

**MANIPAL UNIVERSITY JAIPUR**  
**Faculty of Management, Commerce & Arts**  
**School of Management, Commerce and Hotel Management**  
**Department of Commerce**

***Bachelor of Commerce (Hons.) FINTECH- Syllabus 2025-26***

**SEMESTER I**

**BCF1101: FINANCIAL ACCOUNTING [3 1 0 4]**

Introduction to Financial Accounting: Accounting as a System, - Generally Accepted Accounting Principles; Nature of Accounts, Rules of Debit and Credit; Recording Transactions in Journal; Preparation of Ledger Accounts; Preparation of Trial Balance; Preparation of Trading Account, Profit & Loss Account and Balance Sheet, Adjustment Entries (not very advanced). Depreciation accounting: Meaning and Purpose-Causes of Depreciation-Different methods of Depreciation Accounting - Straight line method, reducing balance method, annuity method, sinking fund method- Methods of Recording Depreciation in the books of accounts. Bank reconciliation statement: Introduction, Meaning-Cash Book, and Passbook-Causes for difference between Cash book and Passbook-Purpose of bank re-conciliation. Accounting for non-profit organizations and professionals: Income and Expenditure Accounting, Receipt, and payment Account.

**References:**

1. R. Narayanaswami, *Financial Accounting: A Managerial Perspective*, 7<sup>th</sup> Ed., PHI Learning, 2017.
2. S.N. Maheshwari, *Financial Accounting*, 6<sup>th</sup> Ed., Vikas Publishing House Pvt. Ltd, 2018.
3. P. Shah, *Financial Accounting for Management*, 3<sup>rd</sup> Ed., Oxford University Press, 2019.

**BCF1102: MICRO ECONOMICS [3 0 0 3]**

Introduction: Problem of scarcity and choice: scarcity, choice and opportunity cost; production possibility frontier; economic systems. Economics: Meaning and Definition, Types of Economics, factors of production. Concept of Utility: Cardinal and Ordinal, Marginal, Average and Total Utility concepts, diminishing marginal utility, income and substitution effects. Demand and supply: law of demand, determinants of demand, shifts of demand versus movements along a demand curve, market demand, law of supply, determinants of supply, shifts of supply versus movements along a supply curve, market supply, market equilibrium. Elasticity: price elasticity of demand, calculating elasticity, determinants of price elasticity, other elasticities. Cost, Revenue and Production: Short run and Long run cost curves, Fixed cost, Variable cost, Total cost, Average fixed cost, Average variable cost, Average cost, Marginal cost; Relationship between Average cost and Marginal cost; Revenue: Basic concepts; Production - Meaning, Characteristics, Production Function; Law of Variable Production, Returns to scale. Elementary theory of markets: Perfect Competition, Pure Monopoly, Monopolistic Competition and Oligopoly.

**References:**

1. Campbell R. McConnell, *MicroEconomics*, 22<sup>nd</sup> Ed; McGraw Hill, 2021.
2. H.L. Ahuja, *Advanced Economic Theory: Microeconomic Analysis*, 21<sup>st</sup> Ed; S Chand Publishing, 2019.

3. N. G. Mankiw, *Principles of Microeconomics*, 8<sup>th</sup> Ed; Cengage Learning India Pvt. Ltd, 2022.

### **BCF1103: BUSINESS COMMUNICATION [2 0 2 3]**

Business Communication - Meaning, Nature, Scope, Objectives, process; Essentials/principles of good communication; Factors affecting communication, Types of Business Communication- Formal v/s Informal, interpersonal v/s Intrapersonal, Verbal v/s non-verbal; individual v/s group, Grapevine Communication. Types of Non-Verbal Communication - Facial expressions, Gestures; Paralinguistics, Body Language & Posture, Kinesics, Proxemics, Haptics. Effective Listening: Principles and factors affecting the listening, qualities of a good listener. Building Good Business Writing - Business Letters: Types & essentials of business letters, planning the letter and their execution, resume writing and cover letter writing, Report Writing, Email Writing - Structure, Language. Personnel Correspondence - Statement of Purpose, Job Application Letter and Letter of Acceptance of Job Offer, Letter of Resignation.

#### **References:**

1. Meenakshi Raman and Prakash Singh, *Business Communication*, 2<sup>nd</sup> Ed; Oxford University Press, 2012.
2. R.K. Madhukar; *Business Communication*, 3<sup>rd</sup> Ed; Vikas Publishing House, 2018.
3. Ronald B. Adler & George Rodman, *Understanding Human Communication*, 13<sup>th</sup> Ed; Oxford University Press, 2016.

### **BCF1104: INTRODUCTION TO FINTECH [3 0 0 3]**

FinTech: Introduction- FinTech Evolution: Infrastructure, Collaboration between Financial Institutions and Start-ups -FinTech Typology - Emerging Economics: Opportunities and Challenges - Introduction to Regulation Industry. Payments, Crypto currencies and Blockchain - Introduction - Individual Payments -Digital Financial Services - Mobile Money - Regulation of Mobile Money - SFMS - RTGS - NEFT -NDS Systems - Crypto currencies - Legal and Regulatory Implications of Crypto currencies -Blockchain - The Benefits from New Payment Stacks. Digital Finance and Alternative Finance -Introduction - Brief History of Financial Innovation - Digitization of Financial Services - FinTech & Funds- Crowd funding- Regards, Charity and Equity - P2P and Marketplace Lending - New Models and New Products - ICO

#### **References:**

1. Chandrahauns Chavan and Atul Patankar, *Introduction to Fintech*, 1<sup>st</sup> Ed; Pearson Education, 2024.
2. Sanjay Phadke, *Fintech Future: The Digital DNA of Finance*, 1<sup>st</sup> Ed; Atlantic Publishers & Distributors (P) Ltd, 2023.
3. Theo Lynn, John G. Mooney, Pierangelo Rosati, Mark Cummins, *Disrupting Finance: FinTech and Strategy in the 21st Century*, 1st Ed; Springer Nature, 2019.

### **BCF1105: FINANCIAL INSTITUTIONS & MARKETS [3 0 0 3]**

Unit 1: Functions of Financial System: An overview of Indian Financial System - Constituents of Indian Financial System - Role and functions of participants in the Financial markets - Factors impacting the dynamics of Financial system (Theory). Unit 2: Financial Institutions:

Indian Banking System: An overview - Recent Developments; Banking Institutions - Classification of Banks. Role of Reserve Bank of India, Regulatory issues of banking institutions: Non-Banking Institutions - Role of NBFCs in the economic development - Types of NBFCs - Regulatory Framework of NBFCs. Developmental Financial Institutions-IFCI-IDBI NABARD-SFC Unit 3: Financial Markets- Organised, Unorganised. Capital Market- Evolution and growth of Capital Market - Significance and Functions of capital market. Industrial Securities Market, Government Securities market. Money Market - An Overview -Definition, Importance, Functions, Organization and Structure. Money Market Instruments-Classification of Money Market Instruments-Conventional Vs Modern money market instruments. Government and Quasi-Govt. Securities: Treasury Bills, Govt. Dated Securities/Gilt Edged Securities. Regulatory Framework for Financial Markets (SEBI, IRDA, FEMA)

#### References:

1. Anthony Saunders, *Financial Marks and Institutions*, 7<sup>th</sup> Ed; McGraw Hill (India) Private Limited, 2021.
2. L.M. Bhole, *Financial Institutions and Markets*, 6<sup>th</sup> Ed; McGraw Hill (India) Private Limited, 2017.
3. K. Natarajan and E. Gordon, *Financial Markets & Services*, 12<sup>th</sup> Ed; Himalaya Publishing House Pvt. Ltd. 2024.

### BCF1130: SPREADSHEET MODELLING (LAB BASED) [1 0 4 3]

Overview of Spreadsheet Modelling: Definition and significance of spreadsheet modelling in finance and fintech, Key concepts in spreadsheet modelling: Variables, formulas, functions, and cell references, Applications of spreadsheet modelling in finance: Budgeting, forecasting, investment analysis, and risk management; Basic Functions and Tools: Introduction to spreadsheet software: Microsoft Excel, Google Sheets, Working with cells, rows, columns, and worksheets, Basic formulas and functions: SUM, AVERAGE, COUNT, MIN, MAX, IF, VLOOKUP, etc., Formatting tools: Cell formatting, conditional formatting, and data validation; Data Management: Sorting, filtering, and grouping data for better analysis, Importing and cleaning data from external sources, Using Pivot Tables and Pivot Charts for data summarization and analysis. Fundamentals of Modelling: Introduction, Key components and techniques, Creating financial models for budgeting, forecasting, and analysis, Understanding the structure of a financial model.

#### References:

1. Craig W. Holden, *Excel Modelling in Corporate Finance*, 5<sup>th</sup> Ed; Pearson Education Limited, 2024.
2. Cliff T. Ragsdale, *Spreadsheet Modelling & Decision Analysis: A Practical Introduction to Business Analytics*, 8<sup>th</sup> Ed; Cengage, 2018.
3. Thin-Yin Leong and Michelle Cheong, *Business Modelling with Spreadsheets: Problems, Principles and Practice*, 3<sup>rd</sup> Ed; McGraw Hill Education (India) Private Limited, 2019.

### CHY1003: ENVIRONMENTAL SCIENCE [3 0 0 3]

Introduction: Multidisciplinary nature, scope and importance, sustainability and sustainable development; Ecosystems: Concept, structure and function, energy flow, food chain, food webs and ecological succession, examples; Natural Resources (Renewable and Non-

renewable Resources): Land resources and land use change, Land degradation, soil erosion and desertification, deforestation; Water: Use and over-exploitation, floods, droughts, conflicts; Energy resources: Renewable and non-renewable energy sources, alternate energy sources, growing energy needs, case studies; Biodiversity and Conservation: Levels, biogeographic zones, biodiversity patterns and hot spots, India as a mega-biodiversity nation; Endangered and endemic species, threats, conservation, biodiversity services; Environmental Pollution: Type, causes, effects, and controls of Air, Water, Soil and Noise pollution, nuclear hazards and human health risks, fireworks, solid waste management, case studies; Environmental Policies and Practices: Climate change, global warming, ozone layer depletion, acid rain, environment laws, environmental protection acts, international agreements, nature reserves, tribal populations and rights, human wildlife conflicts in Indian context; Human Communities and the Environment: Human population growth, human health and welfare, resettlement and rehabilitation, case studies, disaster management, environmental ethics, environmental communication and public awareness, case studies; Field Work and visit.

#### References:

1. Sanjay Kumar Batra and Kanchan Batra, *Environmental Science | Theory into Practice*, 7<sup>th</sup> Ed; Taxmann Publications Private Limited, 2024.
2. R Rajagopalan, *Environmental Studies: From Crisis to Cure*, 4<sup>th</sup> Ed; Oxford University Press, 2023.
3. Anubha Kaushik, *Perspectives in Environmental Studies*, 8<sup>th</sup> Ed; New Age International Pvt Ltd, 2024.

## SEMESTER II

### BCF1201: COST AND MANAGEMENT ACCOUNTING [3 1 0 4]

Introduction to Cost Accounting: Concepts, Classification, and Behavior. Cost Sheet Preparation and Analysis. Material, Labor, and Overhead Cost Management. Job Costing, Process Costing, and Contract Costing. Budgeting and Budgetary Control. Variance Analysis. Marginal Costing and Break-even Analysis. Decision-making Tools in Cost and Management Accounting. Cost Control Techniques and Responsibility Accounting. Integration of FinTech Tools and Data Analytics in Cost Management.

#### References:

1. M.N Arora, *Cost and Management Accounting*, 5<sup>th</sup> Ed; Himalaya Publishing House, 2023.
2. Ravi M Kishore, *Cost & Management Accounting*, 6<sup>th</sup> Ed; Taxmann Publications Private Limited, 2021.
3. Khan and Jain, *Management Accounting*, 8<sup>th</sup> Ed; McGraw Hill, 2021.

### BCF1202: MACRO ECONOMICS [3 0 0 3]

Circular Flow of Income, Economic Sectors, Growth and Development defined. National Income - Meaning, Concepts, Methods of measuring NI with its limitations. Business Cycles Theory, Inflation: Meaning, Types, Causes & effects of Inflation, Measures to control inflation, , Deflation: Meaning, Difference between Inflation and Deflation and Stagflation. Theory of Unemployment and Income, Elementary Keynesian Economics [Marginal

Propensity to consume, Marginal Propensity to Invest, Multiplier, Accelerator], Money Supply, Elementary Monetary policy and Elementary Financial Policy

**References:**

1. Rudiger Dornbusch, *Macroeconomics*, 12<sup>th</sup> Ed; McGraw Hill Education, 2018.
2. N. Gregory Mankiw, *Principles of Macroeconomics*, 7<sup>th</sup> Ed; Cengage Learning India Pvt. Ltd, 2025.
3. H. L. Ahuja, *Macro Economics: Theory & Policy*, 20<sup>th</sup> Ed; S Chand Publishing, 2019.

**BCF1203: FINTECH VENTURE MANAGEMENT AND ENTREPRENEURSHIP [3 0 0 3]**

Introduction to FinTech Entrepreneurship - Basics of FinTech, Role of Entrepreneurship in FinTech, FinTech Business Models, Market Analysis and Value Proposition. FinTech Startup Ecosystem and Funding - Startup Ecosystem in FinTech, Types of Funding Sources, Venture Capital and Angel Investors, Role of venture capital in FinTech development, Crowdfunding for FinTech Startups, Case studies of successful FinTech startups. Managing FinTech Ventures - Team Management in FinTech, Financial Planning for FinTech Startups, Growth Strategies for FinTech Ventures, Scaling a FinTech Business. Legal, Ethical, and Regulatory Considerations - Legal Environment for FinTech Startups, Intellectual Property in FinTech, Data Privacy and Compliance, Regulatory Challenges in FinTech, Ethical Considerations in FinTech.

**References:**

1. Chavan Chandrahauns and Atul Patankar, *Introduction to Fintech*, 1<sup>st</sup> Ed; Pearson, 2024.
2. Sanjay Phadke, *Fintech Future: The Digital DNA of Finance*, 1<sup>st</sup> Ed; Atlantic, 2023.
3. Theo Lynn, John G. Mooney, Pierangelo Rosati, Mark Cummins, *Disrupting Finance: FinTech and Strategy in the 21st Century*, 1<sup>st</sup> Ed; Springer Nature, 2018.

**BCF1204: BUSINESS STATISTICS [3 0 0 3]**

Descriptive Statistics: Definition, Importance & Limitation, Collection of data, its tabulation, Formation of frequency distribution, Grouped frequency distribution, Ungrouped frequency distribution, Cumulative frequency distribution, Relative frequency distribution, Relative cumulative frequency distribution. Graphic presentation of Frequency distribution: Graphics, Pie, Bars, Histogram, Pictograph, Z graph, band graph, cumulative frequency graph, Ogive graph, Diagrammatic. Measures of Central Tendency: Mean, Median, and Mode. Partition values: Quartiles, Octiles, Deciles, and Percentiles. Measures of variation: Range, IQR, 5 range, Quartile deviation, and its coefficients. Measures of dispersion: Mean deviation, Variance, Standard deviation, Coefficient of variation, Concept and measurement of skewness, Moments, and kurtosis. Correlation & Regression Analysis: Correlation Coefficient, Assumptions of Correlation Analysis, Coefficients of Correlation. Measurement of Correlation: Karl Pearson's Methods, Spearman's Rank correlation, Limitations of Correlation Analysis, Applications of correlation analysis in business. Regression Analysis: Meaning and definition of regression, Utility and applications of regression analysis, Types of regression, Difference between correlation and regression, Regression lines, Regression equations, Regression coefficients. Index Numbers & Time Series: Meaning and significance. Problems in the construction of index numbers. Methods of constructing index numbers: Weighted and Un-weighted (simple aggregative and simple average of price relative methods). Analysis of Time Series: Measurement of trend - Freehand method, Semi-average method, Moving average, Method of least squares.

**References:**

1. Tulsian Bharat and Bharat Jhunjunwala, *Business Statistics-A self-study Textbook*, S. Chand & Company Ltd, 2024
2. S P Gupta, *Fundamentals of Business Statistics*, 1<sup>st</sup> Ed; Sultan Chand and Sons, 2024.
3. Levine, *Business Statistics A First Course*, 8<sup>th</sup> Ed; Pearson Education, 2022.

### **BCF1205: INTRODUCTION TO PYTHON [2 0 2 3]**

Introduction to Python: History of Python, Features of Python, Install Python and Environment Setup Python Identifiers, Keywords and Indentation, Comments and document interlude in Python, Command line arguments, Getting User Input. Data Types, Variables, Basic Input- Output Operations, Basic Operators: Data Types, Variables, Python user-defined functions, Defining and calling Function, Loops and statement in Python, Python Modules & Packages. Boolean Values, Conditional Execution, Loops, Lists and List Processing, Logical and Bitwise Operations: Making decisions in Python, Python's loops, Logic and bit operations in Python, Lists collections of data, Sorting simple lists. Python's Built-in Data types: String, List, Tuple, Set, and Dictionary (characteristics and methods). The Object-Oriented Approach: Overview of OOP Creating Classes and Objects, Inheritance, polymorphism. File Processing Concept of Files: File opening in various modes and closing of a file, Reading from a file, Writing onto a file, some important File handling functions e.g open(), close(), read(), readline() etc. Python Libraries: Pandas, Matplotlib, NUMPY. Exception Handling: What is Exception? Handling an exception, try.... except...else, try-finally clause.

#### **References:**

1. Michael T. Goodrich, Roberto Tamassia, Michael H. Goldwasser, *Data Structures and Algorithms in Python*, Wiley Publication, 2013.
2. D. Phillips, *Python 3 Object-Oriented Programming Build robust and maintainable software with object-oriented design patterns in Python 3.8*, 3<sup>rd</sup> Ed; Packt Publishing, 2018.
3. W. J. Chun, *Core Python Applications Programming*, 3<sup>rd</sup> Ed; Prentice Hall Publishers. 2012.

### **BCF1206: FOUNDATIONS IN QUANTITATIVE FINANCE [3 0 0 3]**

Statistics for Finance - Probability Distribution models in Finance, Statistical Finance concepts, Analyzing empirical financial distributions, Case Study - Empirical Analysis of Financial datasets, Factor Models Introduction to Calculus - Taylor's Theorem, Application to Bond Pricing, Introduction to Stochastic Calculus. Mathematics for Portfolio Modeling- Portfolio Mathematics, Portfolio Risk Calculations, Portfolio/Basket Correlation, Transition Matrix Calculations, Default Probability Mathematics, Portfolio Value-at-Risk. Essential Financial Econometrics- Modeling Asset Returns and Volatility, Term Structure Modeling, Multiple Regression in Financial Models, Problems and Solutions, Principal Component Analysis

#### **References:**

1. Carol Alexander, *Market Risk Analysis, Quantitative Methods in Finance*, 1<sup>st</sup> Ed; John Wiley & Sons, 2008.
2. Carol Alexander, *Market Risk Analysis, Practical Financial Econometrics*, 1<sup>st</sup> Ed; John Wiley & Sons, 2008.
3. Wolfgang Karl Härdle, Cathy Yi-Hsuan Chen, Ludger Overbeck, *Applied Quantitative Finance*, 3<sup>rd</sup> Ed; Springer. 2017.

## **BCF1207: HEALTH & WELLNESS [2 0 0 2]**

Introduction to Health and Wellness: understanding the dimensions of health and wellness. Significance of holistic health: Physical, mental, emotional, and social aspects. Physical Health and Nutrition: Fundamentals of physical fitness and Nutritional wellbeing: Components and benefits. Balanced diet, hydration, and role of micronutrients. Causes, prevention, and management of Lifestyle diseases. Mental and Emotional Well-being: Causes, effects of Stress, Stress management techniques. Mindfulness and relaxation techniques for mental clarity. Managing emotions. Social and Community Well-being: Building healthy relationships: Role of Communication and Empathy. Role of social connections in mental health. Integration of Health and Technology: Role of technology in health monitoring: Wearable devices and apps. Digital detox: Managing screen time for mental health.

### **References:**

1. Gordon Edlin and Eric Golanty, *Health and Wellness*, 14<sup>th</sup> Ed; Jones & Bartlett Learning, 2023.
2. W. C. Willett, *Eat, Drink, and Be Healthy: The Harvard Medical School Guide to Healthy Eating*, 1<sup>st</sup> Ed; Free press, 2017.