BACHELOR OF COMMERCE
B.Com (FINTECH)

SYLLABUS AS PER STATE EDUCATION POLICY

CBCS- Scheme

3rd and 4th Semester- (2025-26 onwards)

DEPARTMENT OF STUDIES AND RESEARCH IN COMMERCE

BENGALURU CITY UNIVERSITY

Prasanna Kumara Block, Palace Road, Bengaluru-. 560 009

Proceedings of BOS Meeting

Proceedings of the BOS meeting for UG-B.COM (Regular), B.COM(FINTECH), B.COM AEDP (BFSI), B.Com AEDP(ROM),B.COM(BDA), B.Com (A&F), B.Com (LSCM), B.VOC(A&T), BBA, BBA(Aviation Management), BBA(Business Analytics), programmes as per the SEP structure for the Academic Year 2024-25 held on 20th and 21st June 2025 in the Department of Studies and Research in Commerce, PK Block, Bengaluru City University, Bengaluru-560009.

The board has reviewed and approved the course matrix for 3rd to 6th Semester and syllabus for 3rd, 4th, 5th and 6th semesters of the above mentioned courses. The board authorized the Chairman to make the necessary changes.

MEMBERS PRESENT:

1.	Prof. Jalaja .K.R	Dean and Chairperson , Department Of Commerce, BCU	Chairperson
2.	Dr. Padmaja.P.V	Principal , MLA Academy Of Higher Education, Bengaluru	Member
3.	Dr.Bhavani.H	Associate Professor, Department Of Commerce, Vivekananda Degree College ,Bengaluru	Member
4.	Dr.Swamynathan.C	Associate Professor, Department of Commerce, GFGC Malleshwaram College, Bengaluru	Member
5.	Dr. Mahesh.K.M	Principal, Sri. Bhagawan Mahaveer Jain Evening College, Bengaluru	Member
6	Dr. S. Harish	Principal, Vijaya Evening College, Bengaluru-04	
7	Prof.H R Padmanabha	Associate Professor, M S Ramaiah College of Arts, Science and Commerce	Member
8	Dr.Nagaraja.C	Associate Professor, Department Of Commerce, GFGC Yalahanka College ,Bengaluru	Member
9	Dr. Anitha K P	Assistant Professor, Govt. R C College, Bengaluru	Member
10	Dr.K.Ramachandra	Principal, Maharani Cluster University.	Member
11	Dr. Ashok M L	Chairman, Dept. of Studies in Commerce and Research, Mysore University	Member

12	Mr. Deep	Sr. Advisor, CII Institute of Quality, Bengaluru-91	Member
13	Mr. RajkumarJayanth	Chartered Accountant, Rajbabu & Associates, Bengaluru-02	Member

Co-Opted Members Present

14	Dr. Pawan Kumar D B	Principal, SLN College of Arts and Commerce, Fort, Bengaluru	Member
15	Dr. Savita K	Principal, BEL First Grade College, Bengaluru	Member
16	Mr. H.N Gururaja Rao.	Visiting Faculty, SLN College of Arts and Commerce, Fort, Bengaluru	Member
17	Dr. Srihari	Vice Principal, MEWA Vanguard Business School, Bengaluru-68	Member

Dr. JALAJA. K R, M.COM., MBA., Ph.D
Dean & Chairperson
Department of Commerce
Bengaluru City University

REGULATIONS PERTAINING TO B.COM (FINTECH)

As per SEP- CBCS Scheme - 2024-25 onwards

1. INTRODUCTION

As per the Government Order No. ED 166 UNE 2023, Bangalore, dated 08.05.2024, all Universities in Karnataka, are required to revise the curriculum of Degree Programs as per the guidelines of the Karnataka State Higher Education Council and State Education Planning Commission, constituted by the government, from the academic year 2024-2025.

In furtherance of the said Government order, the Program Structure prepared by the BOS will be applicable to students admitted to B.Com (FINTECH) Program, offered by Bengaluru City University affiliated colleges, Constituent Colleges and Department of Commerce, Bengaluru City University.

Therefore, this regulation will be applicable to all students seeking admission for B.COM (FINTECH) Programme from the academic year 2024-25.

The Board of Studies resolved to provide the regulation for B.Com (FINTECH) Undergraduate Program along with Framework and Syllabus for the various Discipline Specific Core Courses and Discipline Specific Elective Courses for each semester.

2. PROGRAM OBJECTIVES:

1. To create manpower for global middle level management equipped with core managerial competencies and relevant IT skills.
2. To cater to the requirements of Industries.
3. To prepare students to take up Higher Education to become business scientists, researchers, consultants and teachers, with core competencies.
4. To develop Ethical Managers with Inter-Disciplinary and Holistic approach.
5. To understand the concept of investment and its importance in financial planning.
6. To learn when and how to start investing wisely.
7. To understand the role of data analytics in finance and its significance.
8. To learn about investor services, including the KYC process, online transaction facilities, and grievance redressal mechanisms.
9. To engage in practical assignments and case studies to analyze mutual fund schemes.
10. To develop skills to interpret, visualize, and effectively communicate data insights.
11. To apply critical thinking to solve complex problems using advanced statistical techniques.

3. ELIGIBILITY FOR ADMISSION:

Candidates who have completed Two-year Pre-University Course of Karnataka State or 10+2 years of education in Karnataka and other states or its equivalent are eligible for admission into this program. Students who have cleared 2nd PUC Examination directly (through open schooling are also eligible to apply for this programme.

4. DURATION OF THE PROGRAMME:

The duration of the programme is three (03) years of Six Semesters. A candidate shall complete his/her degree within six (06) academic years from the date of his/her admission to the first semester. Students successfully completing three (03) years of the course will be awarded Bachelor's Degree in Commerce (FINTECH) – B.COM- FINTECH.

5. MEDIUM OF INSTRUCTION

The medium of instruction and examination shall be in English.

CLASSROOM STRENGTH OF STUDENTS

Maximum number of students in each section shall be 60 or as per University Regulations.

6. ATTENDANCE:

a. For the purpose of calculating attendance, each semester shall be taken as a Unit.
b. A student shall be considered to have satisfied the requirement of attendance for the semester, if he / she has attended not less than 75% in aggregate of the number of working periods in each of the courses compulsorily.

A student who fails to complete the course in the manner stated above shall not be permitted to take the University examination.

7. COURSE MATRIX

(i) Annexure-1 for B.COM-FINTECH

8. TEACHING AND EVALUATION:

M.Com (All Programs) graduates with basic degree in B. Com (All B.Com Programs), B.B.M, BBA & BBS from a recognized University, are only eligible to teach and evaluate the courses (excepting languages, compulsory additional subjects and core Information Technology related subjects) mentioned in this regulation. Languages, IT related courses and additional courses shall be taught by the Post-graduates as recognized by the respective Board of Studies.

9. SCHEME OF EXAMINATION:

a. There shall be a University examination at the end of each semester. The maximum marks for the university examination in each course/paper shall be 80 for 4 or 3 credit papers and 40 marks for 2 credit papers.

b. Of the 20 marks allotted for Internal Assessment, 10 marks shall be based on average of two tests (20 Marks each). Each test shall be of at least 01 hour duration to be held during the semester. The remaining 10 marks of the Internal Assessment shall be based on Attendance and Assignments /skill development exercises of 05 marks each. For 2 credit courses, the IA marks will be 10, of which 5 marks shall be based on one test of 20 Marks, reduced to 5 Marks. The remaining 05 marks of the Internal Assessment shall be based on Attendance.

Department of Studies and Research in Commerce, BCU

c. The marks based on attendance shall be awarded as given below:
   76% to 80%   = 02 marks
   81% to 85%   = 03 marks
   86% to 90%   = 04 marks.
   91% to 100% = 05 marks.

10. PATTERN OF QUESTION PAPER:

For 4/3 credit papers, each question paper shall carry 80 marks and the duration of examination is 3 hours. The Question paper shall ordinarily consist of four sections, to develop testing of conceptual skills, understanding skills, comprehension skills, analytical skills and application of skills. All practical / problems oriented question papers shall be provided only in English. However, the theory subjects' question papers shall be provided in both Kannada and English versions.
The Question Paper will be as per the following Model:

Section A	Conceptual questions (5 questions out of 8)	5 x 2 = 10
Section B	Analytical questions (4 questions out of 6)	4 x 5 = 20
Section C	Essay type questions (3 questions out of 5)	3 x 15 = 45
Section D	Skill Based questions (Compulsory Question)	1 x 5 = 05
Total Marks		80

For 2 credit papers, each question paper shall carry 40 marks and the duration of examination is 2 hours. The Question paper shall ordinarily consist of Four sections, to develop testing of conceptual skills, understanding skills, comprehension skills, analytical skills and application of skills. All practical / problems oriented question papers shall be provided only in English. However, the theory subjects' question papers shall be provided in both Kannada and English versions.
The Question Paper will be as per the following Model:

Section A	Conceptual questions (3 questions out of 6)	3 x 2 = 06
Section B	Analytical questions (2 questions out of 3)	2 x 5 = 10
Section C	Essay type questions (2 questions out of 3)	2 x 10 = 20
Section D	Skill Based questions (Compulsory Question)	1 x 4 = 04
Total Marks		40

11. APPEARANCE FOR THE EXAMINATION:

a) A candidate shall apply for all the courses in each examination when he/she appears for the first time. A candidate shall be considered to have appeared for the examination only if he/she has submitted the prescribed application for the examination along with the required fees to the University.
b) A candidate who has passed any language under Part-1 shall be eligible to claim exemption from the study of the language if he/she has studied and passed the language at the corresponding level.
c) Further, candidates shall also be eligible to claim exemption from studying and passing in those Commerce subjects which he/she has studied and passed at the corresponding level, subject to the conditions stipulated by the University.

Department of Studies and Research in Commerce, BCU

d) A candidate who is permitted to seek admission to this Degree Programme on transfer from any other University, shall have to study and pass the subjects which are prescribed by the University. Such candidates shall however, not be eligible for the award of ranks.

12. MINIMUM FOR A PASS:

 (a) A candidate shall be declared to have passed the Semester Examination under each course/paper provided he/she obtains minimum of 35% (i.e. 28/80 marks and 14/40) marks in written examination / practical examination and 40% marks in aggregate of written/ practical examination and internal assessment put together. However, there is no minimum marks to pass internal assessment tests including other Internal Assessments such as Viva-Voce, Internship Report, Field Survey Report and similar others.

(b) A candidate shall be declared to have passed the program if he/she secures at least 40% of marks or a CGPA of 4.0 (Course Alpha-Sign Grade P) in aggregate of both internal assessment and semester end examination marks put together in each course of all semesters, such as theory papers/ practical / field work / internship / project work / dissertation / viva-voce, provided the candidate has secured at least 40% of marks in the semester end examinations in each course.

(c) The candidates who pass all the semester examinations in the first attempt are eligible for ranks, provided they secure at least CGPA of 6.00 (Alpha-Sign Grade B).

 (d) A candidate who passes the semester examinations in parts is eligible for only Class, CGPA and Alpha-Sign Grade but not for ranking.

(e) The results of the candidates who have passed the last semester examination but not passed the lower semester examinations shall be declared as NCL (Not Completed the Lower Semester Examinations). Such candidates shall be eligible for the award of degree only after completion of all the lower semester examinations.

(f) If a candidate fails in a subject/course, either in theory or in practicals, he/she shall appear for that subject only at any subsequent examination, as prescribed for completing the programme. He/she must obtain the minimum marks for a pass in that subject (theory and practicals, separately) as stated above.

13. CLASSIFICATION OF SUCCESSFUL CANDIDATES:

a. The results of the First to Sixth semester degree examination shall be declared and classified separately as follows:
  i. **First Class**: Those who obtain 60% and above of the total marks.
  ii. **Second Class:** Those who obtain 50% and above but less than 60% of total marks.
  iii. **Pass Class:** Rest of the successful candidates who secure 40% and above but less than 50% of marks.
b. Class shall be declared based on the aggregate marks obtained by the candidates in all the courses of all semesters of this Degree Program (excluding Part 3 Courses mentioned in the Course Matrix).

Department of Studies and Research in Commerce, BCU

c. The candidates who have passed each course in the semester end examination in the first attempt only shall be eligible for award of ranks. The first ten ranks only shall be notified by the University.

14. PROVISION FOR IMPROVEMENT OF RESULTS:

The candidate shall be permitted to improve the results of the whole examination or of any Semester or a specific course within the prescribed time by the university after the publication of the results. This provision shall be exercised only once during the course and the provision once exercised shall not be revoked. The application for improvement of results shall be submitted to the Registrar (Evaluation) along with the prescribed fee.

15. FINAL RESULT / GRADES DESCRIPTION

An alpha-sign grade, the eight-point grading system, as described below shall be adopted for classification of successful candidate. The declaration of result is based on the Semester Grade Point Average (SGPA) earned towards the end of each semester or the Cumulative Grade Point Average (CGPA) earned towards the completion of all the six semesters of the programme and the corresponding overall alpha-sign grades.

Final Result / Grades Description

Semester GPA/Program CGPA	Alpha – Sign/ Letter Grade	Semester/Program % of Marks	Result/Class Description
9.00-10.00	**O** (Outstanding)	90.00-100	Outstanding
8.00- <9.00	**A+** (Excellent)	80.0-<90.00	First Class Exemplary
7.00-<8.00	**A** (Very Good)	70.0-<80.00	First Class Distinction
6.00-<7.00	**B+** (Good)	60.0-<70.00	First Class
5.50-<6.00	**B** (Above Average)	55.0-<60.00	High Second Class
5.00-<5.50	**C** (Average)	50.0-<55.00	Second Class
4.00-<5.00	**P** (Pass)	40.0-<50.00	**Pass Class**
Below 4.00	**F** (Fail)	Below 40	Fail/Re-appear
Ab (Absent)	-	Absent	-

The Semester Grade Point Average (SGPA) in a Semester and the CGPA at the end of each year may be calculated as described in para 17:

16. COMPUTATION OF SEMESTER GRADE POINT AVERAGE AND CUMULATIVE GRADE POINT AVERAGE

l. Calculation of Semester Grade Point Average (SGPA)

The Grade Points (GP) in a course shall be assigned on the basis of marks scored in that course as per the Table I. Any fraction of mark in the borderline less than 0.50 be ignored in assigning GP and the fractions of 0.50 or more be rounded off to the next integers. The Credit Points (CP) shall then be calculated as the product of the grade points earned and the credits for the course. The total CP for a semester is the sum of CP of all the courses of the semester. The SGPA for a semester is computed by dividing the total CP of all the courses by the total credits of the semester. It is illustrated below with typical examples.

2. Calculation of Cumulative Grade Point Average (CGPA)

The aggregate or cumulative SGPA (CGPA) at the end of the second, fourth and sixth semesters shall be calculated as the weighted average of the semester grade point averages. The CGPA is calculated taking into account all the courses undergone over all the semesters of a programme, i.e. The CGPA is obtained by dividing the total of semester credit weightages by the maximum credits for the programme.

$$CGPA = \sum (C_i \times G_i) / \sum C_i$$

Where G_i is the grade point of the 'i'th course / paper and C_i is the total number of credits for that course/ paper

$$CGPA = \sum (C_i \times S_i) / \sum C_i$$

Where S_i is the SGPA of the 'i'th semester and C_i is the total number of credits in that semester.

17. TERMS AND CONDITIONS:

a. A candidate is allowed to carry all the previous un-cleared papers to the subsequent semester/semesters.

b. Such of those candidates who have failed/remained absent for one or more papers henceforth called as repeaters, shall appear for exam in such paper/s during the three immediately succeeding examinations. There shall be no repetition for internal assessment test.

c. The candidate shall take the examination as per the syllabus and the scheme of examination in force during the subsequent appearance.

18. MEDALS AND PRIZES:

No candidates passing an external examination shall be eligible for any scholarship, fellowship, medal, prize or any other award

19. REMOVAL OF DIFFICULTY AT THE COMMENCEMENT OF THESE REGULATIONS:

If any difficulty arises while giving effect to the provision of these Regulations, the Vice Chancellor may in extraordinary circumstances, pass such orders as he may deem fit

Department of Studies and Research in Commerce, BCU

ANNEXURE-1

COURSE MATRIX

I Semester

	Courses	Paper Code	Instruction hrs/week	Duration of Exam (Hrs.)	Marks			Credits
					IA	Univ. Exam	Total	
Part 1- Language	**Language-1** - Kannada/Sanskrit/Urdu/Tamil/ Telugu/Malayalam/Additional English / Marathi/ Hindi		4	3	20	80	100	**3**
	Language – II English		4	3	20	80	100	**3**
Part 2- DSC	Financial Accounting	1.1	4	3	20	80	100	4
	Introduction to Financial Markets	1.2	4	3	20	80	100	4
	Business Environment	1.3	4	3	20	80	100	4
	Introduction to Data Analytics for Finance	1.4	4	3	20	80	100	4
Part 3- CC	Constitutional Values-1		3	1.5	10	40	50	2
	Environmental Studies		3	1.5	10	40	50	2
	Total				**140**	**560**	**700**	**26**

Note: The student shall take up **any one Value- Added Certificate Course of 30 hours,** at Institutional level or any MOOC program under **SWAYAM** portal or through any other recognised training institute. It is compulsory for all students to carry out this course from the beginning of the first semester and before the end of second semester. This will carry **ONE credit,** which will be reflected in the **second semester marks card**. The marks shall be uploaded by the institution, along with IA marks, after obtaining the course completion certificate.

Department of Studies and Research in Commerce, BCU

COURSE MATRIX

II Semester

	Courses	Paper Code	Instruction hrs/week	Duration of Exam (Hrs.)	Marks			Credits
					IA	Univ. Exam	Total	
Part 1- Language	**Language-1** - Kannada/Sanskrit/Urdu/Tamil/Telugu/Malayalam/Additional English / Marathi/ Hindi		4	3	20	80	100	**3**
	Language – II English		4	3	20	80	100	**3**
Part 2- DSC	Advanced Financial Accounting	2.1	4	3	20	80	100	4
	Mutual Funds - VA series - NISM	2.2	4	3	20	80	100	4
	Business Regulations	2.3	4	3	20	80	100	4
	Statistical Methods using Advanced data Analytics	2.4	4	3	20	80	100	4
Part 3- CC	Constitutional Values-2		3	1.5	10	40	50	2
	Value-Added Certificate Course *		-	-	25	-	25	1*
	Total				**155**	**520**	**675**	**25**

Department of Studies and Research in Commerce, BCU

COURSE MATRIX

III Semester

	Courses	Paper Code	Instruction hrs/week	Duration of Exam (Hrs.)	Marks			Credits
					IA	Univ. Exam	Total	
Part 1- Language	**Language-1** - Kannada/Sanskrit/Urdu/Tamil/ Telugu/Malayalam/Additional English / Marathi/ Hindi		4	3	20	80	100	**3**
	Language – II English		4	3	20	80	100	**3**
Part 2- DSC	Corporate Accounting	3.1	4	3	20	80	100	4
	Financial Analytics with R	3.2	4	3	20	80	100	4
	Cost Accounting	3.3	4	3	20	80	100	4
	Fundamental Analysis in Capital Markets with Coding and Automation	3.4	4	3	20	80	100	4
Part 3- SEC	Corporate Communication Skills	3.5	3	2	10	40	50	2
	Total				**130**	**520**	**650**	**24**

Department of Studies and Research in Commerce, BCU

COURSE MATRIX

IV Semester

	Courses	Paper Code	Instruction hrs/week	Duration of Exam (Hrs.)	Marks			Credits
					IA	Univ. Exam	Total	
Part 1- Language	**Language-1** - Kannada/Sanskrit/Urdu/Tamil/ Telugu/Malayalam/Additional English / Marathi/ Hindi		4	3	20	80	100	**3**
	Language – II English		4	3	20	80	100	**3**
Part 2- DSC	Advanced Corporate Accounting	4.1	4	3	20	80	100	4
	Derivatives Analysis - NISM Series VIII	4.2	4	3	20	80	100	4
	Research Methodology	4.3	4	3	20	80	100	4
	Python for Finance	4.4	4	3	20	80	100	4
Part 3- SEC	Security Trading	4.5	3	2	10	40	50	2
	Total				**130**	**520**	**650**	**24**

Department of Studies and Research in Commerce, BCU

Name of the Program: BACHELOR OF COMMERCE (FINTECH) Course Code. 3.1 Name of the Course: CORPORATE ACCOUNTING		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS

Pedagogy: Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Field Work etc.

Course Outcomes: On successful completion of the course, the students will be able to
a. Understand the treatment of underwriting of Shares & Debentures
b. Comprehend the computation of profit prior to incorporation.
c. Know the valuation of Goodwill.
d. Know the valuation Shares.
e. Prepare the financial statements of Companies as per the New Companies Act 2013.

SYLLABUS:	HOURS
Unit-1: Underwriting of Shares and Debentures	**12**
Introduction - Meaning of Underwriting – SEBI regulations regarding underwriting; Underwriting Commission- Types of Underwriting – Firm Underwriting, Open Underwriting - Marked and Unmarked Applications –Determination of Liability in respect of Underwriting Contracts – when shares and debentures are fully and partially underwritten, with and without firm underwriting - Problems relating to Underwriting of Shares and Debentures of Companies only.	
Unit- 2: Profit Prior to Incorporation	**10**
Meaning, Calculation of Sales Ratio, Time Ratio, Weighted Ratio, Treatment of Capital and Revenue Expenditure; Ascertainment of Pre-Incorporation and Post Incorporation profits by preparing Statement of Profit and Loss and Preparation of Balance Sheet (Vertical Format) as per schedule III of Companies Act, 2013.	
Unit-3: Valuation of Goodwill	**10**
Meaning and Factors influencing Goodwill; Valuation of Goodwill; Circumstances under which Goodwill is valued; Methods of Valuation of Goodwill- Average Profit Method, Capitalization of Average Profit Method, Super Profit Method, Capitalization of Super Profit Method, and Annuity Method-Problems (Based on both Simple and Weighted Average)	
Unit- 4: Valuation of Shares	**10**
Meaning and Need for Valuation; Methods of Valuation - Intrinsic Value Method, Yield Method, Fair Value Method; Valuation of Preference Shares - Problems.	
Unit- 5: Financial Statements of Companies	**14**
Statutory Provisions regarding Preparation of Financial Statements of Companies as per schedule III of New Companies Act 2013 and IND AS-1; Treatment of Special Items – Tax deducted at source, Advance payment of Tax, Provision for Tax, Depreciation, Interest on Debentures, Dividends; Rules regarding payment of dividends – Transfer to Reserves; Preparation of Statement of profit and loss and Balance Sheet.	

Department of Studies and Research in Commerce, BCU

Skill Development Activities:
1. Determine Underwriters' Liability in case of an IPO, with imaginary figures.
2. Prepare the format of 'Statement of Profit and loss' with imaginary figures.
3. Prepare Balance Sheet with imaginary figures.
4. Calculate the intrinsic value of shares under Net Asset Method.

Books for References:
1. J.R. Monga, Fundamentals of Corporate Accounting. Mayur Paper Backs, New Delhi
2. V.K. Goyal and Ruchi Goyal, Corporate Accounting. PHI Learning.
3. P. C. Tulsian and Bharat Tulsian, Corporate Accounting, S.Chand
4. S. P. Jain and K. L. Narang – Corporate Accounting
5. Anil Kumar .S, Rajesh Kumar.V and Mariyappa .B, Corporate Accounting, HPH.
6. S P Iyengar, Advanced Accountancy, Sultan Chand
7. R L Gupta, Advanced Accountancy

Department of Studies and Research in Commerce, BCU

Name of the Program: BACHELOR OF COMMERCE (FINTECH) Course Code: 3.2 Name of the Course: Financial Analytics with R		
COURSE CREDITS	NO. OF HOURSPER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS

Pedagogy: Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Field Work etc.

Course Outcomes: On successful completion of the course, the Students will be able to
a. Explain fundamental financial concepts and analy8cs techniques.
b. Employ R programming for data manipula8on, analysis, and visualization.
c. Create and interpret financial models for valuation, risk assessment, and forecas8ng.
d. Perform comprehensive data analysis and visualiza8on to support financial decision making.
e. Implement portfolio op8miza8on techniques and risk management strategies.
f. Present data-driven insights and recommendations effectively.

SYLLABUS:	HOURS
Unit-1: Introduction to Financial Analytics and R	**10**
Overview of Financial Analytics, Introduction to R Programming, Importing and Managing Financial Data in R, Exploratory Data Analysis (EDA) in Finance, Introduction to Statistical Concepts in Finance, Basics of Financial Markets, Data Sources for Financial Analytics, Overview of R Packages for Financial Analysis, RStudio IDE Features and Functions, Data Visualization in R for Finance	
Unit- 2: Data Handling and Visualization in R	**10**
Data Import from Various Sources, Data Cleaning and Preprocessing, Data Transforma8on Techniques, Introduc8on to Data Visualiza8on, Basic Plotting in R, Advanced Visualization Techniques, Interactive Visualization with Shiny, Working with Large Datasets: Techniques for Efficient Handling, Customizing Visualizations: Themes, Labels, and Annota8on, Exporting Visualizations: Saving Plots and Dashboards	
Unit-3: Financial Modeling in R	**12**
Time Series Analysis, ARIMA Models, Forecasting Techniques, Discounted Cash Flow (DCF) Analysis, Valuation Models, Monte Carlo Simulation, Sensitivity Analysis, Scenario Analysis, Building Financial Dashboards, Model Validation and Testing, Regression Models.	
Unit- 4: Financial Analytics and its applications	**14**
Machine Learning Techniques for Financial Analysis, Predictive Modeling for Financial Forecasting, Algorithmic Trading Strategies, Time Series Analysis and Forecasting, Sentiment Analysis in Finance, Network Analysis in Financial Markets, Text Mining.of Skewness - Calculation of Karl Pearson's Co-efficient of Skewness only- Problems	
Unit- 5: Advanced Financial Analytics and Capstone Project	**10**
Introduction to Natural Language Processing (NLP) for Financial Data, Bayesian Methods in Finance, and Financial Fraud Detection and Prevention.	
Skill Development Activities: 1. Data extraction, cleaning, and exploratory data analysis using www.kaggle.com 2. Data visualization and interactive dashboards creation activity 3. Risk simulation using interactive tools 4. Capstone project	

Department of Studies and Research in Commerce, BCU

Books for References:
1. "R for Data Science" by Hadley Wickham and GarreO Grolemund
2. "Quan8ta8ve Financial Analy8cs: The Path to Investment Profits" by Edward E. Williams
   and John C. Navin
3. "Financial Risk Modelling and Pornolio Op8miza8on with R" by Bernhard Pfaf

Name of the Program: BACHELOR OF COMMERCE (FINTECH)		
Course Code: 3.3		
Name of the Course: COST ACCOUNTING		
COURSE CREDITS	NO. OF HOURSPER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS

Pedagogy: Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Field Work etc.

Course Outcomes: On successful completion of the course, the students will be able to
a. Demonstrate an understanding of the concepts of costing and cost accounting.
b. Demonstrate the ability to prepare a Cost Statement.
c. Prepare material related documents, understand the management of stores and issue procedures.
d. Demonstrate the ability to Calculate Wages and Bonus.
e. Classify, allocate, and apportion overheads and Calculate Overhead absorption rates.

SYLLABUS:	HOURS
Unit.1: Introduction to Cost Accounting	**8**
Introduction- Meaning and definition- Objectives, Importance and Uses of Cost Accounting, Difference between Cost Accounting and Financial Accounting; Various Elements of Cost and Classification of Cost; Cost object, Cost unit, Cost Centre; Cost reduction and Cost control. Limitations of Cost Accounting.	
Unit- 2: Cost Sheet	**12**
Cost Sheet - Meaning and Cost heads in a Cost Sheet, Preparation of Cost Sheet - Problems on Cost Sheets (including Unit costing and Tenders & Quotations).	
Unit-3: Material Cost	**10**
Material Cost: Meaning, Importance of Material cost; Types of Materials – Direct and Indirect Materials; **Procurement**- Procedure for procurement of materials and documentation involved in materials accounting; **Material Storage**: Duties of Store keeper; **Issue of Materials**- Pricing of material issues, Preparation of Stores Ledger Account under FIFO, LIFO, Simple Average Price and Weighted Average Price Methods – Problems. **Materials control**. - Techniques of Inventory Control - Problems on Level Setting and EOQ.	
Unit- 4: Labour Cost	**12**
Labour Cost: Meaning and Types of Labour Cost –Attendance Procedure-Time keeping and Time booking and Payroll Procedure; Idle Time- Causes and Treatment of Normal and Abnormal Idle time, Over Time; Labour Turnover: Meaning, Causes and Effects of labour turnover; (theory only). **Methods of Wage Payment:** Time rate system and piece rate system; Incentive schemes - Halsey plan, Rowan plan, Taylor's differential piece rate and Merrick's multiple piece rate system, –problems based on calculation of wages and earnings.	
Unit- 5: Overheads	**08**
Overheads: - Meaning and Classification of Overheads; Accounting and Control of Manufacturing Overheads; Collection, Allocation, Apportionment, Re-apportionment and Absorption of Manufacturing Overheads; **Problems** on Primary and Secondary overheads	

distribution using Reciprocal Service Methods (Repeated Distribution Method and Simultaneous Equation Method); **Absorption of Overheads:** Meaning and Methods of Absorption of Overheads (Concept only); **Machine Hour Rate-** Meaning and Problems on calculation of Machine Hour Rate.

Skill Development Activities:

1. Mention the causes of labour turnover in manufacturing organizations.

2. Name any five documents used for material accounting.

3. Prepare a dummy Payroll with imaginary figures.

4. List out the various overhead items under Factory, administrative, Selling & distribution overheads (six items each).

Books for References:

1. Jain, S.P. and K.L. Narang. Cost Accounting: Principles and Methods. Kalyani Publishers

2. Arora, M.N. Cost Accounting – Principles and P r a c t i c e, Vikas Publishing House, New Delhi.

3. Maheshwari, S.N. and S.N. Mittal. Cost Accounting: Theory and Problems. Shri Mahavir Book Depot, New Delhi.

4. Iyengar, S.P. Cost Accounting, Sultan Chand & Sons

5. Charles T. Horngren, Srikant M. Datar, Madhav V. Rajan, Cost Accounting: A Managerial Emphasis, Pearson Education.

6. Jawahar Lal, Cost Accounting., McGraw Hill Education

7. Made Gowda J, Cost Accounting, HPH.

8. Rajiv Goel, Cost Accounting, International Book House

9. Mariyappa B Cost Accounting, HPH

Department of Studies and Research in Commerce, BCU

Name of the Program: BACHELOR OF COMMERCE (FINTECH) **Course Code: 3.4** **Name of the Course: Fundamental Analysis in Capital Markets with** **Coding and Automation**		
COURSE CREDITS	NO. OF HOURSPER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS

Pedagogy: Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Field Work etc.

Course Outcomes: On successful completion of the course, the students will be able to:

1. Evaluate a company's intrinsic value using financial statements, ratios, and economic indicators.
2. Construct financial models to forecast a company's financial performance.
3. Apply valuation techniques to determine the fair value of stocks.
4. Write code to automate data collection, analysis, and reporting.
5. Use programming languages such as Python or R for financial analysis.
6. Screen stocks and iden8fy trading opportunities using Chartink.

SYLLABUS:	HOURS
Unit.1: Introduction to Fundamentals Analysis	**8**
Basics of Fundamental Analysis, Definition and importance, Key components: financial statements, ratios, and economic indicators, Financial Statements Analysis, Income statement, balance sheet, and cash flow statement, Key financial ratios and their interpretations	
Unit.2: Financial Modeling and Valuation	**12**
Building Financial Models, Projecting financial statements, Sensitivity analysis and scenario planning, Valuation Techniques, Discounted Cash Flow (DCF) analysis, Price-to-Earnings (P/E) and Price-to-Book (P/B) ratios	
Unit.3: Coding and Automation for Financial Analysis	**14**
Introduction to Coding for Finance, Overview of programming languages: Python and R, Basics of coding for financial analysis, Automation Techniques, automating data collection from financial websites and APIs, creating automated analysis and reporting tools	
Unit.4: Technical Analysis and Screening with Chartink	**14**
Introduction to Chartink, Overview of Chartink features and capabilities, setting up and navigating the Chartink platform, Screening and Technical Analysis, Using Chartink to screen stocks based on technical indicators, Integrating fundamental and technical analysis	
Unit.5: Practical Applications and Case Analysis	**8**
Case Studies in Fundamental Analysis, Evaluation of investment opportunities, Automation Projects, Developing and implementing automation tools for financial analysis, Presenting and reporting findings	

Department of Studies and Research in Commerce, BCU

Skill Developments Activities:
1. Algo research in fundamental analysis using screeners.in
2. Creating excel for financial modelling
3. Algo research in technical analysis using www.chartink.com
4. Creating a report on fundamental analysis as per SEBI norms.

Books for References:
1. "Financial Statement Analysis and Security Valua8on" by Stephen Penman
2. "Python for Finance: Mastering Data-Driven Finance" by Yves Hilpisch
3. "Investment Valua8on: Tools and Techniques for Determining the Value of Any Asset" by Aswath Damodaran

Department of Studies and Research in Commerce, BCU

Name of the Program: BACHELOR OF COMMERCE (FINTECH)
Course Code: B.Com SEC 3.5
Name of the Course: CORPORATE COMMUNICATION SKILLS

COURSE CREDITS	NO. OF HOURSPER WEEK	TOTAL NO. OF TEACHING HOURS
2 CREDITS	3 HOURS	30 HOURS

Pedagogy: Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Review of Journals and Books etc.

Course Outcomes: On successful completion of the course, the students will be able to
a) Identify the importance of Business correspondence
b) understand the different types of Business Communication
c) Learn different types of communication skills
d) Understand and write the different types of Business Letters

SYLLABUS:	HOURS
Unit-1: FUNDAMENTALS OF COMMUNICATION	**08**
Introduction - Meaning of Communication; Purpose or Objectives of Communication; Process or Stages of Communication; Principles of Effective Communication; Barriers to Effective Communication; Types of Communication (Meaning & Features) – Interpersonal, Intrapersonal, Internal, External, Upward, Downward, Lateral, One-way, Two-way, Verbal and Non-verbal communication, Formal & Informal, Cross Cultural Communication; Scope of Communication; Limitations of Communication.	
Unit-2: COMMUNICATION SKILLS	**12**
Reading skills – Meaning; Importance of Reading Skills; Reading comprehension skills – Literal, Evaluative, Inferential; Types of Reading Techniques – Skimming, Scanning, Intensive, Extensive and Guidelines for improving Reading Skills. **Listening skills** – Meaning; Importance of Listening; Types of listening (Meaning and Benefits of each type of Listening) – Attentive, Reflective, Discriminative, Comprehension, Critical, Biased, Evaluative, Appreciative, Sympathetic & Empathetic; Barriers to listening; Overcoming barriers to listening. **Note taking skills** – Meaning and Importance; Methods – Outline Method, Cornell Method, Mapping Method, Charting Method, Box & Bullet Method. **Presentation skills** – Meaning of Presentation in Business Communication; Importance of Presentation Skill in Business; Types of Presentations (Meaning, Pros & Cons of each type) – Informative, Instructional, Progress Reporting, Persuasive, Decision making, Problem Solving.	
Unit-3: BUSINESS LETTERS	**10**
Types of Business letters- Enquiries & replies, Offers and Quotation, Orders and their execution, Complaints & ATRs, Remittance letters, Sales letters, Follow-up letters, Circular letters, Agency letters, Status enquiries, Collection letters. AI tools in Business Communication	

Skill Development Activities:
1. Draft a Quotation with imaginary content.
2. List out the various parts of Business Letter.
3. List any 5 AI tools used for Business Communication.
4. Identify at least three barriers to listening you experience daily and propose

Department of Studies and Research in Commerce, BCU

strategies to overcome them.	

Books for References:

1. C.S. Raydu, Corporate Communication, HPH
2. Rai & Rai, Business Communication, HPH
3. S.P. Sharman, Bhavani.H, Corporate Communication, VBH
4. K. Venkataramana, Corporate Communication, SHBP
5. Rajkumar, Basic Business Communication: Concepts, Applications and Skills, Excel Books
6. Taylor, Shirley, Communication for Business : A Practical Approach, Pearson Education
7. Peter URS Bender, Robert. A.Traez, Secrets of Face to Face Communication, Macmillan India
8. Vilanilam,J.V, More Effective Communication: A manual for Professionals, Response Books
9. Guptha.C.B, Business Communication and Customer Relations, Sulthan Chand
10. Guptha,C.B, Business Communication and Organization and Management, Sulthan Chand
11. Subhash Jagota, Succeeding Through Communication, Excel Books
12. Chopra,R.K, Communication Management, HPH
13. Nageshwara Rao Das, Rajendra.P, Communication Skills, HPH
14. Ghanekar, Anjali, Communication Skills for Effective Management, Everest Publishing House
15. Mandal.S.K, Effective Communication and Public Speaking, Jaico publishing House
16. Jetwaney, Jaishri, Corporate Communication, Oxford university Press

<table>
<tr><td colspan="3" align="center">**Name of the Program: BACHELOR OF COMMERCE (FINTECH)**
Course Code: 4.1
Name of the Course: ADVANCED CORPORATE ACCOUNTING</td></tr>
<tr><td align="center">COURSE CREDITS</td><td align="center">NO. OF HOURSPER WEEK</td><td align="center">TOTAL NO. OF TEACHING HOURS</td></tr>
<tr><td align="center">4 CREDITS</td><td align="center">4 HOURS</td><td align="center">56 HOURS</td></tr>
<tr><td colspan="3">**Pedagogy:** Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Field Work etc.</td></tr>
<tr><td colspan="3">**Course Outcomes:** On successful completion of the course, the students will be able to
a. Know the procedure of Redemption of Preference Shares and Debentures.
b. Comprehend the different methods of Amalgamation and Acquisition of Companies.
c. Understand the process of Internal reconstruction.
d. Understand the process of Liquidation of Companies.
e. Prepare the liquidators Final statement of accounts.</td></tr>
</table>

SYLLABUS:	HOURS
Unit-1: Redemption of Preference Shares	**08**
Meaning – Legal Provisions – Treatment of premium on redemption – creation of Capital Redemption Reserve Account– Fresh issue of shares – Arranging cash balance for the purpose of redemption – minimum number of shares to be issued for redemption – issue of bonus shares – preparation of Balance sheet after redemption (As per Schedule III of Companies Act 2013).	
Unit- 2: Redemption of Debentures	**08**
Meaning – Types of Debentures – Methods of Redemption of Debentures – Lump sum Method, Instalment Method, Sinking Fund Method, Insurance Policy Method (Problems only on Sinking Fund method of Redemption of Debentures)	
Unit-3: Amalgamation and Acquisition of Companies	**14**
Meaning of Amalgamation and Acquisition – Types of Amalgamation – Amalgamation in the nature of Merger – Amalgamation in the nature of Purchase - Methods of Calculation of Purchase Consideration (IND AS - 103), Net asset Method - Net Payment Method and Lumpsum method, Accounting for Amalgamation (Problems under purchase method only) –Ledger Accounts in the Books of Transferor Company and Journal Entries in the books of Transferee Company – Preparation of Balance Sheet after Amalgamation and Acquisition. (As per Schedule III of Companies Act 2013)	
Unit- 4: Internal Reconstruction of Companies	**12**
Meaning of Capital Reduction; Objectives of Capital Reduction; Provisions for Reduction of Share Capital under Companies Act, 2013. Forms of Reduction. Accounting for Capital Reduction. Problems on passing Journal Entries, preparation of Capital Reduction Account and Balance sheet after reduction (Schedule III to Companies Act 2013).	
Unit- 5: Liquidation of Companies	**12**
Meaning of Liquidation, Modes of Winding up – Compulsory Winding up, Voluntary Winding up and winding up subject to Supervision by Court. Order of payments in the event of Liquidation. Liquidator's Statement of Account. Liquidator's remuneration. Problems on preparation of Liquidator's Final Statement of Account.	

Skill Development Activities:
1. List out legal provisions in respect of Redemption of Preference shares.
2. Calculation of Purchase consideration with imaginary figures under Net Asset Method.
3. List out legal provisions in respect of internal reconstruction.
4. Prepare Liquidator's Final Statement of Account with imaginary figures.

Department of Studies and Research in Commerce, BCU

Books for References:
1. Arulanandam & Raman ; Corporate Accounting-II, HPH
2. Dr. Venkataraman. R – Advanced Corporate Accounting
3. RL Gupta, Advanced Accountancy, Sultan Chand
4. Shukla and Grewal – Advanced Accountancy, Sultan Chand
5. Anil Kumar .S, Rajesh Kumar.V and Mariyappa .B, Advanced Corporate Accounting, HPH.
6. S P Iyengar, Advanced Accountancy, Sultan Chand
7. Srinivas Putty - Advanced Corporate Accounting, HPH.

Department of Studies and Research in Commerce, BCU

Name of the Program: BACHELOR OF COMMERCE (FINTECH) **Course Code: 4.2** **Name of the Course: Derivatives Analysis - NISM Series VIII**			

COURSE CREDITS	NO. OF HOURSPER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS

Pedagogy: Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Field Work etc.

Course Outcomes: On successful completion of the course, the Students will be able to
1. Apply the cost of carry model to price futures contracts and understand the concept of basis.
2. Define and explain the key concepts and terminology related to options, such as call and put options, strike price, and premium.
3. Describe the intrinsic and time value of options and the factors affecting option prices.
4. Apply the Black-Scholes model and other options pricing models.
5. Understand the use of exotic options and other complex derivatives in financial markets

SYLLABUS:	HOURS
Unit-1: Introduction to Derivatives	**10**
Basics of Derivatives, Definition and key concepts, Types of derivatives: Forwards, Futures, Options, and Swaps, History and evolution of the derivatives market in India and globally, Participants in the Derivatives Market, Hedgers, speculators, and arbitrageurs, Regulatory Framework, Role of SEBI in regulating derivatives, Key regulations and compliance requirements	
Unit- 2: Future Contracts	**10**
Understanding Futures Contracts, Contract specifications and terminology, Mechanics of futures trading, Pricing of Futures, Cost of carry model, Basis and its implications, Trading Strategies Using Futures, Hedging strategies, Speculative strategies, Arbitrage opportunities	
Unit-3: Option Contracts	**12**
Understanding Options Contracts, Call and put options, Options terminology: strike price, premium, expiration date, Options Pricing Models, Intrinsic value and time value, Introduction to the Black-Scholes model, Factors affecting option prices, Trading Strategies Using Options, Basic strategies: buying and selling calls and puts, Advanced strategies: spreads, straddles, strangles, and combinations	
Unit- 4: Swaps and other Derivatives	**12**
Swaps, Interest rate swaps and currency swaps, Mechanics and applications of swaps, Other Derivatives, Exotic options, Credit derivatives, Weather and energy derivatives, Risk Management Using Derivatives, Role of derivatives in risk management.	
Unit- 5: Derivatives Market Operations and Analysis	**12**
Derivatives Market Operations, Trading, clearing, and settlement processes, Role of Clearing houses and margin requirements, Analyzing Derivative Markets, Technical analysis for derivatives trading, Fundamental analysis for derivatives trading, Ethical and Regulatory Considerations, Best practices in derivatives trading, Regulatory and ethical issues in the derivatives market.	

Department of Studies and Research in Commerce, BCU

Skill Development Activities:
1. Implementing the hedge strategies using Front page simulation
2. Margin calculation for hedging using zerodha and Pentad website
3. Deriving the payoff graph for Futures strategy using www.sensibull.com
4. Deriving the payoff graph for Options strategy using www.sensibull.com

Books for References:
1. Derivatives Analysis by NISM Series VIII
2. "Options, Futures, and Other Derivatives" by John C. Hull
3. "Derivatives: Principles and Practice" by Sundaram and Das
4. "Fundamentals of Futures and Options Markets" by John C. Hull

Department of Studies and Research in Commerce, BCU

Name of the Program: BACHELOR OF COMMERCE (FINTECH) Course Code: B.Com 4.3 Name of the Course: RESEARCH METHODOLOGY		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS

Pedagogy: Classroom lectures, tutorials, Group discussion, Seminar, Case studies & field work, WBL, literature reviews etc.,

Course Outcomes: On successful completion of the course, the students will be able to
 a. Explain the fundamental concepts, scope, and methodologies of business research.
 b. Apply appropriate research problem formulation, hypothesis development, and sampling techniques to real-world business scenarios.
 c. Analyse collected data using statistical tools and techniques to derive meaningful business insights.
 d. Critically evaluate research findings and test hypotheses using appropriate statistical methods.
 e. Design and develop a well-structured research report with proper interpretation, visualization, and ethical considerations.

SYLLABUS:	HOURS
Unit 1: Introduction to Business Research	10
Research: Meaning, Purpose, Scientific method, types of research; scope of business research. Review of literature: need, purpose, notes taking.	
Unit 2: Research Design	12
Selection and formulation of a research problem, formulation of hypothesis, operational definition of concepts, sampling techniques. Research Design: Meaning, nature, process of preparation, components of research design.	
Unit 3: Data Collection and Processing	12
Data: Sources of data, methods, of collection; observation interviewing, mailing; tools for collection data; interview schedule, interview guide, questionnaire, rating scale, socio-metry, check list; pre-testing of tools, pilot study. Processing of data; checking, editing, coding, transcription, tabulation, preparation of tables, graphical representation.	
Unit 4: Tools for Data Analysis	12
Statistical Techniques: Descriptive Statistics -Mean, Median, Mode, Standard Deviation, Mean Deviation and Quartile Deviation; Inferential Statistics -t-test, Chi-square test and ANOVA & Regression analysis [Meaning and application of each in Business Research]. **Data analysis tools for Social Science Research**: Python, R, SPSS, Tableau and Excel (Concepts and application only)	
Unit 5: Research Reports	10
Research Reports- Characteristics of good Research Report, types of reports, style of report writing, Steps in drafting the Report.	

Department of Studies and Research in Commerce, BCU

Skill Developments Activities:

1. Design a questionnaire for a research study
2. List the different types of sampling techniques with suitable examples.
3. List the statistical software tools used in social science research.
4. Write a sample research report outline with an introduction, methodology, and conclusion.

Books for References:

1. Dr. M. Ranganatham, O R Krishnaswami, P N Harikumar: Research Methodology , Himalaya Publishing House.
2. C.R. Kothari, Research Methodology: Methods and Techniques, New Age International Publishers 3rd Edition.
3. Wayne C. Booth, Gregory G. Colomb, Joseph M. Williams, Joseph Bizup, and William T. Fitzgerald, "The Craft of Research", University of Chicago Press, Fourth Edition.
4. Ingeman Arbnor and Björn Bjerke, Methodology for Creating Business Knowledge, Sage Publications, 3rd Edition.
5. Krishna G. Palepu and Paul M. Healy, Business Analysis and Valuation: Using Financial Statements, Cengage Learning, 5th Edition.
6. Joseph F. Hair Jr., Mary Celsi, Arthur H. Money, Phillip Samouel, and Michael J. Page, Essentials of Business Research Methods, Routledge 5th Edition.
7. Satyaprasad and D. R. Satya Raju, Business Research Methods, Himalaya Publishing House 2nd edition.
8. Navdeep Kaur and Dr. Pawan Kumar Taneja, Business Research Methods: A South-Asian Perspective, Kalyani Publishers 1st Edition.

Department of Studies and Research in Commerce, BCU

Name of the Program: BACHELOR OF COMMERCE (FINTECH) Course Code: B.Com. 4.4 Name of the Course: Python for Finance		
COURSE CREDITS	**NO. OF HOURSPER WEEK**	**TOTAL NO. OF TEACHING HOURS**
4 CREDITS	4 HOURS	56 HOURS
Pedagogy: Classroom Lecture, Tutorials, Group discussion, Seminar, Case Studies, Field Work etc.		
Course Outcomes: On successful completion of the course, the students will be able to 1. Proficiency in Python programming with a focus on financial applications. 2. Ability to manipulate, analyses, and visualize financial data. 3. Skills to develop, test, and optimize financial models and trading algorithms. 4. Competence in applying advanced techniques such as machine learning in finance 5. Experience in conducting a thorough financial analysis project from start to finish.		
SYLLABUS:		**HOURS**
Unit-1: Introduction to Python and Finance		**14**
Python Programming Basics, Data Types: Strings, Integers, Floats, Control Structures: If Statements, Loops Functions in Python, Basic Financial Concepts, Time Value of Money, Risk and Return, Setting Up Python Environment, Using Anaconda, Introduction to Jupyter Notebook.		
Unit-2: Financial Data Analytics		**10**
Pandas Library, Importing Financial Data, Cleaning and Pre-processing Data, Data Visualization with Matplotlib and Seaborn, Plotting Financial Data, Time Series Analysis, Forecasting Financial Trends, Pandas Library and Data Structures, Data Manipulation and Transformation, Handling Missing Data, Exploratory Data Analysis (EDA), Statistical Analysis of Financial Data, Advanced Data Visualization Techniques, Correlation and Covariance Analysis, Financial Data Aggregation and Grouping		
Unit- 3: Financial Modelling		**12**
Implementing Financial Models in Python, Python Libraries for Financial Modelling (e.g., NumPy, SciPy), Valuation Models in Python, Regression Analysis with Python, Discounted Cash Flow (DCF) Modelling in Python, Monte Carlo Simulations in Python, Sensitivity Analysis with Python, Scenario Analysis using Python, Model Validation and Testing in Python, Integrating Python Models with Financial Data Sources		
Unit-4: Algorithmic Trading		**10**
Implementing Algorithmic Trading Strategies in Python, Python Libraries for Algorithmic Trading (e.g., QuantLib, Zipline), Back testing Trading Algorithms with Python, Performance Evaluation Metrics using Python, Real-time Data Streaming and Processing in Python, Developing Customized Trading Signals in Python, Regulatory Compliance and Legal Considerations for Python-based Trading Systems		
Unit- 5: Advanced Topics and Capstone Project		**10**
Machine Learning Applica8ons in Finance, Sentiment Analysis and Natural Language Processing (NLP), Advanced Algorithmic Trading Strategies, Risk Management in Advanced Financial Analysis, developing a Comprehensive Capstone Project, Presenting Findings and Recommendations, Peer Review and Feedback Sessions, Incorporating Ethical Considerations in Financial Analysis, Future Trends in Python for Finance		

Department of Studies and Research in Commerce, BCU

Skill Development Activities:
1. Financial data manipula8on, EDA, and visualiza8on using pandas / Jupyter
2. Financial modeling and valua/on techniques using Google Colabs
3. Algorithmic trading and backtes/ng using QuantConnect
4. NLP and machine learning in finance using Google Colabs

Books for References:
1. "Python Crash Course" by Eric MaOhes
2. "Python for Data Analysis" by Wes McKinney
3. Finance and Financial Modeling:
4. "Principles of Corporate Finance" by Richard Brealey and Stewart Myers
5. "Financial Modeling" by Simon Benninga

Department of Studies and Research in Commerce, BCU

BENGALURU
CITY UNIVERSITY

Name of the Program: BACHELOR OF COMMERCE (FINTECH) Course Code: SEC 4.5 Name of the Course: SECURITY TRADING		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
2 CREDITS	3 HOURS	30 HOURS

Pedagogy: Classrooms lecture, tutorials, and Problem Solving.

Course Outcomes: On successful completion of the course, the students will be able to:

a. Understand the fundamentals of investments and the investment environment.
b. Able to compare and evaluate different investment opportunities.
c. Comprehend the structure and composition of Indian Securities market.
d. Learn the mechanism involved in online stock trading.

Syllabus:	Hours
Unit 1: Basics of Investment and Investment Environment	**08**
Fundamentals of Investment, Features of Investment, Investment Environment. Principles of sound Investment. The Investment Decision Process. Modes of Investment – Direct Investing and Indirect Investing, Approaches to Investing – Active Investing and Passive Investing. Risk Return Trade Off. Types of Securities – Equity Shares, Bonds and Debentures, and Government Securities. Alternative Investments (Briefly) – Mutual Funds, Derivatives, Unit Linked Insurance Policy (ULIP), Exchange-traded funds (ETFs), Collective Investment Schemes (CIS), Real Estate Investment Trusts (REITs). Criteria for Evaluation of Investment Alternatives.	
Unit 2: Indian Securities Market	**10**
Securities Market – Capital Market and Money Market, Difference between Capital and Money Market, Primary and Secondary Market, Difference between Primary and Secondary Market. Over the Counter (OTC) and Exchange Traded market. Modes of offering Equity Shares – Initial Public Offering (IPO), Follow-on Public Offering (FPO), Difference between IPO and FPO, Difference between Offer for sale (OFS) and Public offer (IPO/FPO). Methods of IPO Pricing – Fixed Price Method and Book Building Method, The Book Building Process, Fixed Price method v/s Book building Method. Market Participants – Issuer of Securities, Investors, and Intermediaries. Role of Stock Exchange. Stock Exchanges in India. Securities (Stock) Indices – Broad Market Indices, Sectoral Indices and Thematic Indices.	
Unit 3: Online Securities Trading	**12**
Trading Mechanism on Exchanges, Trading and Settlement at NSE – National Securities Clearing Corporation Limited (NSCCL), Clearing Mechanism, Clearing & Settlement (Equities). Online Trading – Introduction, Online Trading Mechanism. Online Real Time Price Quotations – Bid Price, Ask Price, Bid-Ask Spread, Tick Size, LTP, ATP. Circuit Breakers – Upper Circuit, Lower Circuit, NSE rules regarding Circuit Breaks. Price Bands, Rules regarding Price Bands on NSE. Electronic Order Book. Types of Orders – Market Order, Annexure - V GENERIC ELECTIVE (GE) Limit Order, Stop Loss Order, Stop Loss (Limit) Order, Stop Loss (Market) Order, After Market Order (AMO). Order Conditions – Price related conditions, Time	

Department of Studies and Research in Commerce, BCU

related conditions, Quantity related conditions. Placing an Order, View/Modify/Cancel an Order.

Skill Developments Activities:
1. List out the modes of Investment
2. List out the Book Building Methods
3. List out any 5 Companies which have issued FPOs
4. List the different types of Price Quotations.

Books for References:
1. Tripathi, Vanita and Panwar, Neeti: Investing in Stock Markets. Taxmann Publications.
2. Chandra, Prasanna: Investment Analysis and Portfolio Management. McGraw Hill Education.
3. Rustagi, R.P., Investment Management. Sultan Chand Publications.
4. Tripathi, Vanita: Security Analysis and Portfolio Management. Taxmann Publications.

Department of Studies and Research in Commerce, BCU