Reindexing, dropping entities from an axis, indexing, selection and filtering, integer indexes, arithmetic and data alignment, function application and mapping, soring and ranking, correlation and covariance, unique values, values controls and membership, reading and writing data in text format
Unit-5	Visualization with Matplotlib: Figures and subplots, colors, markers, line style, ticks, labels, legends, annotation and drawing on sublots, matplotlib configuration Plotting with pandas and seaborn: line plots, bar plots, histogram, density plots, scatter and point plots, facet grids and categorical data

OPERATIONAL MANAGEMENT

Course: BBA	**Semester-II**
Subject - OPERATION MANAGEMENT	**Subject Code: BBA431D**
Credit -4	**Marks:100**

Course Outcomes:
CO1: To acquaint the students with the basic manufacturing terms and technicality.
CO2: To increase the analytical skills with respect to the technicality.
CO3: To enable the students with the analytical skills in manufacturing process.
CO4: To make students understand the close relation between production process and cost control.
CO5: To understand the importance of planning with respect to the outcomes required.

Unit	**Particulars**
Unit I	Introduction to Operation Management, Products and Services, The Transformation Process, Product/Process Design Matrix, Services Scenario (Medical, Tourism , Education etc) in India, Characteristic of Services, Classification of Services, Service Blueprinting, Measuring Service Quality using SERVQUAL, The Role of Production Manager
Unit II	Demand Forecasting: Quantitative methods and Qualitative methods of Forecasting, Practice of Moving average, Regression analysis and Exponential smoothing methods in operation management. Aggregate Planning, Nature, Aggregate Planning Strategies, Preparation of Master Plan, Disaggregating the Aggregate Plan.
Unit III	Facility Location Planning: Introduction, Factors Affecting Facility Location Planning,Facility Layout Planning, Capacity Planning, Operations Scheduling: Scheduling problems, Gantt Charts, Principles of work center scheduling, principles of job shop scheduling, personnel scheduling, Assembling Line Balancing.
Unit IV	Inventory Management: Introduction, Uses of Inventory, Types of Inventory, Inventory Management System, Tradition and Modern Techniques of Inventory Control, EOQ, Material Requirement Planning, Bill of material, Just-in-time, Supply Chain Management.
Unit V	Quality Management: A conceptual Framework, Dimensions of Quality, Importance of Cost, Cost of Quality, Techniques of Quality control, International Organization for Standardization, ISO 14000, COPC-2000, Total Quality management and Six Sigma.
Reference books:	1. Operation Research: V K Kapoor 2. Quantitative Techniques: Khandelwal, Gupta, Agarwal and Ahmed 3. Operation Management 4. Production and Operation management: S N Charry

Course Outcome	Program Outcome									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7			
CO1	M									
CO2				H		M				
CO3		H			L					
CO4				M			M			
CO5	L	M				L				

ENVIRONMENTAL STUDIES

Course: BBA	**Semester-II**
Subject - ENVIRONMENTAL STUDIES	**Subject Code: DCH001**
Credit -4	**Marks:100**

Objectives:

Environmental studies deals with every issue that affects an organism. It is essentially a multidisciplinary approach that brings about an appreciation of our natural world and human impacts on its integrity. It is an applied science as its seeks practical answers to making human civilization sustainable on the earth's finite resources. Its components include biology, geology, chemistry, physics, engineering, sociology, health, anthropology, economics, statistics, computers and philosophy. As we look around at the area in which we live, we see that our surroundings were originally a natural landscape such as a forest, a river, a mountain, a desert, or a combination of these elements. Most of us live in landscapes that have been heavily modified by human beings, in villages, towns or cities. But even those of us who live in cities get our food supply from surrounding villages and these in turn are dependent on natural landscapes such as forests, grasslands, rivers, seashores, for resources such as water for agriculture, fuel wood, fodder, and fish.

The basis objective of this course is to provide basic understanding to the students with the nature and the environment.

Course outcomes (CO)

I CO1: It deals with every issue that affects the organization.
II CO 2: To understand the multidisplinary nature of environmental studies.
III CO3:To understand about the renewable and non renewable resources.
IV CO4: Knowing about the concept of the ecosystem.
V CO5: To know impact of population on environment.

Unit	**Particulars**
UNIT I	The Multidisciplinary nature of environmental studies Definition; Scope and importance, Need for public awareness.
UNIT II	Natural Resources: Renewable and non-renewable resources: Natural resources and associated problems. a) Forest resources: Use and Over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people. b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams benefits and problems. c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, Case studies. f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification. - Role of an individual in conservation of natural resources. - Equitable use of resources for sustainable lifestyles.

UNIT III	Concept of an ecosystem- Structure and function of an ecosystem.Producers, consumers and decomposers.Energy flow in the ecosystem.Ecologicalsuccession.Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following ecosystem: a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).
UNIT IV	Biodiversity and its Conservation Introduction-Definition: genetic, species and ecosystem diversity. Bio-geographical classification of India. Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values. Biodiversity at global, National and local levels. India as a mega-diversity nation. Hot-spots of biodiversity. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. Endangered and endemic species of India. Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.
UNIT V	Environmental Pollution: Definition, Causes, effects and control measures of: - a. Air pollution b. Water pollution c. Soil pollution d. Marine pollution e. Noise pollution f. Thermal pollution g. Nuclear hazards - Solid waste Management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution.Pollution case studies. - Disaster management: floods, earthquake, cyclone and landslides
UNIT-VI:	Social Issues and the Environment - From Unsustainable to Sustainable development. - Urban problems related to energy. - Water conservation, rain water harvesting, watershed management. - Resettlement and rehabilitation of people; its problems and concerns. Case studies. - Environmental ethics: Issues and possible solutions. - Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies. - Wasteland reclamation. - Consumerism and waste products. - Environment Protection Act. - Air (Prevention and Control of Pollution) Act. - Water (Prevention and Control of Pollution) Act. - Wildlife Protection Act. - Forest Conservation Act.

	- Issues involved in enforcement of environmental legislation. - Public awareness.
UNIT-VII:	Human Population and the Environment - Population growth, variation among nations. Population explosion-Family welfareProgramme.Environmentand human health.HumanRights.ValueEducation.HIV/AIDS.Women and Child Welfare. - Role of information Technology in Environment and human health. - Case Studies.
UNIT-VIII: Field Work (Practical).	- Visit to a local area to document environmental assets-river/forest/grassland/ hill/mountain. - Visit to a local polluted site-Urban/Rural/Industrial/Agricultural. - Study of common plants, insects, birds. - Study of simple ecosystems-pond, river, hill slopes, etc.
	Reference Books: 1. Agarwal K.C. 2001 Environmental Biology, Nidi publ. Ltd. Bikaner. 2. BharuchaErach, The Biodiversity of India, Map in Publishing Pvt. Ltd. Ahemdabad-380013, India, E-mail: Mapincenet, net. 3. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc.480p. 4. Clark R.S., Marine pollution, Clanderson Press Oxford. 5. Cunningham, W.P.Cooper, T.H.Gorhani, E & Hepworth, M.T. 2001, Environmental & Encyclopedia, Jaico Publ. House, Mumbai, 1196p 6. De A.K., Environmental Chemistry, Wiley Eastern Ltd. 7. Down to Earth, Centre for Science and Environment 8. Gleick, H.P. 1993. Water in crisis, Pacific Institute for Studies in Dev.,Environpment& Security. Stockholm Env. Institute. Oxford Univ. Press, 473p 9. Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay . 10. Heywood, V.H & Watson, R. T. 1995. Global Biodiversity Assessment. Cambridge Univ. Press1140p 11. Jadhav, H &Bhosale, V.M.1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284p 12. Mckinney, M.L. &Schoeb, R.M. 1996. Environmental Science systems & solutions, Web enhanced edition 639p. 13. Mhaskar A.K. Matter Hazardous. Techno-Science Publications. 14. Miller T.G. Jr., Environmental Science, Wadsworth Publishing Co. 15. Odium, E.P. 1971. Fundamentals of Ecology, W.B.Saunders Co. USA. 574p 16. Rao M.N. &Datta, A.K. 1987. Waste Water Treatment. Oxford & IBH Publ .Co. Pvt. Ltd. 345p. 17. Sharma B.K., 2001. Environmental Chemistry Goel Publ. House, Meerut. 18. Townsend C.,Harper J, and MichealBegon, Essentials of Ecology, Blackwell Science

	19. Trivedi R.K., Handbook of Environmental Laws, Rules, Guidelines, Compliances and standards, Vol I an II, Enviro Media

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1		H			M	M	
CO2			H		M	M	
CO3			M		H	L	L
CO4		M		H		M	L
CO5			L		M	L	

H = Highly Related; M = Medium L = Low

Statistics & Computational Data Analysis

Course: BBA	**Semester-IV**
Subject - Statistics & Computational Data Analysis	**Subject Code:**
Credit -4	**Marks:100**

Objectives: The objective of this course is to teach students the concepts of Statistics, probability, probability distribution, and other statistical methods to solve various engineering problems. Course Rationale: The course begins with the theoretical study of statistics and probability distributions which is widely used in ML, AI and all engineering applications. Topics include: basic combinatorics, random variables, probability distributions, Bayesian inference, hypothesis testing, and confidence intervals.

Course Objectives:

• The objective of this course is to teach students the basic concepts of Statistics, Probability and probability distribution and other statistical methods to solve various engineering problems. Learning & Course Outcomes: On completion of this course, the students are expected to learn

1. Basics of Statistics and Probability distributions

2. Sampling theory and Theory of Estimation

3. Various tests of Hypothesis and Significance

4. Correlation and Regression and fitting of different types of curves.

Unit	**Particulars**
Unit I	Introduction to Statistics: Introduction to Statistics. Role of statistics in scientific methods, current applications of statistics. Scientific data gathering: Sampling techniques, scientific studies, observational studies, data management. Data description: Displaying data on a single variable (graphical methods, measure of central tendency, measure of spread), displaying relationship between two or more variables, measure of association between two or more variables.
Unit II	Probability Theory: Sample space and events, probability, axioms of probability, independent events, conditional probability, Bayes' theorem. Random Variables: Discrete and continuous random variables. Probability distribution of discrete random variables, binomial distribution, poisson distribution. Probability distribution of continuous random variables, The uniform distribution, normal (gaussian) distribution, exponential distribution, gamma distribution, beta distribution, t-distribution, χ" distribution.

	Expectations, variance and covariance. Probability Inequalities. Bivariate distributions
Unit III	Point Estimations: Methods of finding estimators, method of moments, maximum likelihood estimators, bayes estimators. Methods of evaluating estimators, mean squared error, best unbiased estimator, sufficiency and unbiasedness Interval Estimations: Confidence interval of means and proportions, Distribution free confidence interval of percentiles
Unit IV	Test of Statistical Hypothesis and p-values: Tests about one mean, tests of equality of two means, test about proportions, p-values, likelihood ratio test, Bayesian tests Bayesian Statistics: Bayesian inference of discrete random variable, Bayesian inference of binomial proportion, comparing Bayesian and frequentist inferences of proportion, comparing Bayesian and frequentist inferences of mean Univariate Statistics using Python: Mean, Mode. Median, Variance, Standard Deviation, Normal Distribution, t distribution, interval estimation, Hypothesis Testing, Pearson correlation test, ANOVA F-test
Reference Books:	Reference Books: • Achim Klenke, (2014), Probability Theory A Comprehensive Course Second Edition, Springer, ISBN 978-1-4471-5360 3 • Christian Heumann, Michael Schomaker Shalabh (2016), Introduction to Statistics and Data Analysis With Exercises, Solutions and Applications in R, Springer International Publishing, ISBN 978-3-319-46160-1 Douglas C. Montgomery, (2012), Applied Statistics and Probability for Engineers, 5th Edition, , Wiley India, ISBN: 978-8-126-53719-8.

R PROGRAMMING FOR DATA SCIENCE AND DATA ANALYSIS

Course: BBA	**Semester-IV**
Subject - R PROGRAMMING FOR DATA SCIENCE AND DATA ANALYSIS	**Subject Code:**
Credit -4	**Marks:100**

Objectives: The objective of this course is to teach students R Programming Language, basic functions in R programming language and critical techniques

Unit	Particulars
Unit I	Getting Started with R and R Workspace: Introducing R, R as a programming Language, the need of R, Installing R, RStudio, RStudio's user interface, console, editor, environment pane, history pane, file pane, plots pane, package pane, help and viewer pane R Workspace, R's working directory, R Project in R Studio, absolute and relative path, Inspecting an Environment, Inspect existing Symbols, View the structure of object, Removing symbols, Modifying Global Options, Modifying warning level, Library of Packages, Getting to know a package, Installing a Package from CRAN, Updating Package from CRAN, Installing package from online repository, Package Function, Masking and name conflicts
Unit II	Basic Objects and Basic Expressions: Vectors, Numeric Vectors, Logical Vectors, Character Vectors, subset vectors, Named Vectors, extracting element, converting vector, Arithmetic operators, create Matrix, Naming row and columns, subsetting matrix, matrix operators, creating and subsetting an Array, Creating a List, extracting element from list, subsetting a list, setting value, creating a value of data frame, subsetting a data frame, setting values, factors, useful functions of a data frame, loading and writing data on disk, creating a function, calling a function, dynamic typing, generalizing a function. Assignment Operators, Conditional Expression, using if as expression and statement, using if with vectors, vectorized if: ifelse, using switch, using for loop, nested for loop, while loop
Unit III	Working with Basic Objects and Strings: Working with object function, getting data dimensions, reshaping data structures, iterating over one dimension, logical operators, logical functions, dealing with missing values, logical coercion, math function, number rounding functions, trigonometric functions, hyperbolic functions, extreme functions, finding roots, derivatives and integration, Statistical function, sampling from a vector, Working with random distributions, computing summary statistics, covariance and correlation matrix, printing string, concatenating string, transforming text, Formatting text, formatting date and time, formatting date and time to string, finding string pattern, using group to extract data, reading data
Unit IV	Working with Data – Visualize and Analyze Data: Reading and Writing Data, importing data using built-in-function, READR package, export a data frame to file, reading and writing Excel worksheets, reading and writing native data files, loading built-in data sets, create scatter plot, bar chart, pie chart, histogram and density plots, box plot, fitting linear model and regression tree

ADVANCED SPREAD SHEET LAB

Course: BBA	**Semester-III**
Subject - Advanced Spread Sheet Lab	**Subject Code: DCA003**
Credit -1	**Marks:100**

Course Objective:

1. Students will be able to understand the basics of Excel.
2. Students will be able to understand the concepts of working with the functions of advanced excel.

Course Outcome (CO's)

CO1. Students will learn to use spreadsheet concepts and explore the Microsoft Office Excel environment.
CO2.Students will apply the concepts of to create, open and view a workbook.
CO 3. Students will Illustrate different advanced excel formatting.
CO 4. Students will be apply date and time functions
CO 5.Students will learn to describe basic uses of advanced excel functions

Unit	Particulars
Unit -1	**Advanced Excel Course-Overview of the Basics of Excel**:Customizing common options in Excel, Absolute and relative cells, Protecting and un-protecting worksheets and cells.Writing conditional expressions (using IF),Using logical functions (AND, OR, NOT),Using lookup and reference functions (VLOOKUP, HLOOKUP, MATCH, INDEX),VlookUP with Exact Match, Approximate Match, Nested VlookUP with ExactMatchVlookUP with Tables, Dynamic Ranges, Nested VlookUP with Exact Match,Using VLookUP to consolidate Data from Multiple Sheets
Unit-2	**Advanced Excel Course - Data Validations** :Specifying a valid range of values for a cell, Specifying a list of valid values for a cell, Specifying custom validations based on formula for a cell **Advanced Excel Course - Working with Templates** Designing the structure of a template, Using templates for standardization of worksheets

Unit 3	**Advanced Excel Course - Sorting and Filtering Data** Sorting tables, Using multiple-level sorting, Using custom sorting, Filtering datafor selected view (AutoFilter),Using advanced filter options **Advanced Excel Course - More Functions** Date and time functions,Textfunctions,Database functions, Power Functions (CountIfCountIFS, SumIF, SumIfS) **Advanced Excel Course – Formatting** Using auto formatting option for worksheets, Using conditional formatting option for rows, columns and cells **Advanced Excel Course – Macros** Relative & Absolute Macros, Editing Macro's **Advanced Excel Course - WhatIf Analysis** Goal Seek, Data Tables, Scenario Manager

Unit 4	**Advanced Excel Course – Charts** Using Charts, Formatting Charts, Using 3D Graphs,Using Bar and Line Chart together, Using Secondary Axis in Graphs,Sharing Charts with PowerPoint / MS Word, Dynamically,(Data Modified in Excel, Chart would automatically get updated)
Unit-5	**Advanced Excel Course - Working with Reports**

	Creating subtotals, Multiple-level subtotals,Creating Pivot tables,Formatting and customizing Pivot tables, Using advanced options of Pivottables, Pivot charts,Consolidating data from multiple sheets and files using Pivot tables, Using external data sources,Using data consolidation feature to consolidate data, Show Value As (% ofRow, % of Column, Running Total, Compare with Specific Field), Viewing Subtotal underPivot,Creating Slicers (Version 2010 & Above), Designing the structure of a template, Print Titles Repeat Rows /Coloumns

Semester IV

DATA ANALYSIS AND VISUALIZATION – TOOLS AND TECHNIQUES

Course: BBA	**Semester-1**
Subject - DATA ANALYSIS AND VISUALIZATION – TOOLS AND TECHNIQUES	**Subject Code:**
Credit -4	**Marks:100**

Unit	Particulars
Unit I	I INTRODUCTION TO DATA HANDLING Overview of Data analysis, Introduction to Data visualization, Working with Logical and financial functions, Data Validation & data models, Power Map for visualize data , Power BI-Business Intelligence , Dashboard designing
Unit II	INTRODUCTION TO DATA MANIPULATION USING FUNCTION: Heat Map, Tree Map, Smart Chart, Azure Machine learning , Column Chart, Line Chart , Pie,Bar, Area, Scatter Chart, Data Series, Axes , Chart Sheet , Trendline , Error Bars, Sparklines, Combination Chart, Gauge, Thermometer Chart , Gantt Chart , Pareto Chart etc , Frequency Distribution, Pivot Chart, Slicers , Tables: Structured References, Table Styles , What-If Analysis: Data Tables, Goal Seek, Quadratic Equation , Transportation Problem, Maximum Flow Problem, Sensitivity Analysis, Histogram, Descriptive, Statistics, Anova, F-Test, t-Test, Moving, Average, Exponential Smoothing | Correlation model | Regression model, Practical Lab
Unit III	TABLEAU SOFTWARE: GETTING STARTED WITH TABLEAU SOFTWARE: What is Tableau? What does the Tableau product suite comprise of? How Does Tableau Work? Tableau Architecture, What is My Tableau Repository? Connecting to Data & Introduction to data source concepts, Understanding the Tableau workspace, Dimensions and Measures, Data Types & Default Properties, Building basic views, Saving and Sharing your work-overview, Practical Lab
Unit IV	Data Strategy & Consumer behaviour Analytics - Understanding Product & Category, Competitive Analysis, Market Share understanding- Market potential Index, Seasonality-Sales Trending, Consumer behaviour Analytics-MIND AND MARKET FACTORS, Budget planning & Execution- MIMI, Regression & Correlation Analysis for Sales trending, Forecasting method with predictive investment modelling, Cohort Analysis, Google Analytics(GA)

MACHINE LEARNING FOR BUSINESS

Course: BBA	**Semester-1**
Subject MACHINE LEARNING FOR BUSINESS	**Subject Code:**
Credit -4	**Marks:100**

Objectives: The objective of this course is to teach students the basic concepts of machine learning, supervised learning, unsupervised learning, and reinforcement learning

Unit	Particulars
Unit I	Introduction: Learning systems, real world applications of machine learning, why machine learning, variable types and terminology, function approximation Types of machine learning: Supervised learning, unsupervised learning, reinforcement learning Important concepts of machine learning: Parametric vs non-parametric models, the trade-off between prediction accuracy and model interpretability, the curse of dimensionality, measuring the quality of fit, bias-variance trade off, overfitting, model selection, no free lunch
Unit II	Linear Regression: Linear regression, estimating the coefficients, accessing the accuracy of coefficient estimates, accessing the accuracy of the model Classification: Logistic regression, estimating regression coefficients, making predictions, multiple logistic regressions, linear discriminant analysis, bayes' theorem of classification
Unit III	Resampling Methods, Model Selection and Regularization: Cross-validation, leave-one-out cross- validation, k-fold cross-validation, the bootstrap, subset selection, shrinkage methods, ridge and lasso regression, dimension reduction methods, principal components regression Tree Based Methods: Advantages and disadvantages of trees, regression Trees, classification trees, bagging, random forest, boosting
Unit IV	Support Vector Machine: Maximum margin classifier, classification using a separating hyperplane, the maximal margin classifier, support vector classifier, support vector machines, classification with non-linear decision boundaries, support vector machine Unsupervised Learning: Principle component analysis, what are principal components, clustering methods, k-means clustering, hierarchical clustering,

Risk Fraud Analytics

COURSE: BBA	**SEMESTER-IV**
SUBJECT - RISK FRAUD ANALYTICS	**SUBJECT CODE:**
CREDIT -4	**MARKS:100**

Course Rationale: The course is designed to help understand the concepts of fraud analytics, how to analyze the risk of fraud, fraud data analysis process, anomalies versus fraud within the data and various data analytics test for fraud detection.

Course Objectives: The objective is to help student understand the concepts of Fraud Analytics and understand the process of understanding the process of detecting the fraud in bill scheme, payroll fraud, and expense reimbursement fraud. Learning & Course Outcomes: • The basic concepts of fraud analytics • Process of fraud analytics • Fraud analytics test • Fraud analytics for billing scheme, payroll fraud, employee reimbursement fraud • The concepts of Supply chain Analytics • Understand the concepts of Demand Analytics, Sales and Operation Analytics, Inventory and Supply Analytics • The concepts of Human Resource Analytics Risk Fraud Analytics

Unit	**Particulars**
Unit I	Introduction- Define fraud, anomalies vs fraud, types of fraud, the risk of fraud, Fraud detection, Recognizing Fraud, Data analytical software, anomalies versus fraud within data, Fraud Data inclusions and deletions.
Unit II	Fraud Data Analysis Process – Evaluation and analysis, obtain data file, Type of file formats, Data analysis preparation, arrange data, organize data Data Analysis Tests – Benford's Law, Number duplication test, z-score, relative size factor test, same-same-same test, same-same-different test, even amounts, correlation, trend analysis.
Unit III	Billing Scheme - Data familiarization, Benfords's law test, relative size factor test, z-score, even dollar amounts, same same-same test, same-same-different test, payment without purchase orders test, length of time between invoice and payment dates test, search for post office box, match employee address to supplier, duplicate addresses in vendor master, payments to vendor not in master, gap detection of check number sequences.
Unit IV	Payroll Fraud and Expense Reimbursement Fraud – Data familiarization, data analysis, the payroll register, payroll master and commission tests, Network Analysis.

Supply Chain Analytics & HR Analytics

COURSE: BBA	**SEMESTER-IV**
SUBJECT - SUPPLY CHAIN ANALYTICS & HR ANALYTICS	**SUBJECT CODE:**
CREDIT -4	**MARKS:100**

The objective of this course is to teach students the concepts of HR & Supply chain.To understand how the Analytics can be used in Supply Chain Management, Demand, Sales, Operation, Inventory and Supply. The course also focuses on understanding the concepts of Human resources Analytics and the analysis of key human resources metrices

Unit	**Particulars**
Unit I	Introduction to Supply Chain Analytics – Components of Supply Chain Analytics, Big Data in Supply Chain Analytics, Strategic goal, Demand Analytica, Forecasting, unbiased forecast, forecasting stable products, forecasting new replacement and non-replacement products, measure forecast accuracy,
Unit II	Sales and Operation Analytics – Introduction, newsvendor problem, analzing demand variability, Supply and resource constraints, excess supply
Unit III	Inventory and Supply Analytics – Introduction to inventory management problem, lot size restrictions, volume discount and joint replenishment, lead time variability, Dynamic Inventory control
Unit IV	HR Analytics – Importance of HR Analytics, changing world of man power, HR Analytics Framework, Workforce planning analytics, sourcing analytics, acquisition/hiring analytics, onboarding, culture fit, and engagement analytics, performance assessment analytics, employee lifetime value and cost modeling, Employee wellness and health analytics, HR Metrices and LMAP Framework
Unit V	Trends. Turnover trends, labor turnover index, correlation, predictive forecasting for growth, analyze the actual number of employees to work in a company, analyze prime working days, analyze employee standard unit cost, analyze appraisal cost.

RESEARCH METHODOLOGY

Course: BBA	**Semester-V**
Subject - RESEARCH METHODOLOGY	**Subject Code:**
Credit -4	**Marks:100**

Course outcomes(CO)

I CO1: To know about the various approaches to research and its significance.
II CO 2: To understand the various implications of various parameters of research.
III CO3:To help in analysis of various datas and their corelation
IV CO4: To help students in knowing design and procedure of hypothesis and subsequent research.
V CO5: To understand the report writing in research

Unit	Particulars
Unit I	Meaning, Objective and Motivation in research, Type of research, research approaches, Significance of research, research process, criteria for good research, Define the research problem, selecting a problem, research design, meaning of research design, need of research design, features of good design.
Unit II	Sampling Designing: Census and sample survey, implications of sample design, steps in sample design, criteria of selecting a sample, characteristic of a good sample design, Different type of sample design, random sampling. Data collection techniques: collection of data, interview, schedule and questionnaire method, difference between questionnaires and schedules, Collection of secondary data, selection of appropriate method for data collection.
Unit III	Processing and analysis of data, type of analysis, statistics in research, type of series, measurement of central tendency, measurement of dispersion, regression analysis, least square method, Mean based method , correlation analysis, Karl Pearson coefficient of correlation, Spearmen single rank method, repeated rank method, relationship between correlation and regression analysis.
Unit IV	Hypothesis Design, Basic concept concerning hypothesis testing, procedure of hypothesis testing, Important Parametric test: Z test, T test and F test, Non parametric test: Chi square test, Sign test, run test, mann- whitney U test, Limitation of the testing of hypothesis.
Unit V	Scaling technique, measurement in research, type of measurement scales, techniques of developing measurement tools, Interpretation and report writing, technique of interpretation, Significance of report writing, Different steps in writing a report, Lay out of the research report, types of report.
Reference Books:	1. Research Methodology: C R Kothari. 2. Business Statistics for managers: Lavin and Rubin. 3. Business Research Methods: Coopers & Swindlers.

MAPPING COURSE OUTCOMES LEADING TO THE ACHIEVEMENT OF PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES:

Course Outcome	Program Outcome						
	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	H						
CO2		M		M		M	
CO3		H		H			
CO4				L			M
CO5	L		M		L		

H = Highly Related; M = Medium L = Low

BBA VI Semester
BANKING & FINANCIAL SERVICES

COURSE: BBA	**SEMESTER-VI**
SUBJECT - BANKING & FINANCIAL SERVICES	**SUBJECT CODE: BBA621A**
CREDIT -3	**MARKS:100**

Unit	Particulars
Unit 1:	Introduction to Banking System, Central Bank, Structure of Indian Financial System, Structure of Indian Banking System, Definition & Meaning of Bank, Types of Banking Systems, Unit Banking System, Branch Banking System, Group Banking System, Correspondent Banking System , Chain Banking System ,Deposit Banking System , Investment Banking System, Introduction to Central Bank , Functions ,Credit Control of RBI (Qualitative & Quantitative Measures) , Role of RBI in Economic Development
Unit 2:	Commercial Bank, Banker & Customer Relationship, Definition of Commercial Banks ,Functions of Commercial Banks , Co-operative Banks ,Meaning & Structure of RRBs ,Multi Agency Approach , Priority Sector Lending , Meaning and Features of Retail Banking, Modern Banking Facilities, ATM , Credit Card, Debit Card, Tele Banking, Net Banking, Payment Banking, Banker & Customer Relationship ,
Unit 3:	Money Market & Capital Market , Introduction to Financial Markets ,Money Market , Meaning , Functions , Defects of Indian Money Markets , Components of Money Market , Primary Market , Meaning , Role of New Issue Market , Secondary Markets , Meaning , Stock Exchange , Functions , Listing of Securities , Trading Procedure , SEBI , Role of SEBI , Functions of SEBI , Concepts of NSE , BSE , NIFTY , SENSEX , OTCEI , NSDL
Unit 4:	Financial Services - I , Introduction to Financial Services , Structure of Financial Services , Meaning & Definition of Merchant Banking , Functions of Merchant Bankers , Meaning and Types of Mutual Funds , Advantages of Mutual Funds Financial Services - II Meaning of Venture Capital, Hire Purchase, Leasing, Factoring , Insurance , Definition , Classification , Functions , Procedure for issuing
Suggested Text Book:	1.) Financial Services Banking & Insurance By A.V.Ranganadha Chary, Rudra Saibaba, K.Anjaneyulu Kalyani Publishers

TRAINING & DEVELOPMENT

COURSE: BBA	**SEMESTER-VI**
SUBJECT - TRAINING & DEVELOPMENT	**SUBJECT CODE: BBA622A**
CREDIT -3	**MARKS:100**

Course Outcome:

1. To understand the concept of training and development
2. To Know about the performance appraisal and training
3. To know about various types of training
4. To Know about evaluation of training

Unit	**Particulars**
Unit-1	Introduction to Training &Development **:Training and Training needs Assessment ,Training Deign and Administration ,Training methods,**
Unit-II	Performance Appraisal &Training **:Learning through training, Adult Learning (Andragogy, Learning Styles**
Unit-III	Trainer & Training Institutions**:, Types of Training, Trainer as a change Agent, MDP and EDPs.**
Unit-IV	Evaluation of Training: **Training Evaluation & ROI, Trainer of Training, Measurement Tools & Technique, Feedback Mechanism.**
Unit-V	Effectiveness of Training & Development **: Meaning ,effectiveness ,Cost of Training , Training & Employee Relation**
Reference/Text Books:	1. Effective HR training and development strategy-DrB.Rathan Reddy ,Himalya pub house 2005 2.UdaiPareek- Training and development 3.Lynton, R.P.andPareek U-Training for Development Vistaar Publication N.Delhi 4.Bhatnagar, O.P- evaluation methodology for Training-Oxford and IBM

Course Outcome	Program Outcome							Program Specific Outcome		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1		M				L	H			
CO2	M			M						
CO3	H			L		L	M			
CO4 CO5	L	L	L		L	M	H			

BBA VI Semester

DIGITAL MARKETING

Course: BBA	**Semester-VI**
Subject - Digital Marketing	**Subject Code: BBA 623A**
Credit -3	**Marks:100**

To inculcate executive Skills in students to begin their journey towards digital marketing. To enhance their Managerial Skills on how to use their talent in the best way possible.

Unit	**Particulars**
UNIT I	Introduction to Digital Marketing (DM)-Meaning, Definition, Need of DM, Scope of DM, History of DM, Concept and approaches to DM, Difference between traditional marketing and digital marketing, Examples of good practices in DM.
UNIT II	Introduction to digital and social media marketing-meaning-definition-types of social media websites-mobile apps-email- social media-various social media websites; Blogging-types, platforms.
UNIT III	How Search Engines Work How Search Engines Work, Major Search Engines, Components of Search Engines, Major Search Engines: Google, Yahoo, Bing, Google Results, Search Engine Mechanism, Search Engine Crawling, Robots.txt, Sitemaps, Storing, Processing and Indexing, Ranking,
UNIT IV	SEO Introduction SEO Introduction, Importance of SEO, What Is SEO?, Search Ecosystem Components, Search Ecosystem Components, What Drives Search Ecosystem?, SEO and Social Media, SEO: Pros and Cons, Avoid Outdated Techniques, SEO Career in Organizations, Enterprise SEO, SmallMedium Business SEO, SEOs in Agencies.
UNIT V	Introduction to Content Marketing and Management: Why and how content is important to business – use of content marketing, Content strategy and planning, Forming mission statement and its importance, selection of Niche Markets.

UNIT I
Introduction to Digital Marketing (DM)-Meaning, Definition, Need of DM, Scope of DM, History of DM, Concept and approaches to DM, Difference between traditional marketing and digital marketing, Examples of good practices in DM.

UNIT-II
Unit III

Unit IV
UNIT V

Suggested Readings:

1.Digital Marketing: Seema Gupta-Mcgraw hill
2. J.P.Gupta and Joyti Rana, Principles of Marketing Management, R. Chand & Co. New Delhi.
3. Dave Evans., Susan Bratton, (2010). Social Media Marketing: The Next Generation of BusinessEngagement. Wiley
4. Search Engine Optimization:Your Visual Blueprint for effective Internet marketing,3 Edition(MISL-Wiley)-Kristopher B Jones

GLOBAL BUSINESS ENVIRONMENT

COURSE: BBA	**SEMESTER-VI**
SUBJECT- GLOBAL BUSINESS ENVIRONMENT	**SUBJECT CODE: BBA624A**
CREDIT -3	**MARKS:100**

Learning Objective: To acquaint students with the latest developments in the international business environment. To familiarize students with the ethical and governance aspects of the business.

Unit	Particulars
Unit-I	An overview of international business environment: Importance, nature and scope of international business, modes of entry into international business, internationalization process and managerial implications; Domestic, foreign and global environments and their impact on international business decision; Growing concern for environmental issues.
Unit-II	International economic & trading environment: Regional integration and trade blocks, regionalism v/s. multilateralism, european union, integration of developing countries - SAARC, NAFTA; World trade in goods and services - Major trends and developments
Unit-III	International investment: Types and significance of foreign investments, factors affecting international investment, growth and dispersion of FDI, Cross border mergers and acquisition, foreign investment in India-Impact of reforms on competitiveness of the Indian Firms
Unit-IV	International Linkages: Balance of payments and Exchange rates, trade in goods, market equilibrium and the balance of trade, Capital mobility: Adjustment under fixed exchange rates; Exchange rate changes and trade adjustment; Flexible exchange rate, money and price;
Unit-V	Global Orientation of Indian Economy:Liberalisation, Privatization and Globalization in India, it's impact on the Indian Economy.
	Text Books: 1. Hill, W. L. Charles and Jain, A.K. (2008). *International Business* (6th ed.). India: McGraw Hill. 2. Fernando, A.C. (2011) .*Corporate Governance: Principles, Policies and Practices*. India: Pearson Education. **References:** 1. Roger, Bennet (1999). *International Business*, Financial Times. London: Pitman Publishing. 2. Sharan, Vyuptakesh (2003). *International Business* (2nd ed.). India: Pearson Education. 3. Krueger, Anne O. (2002). *Economic Policy Reforms and the Indian Economy*.OUP. 4. Velasquez, Manuel G. (2012). *Business Ethics Concepts and Cases* (7th ed.). New Delhi: PHI. 5. *Case studies in Business Ethics*, (Vol. I) (ICFAI).

Data Analysis Using SPSS

COURSE: BBA	**SEMESTER-VI**
SUBJECT- Data Analysis Using SPSS	**SUBJECT CODE: BBA625A**
CREDIT -3	**MARKS:100**

Course Objectives:

● Facilitates students who are involved in research projects, dissertations/term-paper to build statistical models and apply statistical tests using SPSS and MS-Excel

l ● The course is designed with an objective of instilling analytical skills among students to meet current Industry requirements

● Also the concepts of the course bound to help final year students (UG or PG) who are preparing for competitive exams, Bank exams, Entrance exams etc. which demands strong computational and Analytical abilities

● Competing this course will be an added advantage for all final students who are seeking a job after they finish their graduation

Unit	Particulars
Unit-I	**Introduction to SPSS:** SPSS Environment: data editor, output viewer, syntax editor – Data view window – SPSS Syntax – Data creation – Importing data – Variable types in SPSS and Defining variables – Creating a Codebook in SPSS.
Unit-II	**Working with Data:** Computing Variables - Recoding (Transforming) Variables: Recoding Categorical String Variables using Automatic Recode, transpose of data, insert variables and merge variables and cases. - Rank Cases - Sorting Data - Grouping or Splitting Data
Unit-III	**Exploring Data:** Descriptive Statistics: Measures of Central tendency and Dispersion. Diagrammatic representation: Simple bar diagram, Multiple bar diagram, Subdivided bar diagram, Percentage bar diagram, Pie diagram, Frequency table, Histogram, Scatter diagram, Box plot.
Unit-IV	**Statistical tests using SPSS:** Inferential Statistics: One sample t test, paired t test, independent sample t test, One way ANOVA, Chi square test for Independence.
Unit-V	**Correlation and Regression analysis:** definition of Correlation, Pearson correlation coefficient, Spearman correlation coefficient, coefficient of determination, testing the significance of correlation coefficient, correlation matrix, linear regression lines, multiple regression analysis with more than two variables, stepwise regression, best set regression, residual analysis, logistic regression analysis.