

**SEMESTER – II**

SL NO	Course Code	Title of the Course	Category of Course	Teaching Hours per Week (L+T+P)	SEE	CIE	Total Marks	Credits
10	Lang.2.1	Language –I	AECC	3+1+0	60	40	100	3
11	Lang.2.2	Language – II	AECC	3+1+0	60	40	100	3
12	B.Com.DA.2.1	Advanced Financial Accounting	DSC -4	3+0+2	60	40	100	4
13	B.Com.DA.2.2	Business Statistics - II	DSC -5	3+0+2	60	40	100	4
14	B.Com.DA.2.3	Fundamental of Data Base Management System and SQL	DSC -6	3+0+2	60	40	100	4
15	B.Com.DA.2.4	Environmental Studies	AECC	2+0+0	30	20	50	2
16	B.Com.DA.2.5	Any one of the following: a. Investing in stock markets b. Innovation Management	OE-2	3+0+0	60	40	100	3
17	B.Com.DA.2.6	Sports	SEC -VB	0+0+2	-	25	25	1
18	B.Com.DA.2.7	NCC/NSS/R&R(S&G)/ Cultural	SEC -VB	0+0+2	-	25	25	1
<b>SUB TOTAL (B)</b>					<b>390</b>	<b>310</b>	<b>700</b>	<b>25</b>

<b>Name of the Program:</b> Bachelor of Commerce (Data Analytics) <b>Course Code:</b> B.Com. DA. 2.1 <b>Name of the Course:</b> <b>ADVANCED FINANCIAL ACCOUNTING</b>		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
<b>Pedagogy:</b> Classroom lectures, Case studies, Tutorial classes, Group discussion, Seminar & field work etc.,		
<b>Course Outcomes:</b> On successful completion of the course, the students will be able to a) Understand & compute the amount of claims for loss of stock & loss of Profit. b) Learn various methods of accounting for hire purchase transactions. c) Deal with the inter-departmental transfers and their accounting treatment. d) Prepare financial statements from incomplete records. e) Outline the emerging trends in the field of accounting		
<b>SYLLABUS:</b>		<b>HOURS</b>
<b>Module-1: Insurance Claims for Loss of Stock</b>		<b>12</b>
Meaning, Need and Advantages of Fire Insurance-Special terminologies in Fire Insurance Claims – Insurer, Insured, Premium, Salvage, Insurance Policy, Sum Assured, Under Insurance, over insurance Average Clause, Claim. Problems on Ascertainment of Fire Insurance Claim including problems on abnormal line of goods- <b>Problems</b>		
<b>Module - 2: Hire Purchase Accounting</b>		<b>12</b>
Meaning of Hire Purchase and Installment Purchase System- difference between Hire Purchase and Installment Purchase – Important Definitions – Hire Purchase Agreement – Hire Purchase Price – Cash Price – Hire Purchase Charges – Calculation of Interest – Calculation of Cash Price – Journal Entries and Ledger Accounts in the books of Hire Purchaser only. (Asset Accrual Method only)- <b>Problems</b>		
<b>Module -3: Departmental Accounts</b>		<b>12</b>
Meaning and Features of Departmental Undertaking-Examples of Department Specific Expenses and Common Expenses -Need and Bases of Apportionment of Common Expenses-Preparation of Statement of Trading and Profit and Loss in Columnar form, Statement of General Profit and Loss and Balance Sheet – Simple problems involving Inter Departmental Transfers at Cost Price (vertical form)- <b>Problems</b>		
<b>Module-4: Conversion of Single-Entry System into Double Entry System</b>		<b>12</b>
Single entry system- Meaning – Features – Merits – Demerits – Types. Conversion into Double Entry system – Need for Conversion – Preparation of Statement of Affairs – Cash book – Memorandum Trading Account – Total Debtors Account – Total Creditors Account – Bills Receivable Account – Bills Payable Account – Statement of Trading and Profit & Loss and Balance Sheet- <b>Problems</b>		

<b>Module -5: Emerging Trends in Accounting</b>	<b>08</b>
<p>Digital transformation of Accounting – Big Data Analytics in Accounting- Cloud Computing in accounting- Green Accounting- Human Resource Accounting, Inflation Accounting, Database Accounting (<b>Meaning and Features only</b>)</p>	
<p><b>Skill Development Activities:</b></p> <ol style="list-style-type: none"> <li>1. Identify the procedure &amp; documentations involved in the insurance claims.</li> <li>2. Prepare the purchase table with imaginary figures.</li> <li>3. Identify the common expenditures of a departmental undertaking</li> <li>4. Identify latest innovations and developments in the field of accounting.</li> <li>5. Prepare a Memorandum Trading Account with imaginary figures.</li> <li>6. Identify the latest Accounting trends.</li> </ol>	
<p><b>Books for Reference:</b></p> <ol style="list-style-type: none"> <li>1. S.N. Maheshwari, and. S. K. Maheshwari. Financial Accounting. Vikas Publishing House, New Delhi, 6thEdition.</li> <li>2. B.S. Raman (2008), Financial Accounting Vol. I &amp; II, United Publishers &amp; Distributors</li> <li>3. S.Anil Kumar, V.Rajesh Kumar and B.Mariyappa – Financial Accounting, Himalaya Publishing House, New Delhi</li> <li>4. SP Iyengar (2005), Advanced Accounting, Sultan Chand &amp; Sons, Vol.1.</li> <li>5. Robert N Anthony, David Hawkins, Kenneth A. Merchant, (2017) Accounting: Text and Cases, McGraw-Hill Education, 13thEdition.</li> <li>6. Charles T. Horngren and Donna Philbrick, (2013) Introduction to Financial Accounting, Pearson Education, 11thEdition.</li> <li>7. J.R. Monga, Financial Accounting: Concepts and Applications. Mayur Paper Backs, New Delhi, 32ndEdition.</li> </ol>	

**Name of the Program:** Bachelor of Commerce (Data Analytics)

**Course Code:** B.Com.DA.2.2

**NAME OF THE COURSE: BUSINESS STATISTICS – 2**

COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
<b>Pedagogy:</b> Classroom lectures, Case studies, Tutorial classes, Group discussion, Seminar & field work etc.,		
<b>Course Outcomes:</b> On successful completion of the course, the students will be able to: <ol style="list-style-type: none"><li>1. Analyze simple linear regression and interpreting the results</li><li>2. Understand and demonstrate time series forecasting techniques</li><li>3. Execute Probability and Theoretical distribution theories.</li><li>4. Construct hypothesis and summarize the results</li><li>5. Formulate ANOVA model and interpret the results.</li></ol>		
<b>SYLLABUS:</b>		<b>HOURS</b>
<b>Module No. 1: Linear Regression</b>		<b>10</b>
Regression- Definition, regression lines, regression equations of x on y and y on x(problems). Properties of regression coefficients. Introduction to Multiple Linear regression (Concepts Only)		
<b>Module No. 2: Time Series Analysis</b>		<b>10</b>
Meaning and Components of Time Series, Uses of time series analysis. Measurement of the trend by Graphical, Semi average, moving averages method (Period of moving average being 3, 4 or 5) and method of least squares -Problems on fitting a linear trend- normal equations, obtaining trend values, estimating future trends, Plotting actual and trend values (Graphically). Fitting a second degree (Quadratic) and exponential trends- Normal equations and obtaining the trend equation, Forecasting, and estimation.		
<b>Module No. 3: Normal Distribution</b>		<b>14</b>
Normal distribution definition of Normal distribution, properties, problems on P.D.F and properties. Definition of SNV, standard normal distribution through P.D.F. Finding probabilities and expected numbers when mean and variance are given. Finding the probabilities within one, two and three (sigma) limits.		
<b>Module No. 4: Hypothesis Testing and Statistical Inference</b>		<b>12</b>
Basic Concept of Hypothesis Testing – Hypothesis Formulation, Significance Level, Decision Rules. Type I and Type II error. One Sample Hypothesis Testing – One Sample Test for Means, One Sample Test for Proportions, One Sample Test for Variance using p-values. Two sample Hypothesis Test – Two sample Test for Means, Two sample Test for Means with Paired samples, Two sample Test for Proportion, Two sample Test and Confidence Intervals. Test For Equality of Variance. (t-test, z-test, Chi-square test problems to be solved)		

<b>Module No. 5: Analysis of Variance</b>	<b>10</b>
<p>Introduction to One way ANOVA, Partitioning the sum of squares, The ANOVA assumptions, Applying One Way ANOVA. Randomized complete Block ANOVA, Fisher's least significant difference test. Two Factor ANOVA: Two Factor ANOVA replications.</p>	
<p><b>Books for Reference:</b></p> <ol style="list-style-type: none"> <li>1. Groebner, David F.; Shannon, Patrick W.; Fry, Phillip C, Business Statistics, Global Edition, Pearsons Publication.</li> <li>2. Berenson: Basic of Business Statistics Pearsons Publication.</li> <li>3. Evas: Statistics, Data Analysis and Decision modelling, Pearsons Publication.</li> <li>4. S.P. Gupta and M.P. Gupta: Business Statistics, Sultan Chand &amp; Sons Educational Publishers.</li> <li>5. N. D Vohra: BUSINESS STATISTICS: Text and Problems - With Introduction to Business Analytics, McGrew Hill Publication.</li> <li>6. Dr. B N Gupta: Statistics, Sahitya Bhavan Agra</li> <li>7. David Freedman, Statistics, Viva Books.</li> </ol> <p><b>Skill Development: MS Excel sessions to be conducted for 1<sup>st</sup>, 2<sup>nd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Modules.</b></p>	

<b>Name of the Program:</b> Bachelor of Commerce (Data Analytics) <b>Course Code:</b> B.Com.DA. - 2.3 <b>Name of the Course:</b> <b>FUNDAMENTALS OF DATABASE MANAGEMENT SYSTEMS AND SQL</b>		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
<b>Pedagogy:</b> Classroom lectures, Case studies, Group discussion, Seminar & field work etc.,		
<b>Course Outcomes:</b> On successful completion of the course, the students will be able to <ol style="list-style-type: none"> <li>1. Understand Database Management Systems and the significance of DDL, DML in SQL Portion of RDBMS. Knowledge of Excel and SQL would equip students with hands-on skills on DBMS operations with SQL.</li> <li>2. Understand DBMS structure and file management system in DBMS</li> <li>3. Understand the Concept of Operation and Management.</li> <li>4. Understand the application of SQL.</li> </ol>		
<b>SYLLABUS:</b>		<b>HOURS</b>
<b>Module No. 1: Introduction to Database Management Systems</b>		<b>10</b>
Meaning and Definition of Database, Objectives of Database, Features of Database, Conceptual Data modeling – File Organization – Data Structure – Data models: HDBMS, NDBMS, RDBMS, OODBMS, Desktop and Server-level Database, Recent Trends in Database.		
<b>Module No. 2: Database Design</b>		<b>08</b>
Relational Data Model – Relational Algebra – ER Diagrams – Data Dictionary – Normalisation – Boyce Codd Normal Forms – Integrity – Relational Database Languages – Database Administration – File Structures and Indexing. Object oriented concepts – Structure – Models and Databases – Object life cycle modeling – Objects, Classes, and Patterns – Object interaction modeling – Object Oriented Design – UML		
<b>Module No. 3: Operation and Management</b>		<b>10</b>
Client / Server and Databases – Data Warehousing – Query Processing – Concurrency Management – Heterogeneous and Homogenous Systems – Distributed Databases – Controls – Atomicity, Recovery – Security, Back-up and Recovery,  Distributed Databases: Structure of Distributed Database; Trade-offs in Distributing the Database, Advantages of Data Distribution, Disadvantages of Data Distribution; Design of Distributed Databases, Data Replication, Data Fragmentation		
<b>Module No. 4: SQL Structured Query Language.</b>		<b>12</b>
Relational Query Languages, the SQL Query Language, DDL – CREATE Table, ALTER Table, DROP Table, CREATE Index, DROP Index etc., DML – SELECT, UPDATE, DELETE, INSERT INTO etc., DATA – TYPE, Constraints on Attributes – Referential Integrity Constraint, Arithmetic and Relational Operators		
<b>Module No. 5: Lab Sessions</b>		<b>16</b>

Practical Problems and Lab-Work on SQL.

**Books for References:**

1. Gary W.Hansen and James V.Hansen, “Database Management and Design” Prentice Hall
2. C.S.V.Murthy – Data Base Management Systems-HPH
3. C.Laudon. management information-systems, 6th edition, published in the year 2000. p. 6.
4. DR. Milind M. Oka. Management information systems. Everest Publishing House,p.3
5. Gordon. B. Davis & M. H. Olson. Management Information Systems.. Conceptual Foundations, structure and development. Second Edition. P. 6
6. Jacek Błażewicz, et al., “Handbook on parallel and distributed processing”, Springer Science & Business Media, 2013.
7. O’Brien James — A Management Information Systems, Tata Mc Graw Hill, New Delhi.
8. Information Technology Control and Audit, Third Edition, Sandra Senft, Frederick Gallegos, CR Press

<b>Name of the Program:</b> Bachelor of Commerce (Data Analytics) <b>Course Code:</b> B.Com. 2.5 a (Open Elective Course) <b>Name of the Course:</b> INVESTING IN STOCK MARKETS		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
3 CREDITS	3 HOURS	42 HOURS
<b>Pedagogy:</b> Classroom lectures, Case studies, Group discussion, Seminar & field work etc.,		
<b>Course Outcomes:</b> On successful completion of the course, the students will be able to <ol style="list-style-type: none"> <li>1. Explain the basics of investing in the stock market.</li> <li>2. Differentiate between Primary and Secondary Market.</li> <li>3. Understand different methods of issue of shares.</li> <li>4. Understand the different methods of pricing the issue of shares.</li> <li>5. Understand Demat A/c and Depository Participants managing Demat A/c.</li> </ol>		
<b>SYLLABUS:</b>		<b>HOURS</b>
<b>Module 1: Indian Stock Market</b>		<b>08 Hours</b>
Introduction to Indian Stock Markets, History, Organization, Governing body, Functions of stock Exchange, Players in Stock Market, SEBI – Objectives, Role and Powers.		
<b>Module 2: Investing in Primary and Secondary Markets</b>		<b>12 Hours</b>
Meaning, Objectives, Scope, and Functions of Primary and Secondary Markets- Difference between Primary and Secondary Market, Methods of issue of shares in primary market, methods of pricing the issue of shares in primary market, Listing of shares.		
<b>Module 3: Trading in Stock Market</b>		<b>14 Hours</b>
<b>Broker-</b> Meaning, Role and Responsibilities, Brokerage charges. <b>Trading &amp; Settlement-</b> Procedure for Trading – Buying Order, Sell Order, Long and Short Positions, Bid and Ask Price, Volume, Stop Loss; Types of Trading – Online Trading and Offline Trading.		
<b>Module 4: Depository participants in India</b>		<b>08 Hours</b>
<b>Demat Account-</b> Meaning and Need for Demat Account, Steps in Opening Demat Account and related documentations. <b>Depositories in India:</b> National Securities Depository Ltd. (NSDL)- Features and Functions, Central Depository Services Ltd. (CDSL)- Features and Functions.		

<b>Skill Development Activities:</b> <ol style="list-style-type: none"> <li>1. List out the recent IPO in Indian Primary Market.</li> <li>2. List out the leading share brokers in India.</li> </ol>
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3. Procedure for Opening the Demat A/c.
4. List out the functions of CDSL and NSDL.

**Books for Reference:**

1. Chandra, P. (2017). Investment Analysis and Portfolio Management. New Delhi: Tata McGraw Hill Education.
2. Kevin, S. (2015). Security Analysis and Portfolio Management. Delhi: PHI Learning. Ranganatham,
3. M., & Madhumathi, R. (2012). Security Analysis and Portfolio Management. Uttar Pradesh: Pearson (India) Education.
4. Pandian, P. (2012). Security Analysis and Portfolio Management. New Delhi: Vikas Publishing House.

<b>Name of the Program:</b> Bachelor of Commerce (Data Analytics.) <b>Course Code:</b> B.Com. 2.5 b (Open Elective Course) <b>Name of the Course:</b> INNOVATION MANAGEMENT		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
3 CREDITS	3 HOURS	42 HOURS
<b>Pedagogy:</b> Classroom lectures, Case studies, Group discussion, Seminar & field work etc.,		
<b>Course Outcomes:</b> On successful completion of the course, the students will be able to		
1 Define types and patterns of innovation. 2 Search of the sources of innovation and ideas generating. 3 Define innovation-related strategic decisions within organizations. 4 Managing the processes of new product development. 5 Developing the paths of cooperation for innovation-based projects.		
<b>SYLLABUS:</b>		<b>HOURS</b>
<b>Module 1: Introduction to Innovation Management</b>		<b>12 Hours</b>
Innovation: Concept of innovation, characteristics, importance, principles of innovation, process of innovation, factors influencing innovation, determinants of innovation (Internal and external- technological, social, economic, politico-legal); Innovation Management: Concept, scope, characteristics of good innovation management, significance of innovation management		
<b>Module 2: Managerial aspects of innovation:</b>		<b>12 Hours</b>
Organisational mechanism for stimulating innovation: separate units for innovation activity, project-based organisations, new venture division (merits and demerits of each); Traits of innovative organisations, current trends- Virtual organisations, boundaryless organisations, learning organisations; Managing innovation function: Planning, making resource allocation, organising staffing, leading and controlling for innovation		
<b>Module 3: Areas of innovation</b>		<b>10 Hours</b>
<b>Product innovation:</b> concept, Types (continuous and discontinuous), product innovation methods, Disruptive innovation packaging and positioning innovation <b>Process innovation:</b> concept, characteristics, Types of process innovations, Process improvement methods-5W2H, Work simplification, KAIZEN, Six Sigma, BPR (Business Process reengineering), benchmarking- TQM, Business Process reengineering (meanings only).		
<b>Module 4: Legal aspects of innovation</b>		<b>08 Hours</b>
Safeguarding Innovation, Concept of IPR, Patent, Trademark, Industrial design, Copyright, trade secrets; Indian Patents and Design Act 1991- Concept, features of the act, inventions that cannot be patented, procedure to apply for patents.		

### **Skill Development Activities:**

1. Application of the knowledge on innovation and innovation dynamics to real time cases.
2. Identify the traits of Innovative organisations.
3. ~~Discuss some of the disruptive innovative practices impacting small businesses.~~
4. List out the steps involved in obtaining patent in India.

### **Books for Reference:**

1. Krishnamacharyulu C S G & R Lalitha “Innovation management”, , HPH Pvt. Ltd.
2. James A Christiansen “Competitive Innovation Management”- Macmillan Business, 2000
3. Paul Trott, “Innovation Management & New product development”, , Pitman 2000
4. S S George,” Managing innovation in the new millennium: The ICFAI Press
5. Tidd J Bessant J , “ managing Innovation”, 3<sup>rd</sup> edition, Wiley, Chichester, 20009.
6. Nagarajan & Raj Kumar S ;(2021) Innovation Management; JayveeInternational Publications; Ist Edition,
7. Phillips, J. J., & Phillips, P. P. (2018). Using Design-Thinking in YourInnovation Projects. Journal for Quality & Participation, 41(3), 12–15.
8. Culture, Innovation, and Growth Dynamics by Elias G. Carayannis; AliPirzadeh; DenisaPopescu
9. Schoemaker, P. J. H., Heaton, S., & Teece, D. (2018). Innovation, DynamicCapabilities, and Leadership. California Management Review, 61(1), 15–42.
10. The Oxford handbook of group creativity and innovation. (2019). OxfordUniversity Press.