ATLAS SKILLTECH UNIVERSITY | ISME School of Management & Entrepreneurship

Courses Offered

Core Courses & Elective Courses

BACHELORS OF SCIENCE IN FINANCE

4 Year Full Time Program

ACADEMIC YEAR

2024-28

PREAMBLE

The Bachelor of Science in Finance is a rigorous and industry-aligned three-year undergraduate program offered by ATLAS SkillTech University. The program is designed to equip students with a strong foundation in financial theory, practical financial management, investment analysis, corporate finance, and the evolving dynamics of global financial markets.

With an interdisciplinary approach, the program integrates analytical thinking, quantitative skills, and real-world application to prepare students for the complexities of modern finance. Through a combination of classroom learning, case studies, technology-driven tools, and experiential projects, students gain a comprehensive understanding of financial decision making in bothcorporate and capital market environments.

The curriculum is aligned with global industry standards and is continuously updated to reflect the latest trends in fintech, sustainability, and financial analytics. By the end of the program, students are well-positioned for careers in investment banking, corporate finance, asset management, financial consulting, and other specialized areas of the finance industry, as well as for pursuing advanced studies in finance and related disciplines.

ATLAS SkillTech University emphasizes innovation, ethical leadership, and future-readiness, ensuring that graduates not only master the tools of finance but also develop a strong sense of professional responsibility and global perspective.

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CHOICE BASED CREDIT SYSTEM

The CBCS provides an opportunity for the students to choose from the prescribed courses comprising core,elective/minor or skill based courses. The courses can be evaluated following the grading system, which is considered to be better than the conventional marks system. Therefore, it is necessary to introduce uniform grading system in the entire higher education system in India. This will benefit the students to move across institutions within India to begin with and across countries. The uniform grading system will also enable potential employers in assessing performance of the candidates. In order to bring uniformity in evaluation system and computation of the Cumulative Grade Point Average (CGPA) based on student's performance in examinations, the UGC has formulated the guidelines to be followed.

INDIA'S FIRST URBAN INNOVATION UNIVERSITY

ATLAS SKILLTECH UNIVERSITY is India's first new-age urban multidisciplinary university. Founded to forge a path to the future, ATLAS is where the confluence of design, technology, strategy, and leadership takes place. We believe in breaking paths and conventions. We are constantly defining, shaping, and redefining the future of education in India right here in the heart of an ever-booming, cosmopolitan, and enterprising Mumbai.

With India's National Education Policy 2020 as the cornerstone, ATLAS endeavours to deliver a multidisciplinary education across 3 new-age streams: Design & Innovation, Management & Entrepreneurship and Digital Technology. It has adopted a futuristic model co-created with an international community of scholars, academicians, industry experts, and world leaders in education. Our undivided focus on academic excellence, world-class faculty, state-of-the-art infrastructure, global institutional collaborations and unique corporate connect empower students to succeed in Industry 4.0 and become socially-responsible global leaders.

Our vibrant community of ATLAS Fellows has gone on to pursue higher education at top-ranked universities in the world and work shoulder-to-shoulder with leading industry stalwarts. ATLAS Faculty and Fellows have collaborated with the best across the world to solve today's pressing problems. The University's interdisciplinary approach, industry-integrated experiential learning, global exposure and emphasis on 21st Century Skills ensures that the ATLAS students are future-ready to continue to drive global impact in the VUCA World we live in today.

President's MESSAGE

Dr. Indu Shahani
PRESIDENT & CHANCELLOR

Greetings!

Welcome to ATLAS SKILLTECH UNIVERSITY, a self-financed state private university which has been established by Maharashtra Act No. XV of 2021, centered in the heart of Mumbai at Bandra Kurla Complex with over 500 leading organisations within its immediate proximity.

The world of work has evolved dramatically, altering the prominence and hierarchy of education as well as skills, across the globe, calling for a highly agile and resilient workforce. Companies have realised the importance of 'change' and are investing heavily in the upskilling of their workforce to become future ready. With the advent of Industry 4.0, companies are reinventing work practices which will need new skills and tech savviness.

For India, which has the largest demographic dividend, skill development is critical for both economic and social development. Providing a focused program to acquire skills for continuous improvement is fundamental to achieving an inclusive and sustainable growth.

Our unique model and industry-integrated location has enabled ATLAS to become a globally ranked, urban innovation university bringing together well-renowned faculty, leading companies, industry experts, and talented students to deliver exceptional solutions to important issues. Thereby, transforming our students to become responsible leaders of tomorrow.

An ATLAS education helps students stand out through a technology-enabled learning environment, industry as faculty, simulative virtual lab experiences, interdisciplinary choice-based learning, observerships, internships, apprenticeships, and industry placements. India needs job creators now more than ever. Hence, ATLAS focuses on developing entrepreneurs and not just job seekers.

Message from Vice - Chancellor

Dr. Rajan Welukar
Vice - Chancellor

The paradigm of higher education has changed, universities and graduate schools are no longer institutions of fixed knowledge and information, but serve as spaces where students cultivate creative ideas and work flexibly in exploring different ways of utilizing knowledge.

As an educational institution of the 21st century, the ATLAS SkillTech University offers students various combinations of disciplines and opportunities. At ATLAS, we strive for a fusion of diversity as opposed to separation, our approach being expansive rather than reticent. Our aim is to design and provide educational programs for changemakers of the 21st century.

ATLAS University is your university, and our focus is on YOU. Programs have been designed to prepare individuals to thrive in a dynamic, global environment, to appreciate the creativity of humans and to acquire the skills to contribute to ongoing creative processes. We provide a distinctive mix of faculty excellence and individualized attention to create a superb learning environment in which you can excel. At ATLAS, you will learn to critically analyse issues, appropriately apply technology and effectively communicate your ideas. We pride ourselves on providing our students with one-on-one interaction with top faculty in an environment that emphasizes student.

Accomplishment above all else. We seek students of keen intellect and diverse backgrounds who not only show potential for success at ATLAS, but who will also contribute to the educational environment of those around them. We firmly believe that diversity increases the intellectual vitality of education, scholarship, service and community life. Our comprehensive and action-oriented, curriculum, along with a transformative mindset, will capitalize on opportunities, partnerships and experiences that strengthen and more definitively establish our role as a higher education leader in our region. Today, not only are academic and industrial boundaries are being merged, national and inter-governmental cultural borders are also being broken. Therefore, we are preparing leaders of tomorrow – excellent scholars and outstanding creative leaders who will doubtlessly contribute to the advancement of communication and arts across the globe.

OUTLINE OF CHOICE BASED CREDIT SYSTEM

1. CORE COURSE:

A course, which should compulsorily be studied by a candidate as a core requirement is termed as a core course. The structure of course is defined under following points

1.1 A course, which should compulsorily be studied by a candidate as a core requirement is termed as a core course. The structure of course is defined under following points

1.2 All the UG programs shall be of either six semesters or eight semesters duration unless specified otherwise.

1.3 An academic year consists of two semesters: Odd Semester and Even Semester. A semester normally extends over a period of 15 weeks (5-day week).

1.4 Every course offered may have three components: Lecture (L), Tutorial (T) and Practicals (P). Tutorial session consists of participatory discussion / self-study/ desk work/ brief seminar presentations by students and such other novel methods.

1.5 The credit pattern for a course (L: T:P) shall be decided by the respective Board of Studies (BoS).

1.6 Credit means the unit by which the course work is measured. One hour of Lecture or Tutorial per week for 1 week amounts to 1 credit.

1.7 Two hour sessions of Practicals per week for 15 weeks' amounts to 1 credit per semester. The total duration of a semester is 16 weeks

1.8 A course will be evaluated for 100 marks. For any other approved course, the evaluation method shall be decided by the respective BoS.

2. ELECTIVE COURSE:

Elective Course is a course which can be chosen from a pool of courses. It may be very specific or specialized or advanced or supportive to the discipline/ subject of study or which provides an extended scope or which enables an exposure to some other discipline/subject/domain or nurtures the student's proficiency/skill.

2.1 Discipline Specific Elective (DSE) is a course offered under the main discipline/-subject of study or a Project/Dissertation.

2.2 Project/Dissertation is an elective course designed to acquire special/ advanced knowledge, such as supplement study/ support study to a project work. A student has to study such a course on his/her own with advisory support of a faculty member.

2.3 Generic Elective (GE) is an elective course chosen from an unrelated discipline /subject with an intention to seek exposure beyond discipline/subject.

3 Ability Enhancement Courses (AEC): Ability Enhancement Courses may be of two types: Ability Enhancement Compulsory Courses (AECC) and Skill Enhancement Courses (SEC).

3.1 AECC courses are mandatory courses based upon the content that leads to knowledge enhancement viz., Environmental Science, Indian Constitution and English/ Modern Indian Languages (MIL) / Communication skills.

3.2 SEC courses are aimed at providing hands-on-training, competencies, skills, etc.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS):

PEO1:

Demonstrate comprehensive understanding of core concepts in finance, economics, and analytics.

PEO2:

Apply quantitative and qualitative analytical techniques to solve financial problems and make informed decisions.

PEO3:

Develop critical thinking skills to assess financial situations, identify potential risks, and devise effective solutions.

PEO4:

Recognize and apply ethical principles in financial practices and decision-making.

PEO5:

Exhibit effective communication skills, both written and oral, to convey complex financial information clearly and concisely.

PEO6:

Utilize modern financial software, tools, and technologies for data analysis, financial modelling and decision-making.

PEO7:

Conduct independent research using appropriate methodologies to explore financial issues and contribute to the body of knowledge in finance and analytics.

PEO8:

Work effectively in teams, demonstrating leadership, collaboration and interpersonal skills in diverse financial settings

PEO9:

Understand global financial markets, international finance regulations and cross border financial issues

PO10:

Develop innovative solutions to complex financial problems using analytical and critical thinking skills.

PO11:
Adapt to the dynamic nature of finance industry by staying updated with current trends, policies and technologies.

PO12:
Commit to continuous professional development and lifelong learning to maintain relevance in the ever-evolving field of finance and analytics.

PROGRAM SPECIFIC OUTCOMES (PSOS)

PSO1 Master advanced data analytics techniques to analyse financial data, identify patterns and make predictions to support strategic financial decisions.

PSO2 Develop expertise in identifying, analysing and mitigating financial risks using quantitative models and analytical tools.

PSO3 Design and evaluate investment portfolios, utilizing a range of financial instruments and analytics to optimize returns and manage risks.

B.Sc.Finance - 4 Year
8 Semester

SEMESTER I

Course Code	Course	Core Type	Period			Evalution Scheme				Cr
			L	T	P	CIA	ET	A	TOTAL	
LEGENDS: L- Lecture | T- Tutorial | P- Practical | CIA: Continuous Internal Assessments ET- End Term | A- Attendance										
BSF FIN 105	Management Accounting	Core	4			50%	40%	10%	100%	4
BSF FIN 103	Financial Reporting Standards	Core	3			50%	40%	10%	100%	3
BSF BA 101	Basics of Excel	Core	3		1	50%	40%	10%	100%	4
BSF ECO 101	Strategic Microeconomics for Business	Core	3			50%	40%	10%	100%	3
BSF MGT 101	Business Communication	Core	2			50%	40%	10%	100%	2
BSF FIN 101	Global Financial Landscape	Core	2			50%	40%	10%	100%	2
AE	Atlas Elective	Elective	2			50%	40%	10%	100%	2
	TOTAL									**20**

SEMESTER 2

Course Code	Course	Core Type	Period			Evalution Scheme				Cr
			L	T	P	CIA	ET	A	TOTAL	
LEGENDS: L- Lecture | T- Tutorial | P- Practical | CIA: Continuous Internal Assessments ET- End Term | A- Attendance										
BSF FIN 102	Financial Statement Analysis	Core	4			50%	40%	10%	100%	4
BSF MGT 102	Business and Corporate Law	Core	4			50%	40%	10%	100%	4
BSF BA 102	Data Analytics & Visualization	Core	3		1	50%	40%	10%	100%	4
BSF ECO 102	Strategic Macroeconomics for Business	Core	3			50%	40%	10%	100%	3
BSF MGT 106	Principles and Practices of Management	Core	3			50%	40%	10%	100%	3
AE	Atlas Elective	Elective	2			50%	40%	10%	100%	2
	TOTAL									**20**

B.Sc.Finance - 4 Year
8 Semester

SEMESTER 3

Course Code	Course	Core Type	Period			Evalution Scheme				Cr
			L	T	P	CIA	ET	A	TOTAL	
LEGENDS: L- Lecture | T- Tutorial | P- Practical | CIA: Continuous Internal Assessments ET- End Term | A- Attendance										
BSF FIN 201	Corporate Finance 1	Core	4			50%	40%	10%	100%	4
BSF FIN 203	Direct and Indirect Tax	Core	4			50%	40%	10%	100%	4
BSF FIN 205	Equity Analysis & Portfolio Management	Core	4			50%	40%	10%	100%	4
BSF FIN 207	Quantitative Techniques in Finance	Core	4			50%	40%	10%	100%	4
BSF MGT 201	Environmental, Social, and Governance (ESG)	Core	3			50%	40%	10%	100%	3
BSF IT 201	Social/Corporate Internship	Core	3			50%	40%	10%	100%	3
BSF MGT 104	Business Psychology	Core	2			50%	40%	10%	100%	2
	TOTAL									**24**

SEMESTER 4

Course Code	Course	Core Type	Period			Evalution Scheme				Cr
			L	T	P	CIA	ET	A	TOTAL	
LEGENDS: L- Lecture | T- Tutorial | P- Practical | CIA: Continuous Internal Assessments ET- End Term | A- Attendance										
BSF FIN 202	Corporate Finance 2	Core	4			50%	40%	10%	100%	4
BSF FIN 204	Financial Modelling and Analytics	Core	3			50%	40%	10%	100%	4
BSF FIN 206	Foundations of Fintech & Regulatory Policy	Core	4		1	50%	40%	10%	100%	4
BSF FIN 208	Strategic Derivatives and Risk Management	Core	4			50%	40%	10%	100%	4
BSF FIN 210	Financial Planning and Wealth Management	Core	4			50%	40%	10%	100%	4
BSF RES 202	Research Methodology and Business Analytics	Core	3		1	50%	40%	10%	100%	4
	TOTAL									**24**

B.Sc.Finance - 4 Year
8 Semester

SEMESTER 5

Course Code	Course	Core Type	Period			Evalution Scheme				Cr
			L	T	P	CIA	ET	A	TOTAL	
LEGENDS: L- Lecture | T- Tutorial | P- Practical | CIA: Continuous Internal Assessments ET- End Term | A- Attendance										
BSF FIN 301	Corporate Valuation	Core	4			50%	40%	10%	100%	4
BSF FIN 303	Financial Markets and Institutions	Core	4			50%	40%	10%	100%	4
BSF FIN 305	Technical Analysis	Core	3			50%	40%	10%	100%	4
BSF FIN 307	Innovative Financial Analytics	Core	3		1	50%	40%	10%	100%	4
BSF BA 301	Cryptos, AI, ML, Block Chain and its application	Core	4			50%	40%	10%	100%	4
BSF IT 301	Summer Internship	Core	3			50%	40%	10%	100%	3
BSF MGT 301	Soft Skills for Finance Professionals 1	Core	1			50%	40%	10%	100%	2
	TOTAL									**24**

SEMESTER 6

Course Code	Course	Core Type	Period			Evalution Scheme				Cr
			L	T	P	CIA	ET	A	TOTAL	
LEGENDS: L- Lecture | T- Tutorial | P- Practical | CIA: Continuous Internal Assessments ET- End Term | A- Attendance										
BSF FIN 302	Mergers and Acquisitions	Core	4			50%	40%	10%	100%	4
BSF FIN 304	Forex and International Finance	Core	4			50%	40%	10%	100%	4
BSF FIN 306	Fixed Income	Core	4			50%	40%	10%	100%	4
BSF FIN 308	Alternate Investments	Core	4			50%	40%	10%	100%	4
BSF FIN 310	Behavioural Finance	Core	3			50%	40%	10%	100%	3
BSF RES 302	Research Application in Finance (Capstone Project)	Core	4			50%	40%	10%	100%	4
BSF MGT 302	Soft Skills for Finance Professionals 2	Core	1			50%	40%	10%	100%	1
	TOTAL									**20**

B.Sc.Finance - 4 Year
8 Semester

SEMESTER 7

Course Code	Course	Core Type	Period			Evalution Scheme				Cr
			L	T	P	CIA	ET	A	TOTAL	
LEGENDS: L- Lecture | T- Tutorial | P- Practical | CIA: Continuous Internal Assessments ET- End Term | A- Attendance										
BSF FIN 401	Entrepreneural Finance	Core	4			50%	40%	10%	100%	4
BSF FIN 403	Securities Operations And Risk Management	Core	3			50%	40%	10%	100%	3
BSF FIN 405	Public Finance	Core	3			50%	40%	10%	100%	3
BSF RES 401	Research Application in Finance 1 &	Elective	4			50%	40%	10%	100%	4
BSF MGT 401	Business Plan Project 1		4			50%	40%	10%	100%	
BSF IT 401	Corporate Internship 1	Core	6							6
	TOTAL									**20**

SEMESTER 8

Course Code	Course	Core Type	Period			Evalution Scheme				Cr
			L	T	P	CIA	ET	A	TOTAL	
LEGENDS: L- Lecture | T- Tutorial | P- Practical | CIA: Continuous Internal Assessments ET- End Term | A- Attendance										
BSF FIN 402	Sustainable Finance	Core	3			50%	40%	10%	100%	3
BSF ECO 402	Global Economic Trends	Core	3			50%	40%	10%	100%	3
BSF RES 402	Research Application in Finance 2	Elective	8			50%	40%	10%	100%	8
	OR									
BSF MGT 402	Business Plan Project 2		8			50%	40%	10%	100%	
BSF MGT 402	Corporate Internship 2	Core	6							6
	TOTAL									**20**

B.Sc FINANCE 1ST YEAR

SEMESTER 1

B.Sc Finance –1st Year
Semester I
Management Accounting BSF FIN 105

L	T	P
4	-	-

Course Name: Management Accounting
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 105

Course Objectives:

1. To develop a strong foundation in cost accounting principles, including the classification, behavior, and allocation of costs.
2. To gain the ability to accurately prepare and analyze cost sheets, incorporating various elements of cost.

3. To acquire the skills to create and evaluate different types of budgets, including cash budgets, and understand their significance in financial planning and control.
4. To learn to perform detailed variance analysis for materials, labor, sales, and profit, and effectively interpret and utilize the results for performance management.
5. To apply marginal costing techniques to conduct cost-volume-profit analysis, determine break-even points, and make strategic financial decisions.
6. To understand the principles of Activity-Based Costing, differentiate it from traditional costing methods, and implement ABC to improve cost accuracy and decision-making.

Course Description:

This course provides students with a comprehensive understanding of key accounting principles and practices. The curriculum covers fundamental costing concepts, including cost classification and behavior, preparing students for advanced topics. They will learn to prepare detailed cost sheets, gaining practical insights into cost components and their applications across various industries. The course emphasizes budgeting, teaching students to prepare and analyze various budgets, such as cash budgets, and understand their role in financial planning and control. Students will acquire skills in variance analysis, enabling them to calculate and interpret material, labor, sales, and profit variances, essential for performance evaluation. Additionally, the course delves into marginal costing and Activity-Based Costing (ABC), equipping students to conduct cost-volume-profit analysis, determine break-even points, make informed financial decisions, and improve cost allocation. Practical case studies and exercises reinforce theoretical knowledge, ensuring students are well-prepared for real-world financial management challenges.

Course Content:

	Topic/Unit	Content
I	Basics of Costing	Definition and Importance of Costing Objectives of Cost Accounting Classification of Costs Elements of Cost: Material, Labour, and Overheads Costing Methods and Techniques
	Cost Sheet	Introduction to Cost Sheet Components of Cost Sheet Preparation of Cost Sheet Practical Problems: Preparation of Cost Sheets for various industries
II	Budgeting	Definition and Importance of Budgeting Types of Budgets: Fixed, Flexible, and Master Budgets Preparation of Functional Budgets Cash Budget Zero-Based Budgeting Practical Problems : Cash Budget & Various Functional Budgets
	Variance Analysis	Concept of Variance Analysis Material Variances: Material Cost Variance, Material Price Variance, Material Usage Variance Labour Variances: Labour Cost Variance, Labour Rate Variance, Labour Efficiency Variance Sales Variances: Sales Margin Variance, Sales Volume Variance Profit Variances Calculation of Various Variances with Case Studies
II	Marginal Costing	Introduction to Marginal Costing Cost-Volume-Profit (CVP) Analysis Contribution, PV Ratio, and Break-Even Point (BEP) Margin of Safety Indifference Point Decision Making: Make or Buy, Product Mix, and Shutdown Point Practical Problems : Calculation of BEP, PV Ratio, and Margin of Safety

	Case Studies on Decision Making and Shutdown Point
ABC Costing	Introduction to Activity-Based Costing Differences between Traditional Costing and ABC Steps in Implementing ABC Benefits and Limitations of ABC Case Studies on ABC Implementation Comparison of Traditional Costing and ABC for a given set of data Case studies on the application of ABC in different industries

Course Outcomes (COs):

1. Students will be able to classify, analyze, and allocate costs effectively, demonstrating a strong grasp of basic cost accounting principles.
2. Students will be able to prepare detailed cost sheets accurately and analyze the various cost components involved.
3. Students will be able to create and evaluate different types of budgets and understand their role in financial planning and control.
4. Students will be able to perform and interpret variance analysis for materials, labor, sales, and profit, using the results for effective performance management.
5. Students will be able to apply marginal costing techniques to conduct cost-volume-profit analysis, determine break-even points, and make informed financial decisions, including evaluating margin of safety and indifference points.
6. **(CO6)** Students be able to understand and implement Activity-Based Costing, improving cost accuracy and enhancing decision-making processes.

Learning Resources:

Required Resources:

Management Accounting & Financial Control by Dr. S.N.Maheshwari ,Published by Sultan Chand & Sons , 2004
Cost Accounting- A Managerial Emphasis by Charles T. Horngren, Srikant H. Datar & Madha V. Rajan,Published by Pearson, 2014

Recommended Resources:

Accounting-Text & Cases by Robert N. Anthony, David F Hawkins, Kenneth A. Merchant ,Published by McGraw Hill Education (India) Private Limited .New Delhi,2013

Cost Accounting by M.Y.Khan, P.K. Jain ,Published by McGraw Hill Education (India) Private Limited,New Delhi,2014

B.Sc Finance –1st Year

Semester I

Financial Reporting Standards BSCFIN103

L	T	P/S
3	-	-

Course Name: Financial Reporting Standards
Course Credit Hours: 3
Course Contact Hours: 3
Course Code: BSCFIN103

Course Objectives

Student will be able to:

1. To provide an in-depth understanding of the fundamental principles and concepts of financial reporting.
2. To equip students with the knowledge of current financial reporting standards and regulations.
3. To develop the ability to understand and analyze financial statements in compliance with international and national accounting standards.
4. To enhance students' understanding of the impact of financial reporting on decision-making and corporate governance.

Course Description:

This course introduces students to Financial Reporting Standards (FRS), the globally recognized framework for preparing and presenting financial statements. Students will gain a comprehensive understanding of IFRS principles, their application in financial reporting, and their importance in the global business environment. These outcomes will ensure that graduates are well-equipped with knowledge, skills and competencies required for successful careers in finance and analytics.

Course Content

I	1. Introduction to Financial Reporting Standards	Overview of financial reporting Importance of financial reporting standards Regulatory bodies and standard-setting organizations (IFRS Foundation, IASB, FASB) Objectives of financial reporting
II	2.Conceptual Framework of Financial Reporting	Accounting principles -Accounting Concepts & Conventions Qualitative characteristics of useful financial information
III	3 Presentation of Financial Statements	Elements of financial statements Structure and content of financial statements (balance sheet, income statement, cash flow statement) IFRS vs. GAAP presentation requirements Practical aspect: Annual report Discussion
IV	4. Revenue Recognition	Principles of revenue recognition IFRS 15: Revenue from Contracts with Customers Practical examples/case study
V	5. Accounting for Assets	Property, Plant, and Equipment (IAS 16) including depreciation. Intangible Assets (IAS 38) Practical sums/ Cases
VI	6. Accounting for Liabilities	Provisions, Contingent Liabilities, and Contingent Assets (IAS 37) Practical cases/ practical examples
VII	7. Equity and Earnings Per Share	Equity accounting and changes in equity Earnings per Share (IAS 33) Practical sums/cases

Course Outcomes (COs):

1. Students will be able to classify, analyze, and allocate costs effectively, demonstrating a strong grasp of basic cost accounting principles.
2. Students will be able to prepare detailed cost sheets accurately and analyze the various cost components involved.
3. Students will be able to create and evaluate different types of budgets and understand their role in financial planning and control.
4. Students will be able to perform and interpret variance analysis for materials, labor, sales, and profit, using the results for effective performance management.
5. Students will be able to apply marginal costing techniques to conduct cost-volume-profit analysis, determine break-even points, and make informed financial decisions, including evaluating margin of safety and indifference points.
6. Students be able to understand and implement Activity-Based Costing, improving cost accuracy and enhancing decision-making processes.

Learning Reference:

Financial Reporting by CA. Pravin Sharma,Publish by Taxmann,2022

B.Sc Finance –1st Year
Semester I
Basics of Excel BSF BA 101

L	T	P
3	-	1

Course Name: Basics of Excel
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF BA 101

Course Objectives:

The objective of this course is to develop an understanding on using Microsoft Excel as an application for doing business analytics right from reading and representing data to getting visual insights, data manipulation and filtering techniques, and coming up with meaningful and actionable insights that help businesses make data-driven decisions. The course is structured into seven modules, encompassing 60 hours of content, and combines theoretical knowledge with practical applications.

Course Description:

Basics of Excel provides students with Data is the foundational course in the Data-Driven decision making process, aimed at providing undergraduate students with a comprehensive understanding of the principles and practices of integrating data into the process. This course covers the basics of data analysis and visualization, introduces key tools and software for data analytics, and explores how data can inform and enhance decisions.

Course Content

1	Introduction	
	1.1	Overview of Excel interface and basic functionalities, Importance of Excel in financial decision-making
	1.2	Introduction to the tool, various options and functionalities
	1.3	Representation of data types, formats, and different ways of reading data into Excel and reviewing its functionalities.
2	Datatypes and Operations	
	2.1	Understanding different data types in Excel, Type conversion

	2.2	Arithmetic and statistical operations using in-built functions,Writing Formulae using in-built functions
3	Data cleaning and conditional formatting	
	3.1	Data cleansing methods
	3.2	Understanding different options in copying-pasting
	3.3	Formatting, Conditional Formatting
	3.4	Deriving new features by writing formulae
	3.5	String Manipulations
	3.6	Date Manipulations, Cross-sheet functionalities
	3.7	Exploring options from all sections of menu bar, Data standardization
4	Filtering and Lookup Functions	
	4.1	Filtering using functions, subtotals etc.
	4.2	Data filtering and aggregations using Pivot tables, VLOOKUP
5	Charts and dashboards	
	5.2	Plotting charts in Excel
	5.3	Plotting charts from Pivot tables
	5.4	Creating dashboards and coming up with meaningful insights
6	Financial Analysis in Excel	
	6.1	Introduction to Financial Functions
	6.2	Financial Analysis
	6.3	Scenario and Sensitivity Analysis
7	Introduction to Statistical Analysis in Excel	
	7.1	Descriptive statistics (mean, median, mode, variance, standard deviation)
	7.2	Data Analysis Tools (Analysis ToolPak)
	7.3	Regression analysis and correlation

Course Outcomes (COs):

After completion of this course, student shall be able to:

1. (Remember)- Identify key terms and concepts related to data analysis and visualization.
2. (Understand) Explain the importance and role of data in the design process.
3. (Apply) Use basic data analytics tools and software to analyze and visualize data.
4. (Analyze) Interpret data to make informed decisions and identify patterns or insights.
5. CO5: (Evaluate) Assess the quality and relevance of data in the context of required tasks
6. CO6: (Create) Develop simple solutions and insights that are informed by data analysis and visualization.

Learning Resources:

Required Resources:

Excel: Formulas and Functions by Sima Alex published by Caprioru,2019

Recommended Resources:

Management science using Excel by Dr. Issac Gottlieb,Published by BPB Publication in 2023

B.Sc Finance –1st Year

Semester I

Strategic Microeconomics for Business BSF ECO 101

L	T	P
3	-	-

Course Name: Strategic Microeconomics for Business
Course Credit Hours: 3
Course Contact Hours: 3
Course Code: BSF ECO 101

Course Objectives:

The primary aim of this course is to provide students with a clear understanding of microeconomic theory and its application in a real-world context. This course is an introduction of microeconomic theory in business with real world used cases. The main theme of the course modules focuses on how households, firms, and governments make decisions of what goods and services to produce, how to produce the goods and for whom to produce them. This course will help you apply the skills and tools learned from theory to current world events.

Course Description:

This course introduces students to the fundamental concepts, theories, and tools of microeconomics. It aims to provide an understanding of how economies function at a national and global level, focusing on microeconomic indicators, market forces, utility function, elasticity, market structures, cost functions, and basics of game theory.

Course Content:

1	Introduction to business and economics Economics and the world of business 1.1Business organizations 1.2BUSINESS AND MARKETS 1.3The working of competitive markets 1.4Demand and Supply – Theory and Practice 1.5Demand and the consumer
2	2.1Demand and the firm 2.2 Products, marketing and advertising

2.3 Costs of production
2.4Revenue and profit
3.1Revenue and profit in competitive market
3.2Profit maximization under perfect competition and monopoly
3 3.3 Profit maximization under imperfect competition
3.4 Part F SUPPLY: ALTERNATIVE STRATEGIES
3.5 Pricing strategy
3.6 Introduction to Game Theory
3.7Fundamentals of a game
4 4.1Dominant and Dominated Strategy
4.2Nash Equilibrium
4.3Prisoners Dilemma

Course Outcomes (COs):

1. Define fundamental microeconomic terms, such as demand, supply, elasticity, and market equilibrium.
2. Explain the interaction of market forces of demand and supply and how they determine prices in a competitive market.
3. Use elasticity concepts to analyse the impact of price changes on revenue in various market scenarios.
4. Break down consumer behaviour using utility theory to understand decision-making processes.
5. Assess the implications of different market structures (e.g., perfect competition, monopoly) on pricing and output decisions.
6. Develop basic economic models to simulate market behaviour and predict outcomes based on changes in external factors.

Learning Resources:

Principles of economics by Mankiw, N.G.,Published by Cengage Learning,2014
Economics for business. By Sloman, J., Garratt, D., Guest, J., & Jones, E.,published by Pearson Education,2016

B.Sc Finance –1st Year

Semester I

Business Communication BSF MGT 101

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2	-	-

Course Name: Business Communication
Course Credit Hours: 2
Course Contact Hours: 2
Course Code: BSF MGT 101

Course Objectives:

1. To equip students with foundational skills in self-awareness, effective communication, and strategic career management, enhancing their readiness for diverse professional settings.
2. To cultivate professional competence through practical training in resume building, LinkedIn profile creation, interview techniques, and internship search strategies, ensuring graduates stand out in the job market.
3. To promote holistic development by addressing various aspects, including self-confidence, research competence, and effective communication skills, preparing students for success in their careers and contributions to society.
4. To develop collaborative and interpersonal skills through effective communication, teamwork, and conflict resolution strategies, preparing students for successful interactions in diverse professional environments.
5. Business Communication is designed to equip students with the essential skill set needed to excel in the dynamic corporate landscape. This transformative journey delves into a wide spectrum of topics, including crafting impactful resumes and LinkedIn profiles, mastering job search strategies, honing advanced business communication techniques, managing stress effectively, acing interview preparation, and developing winning negotiation strategies. Students will also gain hands-on experience with cutting-edge software and tools commonly used in the corporate world. Through immersive workshops, interactive discussions, and experiential activities, the program goes beyond theoretical knowledge to foster practical application. Students will not only acquire indispensable career tools but also develop a well-rounded professional identity. This holistic approach ensures they are empowered to navigate the challenges of the modern workplace and achieve long-term success in their chosen career paths.

Course Description:

The Business Communication course is designed to equip students with essential communication skills required in the corporate world. It emphasizes the principles and practices of effective verbal and written communication in professional settings. The course covers a wide range of topics including business correspondence, report writing, presentation skills, group discussions, interview techniques, and digital communication etiquette. Through interactive sessions, case studies, and practical exercises, students develop clarity, confidence, and competence in their communication, enabling them to express ideas effectively and build meaningful professional relationships.

Course Content:

1	**Goal Setting**	
	1.1	16 Personalities Test
	1.2	Personal Growth and Self-Awareness
	1.3	Goal Setting and SWOT Analysis
	1.4	Career Mapping
2	**Resume Building**	
	2.1	Create Impactful Resumes
	2.2	Tailor Resumes for Specific Roles
3	**LinkedIn Profile building**	
	3.1	Leverage Internships and Projects
	3.2	Showcase Extracurricular Activities
	3.3	Emphasize Relevant Coursework
	3.4	Craft Compelling Summaries
4	**Internship Search Strategies**	
	4.1	Master the Art of Internship Searching
	4.2	Utilize Loop CV for Standout Resumes
	4.3	Harness Personalized Cold Emails
	4.4	Explore Opportunities on Platforms
5	**Interview Questions FAQ**	
	5.1	Explore Effective Interview Strategies

	5.2	Navigate Frequently Asked Questions
	5.3	Enhance Interview Performance
	Effective communication skills	
	6.1	Cover Verbal and Non-Verbal Communication
6	6.2	Conversational and Written Communication
	6.3	Explore Impact of Body Language and Tone
	6.4	Emphasize Empathetic Communication
	Confidence Building	
	7.1	Explore Strategies for Boosting Self-Confidence
7	7.2	Address Common Challenges to Confidence
	7.3	Provide Tools for Overcoming Challenges
	7.4	In-class activities for Confidence building
	Listening Skills	
	8.1	Active Listening for Effective Communication
8	8.2	Reflective Listening Practice
	8.3	Hearing V/s Listening
	Presentation Skills	
	9.1	Structuring Effective Presentations
9	9.2	Engaging the Audience Dynamically
	9.3	Enhancing Public Speaking Abilities
	9.4	Utilizing Storytelling Techniques
	Focus & Concentration	
	10.1	Practical Tips for Improved Focus
10	10.2	Strategies for Minimizing Distractions
	10.3	Time Management Techniques
	10.4	Enhancing Concentration Through Practical Exercises
	Crisis & Reputation Management	
11	11.1	Strategies for Handling Crises

11.2 Proactive Reputation Management Techniques

11.3 Real-world Application of Crisis Management

Creative writing- LinkedIn

12

12.1 Crafting Compelling LinkedIn Posts

12.2 Mastering Professional Email Communication

12.3 Leveraging ChatGPT for Creative writing

Collaboration Skills

13

13.1 Dynamics of Effective Collaboration

13.2 Enhancing Communication for Teamwork

13.3 In-class team building activities

Course Outcomes:

1. Demonstrates increased self-awareness through personality tests and goal-setting.
2. Craft tailored resumes and LinkedIn profiles showcasing key achievements and skills.
3. Master diverse tools for successful internship searches and job opportunities.
4. Strategically prepare for interviews, boosting confidence and performance.
5. Excel in verbal and non-verbal communication for effective collaboration.
6. Achieve holistic development, in terms of professional readiness.

Learning Resources:

Required Resources:

Principles and Applications – by Raymond V. Lesikar & Marie E. Flatley, Tata McGraw Hill Education

Recommended Resources:

Essentials of Business Communication – by Mary Ellen Guffey & Dana Loewy, Cengage Learning

B.Sc Finance –1st Year
Semester I
Global Financial Landscape BSF FIN 105

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Course Name: Global Financial Landscape
Course Credit Hours: 2
Course Contact Hours: 2
Course Code: BSF FIN 105

Course Objectives:

1. To develop understanding of financial markets, its importance and implication for an economy and appreciate the role of regulators in BFSI sector for North America, Europe, Japan and China.
2. To enable the students to analyze the history, evolution, and various functions of the banking sector, including different types of banks and banking operations.
3. To develop the ability to understand the principles and significance of insurance, operations of insurance companies and evaluate different types of insurance products.
4. To integrate application of knowledge of mutual funds, including different types of mutual funds, organizational structure, and the growth of mutual funds in India.
5. To enable the students to compare Non-Banking Financial Companies (NBFCs) with traditional banks, understanding their regulatory frameworks and services offered.
6. To create and develop a comprehensive understanding of credit rating processes, investment banking functions, and the role of broking firms in the financial markets.

Course Description:

This course provides a comprehensive introduction to the basics of the global financial landscape, structured into eight units. The module delves into the Indian financial landscape, exploring sectors such as banking, insurance, mutual funds, non-banking financial companies (NBFCs), credit rating agencies, investment banking, and broking firms. Students will learn about the history, functions, and operations of banks, the concept and operations of insurance, features and growth of mutual funds, the role and regulation of NBFCs, the significance of credit ratings, core activities of investment banks, and the role of broking firms in financial markets, with practical insights and case studies enhancing their understanding of the dynamic Indian financial sector. Simultaneously students will explore the global financial landscape by comparing the financial markets and its composition for economies of North America, Europe, Japan and China.

Course Content:

1	Financial Markets	
	1.1	Role In the Economy
	1.2	Importance, Types, And Examples
	1.3	Historical Evolution of IFS
	1.4	Primary And Secondary Markets
	1.5	Role Of Regulators
	1.6	Basic Terminology & Concepts: Income/Expense; Asset/Liability
	1.7	Basic Overview of Financial Statements
2	Banking	
	2.1	History & Evolution of Banking
	2.2	Types of Banks
	2.3	Functions of Banks
	2.4	Types of Banking Operations
	2.5	Products & Services offered by Banks
	2.6	Central Bank of India- RBI: The Regulator
	2.7	Leading Banks in India
	2.8	NBFCs- Definition, types
	2.9	Products and Services offered by NBFCs
3	Insurance	
	3.1	Concept of Insurance
	3.2	Basic Characteristics
	3.3	Principles of Insurance
	3.4	Need and Significance of Insurance
	3.5	Is insurance an investment?
	3.6	Important Terms
	3.7	Leading Insurance Companies in India
4	Stock Markets, Exchange and Broking	

4.1 Stock Markets Basics

4.2 Stock Exchanges (BSE, NSE)

4.3 Broking

Mutual Funds

5 5.1 Definition and Purpose of Mutual Funds

5.2 Types of Mutual Fund

5.3 Organisation Structure of Mutual Fund

Investment Banking

6 6.1 Commercial Banks Vs Investment Banks

6.2 Functions of Investment Banks

6.3 Raising Capital (Equity and Debt)

6.4 Mergers and Acquisitions

6.5 Underwriting

6.7 Advisory Services

6.8 Trading and Sales

Fixed Income Securities

7.1 Definition and Types

7 7.2 Characteristics

7.3 Interest Rate, Maturity, Credit Risk

7.4 Diversification and Income Generation

Global Financial Markets

8.1 World Monetary System

8.2 Present System of Floating Exchange Rates

8 8.3 Agencies that facilitate International Flows

8.4 Overview of Major Global Markets

8.5 North America, Europe & Asia

8.6 Regulatory Bodies

8.7 SEC (Securities and Exchange Commission)

8.8 Financial Stability Board

Course Outcomes (COs):

1. Students will be able to recall and define the importance for financial markets for an economy and role the regulators play in BFSI sector for North America, Europe, Japan and China.
2. Students will describe the history and evolution of banking, types of banks, and the regulatory role of the Reserve Bank of India (RBI).
3. Students will demonstrate their understanding of insurance principles by explaining the operations of insurance companies and evaluating different types of insurance products.
4. Students will analyze and categorize various types of mutual funds and fixed income securities: understxanding their features, advantages, and disadvantages, as well as perform important calculations.
5. Students will assess the differences between NBFCs and banks, understanding the regulatory frameworks and products offered by NBFCs.
6. Students will develop comprehensive insights into the functions and core activities of credit rating agencies, investment banks and broking firms, understanding their roles in the financial markets and regulatory compliance.

Learning Resources:

The Indian Financial System by Pathak Bharati published by Pearson,2018
Recommended Resources:
Banking Principles and Operations by M N Gopinath published by SnowWhite,2017
Financial Institutions and Markets by Bhole L.M. published by McGraw-Hill ,2017
Financial Services and Syste by Gurusamy S,published by McGraw-Hill,2008

B.Sc FINANCE 1ST YEAR

SEMESTER 2

B.Sc Finance –1st Year
Semester II
Financial Statement Analysis BSF FIN 102

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Course Name: Financial Statement Analysis
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 102

Course Objectives:

1. To familiarize students with the structure, components, and purpose of financial statements, including the Income Statement, Balance Sheet and Cash Flow Statement.
2. To enable students to understand and apply financial ratios for analyzing profitability, liquidity, solvency, and efficiency.
3. To develop the ability to conduct Comparative, Common Size and Trend Analysis for identifying financial patterns and making informed decisions.
4. To introduce students to the preparation and interpretation of the Cash Flow Statement and its role in financial analysis.
5. To provide insights into advanced performance metrics such as Economic Value Added (EVA) and Market Value Added (MVA) and their relevance in assessing corporate value creation.
6. To build analytical and communication skills through practical exercises, enabling students to effectively present financial insights and recommendations.

Course Description:

This course provides a comprehensive introduction to financial statement analysis. It covers fundamentals of financial statements, which includes Income statement, Balance sheet and Cash Flow Statement, Analysis and interpretations of Common Size statement, Comparative statements, Trend Analysis, Ratio Analysis, Cash Flow Statement and its analysis and EVA & MVA and its analysis.

Course Content:

Unit	Modules	
	Introduction to Financial Statement	
1	1.1	Vertical Statement – Profit & Loss A/c, Balance Sheet and Cash Flow statement
	1.2	Understanding Annual Reports and

		Users of Financial Statements
	1.3	Accounting concepts, conventions and principles & Accounting Equation
	Ratios, Comparative, Common Size & Trend Analysis	
2	2.1	Ratio Analysis (including Reverse Ratios), P/E, PEG, Du Pont Analysis (3 stage & 5 stage), Calculation of Operating Cycle Tir
	2.2	Comparative, Trend & Common Size Analysis
	EVA & MVA & Cash Flow Statement	
3	3.1	EVA & MVA
	3.2	Cash Flow Statement (CFS) (IndirectMethod) and its analysis

Course Outcomes (COs):

1. Explain the structure and significance of key financial statements and their role in conveying an organization's financial position.
2. Evaluate a company's financial performance using ratio analysis to assess profitability, liquidity, and solvency.
3. Apply Comparative, Common Size and Trend Analysis techniques to interpret changes in financial data and identify trends.
4. Analyze Cash Flow Statements to assess a company's cash management and operational efficiency.
5. Calculate and interpret EVA and MVA to evaluate value creation and the effectiveness of management strategies.
6. Prepare detailed financial analysis reports and deliver presentations effectively, demonstrating the ability to translate data into actionable insights.

Learning Resources:

Required Resources:
Financial Management by Khan & Jain,published by Mc Graw Hill,2018

Recommended Resources:
Financial Management by Prasanna Chandra published by Mc Graw Hill,2022

B.Sc Finance –1st Year

Semester II

Business and Corporate Law BSF MGT 102

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Course Name: Business and Corporate Law
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF MGT 102

Course Objectives:

1. To familiarize students with the fundamental principles of contract law and their application in real-world scenarios.
2. To provide an in-depth understanding of corporate laws, including the Companies Act, 2013, and the Insolvency and Bankruptcy Code, 2016.
3. To explore the legal frameworks governing partnerships and limited liability partnerships (LLPs).
4. To introduce students to Labour laws, Alternative Dispute Resolution mechanisms, and Intellectual Property Rights.
5. To enable students to critically analyze landmark case laws and their implications for financial and business practices.

Course Description:

This course introduces first-year B.Sc. (Finance) students to the essential legal frameworks that influence business and financial operations in India. It covers foundational concepts in Contract Law, Corporate Law, Partnership and LLP regulations, Labour laws, Intellectual Property Rights, and alternative dispute resolution mechanisms. Students will analyze landmark case laws, develop an understanding of statutory provisions, and explore the practical implications of these laws on financial and corporate decision-making.

Course Content:

Unit	Modules
I	Contract law and Related acts 1. The Indian Contract Act, 1872 2. Specific Relief Act, 1963 3. Negotiable Instruments Act, 1881
II	Corporate Law Essentials 1. Companies Act, 2013 2. Insolvency and Bankruptcy Code 2016
III	Partnership Act & LLP 1. The Partnership Act, 1932 2. Limited Liability Partnership (LLP) Act, 2008
IV	Labour Laws, Alternate Dispute Resolution & Intellectual Property Rights 1. Labour Laws 2. Alternate Dispute Resolution 3. Basics of Intellectual Property Rights

Course Outcomes (COs):

By the end of this course, students will be able to:

1. Understand and explain the essential elements of valid contracts, corporate governance principles, and labour law provisions.
2. Apply legal principles to evaluate and resolve business disputes related to contracts, partnerships, and corporate operations.
3. Analyze statutory provisions and case laws to identify legal risks and compliance requirements in business scenarios.
4. Evaluate the impact of corporate law reforms, such as the Insolvency and Bankruptcy Code, on financial decision-making.
5. Develop strategies for dispute resolution and intellectual property protection in financial and corporate contexts.

Learning Resources:

Required Resources:

1. Avtar Singh, Law of Contract and Specific Relief
2. Taxmann's Companies Act with Rules & Case Laws
3. Bare Acts: Indian Contract Act, 1872, Companies Act, 2013, Negotiable Instruments Act, 1881, Partnership Act, 1932, LLP Act, 2008, Insolvency and Bankruptcy Code, 2016

Recommended Resources:

1. M.C. Kuchhal, Business Law
2. R.K. Bangia,

B.Sc Finance –1st Year

Semester II

Data Analytics & Visualization BSF BA 102

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Course Name: Data Analytics & Visualization
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF BA 102

Course Objectives:

1. Understand the fundamentals of data analytics and its applications in finance.
2. Learn and apply statistical methods to analyze and interpret financial datasets.
3. Gain proficiency in financial data preprocessing and trend analysis.
4. Develop skills in data visualization principles and tools.
5. Create dynamic dashboards to present financial data effectively.
6. Apply data analytics techniques to solve real-world problems in finance.

Course Description:

This subject provides a foundation in data analytics and visualization techniques, with a focus on financial data. It equips students with the skills to analyze large datasets, derive insights, and present findings effectively to support decision-making in finance.

Course Content:

Unit No.	Detailed Content
01	Introduction to Data Analytics What is data analytics? Types of data (structured, unstructured, semi-structured) Importance of data analytics in finance Tools for data analysis (Excel, Tableau, Power BI)

02	Fundamentals of Statistics for Analytics Descriptive statistics (mean, median, mode, standard deviation) Probability and distributions Hypothesis testing and confidence intervals Correlation and regression analysis
03	Financial Data Analysis Techniques Cleaning and preprocessing financial data Analyzing trends in financial datasets (time-series analysis) Calculating financial ratios and interpreting performance Portfolio optimization and risk analysis
04	Data Visualization Fundamentals Principles of effective visualization Types of charts and when to use them (line, bar, scatter, pie, histogram, heatmaps) Financial dashboards: Key performance indicators (KPIs), dynamic charts Visual storytelling in finance
05	Advanced Visualization Tools Introduction to Tableau and Power BI Creating interactive dashboards Case studies: Visualizing stock market trends, financial performance, and portfolio returns Reporting and communicating insights to stakeholders
06	Applications of Data Analytics in Finance Fraud detection and prevention using analytics Forecasting and predictive modeling for stock prices Credit scoring models and risk assessment Real-world case studies: Bank operations, fintech analytics, and financial planning

Course Outcomes:

After completion of this course, student shall be able to:

1. Understand the fundamental concepts of data analytics and its role in financial decision-making.
2. Apply statistical techniques to analyze and interpret financial datasets effectively.
3. Clean and preprocess financial data while employing trend analysis to extract meaningful insights.
4. Develop data visualization skills using principles and modern tools to create effective financial dashboards.
5. Design and implement interactive dashboards using tools like Tableau and Power BI to present financial insights dynamically.

6. Apply data analytics techniques to solve complex financial problems, such as fraud detection, risk assessment, and forecasting.

Learning Resources

Textbooks

1. Data Analytics for Business by Foster Provost and Tom Fawcett
2. Storytelling with Data by Cole Nussbaumer Knaflic
3. Financial Analytics with R by Mark J. Bennett and Dirk L. Hugen

Articles and Papers

"Data Visualization Best Practices in Finance" (Harvard Business Review) • "The Role of Analytics in Portfolio Management" (CFA Institute)

Online Resources

Tableau Public and Power BI learning modules

Coursera courses on Financial Data Analytics and Visualization

Kaggle datasets for financial data analysis practice

B.Sc Finance –1st Year
Semester II
Strategic Macroeconomics for Business BSF ECO 102

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Course Name: Strategic Macroeconomics for Business
Course Credit Hours: 3
Course Contact Hours: 3
Course Code: BSF ECO 102

Course Objectives:

- Overview of macroeconomic issues: the determination of output, employment, unemployment, interest rates, and inflation, monetary and fiscal policies.
- While trying to discern among good, better, and best choices for improving and maintaining a nation's standard of living and level of economic and societal well-being.
- Understand key stakeholders of an economy including households, consumers, savers, firm owners, investors, government officials, and global trading partners.
- Important policy debates such as, the sub-prime crisis, social security, the public debt, and international economic issues are critically explored

Course Description:

This course introduces students to the fundamental concepts, theories, and tools of macroeconomics. It aims to provide an understanding of how economies function at a national and global level, focusing on economic indicators, growth, inflation, unemployment, fiscal and monetary policies, and international trade.

Course Content:

Unit	Modules
1	Classical Theory: The Economy in the Long Run 1.1 National Income: Where It Comes From and Where It Goes 1.2 Money and Inflation 1.3 The Open Economy 1.4 Unemployment
2	Growth Theory: The Economy in the Very Long Run 2.1 Economic Growth I: Capital Accumulation and Population Growth 2.2 Economic Growth II: Technology, Empirics, and Policy

3	Business Cycle Theory: The Economy in the Short Run 3.1 Introduction to Economic Fluctuations 3.2 Aggregate Demand I: Building the IS–LM Model 3.3 Aggregate Demand II: Applying the IS–LM Model 3.4 Aggregate Supply and the Short-Run Tradeoff Between Inflation and Unemployment
4	Macroeconomic Policy Debates 4.1 Stabilization Policy 4.2 Government Debt and Budget Deficits 4.3 Consumption & Invetsment 4.4 Money Supply, Money Demand, and the Banking System

Course Outcomes (COs):

1. Understand and explain key macroeconomic concepts and indicators.
2. Analyze macroeconomic issues such as inflation, unemployment, and economic growth.
3. Evaluate the impact of fiscal and monetary policies on the economy.
4. Assess the role of international trade and exchange rates in the global economy.
5. Apply macroeconomic theories to current events and policy decisions.
6. Identify key contemporary macroeconomic problems, both domestic and international, and discuss possible solutions

Learning Reference:

Macroeconomics, 8th edition by Mankiw,N.G.,Published by Worth Publishers

Recommended Resources:

Introduction to Economic Growth by Jones, C.I. and Vollrath, D.Published by Norton,2013

B.Sc Finance –1st Year
Semester II
Principles of Management BSF MGT 106

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Course Name: Principles of Management
Course Credit Hours: 3
Course Contact Hours: 3
Course Code: BSF MGT 106

Course Objectives:

1. Explore the significance of management through the lens of several modern-day management thinkers and writers.
2. Gain insights of fundamental theories and their practical application.
3. Examine the role of personality types, leadership, motivation and team work
4. Analyse the functions of management, including planning, organizing, leading, and controlling.
5. Develop skills in decision-making and problem-solving within a management context.

Course Description:

This course will provide students with an understanding of basic concepts and principles of management. It will inculcate the ability to apply the multifunctional approach to organizational objectives. To achieve professional competence, managers, both present and prospective, are required to be fully equipped with principles of management and how these principles can be put into practice in an organization. A comprehensive understanding of these principles of management will increase their decision-making ability and sharpen their tools for the purpose.

Course Content:

Unit	Modules
1	Introduction
	1.1 Skills & Competencies of a Successful Manager
	1.2 Importance of Management
	1.3 Managerial Roles by Henry Mintzberg
	1.4 Historical Roots of Contemporary Management Practices
2	Planning

2.1 Definition of Planning

2.2 Three Elements of a Plan

2.3 Importance of Planning

2.4 Management By Objectives (MBO)

2.5 Criticisms of Formal Planning

2.6 Types of Plans

2.7 SWOT Analysis

2.8 How does the Entrepreneur Identify a Competitive Advantage?

Decision Making

3.1 Decision-Making Process

3.2 Rational vs Intuitive Decisions

3 3.3 Decision Making Styles

3.4 National Culture & Decision-Making Practices (Hofstede's Cultural Dimensions)

3.5 Group Decision Making

3.6 Biases in Decision Making

Personality, Perception & Work Teams

4.1 Importance

4

4.2 Myers-Briggs Type Indicator (MBTI)

4.3 What shortcuts do managers use in judging people?

4.4 Performance vs Trust

4.5 Group vs Team

4.6 Project Aristotle By Google

4.7 Rescuing Miner's Activity

4.8 Team Work Lessons

4.9 Types of Work Teams , Group Dynamics

5 Organizational Aspects

5.1 Henry Fayol's 14 Principles of Management - Application in various industries

5.2 Organization Design and its Applications

5.3 Organizational Culture

6 Motivation

6.1 Theories of Motivation

6.2 Is Money a Good Motivator?

6.3 Different Motivational Factors

6.4 What can management do to improve Work life Balance?

7 Leadership

7.1 Leadership vs Authority

7.2 Managers vs Leaders

7.3 Golden Circle

7.4 Leadership Styles

7.5 Body Language of Leaders

7.6 Speak like a Leader

7.7 Leadership Test

8 Controlling

8.1 Importance of Control

8.2 Controlling Process

8.3 Types of control

Course Outcomes (COs):

1. Understand the importance of management and how a manager's role has evolved over time in today's highly volatile and dynamic environment
2. Develop ability to work in teams
3. Reflect and adopt managerial skills required for management
4. Evaluate planning and problem-solving decision in their profession
5. Analyse information to isolate issues and formulate control methods
6. Develop leadership and motivational skills

Learning Resources:

Essentials of Management, Robbins, S.P. and De Cenzo,Published by Pearson,6th Edition

B.Sc Finance –1st Year
Semester III
Corporate Finance 1 BSF FIN 201

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Course Name: Corporate Finance 1
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 201

Course Objectives:

1. To understand the fundamental concepts and principles of corporate finance and their application in real-world financial decision-making.
2. To analyze and interpret financial statements and evaluate the financial health of a business.
3. To study the time value of money and its relevance in investment and financing decisions.
4. To explore the sources of finance, cost of capital, and capital structure decisions.
5. To understand the process of capital budgeting and apply techniques like NPV, IRR, and Payback Period in evaluating investment projects.
6. To gain insights into dividend policy theories and their practical implications on firm value and shareholder wealth.

Course Description:

Corporate Finance 1 introduces students to the core financial principles that govern business decision-making. The course covers financial statement analysis to provide a foundation in interpreting financial data for strategic planning. Emphasis is placed on the time value of money and its application in evaluating investment opportunities. Students explore various sources of financing, both short- and long-term, and understand the importance of selecting an optimal capital structure. The course also focuses on capital budgeting techniques, equipping students with tools such as Net Present Value (NPV), Internal Rate of Return (IRR), and Payback Period to assess investment viability. Lastly, the course examines dividend policy decisions and their impact on the value of the firm. Through practical case studies and problem-solving exercises, students will develop financial acumen essential for future coursework and careers in finance.

Course Content:

Topic/Unit	Content
I. Introduction to Corporate Finance	- Definition and Scope of Corporate Finance - Objectives of Financial Management - Role of Financial Manager - Agency Problems
II. Financial Statement Analysis	- Understanding Balance Sheet, Income Statement, and Cash Flow Statement - Ratio Analysis: Liquidity, Solvency, Profitability, and Efficiency Ratios
III. Time Value of Money	- Concept and Importance of Time Value - Future Value and Present Value Calculations - Annuities and Perpetuities - Practical Problems and Applications
IV. Sources of Finance & Capital Structure	- Long-term and Short-term Sources of Finance - Equity, Debt, and Hybrid Instruments - Concept of Cost of Capital - Capital Structure Theories: NI, NOI, MM Hypothesis - Factors Affecting Capital Structure
V. Capital Budgeting	- Introduction to Investment Decision-making - Methods: Payback Period, Accounting Rate of Return (ARR), Net Present Value (NPV), Internal Rate of Return (IRR) - Capital Rationing and Risk Analysis - Case Studies and Practical Problems
VI. Dividend Policy	- Meaning and Types of Dividend Policies - Theories: Walter's Model, Gordon's Model, Modigliani-Miller Hypothesis - Factors Affecting Dividend Decisions - Practical Applications and Case Analysis

Course Outcomes (COs):

1. Students will demonstrate understanding of fundamental corporate finance concepts and their relevance in managerial decisions.
2. Students will be able to analyze financial statements and use ratios to assess organizational performance.
3. Students will apply time value of money concepts to evaluate investment and financing alternatives.
4. Students will evaluate different sources of finance and make informed capital structure decisions.
5. Students will apply capital budgeting techniques to assess and select investment projects.
6. Students will understand the implications of various dividend policies on firm value and shareholder returns.

Learning Resources:

Required Resources:

- *Corporate Finance* by Jonathan Berk and Peter DeMarzo, Pearson Education
- *Fundamentals of Financial Management* by Eugene F. Brigham & Joel F. Houston, Cengage Learning

Recommended Resources:

- *Corporate Finance* by Ross, Westerfield, and Jaffe, McGraw-Hill Education
- *Principles of Corporate Finance* by Brealey, Myers, and Allen, McGraw-Hill Education

B.Sc Finance –1st Year
Semester III
Direct and Indirect Tax BSF FIN 203

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Course Name: Direct and Indirect Tax
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 203

Course Objectives:

1. To understand the basic framework and structure of the Indian taxation system, including direct and indirect taxes.
2. To gain knowledge of key provisions of the Income Tax Act and the Goods and Services Tax (GST) framework.
3. To enable students to compute taxable income for individuals and understand the concept of tax planning.
4. To introduce students to the GST structure, including registration, levy, collection, and input tax credit mechanisms.
5. To understand the procedural aspects of filing returns under both income tax and GST.
6. To develop analytical skills to evaluate the impact of taxation on financial decisions and business planning.

Course Description:

This course introduces students to the fundamental principles and applications of **Direct and Indirect Taxation** in India. It is designed to provide practical knowledge of tax provisions with a focus on **Income Tax** and **Goods and Services Tax (GST)**. Students will learn to compute taxable income, understand various heads of income, exemptions, deductions, and filing procedures. The course also covers the framework of GST, including its structure, rates, returns, and compliance requirements. The integration of real-world case studies and hands-on tax computation exercises equips students with the practical insights necessary for careers in taxation, finance, and business advisory services.

Course Content:

Topic/Unit	Content
I. Introduction to Taxation	Overview of Indian Taxation System
Types of Taxes: Direct and Indirect	

Topic/Unit	Content
Basic Concepts: Assessee, Assessment Year, Previous Year, Person, Income	
Residential Status and Scope of Total Income	
Exempted Incomes	
II. Income Tax – Computation	Heads of Income:

- Income from Salary
- Income from House Property
- Profits and Gains of Business or Profession
- Capital Gains
- Income from Other Sources
  Deductions under Chapter VI-A
  Clubbing of Income and Set-off & Carry Forward of Losses
  Computation of Taxable Income and Tax Liability (Individual Assessee) |
- **III. Tax Administration and Filing** | PAN, TAN, TDS & TCS Provisions
  Advance Tax and Interest Calculations
  Return Filing: Types of ITR Forms
  E-Filing Procedure for Individuals |
- **IV. Introduction to GST** | GST Overview: Origin, Need, and Constitutional Framework
  Structure of GST: CGST, SGST, IGST, UTGST
  GST Council and Legal Provisions
  GST Rates and Classification of Goods and Services
  Exemptions and Composition Scheme |
- | **V. GST Administration and Filing** | GST Registration Process
  Levy and Collection of GST
  Input Tax Credit Mechanism
  Tax Invoice, Debit and Credit Notes
  Returns under GST: GSTR-1, GSTR-3B, GSTR-9
  Practical Problems on GST Computation and Return Filing |

Course Outcomes (COs):

1. Students will understand the structure and significance of the Indian taxation system, including its classifications.
2. Students will be able to compute taxable income under different heads and determine tax liability for individuals.
3. Students will demonstrate knowledge of exemptions, deductions, and set-off provisions under Income Tax Act.
4. Students will understand GST's framework, including registration, invoicing, and tax payment mechanisms.
5. Students will be able to compute GST liability and understand the process of filing GST returns.
6. Students will be able to interpret and apply key tax provisions to real-life financial and business scenarios.

Learning Resources:

Required Resources:

1. *Students' Guide to Income Tax* by Dr. Vinod K. Singhania and Monica Singhania – Taxmann Publications
2. *GST Manual* by R.K. Jain – Taxmann Publications

Recommended Resources:

1. *Systematic Approach to Income Tax* by Ahuja & Gupta – Bharat Law House
2. *Indirect Taxes: Law and Practice* by V.S. Datey – Taxmann Publications
3. Relevant Government websites (e.g., www.incometax.gov.in, www.gst.gov.in) for latest updates and circulars

B.Sc Finance –1st Year
Semester III
Equity Analysis & Portfolio Management BSF FIN 205

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Course Name: Equity Analysis & Portfolio Management
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 205

Course Objectives:

1. To develop a clear understanding of the functioning of equity markets and the role of equity as an investment class.
2. To provide students with analytical tools to evaluate and value individual stocks using fundamental and technical analysis.
3. To impart knowledge about different investment strategies and risk-return characteristics of equity instruments.
4. To equip students with the skills to construct and manage equity portfolios in alignment with investment goals.
5. To understand modern portfolio theory and asset pricing models for effective portfolio management.
6. To analyze real-world portfolios using risk-adjusted performance measures and rebalancing techniques.

Course Description:

This course provides students with an in-depth understanding of **equity markets, stock analysis**, and **portfolio management strategies**. It covers equity valuation techniques, stock screening methods, and investment analysis tools used in practice. Students will learn to apply both **fundamental** and **technical analysis** to assess stocks, understand investor behavior, and develop insights into market movements. The course also includes key concepts from **modern portfolio theory**, enabling students to design, evaluate, and optimize equity portfolios. Real-world case studies and financial data analysis exercises will be incorporated to ensure practical learning outcomes aligned with current industry practices.

Course Content:

Topic/Unit	Content
I. Introduction to Equity Markets	Overview of Financial Markets
Role and Characteristics of Equity	
Primary vs. Secondary Markets	
Key Participants: SEBI, Brokers, Exchanges	
Stock Market Indices and Benchmarks	

Topic/Unit	Content
II. Fundamental Analysis	Economic Analysis
Industry Analysis (Porter's Five Forces)	
Company Analysis (Qualitative & Quantitative)	
Financial Statement Analysis (Ratio Analysis, ROE, EPS, P/E)	
Valuation Models: Dividend Discount Model (DDM), P/E Model, P/B Ratio	
III. Technical Analysis	Concept and Assumptions
Chart Patterns: Head & Shoulders, Double Top/Bottom	
Technical Indicators: Moving Averages, RSI, MACD, Bollinger Bands	
Candlestick Analysis and Trend Reversals	
Limitations of Technical Analysis	
IV. Portfolio Management Basics	Introduction to Portfolio Management
Risk and Return Measurement	
Diversification and Portfolio Risk	
Efficient Frontier and Capital Market Line	
Asset Allocation Strategies	
V. Portfolio Theory and Evaluation	Modern Portfolio Theory (MPT)
CAPM, Beta, Alpha	
Sharpe Ratio, Treynor Ratio, Jensen's Alpha	
Portfolio Construction and Rebalancing	
Performance Evaluation and Reporting	
Real-life Portfolio Case Studies	

Course Outcomes (COs):

1. **(CO1)** Students will understand the role and functioning of equity markets, including key participants and processes.
2. **(CO2)** Students will be able to perform in-depth fundamental analysis and equity valuation using standard models.
3. **(CO3)** Students will demonstrate the ability to apply technical analysis tools to evaluate stock market trends.
4. **(CO4)** Students will understand the principles of risk and return and apply them in constructing efficient portfolios.
5. **(CO5)** Students will be able to analyze portfolio performance using financial ratios and asset pricing models.
6. **(CO6)** Students will be equipped to build and manage a diversified equity portfolio aligned with investment objectives.

Learning Resources:

Required Resources:

1. *Security Analysis and Portfolio Management* by Prasanna Chandra – McGraw Hill Education
2. *Investment Analysis and Portfolio Management* by Reilly & Brown – Cengage Learning

Recommended Resources:

1. *Equity Asset Valuation* by Jerald E. Pinto, Elaine Henry, Thomas R. Robinson – CFA Institute Investment Series
2. *Technical Analysis of the Financial Markets* by John J. Murphy – New York Institute of Finance
3. NSE India (www.nseindia.com) and BSE India (www.bseindia.com) for live data and market updates

B.Sc FINANCE 2ND YEAR

SEMESTER 3

B.Sc Finance –2nd Year
Semester III
Quantitative Techniques in Finance BSF FIN 207

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Course Name: Quantitative Techniques in Finance
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 207

Course Objectives:

1. To provide a foundational understanding of quantitative tools and statistical techniques used in financial decision-making.
2. To enable students to apply concepts of probability and statistics in analyzing financial data.
3. To equip students with the ability to interpret and construct frequency distributions and graphical representations of data.
4. To develop the skills to use correlation and regression analysis in financial modeling and forecasting.
5. To introduce time series analysis and index numbers for interpreting financial market trends.
6. To strengthen students' ability to apply quantitative methods to real-world financial problems using practical case studies.

Course Description:

This course is designed to build strong quantitative skills essential for modern financial analysis and decision-making. Students will be introduced to fundamental statistical techniques, including data classification, tabulation, and graphical representation, which are foundational for understanding financial trends. The course explores measures of central tendency and dispersion, correlation, regression, probability theory, and time series analysis—tools extensively used in portfolio management, risk analysis, and investment planning. Through the integration of real-time financial data and hands-on analytical exercises, students will be prepared to use quantitative insights to solve practical problems in finance and business.

Course Content:

Topic/Unit	Content
I. Introduction to Quantitative Techniques	Meaning and Scope of Quantitative Techniques
Role in Managerial and Financial Decision-Making	
Types of Data: Primary & Secondary	
Methods of Data Collection and Presentation	
Classification and Tabulation of Data	
Diagrammatic and Graphical Representation: Bar Diagrams, Pie Charts, Histograms, Ogives	
II. Measures of Central Tendency and Dispersion	Mean, Median, Mode (for grouped and ungrouped data)
Range, Quartile Deviation, Mean Deviation, Standard Deviation	
Coefficient of Variation	
Application in Financial Analysis	
III. Correlation and Regression	Concept and Types of Correlation
Karl Pearson's and Spearman's Rank Correlation	
Simple Linear Regression: Estimation and Interpretation	
Use of Regression in Financial Forecasting	
IV. Probability and Distributions	Introduction to Probability: Classical and Empirical Approaches
Addition and Multiplication Theorems	
Conditional Probability and Bayes' Theorem	
Random Variables	
Probability Distributions: Binomial, Poisson, and Normal Distribution	
Application in Risk and Uncertainty	
V. Time Series and Index Numbers	Components of Time Series: Trend, Seasonal, Cyclical, and Irregular
Moving Averages and Least Squares Method	
Index Numbers: Construction and Uses	
Price Index, Quantity Index, and Value Index	
Use of Time Series and Index Numbers in Financial Markets	

Course Outcomes (COs):

1. Students will understand and apply basic quantitative techniques to organize, summarize, and present financial data.
2. Students will be able to compute and interpret various measures of central tendency and dispersion for financial analysis.
3. Students will apply correlation and regression tools to analyze relationships and make forecasts in finance.
4. Students will understand probability theory and distributions and apply them to model financial risks.
5. Students will perform time series analysis and construct index numbers to interpret financial and economic trends.
6. Students will be able to apply quantitative techniques to solve real-world financial problems using a data-driven approach.

Learning Resources:

Required Resources:

1. *Quantitative Techniques for Management* by N.D. Vohra – McGraw Hill Education
2. *Statistics for Management* by Richard Levin and David Rubin – Pearson Education

Recommended Resources:

1. *Quantitative Techniques in Management* by U.K. Srivastava, G.V. Shenoy, and S.C. Sharma – New Age International Publishers
2. *Business Statistics* by J.K. Sharma – Vikas Publishing House
3. Research papers, real datasets, and financial portals (e.g., NSE, BSE, RBI) for applied learning

B.Sc Finance –2nd Year
Semester III
Environmental, Social, and Governance (ESG) BSF MGT 201

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Course Name: Environmental, Social, and Governance (ESG)
Course Credit Hours: 3
Course Contact Hours: 3
Course Code: BSF MGT 201

Course Objectives:

1. To introduce the foundational concepts and importance of ESG in today's business and investment landscape.
2. To explore the impact of environmental, social, and governance factors on corporate strategy and sustainability.
3. To understand ESG risk assessment and how it influences investment decisions and financial performance.
4. To develop skills in evaluating ESG disclosures, frameworks, and reporting standards like GRI, SASB, and TCFD.
5. To examine the role of ESG ratings and indexes in capital markets and stakeholder decision-making.
6. To encourage ethical and sustainable thinking in financial planning, corporate governance, and policy-making.

Course Description:

This course offers a comprehensive overview of **Environmental, Social, and Governance (ESG)** principles, emphasizing their growing importance in finance, business operations, and strategic decision-making. Students will explore how ESG considerations affect corporate behavior, investor confidence, and regulatory compliance. The curriculum includes environmental sustainability, corporate ethics, social responsibility, governance structures, stakeholder engagement, and ESG reporting practices. Practical exposure to ESG data, real-world case studies, and interactive assignments will equip students with critical analytical and ethical reasoning skills. This course is especially valuable for students aspiring to work in sustainable finance, investment analysis, risk management, or corporate strategy.

Course Content:

Topic/Unit	Content
I. Introduction to ESG	Concept and Evolution of ESG
Importance of ESG in Business and Finance	
Sustainable Development Goals (SDGs) and ESG	
Key ESG Stakeholders: Investors, Regulators, Companies, and Consumers	
II. Environmental Pillar	Climate Change and Carbon Footprinting
Environmental Risk Assessment	
Energy Efficiency, Waste Management, and Green Finance	
Environmental Laws and Regulations	
Corporate Case Studies in Environmental Compliance	
III. Social Pillar	Diversity, Equity, and Inclusion (DEI)
Labor Practices and Human Rights	
Health, Safety, and Community Engagement	
Social Impact Metrics and Materiality	
Case Studies of Socially Responsible Organizations	
IV. Governance Pillar	Principles of Corporate Governance
Board Composition, Roles, and Ethics	
Shareholder Rights and Transparency	
Anti-Corruption, Compliance, and Whistleblower Mechanisms	
Case Studies on Governance Failures and Best Practices	
V. ESG Reporting and Ratings	Global ESG Reporting Standards:

- Global Reporting Initiative (GRI)
- Sustainability Accounting Standards Board (SASB)
- Task Force on Climate-related Financial Disclosures (TCFD)

ESG Rating Agencies and Indexes (MSCI, Sustainalytics, Dow Jones Sustainability Index)
ESG Score Interpretation and Financial Decision-Making | | **VI. ESG Integration in Finance** | ESG Risk and Opportunity Analysis
Integration of ESG in Portfolio Management
Green Bonds and Sustainable Investment Instruments
ESG and Corporate Valuation
ESG Trends and Global Perspectives |

Course Outcomes (COs):

1. Students will understand the principles and growing relevance of ESG in global business and financial systems.
2. Students will analyze the environmental aspects of ESG and evaluate the sustainability performance of organizations.
3. Students will assess the social responsibility practices of companies and their impact on stakeholders.
4. Students will understand governance frameworks, corporate ethics, and transparency mechanisms.
5. Students will interpret ESG reports, disclosures, and ratings, and understand how they affect investment decisions.
6. Students will develop strategic insights into integrating ESG into financial models, risk management, and value creation.

Learning Resources:

Required Resources:

- *Principles for Responsible Investment (PRI) Handbook*
- *Sustainable Investing: Revolutions in Theory and Practice* by Herman Bril, Georg Kell, Andreas Rasche (Routledge)

Recommended Resources:

- *ESG Investing For Dummies* by Brendan Bradley
- *Harvard Business Review articles on ESG and Sustainable Strategy*
- Official Websites:
    - www.globalreporting.org (GRI)
    - www.sasb.org (SASB)
    - www.fsb-tcfd.org (TCFD)
    - www.unpri.org (UN PRI)

B.Sc Finance –2nd Year
Semester III
Equity Analysis & Portfolio Management BSF FIN 205

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Course Name: Equity Analysis & Portfolio Management
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 205

Course Objectives:

1. To provide a foundational understanding of quantitative tools and statistical techniques used in financial decision-making.
2. To enable students to apply concepts of probability and statistics in analyzing financial data.
3. To equip students with the ability to interpret and construct frequency distributions and graphical representations of data.
4. To develop the skills to use correlation and regression analysis in financial modeling and forecasting.
5. To introduce time series analysis and index numbers for interpreting financial market trends.
6. To strengthen students' ability to apply quantitative methods to real-world financial problems using practical case studies.

Course Description:

This course is designed to build strong quantitative skills essential for modern financial analysis and decision-making. Students will be introduced to fundamental statistical techniques, including data classification, tabulation, and graphical representation, which are foundational for understanding financial trends. The course explores measures of central tendency and dispersion, correlation, regression, probability theory, and time series analysis—tools extensively used in portfolio management, risk analysis, and investment planning. Through the integration of real-time financial data and hands-on analytical exercises, students will be prepared to use quantitative insights to solve practical problems in finance and business.

Course Content:

Topic/Unit	Content
I. Introduction to Quantitative Techniques	Meaning and Scope of Quantitative Techniques
Role in Managerial and Financial Decision-Making	
Types of Data: Primary & Secondary	
Methods of Data Collection and Presentation	
Classification and Tabulation of Data	
Diagrammatic and Graphical Representation: Bar Diagrams, Pie Charts, Histograms, Ogives	
II. Measures of Central Tendency and Dispersion	Mean, Median, Mode (for grouped and ungrouped data)
Range, Quartile Deviation, Mean Deviation, Standard Deviation	
Coefficient of Variation	
Application in Financial Analysis	
III. Correlation and Regression	Concept and Types of Correlation
Karl Pearson's and Spearman's Rank Correlation	
Simple Linear Regression: Estimation and Interpretation	
Use of Regression in Financial Forecasting	
IV. Probability and Distributions	Introduction to Probability: Classical and Empirical Approaches
Addition and Multiplication Theorems	
Conditional Probability and Bayes' Theorem	
Random Variables	
Probability Distributions: Binomial, Poisson, and Normal Distribution	
Application in Risk and Uncertainty	
V. Time Series and Index Numbers	Components of Time Series: Trend, Seasonal, Cyclical, and Irregular
Moving Averages and Least Squares Method	
Index Numbers: Construction and Uses	
Price Index, Quantity Index, and Value Index	
Use of Time Series and Index Numbers in Financial Markets	

Course Outcomes (COs):

1. Students will understand and apply basic quantitative techniques to organize, summarize, and present financial data.
2. Students will be able to compute and interpret various measures of central tendency and dispersion for financial analysis.
3. Students will apply correlation and regression tools to analyze relationships and make forecasts in finance.
4. Students will understand probability theory and distributions and apply them to model financial risks.
5. Students will perform time series analysis and construct index numbers to interpret financial and economic trends.
6. Students will be able to apply quantitative techniques to solve real-world financial problems using a data-driven approach.

Learning Resources:

Required Resources:

1. *Quantitative Techniques for Management* by N.D. Vohra – McGraw Hill Education
2. *Statistics for Management* by Richard Levin and David Rubin – Pearson Education

Recommended Resources:

1. *Quantitative Techniques in Management* by U.K. Srivastava, G.V. Shenoy, and S.C. Sharma – New Age International Publishers
2. *Business Statistics* by J.K. Sharma – Vikas Publishing House
3. Research papers, real datasets, and financial portals (e.g., NSE, BSE, RBI) for applied learning

B.Sc Finance –1st Year
Semester III
Quantitative Techniques in Finance BSF FIN 207

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Course Name: Quantitative Techniques in Finance
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 207

Course Objectives:

1. To provide a foundational understanding of quantitative tools and statistical techniques used in financial decision-making.
2. To enable students to apply concepts of probability and statistics in analyzing financial data.
3. To equip students with the ability to interpret and construct frequency distributions and graphical representations of data.
4. To develop the skills to use correlation and regression analysis in financial modeling and forecasting.
5. To introduce time series analysis and index numbers for interpreting financial market trends.
6. To strengthen students' ability to apply quantitative methods to real-world financial problems using practical case studies.

Course Description:

This course is designed to build strong quantitative skills essential for modern financial analysis and decision-making. Students will be introduced to fundamental statistical techniques, including data classification, tabulation, and graphical representation, which are foundational for understanding financial trends. The course explores measures of central tendency and dispersion, correlation, regression, probability theory, and time series analysis—tools extensively used in portfolio management, risk analysis, and investment planning. Through the integration of real-time financial data and hands-on analytical exercises, students will be prepared to use quantitative insights to solve practical problems in finance and business.

Course Content:

Topic/Unit	Content
I. Introduction to Quantitative Techniques	Meaning and Scope of Quantitative Techniques
Role in Managerial and Financial Decision-Making	
Types of Data: Primary & Secondary	
Methods of Data Collection and Presentation	
Classification and Tabulation of Data	
Diagrammatic and Graphical Representation: Bar Diagrams, Pie Charts, Histograms, Ogives	
II. Measures of Central Tendency and Dispersion	Mean, Median, Mode (for grouped and ungrouped data)
Range, Quartile Deviation, Mean Deviation, Standard Deviation	
Coefficient of Variation	
Application in Financial Analysis	
III. Correlation and Regression	Concept and Types of Correlation
Karl Pearson's and Spearman's Rank Correlation	
Simple Linear Regression: Estimation and Interpretation	
Use of Regression in Financial Forecasting	
IV. Probability and Distributions	Introduction to Probability: Classical and Empirical Approaches
Addition and Multiplication Theorems	
Conditional Probability and Bayes' Theorem	
Random Variables	
Probability Distributions: Binomial, Poisson, and Normal Distribution	
Application in Risk and Uncertainty	
V. Time Series and Index Numbers	Components of Time Series: Trend, Seasonal, Cyclical, and Irregular
Moving Averages and Least Squares Method	
Index Numbers: Construction and Uses	
Price Index, Quantity Index, and Value Index	
Use of Time Series and Index Numbers in Financial Markets	

Course Outcomes (COs):

1. Students will understand and apply basic quantitative techniques to organize, summarize, and present financial data.
2. Students will be able to compute and interpret various measures of central tendency and dispersion for financial analysis.
3. Students will apply correlation and regression tools to analyze relationships and make forecasts in finance.
4. Students will understand probability theory and distributions and apply them to model financial risks.
5. Students will perform time series analysis and construct index numbers to interpret financial and economic trends.
6. Students will be able to apply quantitative techniques to solve real-world financial problems using a data-driven approach.

Learning Resources:

Required Resources:

1. *Quantitative Techniques for Management* by N.D. Vohra – McGraw Hill Education
2. *Statistics for Management* by Richard Levin and David Rubin – Pearson Education

Recommended Resources:

1. *Quantitative Techniques in Management* by U.K. Srivastava, G.V. Shenoy, and S.C. Sharma – New Age International Publishers
2. *Business Statistics* by J.K. Sharma – Vikas Publishing House
3. Research papers, real datasets, and financial portals (e.g., NSE, BSE, RBI) for applied learning

B.Sc Finance –2nd Year
Semester III
Business Psychology BSF MGT 104

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Course Name: Business Psychology
Course Credit Hours: 2
Course Contact Hours: 2
Course Code: BSF MGT 104

Course Objectives:

1. To understand key psychological concepts and how they influence individual and group behavior in financial decision-making.
2. To explore the cognitive and emotional factors that impact investment choices, risk perception, and consumer financial behavior.
3. To analyze the role of biases, heuristics, and mental accounting in the financial decision-making process.
4. To study behavioral finance theories and models in the context of markets, trading, and investment management.
5. To examine the influence of organizational culture, motivation, and leadership styles on financial performance and ethical behavior.
6. To develop practical skills for applying psychological principles to real-world financial situations, including advisory, planning, and strategy formulation.

Course Description:

This course blends core principles of psychology with finance to provide students with an in-depth understanding of how human behavior impacts financial decision-making. Students will explore the psychological foundations of investor behavior, decision-making under uncertainty, and the emergence of behavioral finance as a key discipline. Topics such as cognitive biases, emotional influences, risk tolerance, and financial personality types will be examined. The course also looks at psychological drivers in corporate environments including motivation, team behavior, and leadership influence on financial outcomes. Through interactive discussions, case studies, and real-world examples, students will gain the ability to recognize and manage behavioral tendencies that affect personal and institutional financial choices.

Course Content:

Topic/Unit	Content
I. Introduction to Business Psychology	Definition and Scope of Business Psychology
Relationship between Psychology and Finance	
Decision Making: Rational vs. Behavioral Approaches	
Individual Differences in Financial Decision Making	
II. Behavioral Finance Principles	Overview of Behavioral Finance
Traditional vs. Behavioral Finance Models	
Heuristics and Biases: Overconfidence, Anchoring, Representativeness, Loss Aversion	
Mental Accounting and Prospect Theory	
Practical Examples and Case Studies	
III. Emotional and Cognitive Aspects	Role of Emotions in Financial Behavior
Emotional Intelligence in Finance	
Risk Perception and Tolerance	
Impact of Stress and Uncertainty on Financial Decisions	
IV. Social and Group Behavior in Finance	Herd Behavior and Market Bubbles
Social Influence and Conformity in Investment Decisions	
Groupthink in Corporate Finance and Financial Teams	
Behavioral Corporate Governance	
V. Organizational Psychology in Finance	Motivation and Goal-Setting Theories
Leadership Styles and their Financial Implications	
Organizational Culture and Ethics in Financial Practices	
Performance Evaluation and Incentives	
VI. Applications of Business Psychology in Finance	Financial Advisory and Client Psychology
Wealth Management and Behavioral Segmentation	
Behavioral Insights for Policy Making and Financial Inclusion	
Behavioral Interventions: Nudging Financial Behavior	

Course Outcomes (COs):

1. Students will be able to understand the intersection of psychology and finance and its role in influencing financial decisions.
2. Students will demonstrate awareness of key cognitive biases and how they impact investment and risk-related behavior.
3. Students will be able to analyze emotional and social factors affecting decision-making in individual and group contexts.
4. Students will evaluate the role of psychological factors in financial markets, consumer behavior, and organizational finance.
5. Students will apply behavioral finance principles to financial planning, investment advisory, and strategy building.
6. Students will gain insights into ethical and cultural considerations in financial institutions through a psychological lens.

Learning Resources:

Required Resources:

- *Behavioral Finance: Psychology, Decision-Making, and Markets* by Lucy Ackert & Richard Deaves, Cengage Learning
- *Psychology and Financial Markets* by Lars Tvede, Wiley

Recommended Resources:

- *Thinking, Fast and Slow* by Daniel Kahneman, Farrar, Straus and Giroux
- *Misbehaving: The Making of Behavioral Economics* by Richard H. Thaler, W.W. Norton & Company
- *The Psychology of Investing* by John R. Nofsinger, Routledge
- Research papers and case studies from journals like *Journal of Behavioral Finance* and *Harvard Business Review*

B.Sc FINANCE 2ND YEAR

SEMESTER 4

B.Sc Finance –2nd Year
Semester IV
Corporate Finance 2 BSF FIN 202

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Course Name: Corporate Finance 2
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 202

Course Objectives:

1. To deepen understanding of financial decision-making related to capital structure and cost of capital.
2. To equip students with tools and techniques for long-term investment decisions, including capital budgeting methods.
3. To understand dividend policies and their implications on shareholder value.
4. To analyze the impact of working capital management on the financial health of a firm.
5. To evaluate various sources of finance and their suitability in different scenarios.
6. To integrate financial theories and real-world applications for strategic decision-making.

Course Description:

This course builds on foundational concepts introduced in Corporate Finance 1, focusing on advanced topics such as capital structure, cost of capital, and dividend decisions. Students will learn to evaluate long-term investment opportunities using various capital budgeting techniques and understand the role of risk in decision-making. The course emphasizes strategic financial planning and resource allocation by introducing tools for working capital management and assessing financing options. Real-world case studies and problem-solving exercises will help students apply theoretical concepts to practical corporate scenarios.

Course Content:

Topic/Unit	Content
I. Capital Structure	- Meaning and Factors Affecting Capital Structure - Theories of Capital Structure: Net Income, Net Operating Income, Traditional, and MM Approach - Optimal Capital Structure and EBIT-EPS Analysis - Practical Problems and Case Studies

Topic/Unit	Content
Cost of Capital	- Concept and Importance - Computation of Cost of Equity, Debt, Preference Shares, and Weighted Average Cost of Capital (WACC) - Marginal Cost of Capital - Practical Problems
II. Capital Budgeting	- Investment Decision Process - Methods: Payback Period, Net Present Value (NPV), Internal Rate of Return (IRR), Profitability Index, Accounting Rate of Return (ARR) - Risk Analysis in Capital Budgeting - Practical Problems and Case Studies
Dividend Decisions	- Dividend Policies and Factors Affecting Dividend Decision - Models: Walter's Model, Gordon's Model, MM Hypothesis - Bonus Shares and Stock Splits - Case Studies
III. Working Capital Management	- Concepts and Components of Working Capital - Estimating Working Capital Requirement - Management of Cash, Receivables, and Inventory - Working Capital Financing - Practical Problems
Sources of Finance	- Long-Term and Short-Term Sources - Equity, Debt, Internal Financing - Venture Capital and Private Equity - Lease vs. Buy Decision - Case Studies

Course Outcomes (COs):

1. Students will be able to analyze and apply different capital structure theories to real-world financial decision-making.
2. Students will be able to compute and interpret cost of capital to support investment and financing decisions.
3. Students will be able to apply capital budgeting techniques for evaluating investment opportunities.
4. Students will understand dividend policy models and apply them in analyzing firm payout strategies.
5. Students will be able to assess and manage working capital effectively to ensure business liquidity and operational efficiency.
6. Students will evaluate appropriate sources of finance for corporate funding needs and analyze their strategic implications.

Learning Resources:

Required Resources:

- *Financial Management* by I.M. Pandey, Vikas Publishing House
- *Principles of Corporate Finance* by Richard A. Brealey, Stewart C. Myers & Franklin Allen, McGraw-Hill Education

Recommended Resources:

- *Corporate Finance* by Jonathan Berk and Peter DeMarzo, Pearson
- *Essentials of Financial Management* by Eugene F. Brigham and Joel F. Houston, Cengage Learning
- Real-world financial reports and case studies from Indian and international firms

B.Sc Finance –2nd Year
Semester IV
Financial Modelling and Analytics BSF FIN 204

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Course Name: Financial Modelling and Analytics
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 204

Course Objectives:

1. To introduce students to the fundamentals of financial modelling and develop hands-on skills in building dynamic financial models using spreadsheets.
2. To equip students with techniques for analyzing financial data using tools such as Excel and data visualization techniques.
3. To help students apply financial modelling to areas such as valuation, forecasting, budgeting, and risk analysis.
4. To enable students to understand and use statistical functions, scenario and sensitivity analysis, and data tables in decision-making.
5. To foster critical thinking through case-based learning and industry-relevant project simulations.

Course Description:

This course provides a practical foundation in financial modelling and analytics using Microsoft Excel and other relevant tools. Students will learn to build robust financial models for applications such as valuation, financial forecasting, budgeting, and investment analysis. Emphasis will be placed on hands-on exercises, real-world case studies, and best practices in spreadsheet design. Students will also be introduced to essential analytical tools including scenario planning, sensitivity analysis, regression, and data visualization. The course prepares students for data-driven financial decision-making, enabling them to interpret, model, and present financial data effectively in a business context.

Course Content:

Topic/Unit	Content
I. Introduction to Financial Modelling	Concept and Importance of Financial Modelling Applications in Finance Introduction to Excel Interface and Functions
Excel for Finance	Excel Basics and Shortcuts Financial Functions (NPV, IRR, PMT, etc.) Logical, Lookup, and Date Functions Conditional Formatting
II. Forecasting & Budgeting Models	Building a Revenue and Expense Forecast Budgeting Models and Assumptions Dynamic Linking and Formula Auditing
Scenario & Sensitivity Analysis	Goal Seek, Data Tables, Scenario Manager Sensitivity and What-If Analysis Stress Testing in Financial Models
III. Valuation Models	Discounted Cash Flow (DCF) Model Comparable Company Analysis Precedent Transactions Model Case Study-Based Model Building
Project Finance & Investment Analysis	Capital Budgeting Models Payback, NPV, IRR, and Profitability Index Financial Feasibility and Break-Even Analysis
IV. Introduction to Analytics	Data Cleaning and Validation Descriptive Statistics in Excel Pivot Tables and Charts Dashboards and Visualization
Tools for Financial Analytics	Regression Analysis Correlation and Trendlines Time Series Analysis Basics Introduction to Power Query / Power BI (Optional Extension)

Course Outcomes (COs):

1. Students will be able to build structured financial models using Excel for applications in budgeting, forecasting, and analysis.
2. Students will be able to perform scenario and sensitivity analyses and interpret results for informed decision-making.
3. Students will gain the ability to develop valuation models using DCF and comparative techniques.
4. Students will be able to apply financial metrics and tools to evaluate investment opportunities.
5. Students will develop analytical skills using descriptive statistics, data visualization, and Excel-based analytics.
6. Students will be equipped to present financial models and insights through professional reports and dashboards.

Learning Resources:

Required Resources:

- *Financial Modeling* by Simon Benninga, MIT Press
- *Principles of Financial Modelling* by Michael Rees, Wiley

Recommended Resources:

- *Financial Modelling in Practice* by Michael Rees
- *Excel Modeling in Investments* by Craig W. Holden
- Microsoft Excel Online Resources and Tutorials
- Industry Reports and Financial Data Sources (Bloomberg, NSE, Yahoo Finance)

B.Sc Finance –2nd Year
Semester IV
Foundations of Fintech & Regulatory Policy BSF FIN 206

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Course Name: Foundations of Fintech & Regulatory Policy
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 206

Course Objectives:

1. To introduce students to the fundamental concepts of financial technology (FinTech) and its applications in modern finance.
2. To explore key innovations such as blockchain, digital payments, robo-advisors, and peer-to-peer lending platforms.
3. To understand the regulatory framework governing FinTech in India and globally, including key compliance and policy developments.
4. To analyze the impact of FinTech on financial institutions, consumers, and the overall financial ecosystem.
5. To assess risk management practices, data security concerns, and ethical considerations in the FinTech landscape.
6. To develop an understanding of current trends and the future outlook for FinTech and its regulatory implications.

Course Description:

This course provides a foundational understanding of financial technology (FinTech) and the evolving regulatory landscape shaping financial services today. Students will explore how emerging technologies such as blockchain, AI, and big data are revolutionizing banking, payments, insurance, and investment management. The course delves into digital finance innovations like mobile wallets, UPI, cryptocurrencies, and crowdfunding, offering insights into their use cases and challenges. Emphasis is placed on the global and Indian regulatory frameworks, helping students navigate critical issues of compliance, governance, and financial inclusion. Case studies and industry reports will bridge theory with practice, preparing students for careers at the intersection of finance, technology, and policy.

Course Content:

Topic/Unit	Content
I. Introduction to FinTech	Definition, Scope, and Evolution of FinTech Overview of FinTech Ecosystem Key Drivers of FinTech Growth Traditional Finance vs. FinTech
II. Core FinTech Innovations	Digital Payments: UPI, Mobile Wallets, NEFT, RTGS Peer-to-Peer Lending, Crowdfunding Platforms Robo-Advisory and WealthTech InsurTech and RegTech Case Studies on Successful FinTech Startups
III. Blockchain and Cryptocurrencies	Basics of Blockchain Technology Applications of Blockchain in Finance Cryptocurrencies: Bitcoin, Ethereum, and Others Risks and Opportunities in Crypto Markets Central Bank Digital Currencies (CBDCs)
IV. Regulatory Framework and Policy Landscape	RBI Guidelines on FinTech and Digital Payments Data Protection Laws and FinTech Global Regulatory Trends (USA, EU, Singapore) Regulatory Sandboxes and Innovation Hubs SEBI and IRDAI's role in regulating FinTech
V. Risk, Governance, and Ethics in FinTech	Cybersecurity and Fraud Prevention KYC, AML, and CFT Guidelines Ethical Concerns in AI and Big Data Use Risk Assessment and Compliance Frameworks Case Study: Risk Management Failures in FinTech
VI. Future of FinTech	Emerging Technologies: AI, ML, IoT, and 5G Role of FinTech in Financial Inclusion Career Opportunities and Industry Trends Policy Challenges and Opportunities Ahead

Course Outcomes (COs):

1. Students will understand the scope and importance of FinTech and its evolution in the financial sector.
2. Students will be able to analyze various FinTech innovations and their practical applications in finance.
3. Students will demonstrate knowledge of blockchain technology and cryptocurrencies, assessing their impact and limitations.
4. Students will be able to interpret the regulatory and compliance framework impacting FinTech operations.
5. Students will critically assess ethical, cybersecurity, and risk management issues in FinTech.
6. Students will be able to evaluate future trends in FinTech and its role in financial inclusion and policy making.

Learning Resources:

Required Resources:

- *The FINTECH Book* by Susanne Chishti and Janos Barberis, Wiley, 2016
- *Digital Finance* by Perry H. Beaumont, Routledge, 2019
- *RBI Guidelines on Digital Lending and FinTech Regulations*, Government of India publications

Recommended Resources:

- *Blockchain Basics* by Daniel Drescher, Apress, 2017
- *AI and the Future of Banking* by Tony Boobier, Wiley, 2020
- Reports by *NITI Aayog*, *World Bank*, *RBI*, and *IMF* on FinTech and Financial Inclusion

B.Sc Finance –2nd Year
Semester IV
Strategic Derivatives and Risk Management BSF FIN 208

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Course Name: Strategic Derivatives and Risk Management
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 208

Course Objectives:

1. To understand the fundamental concepts and mechanics of derivative instruments such as forwards, futures, options, and swaps.
2. To develop the ability to value and use derivatives for hedging, speculation, and arbitrage.
3. To analyze and manage financial risk using appropriate derivative strategies.
4. To understand the regulatory and ethical considerations in the use of derivatives.
5. To gain practical exposure to risk management through case studies and market-based applications.
6. To examine the impact of macroeconomic variables on derivative markets and risk management strategies.

Course Description:

This course introduces students to the world of financial derivatives and their strategic use in managing risk. Starting with an understanding of derivative instruments such as forwards, futures, options, and swaps, students will explore their valuation methods and applications in risk mitigation and portfolio strategies. Emphasis will be laid on the role of derivatives in financial markets and how they are used by corporate treasurers, institutional investors, and traders. The course also delves into risk types—market, credit, operational, and liquidity risks—and explains how organizations manage these using quantitative and qualitative approaches. Regulatory frameworks and ethical considerations are also covered, preparing students to handle financial instruments responsibly. Real-world case studies, industry tools, and hands-on exercises enable students to connect theory to practice.

Course Content:

Topic/Unit	Content
I. Introduction to Derivatives	Meaning, Need, and Evolution of Derivatives Types: Forwards, Futures, Options, Swaps Participants: Hedgers, Speculators, Arbitrageurs Role of Derivatives in Financial Markets
II. Forwards and Futures	Features and Differences Pricing and Valuation of Forwards and Futures Hedging with Futures Futures on Stock Index, Commodities, and Interest Rates Margin System and Daily Settlement
III. Options	Types of Options: Call & Put Option Terminology: Moneyness, Strike Price, Premium, Expiration Payoff Profiles for Buyers and Sellers Option Valuation Models: Binomial and Black-Scholes Option Strategies: Protective Put, Covered Call, Straddles, Spreads
IV. Swaps and Exotic Derivatives	Interest Rate Swaps, Currency Swaps Credit Default Swaps (CDS) Valuation and Applications Introduction to Exotic Derivatives
V. Risk Management Using Derivatives	Types of Risks in Finance Value at Risk (VaR): Concept, Methods, and Limitations Scenario Analysis and Stress Testing Hedging Strategies using Derivatives Risk Metrics and Measurement Techniques
VI. Regulatory and Ethical Framework	Overview of SEBI Guidelines on Derivatives International Regulatory Standards (BIS, Dodd-Frank, EMIR) Ethical Use of Derivatives Systemic Risk and Derivative Misuse: Case Studies (Barings, AIG)

Course Outcomes (COs):

1. Students will demonstrate a clear understanding of derivative instruments and their market functions.
2. Students will be able to price and evaluate forwards, futures, options, and swaps using standard models.
3. Students will analyze financial risk and construct derivative-based strategies to hedge or speculate effectively.
4. Students will develop an understanding of the practical implications of derivatives through real-world applications.
5. Students will interpret regulatory requirements and ethical considerations in the use of financial derivatives.
6. Students will apply risk measurement tools like VaR, stress testing, and scenario analysis in simulated financial environments.

Learning Resources:

Required Resources:

- *Options, Futures and Other Derivatives* by John C. Hull, Pearson Education
- *Derivatives and Risk Management* by Sundaram Janakiramanan, Pearson

Recommended Resources:

- *Financial Derivatives* by David A. Dubofsky & Thomas W. Miller, Jr., Oxford University Press
- *Risk Management and Financial Institutions* by John C. Hull, Wiley
- *Introduction to Derivatives and Risk Management* by Don M. Chance & Robert Brooks, Cengage

B.Sc Finance –2nd Year
Semester IV
Financial Planning and Wealth Management BSF FIN 210

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Course Name: Financial Planning and Wealth Management
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 210

Course Objectives:

1. To introduce students to the core principles and practices of financial planning and personal wealth management.
2. To develop competency in setting financial goals, budgeting, and managing income, expenses, savings, and investments.
3. To provide an understanding of various investment avenues, risk-return trade-offs, and portfolio diversification.
4. To enable students to evaluate and select suitable insurance products and retirement planning strategies.
5. To foster skills in tax planning, estate planning, and the legal aspects associated with wealth management.
6. To equip students with the ability to build comprehensive personal financial plans using real-world tools and techniques.

Course Description:

This course offers an in-depth understanding of financial planning and wealth management from both a personal and professional perspective. Students will explore the process of setting financial goals and learn the principles of budgeting, savings, and investment. The course introduces various financial instruments including mutual funds, fixed income securities, equity, insurance, and retirement schemes. Emphasis is also placed on risk assessment, tax strategies, estate planning, and legal frameworks governing personal finance. Through practical exercises, case studies, and the use of financial planning software/tools, students will gain hands-on experience in preparing tailored financial plans and strategies for wealth accumulation and preservation.

Course Content:

Topic/Unit	Content
I. Introduction to Financial Planning	Nature and importance of financial planning; Process of financial planning; Setting personal financial goals; Time value of money; Role of a financial planner
II. Budgeting and Savings Management	Budget preparation and monitoring; Emergency fund creation; Managing personal cash flows; Debt management and credit scores
III. Investment Planning	Introduction to investment avenues: Fixed deposits, equity, mutual funds, bonds, ETFs, real estate, gold, etc.; Risk-return relationship; Asset allocation and diversification; Portfolio construction; SIPs and investment platforms
IV. Insurance Planning	Basics of life and general insurance; Types of insurance policies; Selecting appropriate insurance coverage; Role of insurance in financial planning
V. Retirement and Tax Planning	Retirement planning instruments (PPF, EPF, NPS, annuities); Determining retirement corpus; Tax structure for individuals; Deductions and exemptions; Basic tax planning strategies
VI. Estate Planning and Legal Aspects	Will, trust, nomination; Power of attorney; Succession laws; Wealth transfer strategies; Legal obligations in financial planning
VII. Integrated Financial Planning	Preparing a comprehensive financial plan; Use of software or Excel tools; Case studies on personal financial planning; Ethical issues in wealth management

Course Outcomes (COs):

1. Students will be able to outline the financial planning process and identify key components of a personal financial plan.
2. Students will be able to prepare personal budgets and effectively manage income, savings, and expenditures.
3. Students will gain the ability to analyze investment avenues, assess risk-return profiles, and construct basic portfolios.
4. Students will understand the role and relevance of insurance and will be able to recommend appropriate insurance products.
5. Students will be capable of planning for retirement and applying tax-saving strategies under the Indian tax regime.
6. Students will be able to create a comprehensive personal financial plan, incorporating legal and ethical considerations.

Learning Resources:

Required Resources:

- *Personal Financial Planning* by Madura Jeff, Pearson Education, Latest Edition
- *Wealth Management: The New Business Model* by Harold Evensky, Moshe Milevsky, and Stephen Horan, Wiley Finance

Recommended Resources:

- *Indian Financial System* by Bharati V. Pathak, Pearson Education
- *Financial Planning Handbook* by CFP Board of Standards
- Government of India websites for tax planning (Income Tax Dept., NPS Trust, etc.)

B.Sc Finance –2nd Year
Semester IV
Research Methodology and Business Analytics BSF RES 202

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Course Name: Research Methodology and Business Analytics
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF RES 202

Course Objectives:

1. To introduce students to the principles and processes of research methodology in the context of finance and business.
2. To enable students to identify and formulate research problems, develop hypotheses, and design research frameworks.
3. To equip students with data collection methods and tools, including primary and secondary data, and understand ethical considerations.
4. To develop analytical skills using business analytics tools for data interpretation and financial decision-making.
5. To enhance students' ability to use statistical techniques and software tools to conduct financial research and derive insights.
6. To empower students to prepare comprehensive research reports and make data-driven recommendations for business and finance problems.

Course Description:

This course provides students with a dual understanding of **research methodology** and **business analytics**, focusing on their application in the field of finance. It introduces the fundamentals of research design, data collection, hypothesis testing, and statistical analysis. The course also imparts practical knowledge of using analytics tools such as Excel, R, and Python for financial data analysis, visualizations, and decision-making. Emphasis is placed on ethical research practices, critical evaluation of financial data, and developing research-based insights for business strategy. Through hands-on projects and real-world case studies, students will bridge theoretical concepts with industry applications.

Course Content:

Topic/Unit	Content
I. Introduction to Research Methodology	Definition, Objectives, and Importance of Research in Finance Types of Research: Basic, Applied, Descriptive, Analytical, Quantitative, Qualitative Research Process and Steps Identification and Formulation of Research Problems
II. Research Design and Data Collection	Meaning and Types of Research Design Sampling Techniques: Probability and Non-Probability Methods of Data Collection: Primary and Secondary Tools for Data Collection: Questionnaire, Interviews, Surveys Ethical Issues in Financial Research
III. Data Analysis and Interpretation	Descriptive and Inferential Statistics Measures of Central Tendency and Dispersion Hypothesis Formulation and Testing t-test, Chi-square Test, ANOVA, Correlation, and Regression Application of Statistical Tests using Excel / R / SPSS
IV. Business Analytics in Finance	Introduction to Business Analytics Role of Analytics in Financial Decision-Making Types of Analytics: Descriptive, Predictive, Prescriptive Financial Modelling and Forecasting Techniques Use of Excel, R, Python in Financial Analysis
V. Data Visualization and Research Report Writing	Creating Dashboards and Visual Reports (Power BI / Tableau basics) Financial Data Presentation Techniques Structure of a Research Report Plagiarism, Referencing (APA/MLA), and Citation Tools Presentation and Communication of Research Findings

Course Outcomes (COs):

1. Students will be able to understand the fundamentals of research methodology and its relevance in financial contexts.
2. Students will be able to design effective research plans and apply appropriate data collection methods in finance-related research.
3. Students will be proficient in using statistical techniques to analyze and interpret financial data.
4. Students will gain hands-on experience with business analytics tools for effective data-driven decision-making.
5. Students will be capable of visualizing data and presenting research findings through professional reports.
6. Students will demonstrate ethical research practices and critical thinking in analyzing complex financial problems.

Learning Resources:

Required Resources:

- *Business Research Methods* by Donald R. Cooper and Pamela S. Schindler, McGraw Hill Education, 2019
- *Quantitative Techniques for Decision Making in Business* by U.K. Srivastava, G.V. Shenoy & S.C. Sharma, New Age International

Recommended Resources:

- *Business Analytics: Data Analysis & Decision Making* by S. Christian Albright, Wayne L. Winston, Cengage Learning
- *Research Methodology* by C.R. Kothari & Gaurav Garg, New Age International Publishers
- *Financial Analytics with R* by Mark J. Bennett and Dirk L. Hugen, Cambridge University Press

B.Sc FINANCE 3RD YEAR

SEMESTER 5

B.Sc Finance –3rd Year
Semester V
Corporate Valuation BSF FIN 301

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Course Name: Corporate Valuation
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 301

Course Objectives:

1. To understand the conceptual framework of valuation and its relevance in financial decision-making.
2. To apply various valuation models including Discounted Cash Flow (DCF), Relative Valuation, and Asset-based approaches.
3. To evaluate corporate strategies and assess their impact on firm value.
4. To analyze mergers, acquisitions, and restructuring strategies using appropriate valuation techniques.
5. To understand the role of corporate governance, risk analysis, and market dynamics in determining enterprise value.
6. To develop the ability to critically analyze and interpret valuation reports and apply insights in real-world business scenarios.

Course Description:

This course aims to provide students with in-depth knowledge and skills to evaluate the financial worth of businesses using diverse valuation methodologies. Students will explore the theoretical underpinnings and practical applications of corporate valuation techniques such as DCF, comparable company analysis, precedent transactions, and option-based models. The curriculum integrates financial statement analysis, forecasting, and risk assessment to equip students with a comprehensive valuation toolkit. With a strong focus on mergers and acquisitions, students will learn to assess deal structures, synergies, and value creation. Real-life case studies and valuation projects will enable students to bridge the gap between theory and practice, preparing them for roles in investment banking, equity research, corporate strategy, and financial consulting.

Course Content:

Unit	Topic	Subtopics
I	**Introduction to Corporate Valuation**	Importance and Purpose of Valuation, Types of Valuation, Role in Strategic Financial Decisions
	Valuation Fundamentals	Time Value of Money, Cost of Capital (WACC, CAPM), Forecasting Free Cash Flows
	Valuation of Cash Flows	Enterprise Value vs. Equity Value, Adjustments for Non-Operating Assets, Debt, and Cash
II	**Discounted Cash Flow (DCF) Valuation**	Steps in DCF: Forecasting, Terminal Value Estimation, Discounting, Interpretation
	Sensitivity and Scenario Analysis	Key Assumptions and Impact, Risk Assessment, Monte Carlo Simulations
	Practical Exercises	Build DCF Models for Real or Hypothetical Companies
III	**Relative Valuation Techniques**	Price Multiples: P/E, P/BV, EV/EBITDA, EV/Sales, Peer Comparisons
	Comparable Company & Precedent Transactions Analysis	Industry and Market Benchmarks, Adjustments for Control Premium and Synergies
IV	**Valuation in Mergers and Acquisitions**	Deal Valuation Techniques, Accretion/Dilution Analysis, Synergy Valuation, Control Premium
	Option-Based Valuation Models	Real Options, Black-Scholes in Corporate Finance, Application in Startups and IP Valuation
	Case Studies and Applications	Valuation of Startups, Distressed Companies, High-Growth Firms

Course Outcomes (COs):

1. Students will be able to understand the theoretical concepts of valuation and explain the purpose and context of different valuation methods.
2. Students will be able to compute cost of capital and forecast free cash flows for corporate valuation.
3. Students will be able to develop and interpret DCF models with scenario and sensitivity analysis.
4. Students will be able to perform relative valuation using multiples and comparable analysis.
5. Students will be able to analyze valuation in M&A deals and evaluate the impact of strategic decisions on value.
6. Students will be able to apply advanced valuation techniques to real-world companies and generate actionable insights for stakeholders.

Learning Resources:

Required Resources:

- Damodaran, A. (2012). *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*. Wiley.
- Damodaran, A. (2002). *The Dark Side of Valuation: Valuing Old Tech, New Tech, and New Economy Companies*. FT Press.

Recommended Resources:

- Koller, T., Goedhart, M., & Wessels, D. (2020). *Valuation: Measuring and Managing the Value of Companies*. McKinsey & Company Inc., Wiley.
- Hitchner, J. R. (2017). *Financial Valuation: Applications and Models*. Wiley Finance.
- Rosenbaum, J., & Pearl, J. (2013). *Investment Banking: Valuation, Leveraged Buyouts, and Mergers & Acquisitions*. Wiley.

B.Sc Finance –3rd Year
Semester V
Financial Markets and Institutions BSF FIN 303

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Course Name: Financial Markets and Institutions
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 303

Course Objectives:

1. To understand the structure, components, and functioning of financial markets and institutions.
2. To gain insights into the roles and functions of financial institutions such as banks, insurance companies, mutual funds, and regulatory bodies.
3. To analyze the functioning of money and capital markets, and understand the instruments traded in them.
4. To study the regulatory framework and recent reforms governing financial markets and institutions.
5. To evaluate the global financial environment and its impact on domestic financial systems.
6. To develop critical thinking regarding the interrelationship between financial markets, economic stability, and investor behavior.

Course Description:

This course explores the dynamic world of financial markets and institutions. It begins with an overview of the financial system, introducing students to various financial instruments, market participants, and regulatory bodies. The course then delves into the characteristics and functions of money and capital markets, providing a deep understanding of instruments such as treasury bills, bonds, debentures, and equities. Emphasis is placed on the functioning and role of key financial institutions including banks, NBFCs, mutual funds, and insurance companies. The course also introduces students to regulatory frameworks established by bodies such as RBI, SEBI, and IRDAI, and covers major financial reforms. Through case studies, students examine current developments in global and Indian financial markets and critically assess the role of financial institutions in economic development and risk management.

Course Content:

Unit	Topic	Content
I	Introduction to Financial Markets and Institutions	Overview of Financial System; Role of Financial Markets; Classification: Money Market vs. Capital Market; Role of Financial Intermediaries
	Money Market	Features and Instruments: Treasury Bills, Commercial Papers, Certificates of Deposit, Call Money; Participants; Role of RBI
	Capital Market	Structure: Primary & Secondary Markets; Instruments: Equity, Preference Shares, Debentures, Bonds; Role of SEBI
II	Financial Institutions	Commercial Banks, Cooperative Banks, Regional Rural Banks; Non-Banking Financial Companies (NBFCs); Mutual Funds: Types, NAV, Risk & Return
	Insurance Sector	Life and Non-Life Insurance; Role of IRDAI; Overview of Public vs. Private Insurance Companies
	Development Financial Institutions (DFIs)	NABARD, SIDBI, EXIM Bank, NHB – Objectives, Functions and Role in Economic Development
III	Financial Services	Investment Banking; Credit Rating Agencies; Merchant Banking; Lease and Hire Purchase; Factoring and Forfaiting
	Global Financial Institutions	World Bank, IMF, BIS, ADB – Structure, Role, and Influence on Indian Markets
IV	Regulation and Reforms	Regulatory Framework: RBI, SEBI, IRDAI – Functions and Powers; Financial Sector Reforms since 1991; Impact of Liberalization and Globalization
	Current Trends and Innovations	Fintech and Digital Payments; Crypto Assets and Blockchain; Role of AI in Financial Services; ESG Investing

Course Outcomes (COs):

1. Students will be able to identify and describe the key components of the financial system and their interrelationships.
2. Students will understand the instruments, participants, and functions of money and capital markets.
3. Students will gain knowledge of the operations and impact of various financial institutions, including banks, insurance firms, and NBFCs.
4. Students will be able to analyze financial regulations and reforms and assess their effects on market stability and growth.

5. Students will demonstrate understanding of global financial institutions and the interconnectedness of global and domestic financial systems.
6. **(CO6):** Students will critically evaluate emerging trends and innovations in financial services and their implications for the future.

Learning Resources:

Required Resources:

- *Financial Markets and Institutions* by Frederic S. Mishkin and Stanley Eakins, Pearson Education
- *Indian Financial System* by M. Y. Khan, McGraw Hill Education

Recommended Resources:

- *The Indian Financial System: Markets, Institutions and Services* by Bharati V. Pathak, Pearson Education
- *Financial Institutions and Markets* by L.M. Bhole & Jitendra Mahakud, McGraw Hill Education
- RBI, SEBI, and IRDAI Official Websites and Circulars
- Financial newspapers and databases such as The Economic Times, Bloomberg, and NSE/BSE portals

B.Sc Finance –3rd Year
Semester V
Technical Analysis BSF FIN 305

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Course Name: Technical Analysis
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 305

Course Objectives:

1. To provide a foundational understanding of technical analysis concepts and tools used in financial markets.
2. To enable students to interpret price charts and identify patterns for forecasting market trends.
3. To equip students with the skills to use technical indicators and oscillators in evaluating investment decisions.
4. To understand market psychology and sentiment through price-volume dynamics.
5. To learn how to use charting software and real-time data for technical trading strategies.
6. To critically evaluate the strengths and limitations of technical analysis in comparison to fundamental analysis.

Course Description:

This course offers a comprehensive overview of technical analysis and its applications in financial markets. It begins with the principles underlying market action, focusing on price patterns and volume trends. Students will learn to use various chart types, recognize classical chart patterns, and apply trend lines and support/resistance levels. The course further explores momentum indicators, moving averages, and oscillators such as RSI and MACD. Students will gain hands-on experience with technical charting platforms and learn to formulate and test basic trading strategies. Emphasis is placed on understanding market psychology, identifying trend reversals, and managing risk. Real-time data analysis and case studies will ensure practical understanding of concepts.

Course Content:

Unit	Topic	Content
I	**Introduction to Technical Analysis**	Definition, Scope, and Assumptions of Technical Analysis Difference between Technical and Fundamental Analysis Dow Theory and its Relevance Efficient Market Hypothesis vs Technical Analysis
	Charts and Chart Patterns	Types of Charts: Line, Bar, Candlestick Support and Resistance Trend Lines and Channels Reversal and Continuation Patterns: Head & Shoulders, Double Top/Bottom, Triangles, Flags & Pennants
II	**Indicators and Oscillators**	Moving Averages (SMA, EMA) MACD, RSI, Stochastic Oscillator Bollinger Bands Volume and Open Interest Analysis
	Trend Analysis and Market Phases	Identifying Market Trends Trend Strength and Duration Market Phases: Accumulation, Mark-up, Distribution, Decline Concept of Momentum and Mean Reversion
III	**Trading Strategies and Risk Management**	Breakout and Reversal Trading Strategies Swing Trading and Intraday Trading Risk Management Tools: Stop Loss, Target, Position Sizing Backtesting and Evaluation of Strategies
	Technical Tools and Software	Use of Charting Software (e.g., TradingView, MetaTrader) Real-Time Market Data Analysis Simulated Trading and Practical Assignments Case Studies on Successful Trading Models
IV	**Market Psychology and Sentiment Analysis**	Role of Behavioral Finance in Technical Analysis Sentiment Indicators Contrarian Indicators and Crowd Psychology Fear and Greed Index, Put-Call Ratio

Course Outcomes (COs):

1. Students will be able to interpret and construct various types of price charts and identify market trends and patterns.
2. Students will be able to apply technical indicators and oscillators to assess market momentum and signal potential trading opportunities.
3. Students will demonstrate the ability to develop basic technical trading strategies and apply risk management techniques.
4. Students will gain hands-on experience in using charting tools and software for real-time market analysis and decision-making.
5. Students will understand the impact of market psychology and sentiment on price movements and trading behavior.
6. Students will be able to critically compare technical and fundamental approaches to investment analysis.

Learning Resources:

Required Resources:

- *Technical Analysis of the Financial Markets* by John J. Murphy, New York Institute of Finance
- *Encyclopedia of Chart Patterns* by Thomas Bulkowski, Wiley

Recommended Resources:

- *Trading in the Zone* by Mark Douglas
- *Technical Analysis Explained* by Martin J. Pring
- *The Psychology of Trading* by Brett N. Steenbarger
- Charting platforms: TradingView, MetaTrader, NSE/BSE Live Charts

B.Sc Finance –3rd Year
Semester V
Innovative Financial Analytics BSF FIN 307

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Course Name: Innovative Financial Analytics
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 307

Course Objectives:

1. To equip students with analytical tools and techniques used in modern financial analysis and decision-making.
2. To enable students to integrate financial theories with analytical software and data-driven models.
3. To enhance the ability to apply machine learning and AI-based approaches for financial forecasting and insights.
4. To develop hands-on expertise in working with financial data using Excel, Python, R, and BI tools.
5. To cultivate strategic thinking by applying advanced analytics in investment analysis, risk management, and portfolio optimization.
6. To foster innovation and critical thinking by solving real-world financial problems using data analytics.

Course Description:

This course offers a deep dive into the integration of innovative data analytics tools with core financial decision-making frameworks. It focuses on using programming languages like Python and R, Excel models, and business intelligence tools to extract insights from financial data. Students will explore topics such as predictive analytics, sentiment analysis, algorithmic trading basics, financial modelling automation, and data visualization in finance. The course includes hands-on case studies and projects that require application of tools to solve real-time financial challenges, including portfolio analysis, credit scoring models, and risk predictions. Emphasis is laid on the ethical and regulatory aspects of using data in finance.

Course Content:

Unit	Topics
I	**Introduction to Financial Analytics** - Role of Analytics in Modern Finance - Types of Financial Data - Introduction to Financial Databases - Tools Used: Excel, Python, Power BI, R **Descriptive Analytics in Finance** - Data Cleaning and Preprocessing - Financial Statement Analysis using Excel - KPI Dashboards using Power BI
II	**Predictive Analytics & Forecasting** - Time Series Analysis (ARIMA, ETS) - Regression Models in Financial Forecasting - Case Studies: Stock Price Prediction, Revenue Forecasting **Risk Analytics** - Credit Risk Modelling - Value-at-Risk (VaR) Calculation - Fraud Detection Models
III	**Algorithmic Thinking & Machine Learning in Finance** - Introduction to ML Concepts - Classification & Clustering (e.g., KNN, Decision Trees) - Building and Evaluating Financial Models using Python/R **Sentiment Analysis & Text Analytics** - NLP Basics - Sentiment Analysis on Financial News & Social Media - Case Study: Impact of News on Stock Prices
IV	**Innovative Applications and Emerging Trends** - Robotic Process Automation (RPA) in Finance - Blockchain Analytics & Crypto Forecasting - ESG Data Analytics - AI in Portfolio Management **Capstone Project** - Students will work on a live or simulated financial analytics problem using datasets and analytical tools

Course Outcomes (COs):

1. Students will understand the role and application of financial analytics tools in decision-making.
2. Students will be able to prepare interactive dashboards and perform descriptive analytics on financial data.
3. Students will be able to apply predictive models and interpret their relevance in financial forecasting.
4. Students will be capable of developing machine learning-based models to support financial decisions.
5. Students will evaluate risks and implement analytics-based solutions in areas such as fraud detection, credit scoring, and VaR.
6. Students will be able to synthesize innovative analytical techniques to tackle real-world financial challenges.

Learning Resources:

Required Resources:

- *Financial Analytics with R: Building a Laptop Laboratory for Data Science* by Mark J. Bennett & Dirk L. Hugen, Cambridge University Press.
- *Python for Finance: Mastering Data-Driven Finance* by Yves Hilpisch, O'Reilly Media.
- *Data Science for Business* by Foster Provost & Tom Fawcett, O'Reilly Media.

Recommended Resources:

- *Hands-On Financial Modeling with Excel for Microsoft 365* by Shmuel Oluwa, Packt Publishing.
- *Power BI for the Excel Analyst* by Wyn Hopkins, Holy Macro! Books.
- *Machine Learning for Finance* by Jannes Klaas, Packt Publishing.

B.Sc Finance –3rd Year
Semester V
Cryptos, AI, ML, Block Chain and its application BSF BA 301

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Course Name: Cryptos, AI, ML, Block Chain and its application
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF BA 301

Course Objectives:

1. To understand the evolution, structure, and functioning of cryptocurrencies and blockchain technology in the context of modern financial systems.
2. To gain foundational knowledge in Artificial Intelligence (AI) and Machine Learning (ML) and their significance in data-driven financial decision-making.
3. To explore the application of blockchain in financial services including payments, smart contracts, and decentralized finance (DeFi).
4. To develop the ability to apply AI and ML tools to predict market trends, assess credit risk, and detect fraud in financial transactions.
5. To evaluate the risks, challenges, and ethical considerations involved in the adoption of emerging technologies in the financial domain.
6. To integrate theory with practice through real-world case studies, simulations, and tools related to cryptos, AI/ML, and blockchain in finance.

Course Description:

This interdisciplinary course blends finance with cutting-edge technology by introducing students to the evolving landscape of Cryptocurrencies, Artificial Intelligence, Machine Learning, and Blockchain. Students will explore how these disruptive technologies are reshaping global finance—from decentralized currencies and AI-based investment models to smart contracts and fraud detection mechanisms. The course emphasizes practical application through tools, data analysis, and case studies, preparing students for the future of finance and technology convergence.

Course Content:

Topic/Unit	Content
I. Introduction to Cryptocurrencies	Evolution of Money and Emergence of Cryptocurrencies Overview of Bitcoin, Ethereum, and Altcoins How Cryptocurrencies Work (Mining, Wallets, Transactions) Crypto Markets and Exchanges Risks and Regulation of Cryptocurrencies Case Study: Bitcoin vs Traditional Currency
II. Blockchain Technology in Finance	Fundamentals of Blockchain Types of Blockchain: Public vs Private Consensus Mechanisms (Proof of Work, Proof of Stake) Smart Contracts and Financial Applications Decentralized Finance (DeFi) and Tokenization Blockchain in Trade Finance and Cross-Border Payments Case Study: Ripple & Cross-border Payment Systems
III. Basics of Artificial Intelligence in Finance	Introduction to AI and its Relevance in Finance Natural Language Processing (NLP) in Financial News & Sentiment Analysis AI in Robo-Advisory, WealthTech, and Chatbots Applications of AI in Portfolio Optimization and Credit Scoring Tools and Platforms: ChatGPT, AlphaSense, Bloomberg Terminal
IV. Machine Learning and Predictive Analytics in Finance	Understanding ML Algorithms (Supervised vs Unsupervised Learning) ML Techniques: Regression, Classification, Clustering Application of ML in Stock Price Forecasting and Fraud Detection Introduction to Python/R for Financial Data Analytics Case Study: ML Models in Credit Risk Evaluation

Topic/Unit	Content
V. Integration and Future Trends	Combining AI, ML, and Blockchain in Fintech Solutions Tokenomics and Web3 in Finance Digital Identity & Blockchain Compliance (KYC/AML) Regulatory Landscape and Future of RegTech Ethical Considerations & Data Privacy in AI-based Finance Capstone Project/Simulation: Building a Fintech Solution Using AI/ML/Blockchain

Course Outcomes (COs):

1. Students will be able to explain the functioning, benefits, and limitations of cryptocurrencies in the financial ecosystem.
2. Students will understand the mechanics and applications of blockchain technology in various financial domains including smart contracts and DeFi.
3. Students will be able to interpret and analyze AI applications in finance such as robo-advisors, sentiment analysis, and risk profiling.
4. Students will apply machine learning techniques to build basic financial models for prediction, classification, and decision-making.
5. Students will assess ethical, legal, and practical challenges related to the implementation of AI, ML, and blockchain in financial services.
6. Students will develop a fintech prototype or present a use-case demonstrating the integration of emerging technologies in finance.

Learning Resources:

Required Resources:

- *Mastering Blockchain* by Imran Bashir, Packt Publishing
- *Python for Finance* by Yves Hilpisch, O'Reilly Media
- *Machine Learning for Asset Managers* by Marcos López de Prado, Cambridge University Press

Recommended Resources:

- *Cryptocurrency and Blockchain Technology* by Shaen Corbet & Andrew Urquhart, Palgrave Macmillan
- *Artificial Intelligence in Finance* by Yves Hilpisch, O'Reilly Media
- Online Courses:
    - "AI in Finance" – Coursera/edX
    - "Blockchain for Business" – IBM via Coursera
    - "Crypto and DeFi Foundations" – Binance Academy

B.Sc Finance –3rd Year
Semester V
Soft Skills for Finance Professionals 1 BSF MGT 301

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Course Name: Soft Skills for Finance Professionals 1
Course Credit Hours: 1
Course Contact Hours: 1
Course Code: BSF MGT 301

Course Objectives:

1. To provide students with practical exposure to the corporate and financial world through on-the-job training.
2. To help students bridge the gap between theoretical knowledge and industry practices.
3. To develop students' skills in financial analysis, problem-solving, and decision-making in a real-world environment.
4. To enhance students' ability to understand business processes, corporate functioning, and professional work culture.
5. To encourage students to apply analytical tools and financial techniques in solving organizational issues.
6. To help students build professional networks and enhance employability through internship experience and reflective learning.

Course Description:

The Summer Internship is a structured program designed to provide TYBSc Finance students with firsthand industry experience in the field of finance. Spanning 6–8 weeks during the summer break, this internship enables students to work in financial institutions, corporate finance departments, investment firms, consulting agencies, fintech startups, or government bodies. Students will be exposed to live projects involving research, data analysis, reporting, budgeting, financial modeling, taxation, auditing, investment analysis, and more. The internship provides an opportunity for students to apply classroom knowledge to business problems, develop soft skills, and understand the nuances of the professional world. A detailed internship report and viva-voce will evaluate students' learning outcomes.

Course Content:

Phase/Module	Content
I. Pre-Internship Preparation	Orientation on internship expectations and deliverables CV and cover letter preparation Communication and workplace ethics training Pre-internship brief on company profile and assigned projects
II. Internship Engagement	Industry Placement for 6–8 weeks Exposure to functional areas such as Accounting, Taxation, Audit, Investment, Risk, Fintech, Treasury, Research Hands-on involvement in project tasks and team collaboration Weekly progress tracking and feedback from faculty and industry mentor Submission of weekly logbooks
III. Mid-Internship Review	Mid-point evaluation based on progress, learnings, and participation Feedback from the company supervisor
IV. Post-Internship Evaluation	Submission of Internship Report (with details of learning, experience, tasks completed, and impact) Presentation and viva based on internship work Assessment of problem-solving, analytical, and communication skills Faculty and industry feedback considered for final grading

Course Outcomes (COs):

1. Students will gain practical exposure to the functioning of finance-related departments and institutions.
2. Students will be able to apply classroom concepts in a real-world business context.
3. Students will enhance their analytical and problem-solving skills by working on live industry projects.
4. Students will develop professional competencies including teamwork, communication, and business etiquette.
5. Students will understand organizational structures, processes, and the importance of financial decision-making in various business scenarios.
6. Students will be able to articulate their experiences and learnings effectively in the form of reports and presentations.

Learning Resources:

Required Resources:

- Internship Handbook (provided by the University)
- Guidelines and Templates for Internship Report and Presentation

Recommended Resources:

- *Harvard Business Review on Managing Yourself*, Harvard Business Press
- *The Personal MBA* by Josh Kaufman, Penguin UK
- *Case Studies in Finance* by Robert F. Bruner, McGraw Hill Education
- Online Tools: LinkedIn Learning, Coursera, NPTEL (for Financial Modeling, Corporate Finance, Excel Analytics, etc.)

B.Sc FINANCE 3RD YEAR

SEMESTER 6

B.Sc Finance –3rd Year
Semester VI
Mergers and Acquisitions BSF FIN 302

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Course Name: Mergers and Acquisitions
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 302

Course Objectives:

1. To understand the strategic rationale, motives, and mechanics of mergers, acquisitions, and corporate restructuring.
2. To gain insights into valuation techniques used for M&A and their practical applications.
3. To explore the legal, regulatory, and tax implications of M&A in the Indian and global context.
4. To develop the ability to analyze the financial, strategic, and operational aspects of M&A transactions.
5. To evaluate post-merger integration issues, including cultural alignment, synergies, and performance measurement.
6. To critically assess real-world M&A case studies and apply theoretical knowledge to practical scenarios.

Course Description:

This course provides a comprehensive understanding of mergers, acquisitions, and corporate restructuring from a strategic, financial, and operational perspective. It covers the entire M&A lifecycle — from identifying targets and conducting due diligence to valuation, deal structuring, financing, and post-merger integration. Students will gain practical exposure to financial modeling for M&A valuation, deal negotiation, and synergy assessment. The course delves into regulatory frameworks (SEBI, Competition Act, Income Tax Act, etc.), and emphasizes both the strategic motives and pitfalls of M&A deals. Real-world case studies will be used extensively to help students develop a practical understanding of deal execution in domestic and international contexts.

Course Content:

Topic/Unit	Content
I. Introduction to M&A	- Meaning and types of Mergers and Acquisitions - Motives behind M&A (strategic, operational, financial) - Process and players involved in M&A - Synergy: Types and estimation - Corporate Restructuring: Spin-offs, divestitures, LBOs, MBOs
II. Regulatory and Legal Framework	- Legal framework for M&A in India: SEBI Takeover Code, Companies Act, Competition Act, FEMA - Due Diligence: Financial, legal, operational - Tax implications of mergers and acquisitions - Cross-border M&A and regulatory challenges
III. M&A Valuation and Deal Structuring	- Methods of Valuation: DCF, Comparable Companies, Precedent Transactions - Valuation of Synergies - Financing the deal: Cash, stock, hybrid, leveraged buyouts - Deal structuring and negotiation - Hostile takeovers and defense mechanisms
IV. Post-Merger Integration and Performance Measurement	- Cultural integration and leadership challenges - Integration planning and execution - Measuring M&A success: Financial and non-financial metrics - Managing communication and stakeholder expectations - Common reasons for M&A failures
V. Case Studies and Industry Analysis	- Case studies of successful and failed M&A deals (e.g., Vodafone-Idea, Disney-Fox, Tata-Corus) - M&A trends in India and globally - Ethical considerations and corporate governance in M&A

Course Outcomes (COs):

1. Students will be able to understand and articulate the strategic rationale and process of M&A transactions.
2. Students will be able to perform valuation and synergy analysis using industry-accepted methods.

3. Students will gain insights into legal and regulatory issues affecting M&A deals in India and globally.
4. Students will demonstrate the ability to structure M&A transactions effectively and evaluate financing alternatives.
5. Students will be able to assess post-merger integration strategies and performance outcomes.
6. Students will critically analyze real-world M&A cases and apply their understanding to evaluate deal success or failure.

Learning Resources:

Required Resources:

- *Mergers, Acquisitions and Corporate Restructuring* by Prasad G. Godbole, Vikas Publishing
- *Mergers, Acquisitions, and Other Restructuring Activities* by Donald M. DePamphilis, Academic Press

Recommended Resources:

- *Corporate Finance* by Aswath Damodaran, Wiley
- *Investment Banking: Valuation, Leveraged Buyouts, and Mergers & Acquisitions* by Joshua Rosenbaum & Joshua Pearl, Wiley
- Research papers, case studies from Harvard Business Review, McKinsey Insights, and SEBI/IBBI Reports

B.Sc Finance –3rd Year
Semester VI
Forex and International Finance

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Course Name: Forex and International Finance
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 304

Course Description:

This course aims to equip students with vital soft skills necessary for thriving in the dynamic world of foreign exchange and international finance. It emphasizes the development of communication, collaboration, and adaptability in multicultural and cross-functional teams. Through role-plays, case discussions, mock presentations, and real-world scenarios, students will improve their confidence in negotiations, business communication, and relationship management. With a focus on the forex domain, learners will also gain exposure to industry-specific expectations in professionalism, etiquette, and global business practices.

Course Content:

Topic/Unit	Content
I. Communication in Forex & Global Finance	Importance of communication in global finance and forex environments Business communication etiquette in international settings Verbal and non-verbal communication skills
II. Negotiation and Presentation Skills	Negotiation strategies in cross-border transactions Conflict resolution techniques Public speaking and persuasive presentation techniques for forex and international finance
III. Interpersonal & Cultural Intelligence	Working in multicultural environments Building cultural sensitivity and global etiquette Emotional intelligence and teamwork in global financial teams

Topic/Unit	Content
IV. Professionalism in Financial Services	Time management and work ethics Managing client expectations and relationship-building Professional grooming and email etiquette in finance
V. Practical Sessions	Role-plays on client negotiations and team communication Group activities simulating global finance scenarios Peer reviews and feedback for continuous improvement

Course Outcomes (COs):

1. Students will be able to demonstrate effective verbal and written communication in international and financial contexts.
2. Students will be able to apply negotiation and conflict resolution techniques in forex-related scenarios.
3. Students will be able to exhibit cultural intelligence and adaptability in multicultural financial environments.
4. Students will be able to maintain professional conduct and build client relationships effectively in global finance settings.
5. Students will develop team collaboration and critical thinking abilities required in the forex and international finance domain.

Learning Resources:

Required Resources:

- *Soft Skills: Enhancing Employability* by M.S. Rao, I.K. International Publishing House Pvt. Ltd., 2011
- *Business Communication: Concepts, Cases and Applications* by P.D. Chaturvedi & Mukesh Chaturvedi, Pearson Education, 2011

Recommended Resources:

- *Emotional Intelligence* by Daniel Goleman, Bantam Books, 2005
- *Interpersonal Skills at Work* by John Hayes, Routledge, 2010
- Harvard Business Review articles on cross-cultural communication and negotiation

B.Sc Finance –3rd Year
Semester VI
Fixed Income BSF FIN 306

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Course Name: Fixed Income
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 306

Course Objectives:

1. To introduce students to the structure and functioning of fixed income securities and markets.
2. To develop a strong understanding of bond valuation, yield concepts, and pricing techniques.
3. To analyze interest rate risk, credit risk, and duration/convexity for fixed income portfolios.
4. To examine the role of fixed income instruments in financial markets and investment portfolios.
5. To understand the functioning and valuation of government and corporate bonds, including embedded options.
6. To enable students to apply fixed income analytics in assessing performance and risk management.

Course Description:

This course provides a comprehensive overview of fixed income securities, markets, and portfolio strategies. Students will gain insight into the mechanics of bonds, interest rate movements, yield curves, and risk analysis. The curriculum covers valuation techniques for plain vanilla bonds, floating rate notes, and bonds with embedded options. Through practical examples and case studies, students will explore credit ratings, risk-return dynamics, and the impact of macroeconomic factors on fixed income markets. The course also delves into portfolio immunization, interest rate modeling, and fixed income derivatives, equipping students with analytical skills essential for a career in investment management, banking, or financial consulting.

Course Content:

Topic/Unit	Content
I. Introduction to Fixed Income Securities	Definition and Characteristics of Fixed Income Instruments Types of Bonds: Government, Corporate, Municipal, and Structured Products Bond Markets and Trading Mechanisms
II. Bond Valuation and Yield Measures	Time Value of Money Applications in Bonds Bond Pricing Models Yield to Maturity (YTM), Current Yield, Yield to Call Accrued Interest and Clean vs. Dirty Price
III. Term Structure of Interest Rates and Yield Curves	Spot Rates and Forward Rates Theories of Term Structure: Expectations, Liquidity Preference, Market Segmentation Yield Curve Construction and Interpretation
IV. Risk in Fixed Income Securities	Interest Rate Risk: Duration and Convexity Reinvestment Risk Credit Risk and Credit Spreads Default Risk and Ratings
V. Bond Portfolio Management	Active vs. Passive Strategies Immunization Strategies Laddering, Barbell, and Bullet Strategies Performance Measurement and Attribution
VI. Special Topics in Fixed Income	Floating Rate Notes and Inflation-Linked Bonds Callable and Putable Bonds Mortgage-Backed Securities and Prepayment Risk Introduction to Interest Rate Derivatives (Swaps, Futures, Options)

Course Outcomes (COs):

1. Students will demonstrate knowledge of fixed income markets and instruments.
2. Students will be able to value bonds and compute various yield measures.
3. Students will understand the term structure of interest rates and analyze yield curves.
4. Students will identify and assess risks associated with fixed income securities.
5. Students will evaluate and design fixed income portfolios using appropriate strategies.
6. Students will apply analytical techniques to price complex bond instruments and understand derivatives in fixed income.

Learning Resources:

Required Resources:

- *Fixed Income Securities: Tools for Today's Markets* by Bruce Tuckman & Angel Serrat, Wiley (Latest Edition)
- *Bond Markets, Analysis and Strategies* by Frank J. Fabozzi, Pearson (Latest Edition)

Recommended Resources:

- ***The Handbook of Fixed Income Securities* by Frank J. Fabozzi, McGraw Hill**
- ***Fixed Income Mathematics* by Frank J. Fabozzi, McGraw Hill**
- ***Debt Markets and Analysis* by Moorad Choudhry, Wiley**

B.Sc Finance –3rd Year
Semester VI
Alternate Investments BSF FIN 308

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Course Name: Alternate Investments
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 308

Course Objectives:

1. To introduce students to the various types of alternative investments, including private equity, hedge funds, real assets, and commodities.
2. To understand the role of alternative investments in portfolio diversification and risk-return optimization.
3. To develop skills in evaluating the performance, risk metrics, and valuation techniques of alternative investments.
4. To analyze the regulatory, ethical, and operational issues surrounding alternative investments.
5. To assess due diligence processes and investment strategies applicable to different alternative investment vehicles.
6. To provide real-world applications and case studies to help students understand the dynamics and decision-making involved in alternative investing.

Course Description:

This course explores the landscape of alternative investments beyond traditional asset classes like equities and bonds. It delves into hedge funds, private equity, venture capital, real estate, infrastructure, and commodities, emphasizing their characteristics, benefits, risks, and role in portfolio construction. Students will learn key valuation methodologies, performance metrics, and strategic considerations unique to each investment type. The course also examines due diligence practices, regulatory frameworks, and ethical concerns in managing alternative investments. Through practical examples and case studies, students will gain a deeper understanding of how institutional and high-net-worth investors approach alternative investment opportunities.

Course Content:

Unit	Topic	Content
I	Introduction to Alternative Investments	Definition and scope of alternative investments Comparison with traditional investments Importance in modern portfolio theory
	Hedge Funds	Types and strategies (long/short, market neutral, global macro, event-driven) Fee structures and incentive mechanisms Risk-return profile and performance metrics
	Private Equity	Types: Venture Capital, Buyouts, Growth Capital Fund structure and life cycle Valuation techniques Exit strategies
II	Real Assets	Introduction to real estate and infrastructure investments REITs and direct investments Valuation and risk factors Role in portfolio diversification
	Commodities	Types of commodities (energy, agriculture, metals) Futures and spot markets Risk, return, and inflation-hedging properties Commodity indices
III	Portfolio Construction with Alternatives	Role of alternatives in portfolio optimization Modern Portfolio Theory (MPT) and alternatives Asset allocation strategies involving alternatives Liquidity and correlation analysis
	Performance Measurement and Risk	Risk-adjusted return measures (Sharpe, Sortino, IR) Due diligence and manager selection Regulatory and ethical considerations
	Current Trends and Case Studies	Impact of technology and fintech on alternative investing Environmental, Social, and Governance (ESG) integration Real-world case studies across different asset classes

Course Outcomes (COs):

1. Students will understand and distinguish between traditional and alternative investments and their roles in financial markets.
2. Students will gain practical knowledge of hedge fund and private equity strategies and be able to assess their structure and performance.
3. Students will be able to analyze and evaluate real assets and commodities in the context of risk, return, and portfolio inclusion.
4. Students will understand portfolio diversification and asset allocation strategies involving alternative investments.
5. Students will be able to apply performance measurement and risk management techniques in evaluating alternative investments.
6. Students will gain exposure to contemporary issues and trends, including ESG and fintech, impacting the alternative investment landscape.

Learning Resources:

Required Resources:

- *Alternative Investments: CAIA Level I* by Donald R. Chambers, Mark J. P. Anson, Keith H. Black (Wiley, Latest Edition)
- *Private Equity: History, Governance, and Operations* by Harry Cendrowski, James P. Martin (Wiley, Latest Edition)

Recommended Resources:

- *Hedge Funds: An Analytic Perspective* by Andrew W. Lo (Princeton University Press)
- *Real Estate Investment: A Strategic Approach* by David M. Geltner (Routledge)
- CFA Institute – Reading Materials on Alternative Investments (Level I & II)

B.Sc Finance –3rd Year
Semester VI
Behavioural Finance BSF FIN 310

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Course Name: Behavioural Finance
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 310

Course Description:

This course introduces students to the emerging field of Behavioural Finance, which integrates psychology and economics to explain investor behavior and market outcomes. It challenges traditional financial theories like the Efficient Market Hypothesis by exploring real-world deviations resulting from human irrationality. Students will explore psychological concepts such as heuristics, biases, overconfidence, mental accounting, and prospect theory. The course also addresses behavioural aspects of market bubbles, crashes, and anomalies. With practical examples and case studies, students will gain the tools to recognize and counteract cognitive errors in financial decision-making, ultimately developing more robust investment and risk management strategies.

Course Content:

Topic/Unit	Content
I	**Introduction to Behavioural Finance** - Definition and scope - Traditional vs Behavioural Finance - Evolution of Behavioural Finance as a discipline - Foundations: Cognitive Psychology, Neuroscience, and Behavioural Economics
II	**Cognitive Biases and Heuristics** - Anchoring, Framing, Mental Accounting - Representativeness, Availability, Overconfidence, and Confirmation Bias - Loss Aversion and Prospect Theory - Case studies and investor decision errors
III	**Behavioural Finance and Market Outcomes** - Herd Behaviour and Groupthink

Topic/Unit	Content
	- Bubbles and Crashes
	- Market Anomalies (January Effect, Momentum, Overreaction)
	- Behavioural Asset Pricing Models
	Investor Psychology and Decision-Making
	- Risk Perception and Emotional Investing
IV	- Behavioural Portfolio Theory
	- Behavioural Life-Cycle Hypothesis
	- Neurofinance and decision neuroscience
	Applications in Personal and Corporate Finance
	- Behavioural Aspects of Financial Planning
V	- Role of Behavioural Finance in Retirement and Insurance Decisions
	- Impact on Corporate Financial Decisions and Managerial Biases
	- Behavioural Corporate Finance case studies

Course Outcomes (COs):

1. Students will be able to differentiate between traditional and behavioural finance, and understand the significance of behavioural insights in finance.
2. Students will be able to identify and explain common cognitive biases and heuristics affecting investor decision-making.
3. Students will be able to analyze market phenomena such as anomalies, bubbles, and crashes using behavioural theories.
4. Students will be able to apply behavioural concepts to improve investment strategies, personal financial planning, and risk assessment.
5. Students will be able to assess the implications of behavioural biases in corporate finance decisions and managerial practices.

Learning Resources:

Required Resources:

- *Behavioural Finance: Insights into Irrational Minds and Markets* by James Montier, Wiley Finance
- *Behavioural Finance* by Parag Parikh, McGraw Hill Education

Recommended Resources:

- *Thinking, Fast and Slow* by Daniel Kahneman, Farrar, Straus and Giroux
- *Misbehaving: The Making of Behavioural Economics* by Richard Thaler, W.W. Norton & Company
- Research Papers from Journal of Behavioural Finance and Harvard Business Review

B.Sc Finance –3rd Year
Semester VI
Research Application in Finance (Capstone Project) BSF RES 302

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Course Name: Research Application in Finance (Capstone Project)
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF RES 302

Course Objectives:

1. To understand the foundations of behavioural finance and how it contrasts with traditional financial theories.
2. To analyze the psychological influences and cognitive biases that affect individual and group investor behavior.
3. To evaluate the impact of heuristics, emotions, and framing on financial decision-making.
4. To examine market anomalies and inefficiencies using behavioural models.
5. To apply behavioural insights to investment strategies, financial planning, and corporate decision-making.
6. To explore the role of behavioural finance in risk assessment and portfolio management.

Course Description:

This course introduces students to the emerging field of Behavioural Finance, which integrates psychology and economics to explain investor behavior and market outcomes. It challenges traditional financial theories like the Efficient Market Hypothesis by exploring real-world deviations resulting from human irrationality. Students will explore psychological concepts such as heuristics, biases, overconfidence, mental accounting, and prospect theory. The course also addresses behavioural aspects of market bubbles, crashes, and anomalies. With practical examples and case studies, students will gain the tools to recognize and counteract cognitive errors in financial decision-making, ultimately developing more robust investment and risk management strategies.

Course Content:

Topic/Unit	Content
I	**Introduction to Behavioural Finance** - Definition and scope - Traditional vs Behavioural Finance - Evolution of Behavioural Finance as a discipline - Foundations: Cognitive Psychology, Neuroscience, and Behavioural Economics
II	**Cognitive Biases and Heuristics** - Anchoring, Framing, Mental Accounting - Representativeness, Availability, Overconfidence, and Confirmation Bias - Loss Aversion and Prospect Theory - Case studies and investor decision errors
III	**Behavioural Finance and Market Outcomes** - Herd Behaviour and Groupthink - Bubbles and Crashes - Market Anomalies (January Effect, Momentum, Overreaction) - Behavioural Asset Pricing Models
IV	**Investor Psychology and Decision-Making** - Risk Perception and Emotional Investing - Behavioural Portfolio Theory - Behavioural Life-Cycle Hypothesis - Neurofinance and decision neuroscience
V	**Applications in Personal and Corporate Finance** - Behavioural Aspects of Financial Planning - Role of Behavioural Finance in Retirement and Insurance Decisions - Impact on Corporate Financial Decisions and Managerial Biases - Behavioural Corporate Finance case studies

Course Outcomes (COs):

1. Students will be able to differentiate between traditional and behavioural finance, and understand the significance of behavioural insights in finance.
2. Students will be able to identify and explain common cognitive biases and heuristics affecting investor decision-making.
3. Students will be able to analyze market phenomena such as anomalies, bubbles, and crashes using behavioural theories.
4. Students will be able to apply behavioural concepts to improve investment strategies, personal financial planning, and risk assessment.

5. Students will be able to assess the implications of behavioural biases in corporate finance decisions and managerial practices.

Learning Resources:

Required Resources:

- *Behavioural Finance: Insights into Irrational Minds and Markets* by James Montier, Wiley Finance
- *Behavioural Finance* by Parag Parikh, McGraw Hill Education

Recommended Resources:

- *Thinking, Fast and Slow* by Daniel Kahneman, Farrar, Straus and Giroux
- *Misbehaving: The Making of Behavioural Economics* by Richard Thaler, W.W. Norton & Company
- Research Papers from Journal of Behavioural Finance and Harvard Business Review

B.Sc Finance –3rd Year
Semester VI
Soft Skills for Finance Professionals 2 BSF MGT 302

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Course Name: Soft Skills for Finance Professionals 2
Course Credit Hours: 1
Course Contact Hours: 1
Course Code: BSF MGT 302

Course Objectives:

1. To refine professional communication skills with a focus on financial contexts.
2. To strengthen interpersonal abilities for collaboration and leadership within financial environments.
3. To enhance problem-solving, decision-making, and negotiation skills in finance-related scenarios.
4. To foster adaptability, resilience, and professional etiquette in the workplace.
5. To equip students with the ability to present financial insights effectively through impactful presentations and storytelling techniques.
6. To prepare students for job readiness through mock interviews, CV writing, and group discussions.

Course Description:

This course is designed to provide TYBSc Finance students with advanced soft skills tailored to the professional finance industry. Emphasis is placed on effective communication, leadership, emotional intelligence, and teamwork, all of which are critical for succeeding in dynamic financial settings. Students will learn how to present complex financial data in a clear and compelling manner and engage in activities that simulate real-world workplace situations. Sessions will include mock interviews, case-based discussions, and professional communication workshops, preparing students for internships and full-time careers in finance. The course combines theoretical insights with practical application to ensure well-rounded professional development.

Course Content:

Topic/Unit	Content
I. Communication in Finance	Importance of Communication in Financial Roles Business Email & Report Writing

Topic/Unit	Content
	Presentation Skills for Financial Data Communicating with Clients & Stakeholders
II. Teamwork and Leadership	Team Dynamics in Financial Projects Leadership Styles and Application in Finance Conflict Management and Collaboration Case Studies on Team Roles
III. Emotional Intelligence & Adaptability	Self-Awareness and Self-Regulation Empathy and Social Skills in Finance Handling Stress and Pressure in Financial Jobs Resilience and Growth Mindset
IV. Professionalism and Workplace Etiquette	Dressing and Conducting Professionally Time Management & Punctuality Ethical Behavior and Integrity in Finance Workplace Communication Protocols
V. Job Readiness & Career Skills	Resume and Cover Letter for Finance Roles Group Discussions: Finance Topics Mock Interviews with Feedback Elevator Pitch & Networking Skills

Course Outcomes (COs):

1. Students will demonstrate improved verbal and written communication skills, specifically for financial environments.
2. Students will display enhanced teamwork, leadership, and collaboration abilities in group finance-based tasks.
3. Students will apply emotional intelligence and professional etiquette in workplace simulations.
4. Students will be prepared to face job interviews, group discussions, and other recruitment processes with confidence.

Learning Resources:

Required Resources:

- *Soft Skills: Enhancing Employability* by M. S. Rao, I.K. International Publishing House, 2011
- *Business Communication: Building Critical Skills* by Locker & Kaczmarek, McGraw Hill Education

Recommended Resources:

- *Emotional Intelligence: Why It Can Matter More Than IQ* by Daniel Goleman, Bantam Books
- *How to Win Friends and Influence People* by Dale Carnegie, Simon & Schuster
- Online Courses: LinkedIn Learning – *Communication & Teamwork for Finance Professionals*

B.Sc FINANCE 4TH YEAR

SEMESTER 7

B.Sc Finance – 4th Year
Semester VII
Entrepreneural Finance BSF FIN 401

L	T	P
4	-	-

Course Name: Entrepreneural Finance
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF FIN 401

Course Objectives:

1. To introduce students to the financial decision-making processes within entrepreneurial ventures.
2. To understand various sources of funding available to startups and small businesses.
3. To equip students with the tools to assess the financial viability of a business idea.
4. To enable students to create effective financial plans, including forecasting and budgeting for startups.
5. To understand the valuation of early-stage ventures and the impact of different financing options on ownership and control.
6. To develop an understanding of exit strategies for entrepreneurs, such as IPOs, acquisitions, and buyouts.

Course Description:

Entrepreneurial Finance focuses on the financial tools and strategies that entrepreneurs need to successfully start, grow, and manage new ventures. The course provides a foundational understanding of key concepts such as capital structuring, business valuation, and fundraising strategies from investors like venture capitalists, angel investors, and crowdfunding platforms. It also emphasizes practical aspects like forecasting cash flows, managing burn rates, and negotiating term sheets. Through real-world case studies and simulations, students will learn how financial decisions impact both the short-term operations and long-term strategic goals of a business.

Course Content:

Topic/Unit	Content
I. Introduction to Entrepreneurial Finance	Concept and Importance of Entrepreneurial Finance Role of Finance in Startups and New Ventures Differences between Corporate and Entrepreneurial Finance
II. Sources of Finance for Entrepreneurs	Equity vs Debt Financing Angel Investors, Venture Capital, Private Equity Crowdfunding and Government Grants Bootstrapping
III. Startup Financial Planning	Forecasting Revenues and Costs Understanding Burn Rate and Runway Preparation of Simple Budgets and Cash Flow Statements
IV. Business Valuation and Investment Readiness	Valuation Methods for Startups (DCF, VC Method, Comparables) Term Sheets and Deal Structuring Equity Dilution and Cap Tables
V. Exit Strategies	Types of Exit Options: IPO, Acquisition, Mergers, Buyouts Investor Returns and Strategic Planning for Exit

Course Outcomes (COs):

1. Students will understand the fundamentals of financial planning for startups and new ventures.
2. Students will be able to identify and evaluate different sources of startup financing.
3. Students will be able to construct simple financial forecasts and manage startup cash flows.
4. Students will be able to interpret startup valuation models and understand term sheet components.
5. Students will be familiar with the implications of different exit strategies for entrepreneurs and investors.

Learning Resources:

Required Resources:

- Leach, J. C., & Melicher, R. W. (2019). *Entrepreneurial Finance* (6th Edition). Cengage Learning.
- Smith, J. K., & Smith, R. L. (2010). *Entrepreneurial Finance: Strategy, Valuation, and Deal Structure*. Stanford University Press.

Recommended Resources:

- Timmons, J. A., & Spinelli, S. (2015). *New Venture Creation: Entrepreneurship for the 21st Century*. McGraw-Hill Education.
- Pratt's Guide to Private Equity & Venture Capital Sources (latest edition)
- Case studies from Harvard Business School and Stanford eCorner (as provided during lectures)

B.Sc Finance – 4th Year
Semester VII
Securities Operations And Risk Management

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Course Name: Securities Operations And Risk Management
Course Credit Hours: 3
Course Contact Hours: 3
Course Code: BSF FIN 403

Course Objectives:

1. To introduce students to the structure and functions of securities markets and understand the role of key market participants.
2. To provide a clear understanding of operational procedures in securities trading, clearing, and settlement.
3. To enable students to grasp risk management concepts and techniques applied in securities operations.
4. To familiarize students with regulatory compliance and surveillance mechanisms in financial markets.
5. To impart practical knowledge of various types of risks such as counterparty risk, settlement risk, and operational risk in the context of securities markets.

Course Description:

This course offers a foundational overview of how securities markets operate, focusing on the life cycle of a securities transaction — from order placement to clearing and settlement. Students will understand the roles of stock exchanges, depositories, clearing corporations, and other intermediaries. The course also explores the regulatory and surveillance framework that governs market integrity. A key focus is on identifying and mitigating risks involved in securities operations through effective risk management systems. This practical and industry-relevant course is ideal for students aspiring to work in financial institutions, brokerages, or investment firms.

Course Content:

Unit	Topic	Subtopics
I	**Introduction to Securities Market**	Overview of Capital Markets and Participants (Investors, Brokers, Exchanges, Depositories)

Unit	Topic	Subtopics
II	**Securities Operations**	Primary vs. Secondary Market Types of Securities: Equity, Bonds, Mutual Funds Trade Lifecycle: Order Initiation, Matching, Trade Confirmation Clearing and Settlement Process Role of NSDL, CDSL, and Clearing Corporations (NSCCL, ICCL) Dematerialization and Rematerialization
III	**Risk Management in Securities Operations**	Types of Risks: Market Risk, Operational Risk, Credit Risk, Counterparty Risk Margining and Collateral Mechanisms Surveillance and Risk Containment Measures by SEBI and Exchanges
IV	**Regulatory Framework and Compliance**	Key SEBI Regulations KYC Norms and Client Onboarding AML Guidelines Role of Compliance Officer Case Studies of Operational Failures and Risk Management Responses

Course Outcomes (COs):

1. Students will be able to explain the structure of securities markets and the role of intermediaries.
2. Students will be able to describe the trade lifecycle and operational procedures in securities transactions.
3. Students will be able to identify various risks involved in securities operations and propose risk mitigation strategies.
4. Students will gain awareness of key regulatory guidelines and the importance of compliance in securities markets.

Learning Resources:

Required Resources:

- *NISM Series VII: Securities Operations and Risk Management Manual*, National Institute of Securities Markets (Latest Edition)
- *Indian Securities Market: A Review*, NSE India Publications

Recommended Resources:

- *Capital Markets and Securities Laws*, NISM Workbook, Taxmann Publications
- *SEBI (Securities and Exchange Board of India) Official Website* – www.sebi.gov.in
- *Understanding Financial Risk Management* by Angelo Corelli, Routledge

B.Sc Finance – 4th Year
Semester VII
Public Finance BSF FIN 405

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3	-	-

Course Name: Public Finance
Course Credit Hours: 3
Course Contact Hours: 3
Course Code: BSF FIN 405

Course Objectives:

1. To understand the role of government in the economy and the fundamentals of public finance theory.
2. To explore various sources of public revenue and the principles of taxation.
3. To examine public expenditure, budgeting processes, and fiscal policy frameworks.
4. To analyze public debt and its implications on economic stability.
5. To study the federal finance structure and issues related to fiscal federalism and decentralization.
6. To assess the effectiveness and impact of government policies on resource allocation and income distribution.

Course Description:

This course introduces students to the essential concepts and analytical tools of public finance. It emphasizes the role of government in the allocation of resources, income redistribution, and economic stabilization. The course covers the sources and effects of government revenues and expenditures, the structure and impact of taxation, and the principles of sound budgeting. Students will also learn about fiscal policy, public debt management, and intergovernmental financial relations. Case studies and current policy issues will be incorporated to connect theoretical frameworks with practical challenges in public financial management.

Course Content:

Topic/Unit	Content
I. Introduction to Public Finance	Nature and Scope of Public Finance Market Failure and Role of Government Principles of Public Finance

Topic/Unit	Content
II. Public Revenue	Sources of Public Revenue Principles of Taxation Types of Taxes: Direct and Indirect Impact, Incidence, and Shifting of Taxes
III. Public Expenditure	Classification and Causes of Public Expenditure Growth Effects of Public Expenditure Wagner's Law and Peacock-Wiseman Hypothesis
IV. Public Budgeting and Fiscal Policy	Budgetary Process and Types of Budgets Performance and Zero-Based Budgeting Fiscal Policy: Objectives and Instruments Balanced vs. Unbalanced Budgets
V. Public Debt	Types and Sources of Public Debt Burden of Public Debt Debt Management and Sustainability Debt Redemption Methods
VI. Fiscal Federalism and Local Government Finance	Division of Functions and Resources Finance Commissions and Grants-in-Aid Issues in Centre-State Financial Relations Local Government Finances and Challenges

Course Outcomes (COs):

1. Students will be able to explain the scope and significance of public finance and the rationale behind government intervention.
2. Students will gain knowledge of various revenue sources and understand the structure and implications of taxation.
3. Students will be able to analyze trends, causes, and consequences of public expenditure.
4. Students will understand the budgeting process and the role of fiscal policy in economic management.
5. Students will be able to assess the types, implications, and management strategies of public debt.
6. Students will develop an understanding of fiscal federalism and evaluate the challenges in intergovernmental financial relations.

Learning Resources:

Required Resources:

- *Public Finance* by H.L. Bhatia, Vikas Publishing House, 2021
- *Modern Public Finance* by S.K. Singh, McGraw Hill Education, 2017

Recommended Resources:

- *Public Finance and Public Policy* by Jonathan Gruber, Worth Publishers, 2019
- *The Economics of the Public Sector* by Joseph E. Stiglitz & Jay Rosengard, W.W. Norton & Company, 2015
- Reports of Finance Commissions, Union Budget Documents, and RBI Reports on State Finances

B.Sc Finance – 4th Year

Semester VII

Research Application in Finance 1 BSF RES 401

L	T	P
4	-	-

Course Name: Research Application in Finance 1
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF RES 401

Course Objectives:

1. To equip students with the skills to apply research methodologies in identifying and solving real-world financial problems.
2. To enable students to design, plan, and execute finance-focused research projects independently.
3. To guide students in collecting, analyzing, and interpreting primary and secondary financial data.
4. To foster critical thinking in evaluating financial models, theories, and data in empirical research.
5. To enhance students' ability to draw meaningful conclusions and make recommendations based on research findings.
6. To prepare students to effectively communicate research outcomes through professional reports and presentations.

Course Description:

This course is designed to bridge theoretical financial knowledge and practical application through structured research. Students will explore how to frame research problems, develop hypotheses, design methodologies, and employ statistical tools to analyze financial data. The course emphasizes primary data collection, secondary data sourcing (from databases like Bloomberg, NSE, RBI, etc.), and using analytical tools to draw insights from the data. Students will engage in mini-research projects aligned with topics like corporate finance, financial markets, behavioral finance, or investment analysis. Emphasis is placed on ethical research practices, academic writing, and creating research outputs that are suitable for publication or presentation.

Course Content:

Topic/Unit	Content
I. Research Foundations in Finance	Introduction to Financial Research Identifying Research Gaps Types of Financial Research: Empirical, Analytical, Case-Based, Comparative Understanding Theoretical Frameworks and Models in Finance
II. Research Design and Hypothesis Formation	Formulating Research Questions and Hypotheses Variables and Constructs in Finance Research Design Types: Exploratory, Descriptive, and Causal Sampling Techniques and Population Selection
III. Data Collection and Sources	Primary Data Collection: Surveys, Interviews, Experiments Secondary Data Collection: Financial Statements, Stock Market Data, Regulatory Reports Data Collection Tools: Google Forms, Excel, Online Databases (RBI, SEBI, NSE, Bloomberg) Data Cleaning and Validation
IV. Data Analysis and Statistical Tools	Descriptive Analysis: Mean, Median, Mode, Standard Deviation Inferential Tools: Correlation, Regression, t-Test, ANOVA Financial Metrics: NPV, IRR, Sharpe Ratio, Alpha, Beta Use of Excel / SPSS / R / Python for Financial Data Analysis
V. Research Reporting and Presentation	Structuring a Research Report: Abstract, Introduction, Literature Review, Methodology, Results, Conclusion Referencing and Citation: APA / MLA / Chicago Style Plagiarism and Ethical Research Practices Creating Presentations and Dashboards for Research Output (PowerPoint / Power BI) Peer Review and Feedback Integration

Course Outcomes (COs):

1. Students will be able to identify relevant financial research problems and formulate appropriate research questions and hypotheses.
2. Students will design suitable research methodologies and select effective data collection tools for finance research.
3. Students will demonstrate the ability to analyze financial data using statistical tools and derive insights.
4. Students will apply theoretical knowledge to real-world financial contexts through research-based inquiry.

5. Students will produce professional research reports and present findings with clarity and academic rigor.
6. Students will apply ethical standards in conducting, reporting, and presenting finance research.

Learning Resources:

Required Resources:

- *Business Research Methods* by Donald R. Cooper & Pamela S. Schindler, McGraw Hill Education, 2019
- *Research Methodology: Methods and Techniques* by C.R. Kothari & Gaurav Garg, New Age International Publishers

Recommended Resources:

- *Financial Modeling and Valuation* by Paul Pignataro, Wiley
- *Applied Corporate Finance* by Aswath Damodaran, Wiley
- *Research Methods for Business Students* by Mark Saunders, Philip Lewis & Adrian Thornhill, Pearson
- Online Databases: RBI, NSE, BSE, SEBI, World Bank, Statista, Bloomberg (if available)

B.Sc Finance – 4th Year
Semester VII
Business Plan Project 1 BSF MGT 401

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Course Name: Business Plan Project 1
Course Credit Hours: 4
Course Contact Hours: 4
Course Code: BSF MGT 401

Course Objectives:

1. To enable students to conceptualize, design, and develop a viable business plan based on a real-world business idea.
2. To provide exposure to the essential components of a business plan including market research, marketing strategies, operational design, and financial projections.
3. To foster entrepreneurial thinking and encourage application of interdisciplinary knowledge in creating feasible and innovative business models.
4. To develop students' ability to assess risk, identify resources, and create execution plans for business ventures.
5. To enhance critical thinking, problem-solving, and presentation skills through iterative drafting, peer feedback, and faculty mentoring.
6. To prepare students for real-world entrepreneurship or intrapreneurship roles by simulating the startup planning process.

Course Description:

This project-based course focuses on the practical aspects of developing a comprehensive and strategic business plan. It allows students to transform an innovative idea into a structured plan through systematic research and analysis. Students will work individually or in teams to formulate business concepts, conduct feasibility studies, and develop marketing, operational, financial, and risk management plans. The course emphasizes real-world applicability, entrepreneurship mindset, creativity, and teamwork. It culminates in a formal written plan and a pitch presentation evaluated by faculty and industry mentors.

Course Content:

Topic/Unit	Content
I. Introduction to Business Planning	Overview of entrepreneurship and business planning Idea generation techniques Business models and value propositions Case studies on successful business plans
II. Market Research and Industry Analysis	Identifying target market and customer segments Competitor analysis SWOT analysis Market sizing and demand forecasting Primary and secondary research methods
III. Marketing and Sales Plan	Marketing strategies: 4Ps, STP framework Brand positioning and customer acquisition Sales forecasting and pricing strategies Customer relationship management
IV. Operations and HR Plan	Business structure and location decisions Technology and production planning Manpower planning and organizational structure Key operational milestones and timelines
V. Financial Plan and Risk Assessment	Revenue model and cost structure Projected Income Statement, Balance Sheet, and Cash Flow Statement Break-even analysis Sources of funding and investment needs Risk analysis and contingency plans
VI. Business Plan Writing and Presentation	Format and components of a professional business plan Writing executive summaries Common errors and best practices Pitching to investors: designing and delivering presentations Peer review and faculty feedback

Course Outcomes (COs):

1. Students will be able to conceptualize a viable business idea and evaluate its feasibility using structured frameworks.

2. Students will be able to conduct market research and industry analysis to support business planning decisions.
3. Students will be able to formulate effective marketing, operations, and human resource plans tailored to their business model.
4. Students will be able to create detailed financial projections and assess the funding and risk requirements of their business.
5. Students will be able to develop a complete written business plan and deliver an investor-ready pitch presentation.
6. Students will demonstrate critical thinking, teamwork, and entrepreneurial competencies through project work and presentation.

Learning Resources:

Required Resources:

- *Entrepreneurship: Successfully Launching New Ventures* by Bruce R. Barringer & R. Duane Ireland, Pearson Education.
- *The Startup Owner's Manual* by Steve Blank & Bob Dorf, K&S Ranch.
- *Business Model Generation* by Alexander Osterwalder & Yves Pigneur, Wiley.

Recommended Resources:

- *Lean Startup* by Eric Ries, Crown Business.
- Harvard Business Review Articles on Entrepreneurship and Startups.
- Live case studies and recorded startup pitches from platforms like Y Combinator, Shark Tank, and TED Talks.

B.Sc FINANCE 4TH YEAR

SEMESTER 8

B.Sc Finance – 4th Year
Semester VIII
Sustainable Finance BSF FIN 402

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Course Name: Sustainable Finance
Course Credit Hours: 3
Course Contact Hours: 3
Course Code: BSF FIN 402

Course Objectives:

1. To understand the foundational principles of sustainable finance and its role in the evolving global financial ecosystem.
2. To analyze the relationship between environmental, social, and governance (ESG) factors and financial performance.
3. To assess the application of sustainability metrics in financial decision-making and investment strategies.
4. To explore the regulatory frameworks, reporting standards, and tools used in sustainable finance.
5. To develop an understanding of green bonds, impact investing, and sustainable portfolio management.
6. To critically evaluate the challenges and opportunities in aligning finance with sustainable development goals (SDGs).

Course Description:

This course provides a comprehensive introduction to the field of Sustainable Finance, emphasizing the integration of ESG (Environmental, Social, Governance) factors into financial analysis and decision-making. Students will learn about sustainable investing approaches, including socially responsible investing (SRI), green bonds, and impact investing. The course also explores the role of financial markets in promoting sustainability and the frameworks guiding ESG disclosures and sustainability reporting. Real-world case studies and practical assignments will equip students to analyze sustainability risks and opportunities in corporate finance and investment contexts, preparing them for the growing demand in responsible finance.

Course Content:

Unit	Topics
I. Introduction to Sustainable Finance	Definition and Importance of Sustainable FinanceEvolution and Global Trends in ESG Investing Overview of ESG Factors and Materiality Relevance of Sustainable Finance in Emerging Markets
II. ESG Frameworks and Standards	Key ESG Reporting Standards (GRI, SASB, TCFD, etc UN Principles for Responsible Investment (UN PRI Corporate ESG Disclosure and Ratings ESG Data Providers and Metrics
III. Sustainable Financial Instruments	Green Bonds, Social Bonds, and Sustainability-linked Bonds Impact Investing and Social Finance Sustainability-Linked Loans Blended Finance
IV. ESG Integration in Financial Decision Making	ESG Risk Analysis in InvestmentSustainable Portfolio Construction Integrating ESG in Equity and Fixed Income Analysis Performance Measurement and Benchmarking
V. Regulation, Policy, and Sustainable Development Goals (SDGs)	Global and Regional Policy Landscape (EU Taxonomy, SEBI, etc.) Sustainable Development Goals (SDGs) and FinanceRole of Financial Institutions in Supporting SDGsChallenges and Opportunities in Sustainable Finance

Course Outcomes (COs):

1. Students will understand the concepts and principles that underpin sustainable finance and ESG investing.
2. Students will be able to analyze and interpret ESG disclosures and reporting frameworks.
3. Students will gain familiarity with financial instruments that support sustainable goals, including green bonds and impact investing.
4. Students will be able to incorporate ESG factors into financial analysis and investment decision-making processes.
5. Students will demonstrate awareness of global sustainability regulations, initiatives, and the role of finance in achieving SDGs.

Learning Resources:

Required Resources:

- *Sustainable Investing: Revolutions in Theory and Practice* by Cary Krosinsky and Sophie Purdom, Routledge, 2016
- *Principles for Responsible Investment* (UN PRI Framework and Resources), 2020
- *ESG and Responsible Institutional Investing Around the World: A Critical Review* by Pedro Matos, CFA Institute Research Foundation, 2020

Recommended Resources:

- *Environmental, Social, and Governance (ESG) Investing: A Balanced Analysis of the Theory and Practice of a Sustainable Portfolio* by John Hill, Academic Press, 2020
- *Sustainable Finance and Banking* by Marcel Jeucken, Earthscan Publications, 2001
- Reports and Publications from GRI, SASB, TCFD, and the World Bank
- SEBI guidelines on Business Responsibility and Sustainability Reporting (BRSR)

B.Sc Finance – 4th Year
Semester VIII
Global Economic Trends BSF ECO 402

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Course Name: Global Economic Trends
Course Credit Hours: 3
Course Contact Hours: 3
Course Code: BSF ECO 402

Course Objectives:

1. To provide students with a foundational understanding of global economic structures and macroeconomic indicators.
2. To analyze historical and contemporary economic trends and understand their impact on global markets and financial systems.
3. To develop the ability to critically evaluate economic reports, global growth projections, and economic risk factors.
4. To explore the role of international institutions and trade organizations in shaping global economic policies.
5. To understand the implications of economic cycles, inflation, interest rates, and fiscal/monetary policies across different economies.
6. To prepare students for decision-making in an interconnected global economy, considering geopolitical, environmental, and technological changes.

Course Description:

This course provides an in-depth study of the dynamic global economic environment and its influence on the financial sector. Students will explore key macroeconomic indicators, international trade patterns, economic cycles, and fiscal and monetary policy strategies across countries. Special attention will be given to global trends in inflation, interest rates, and employment, as well as the evolving roles of institutions like the IMF, World Bank, WTO, and regional economic alliances. The course incorporates case studies and current data to help students interpret economic reports, understand risks in the global economy, and anticipate how international events impact domestic and global financial decisions.

Course Content:

Topic/Unit	Content
I: Introduction to Global Economics	Definition and Scope of Global Economics Key Global Economic Indicators (GDP, Inflation, Interest Rates, Unemployment) Economic Systems and Structures (Capitalism, Socialism, Mixed Economy) Role of Institutions: IMF, World Bank, WTO, OECD
II: International Trade and Finance	Theories of International Trade (Comparative Advantage, Absolute Advantage) Balance of Payments (BoP) and Exchange Rate Mechanisms Trade Deficits, Tariffs, and Protectionism Currency Markets and Foreign Exchange Trends
III: Macroeconomic Policies and Trends	Fiscal Policy: Government Spending, Taxation, and Budget Deficits Monetary Policy: Central Banks, Interest Rates, and Money Supply Economic Cycles: Boom, Recession, Recovery, Depression Inflation and Deflation: Causes, Measurement, and Global Impact
IV: Global Economic Risks and Challenges	Geopolitical Risks and Global Conflicts Energy Prices, Supply Chain Disruptions Financial Crises (2008, COVID-19 Recession) and Policy Responses Debt Sustainability and Sovereign Defaults
V: Emerging Trends and the Future of Global Economics	Emerging Markets and Growth Economies Green Economy and Sustainable Development Goals (SDGs) Impact of Technological Advancements (AI, Automation, Digital Currency) Global Economic Outlook: Projections and Strategic Implications

Course Outcomes (COs):

1. Students will be able to interpret and analyze major macroeconomic indicators affecting global and domestic markets.
2. Students will understand global trade and financial systems, including currency markets and trade policies.
3. Students will evaluate the effectiveness of fiscal and monetary policies across different economies.
4. Students will be able to assess the implications of global economic risks, crises, and recovery measures.
5. Students will be equipped to analyze emerging global economic trends and formulate informed financial and strategic decisions in a global context.

Learning Resources:

Required Resources:

- *Global Economics* by Robert J. Carbaugh, Cengage Learning, Latest Edition
- *International Economics* by Dominick Salvatore, Wiley India Pvt. Ltd, 12th Edition

Recommended Resources:

- *The Rise and Fall of Nations* by Ruchir Sharma, Penguin Random House
- *The Economist* (Magazine/Online)
- IMF World Economic Outlook Reports – https://www.imf.org/en/Publications/WEO
- World Bank Global Economic Prospects – https://www.worldbank.org/en/publication/global-economic-prospects
- WTO and OECD Economic Reports

B.Sc Finance – 4th Year
Semester VIII
Research Application in Finance 2 BSF RES 402

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Course Name: Research Application in Finance 2
Course Credit Hours: 8
Course Contact Hours: 8
Course Code: BSF RES 402

Course Objectives:

1. To enable students to independently design and execute a research project in the field of finance, demonstrating mastery of research methodologies.
2. To deepen understanding of statistical and econometric tools required for data analysis in financial research.
3. To enhance analytical skills for interpreting empirical results and drawing meaningful conclusions for academic or industry-specific applications.
4. To provide hands-on experience in literature review, hypothesis formulation, data sourcing, and presentation of findings.
5. To ensure students develop skills in academic writing and are capable of producing a structured, coherent, and well-supported research report or thesis.
6. To foster ethical research practices and the ability to critically evaluate financial information and its implications.

Course Description:

This advanced research course is a continuation of Research Application in Finance 1, designed to allow students to demonstrate comprehensive knowledge in financial research through a capstone project. Students will work independently or in small groups under faculty supervision to conduct original research in areas such as capital markets, corporate finance, fintech, ESG investing, or behavioral finance. The course will guide them through all stages of the research process: identifying a research problem, reviewing academic literature, forming hypotheses, collecting and analyzing data using advanced econometric tools, and preparing a formal research report. Students will also be trained in presenting their findings effectively in academic and professional settings, both in written and oral formats.

Course Content:

Topic/Unit	Content
I. Research Proposal & Planning	Topic Identification, Research Question Development, Defining Objectives, Scope and Rationale
	Finalizing Research Design (Qualitative, Quantitative, or Mixed Methods)
	Approval Process and Ethics in Research
	Timelines and Workplan
	Supervisor Coordination & Peer Feedback
II. Literature Review & Hypothesis Formation	Reviewing Relevant Academic Journals and Industry Reports
	Summarizing Key Theories and Debates
	Identifying Gaps in Existing Research
	Developing Theoretical Frameworks
	Hypothesis Formulation Based on Literature Insights
III. Data Collection & Tools	Primary vs. Secondary Data Sources
	Using Financial Databases: Bloomberg, CMIE, Refinitiv, etc.
	Survey Design & Interview Techniques (if applicable)
	Data Cleaning and Preparation for Analysis
	Use of Software: Excel, R, Python, SPSS, or STATA
IV. Data Analysis & Interpretation	Descriptive and Inferential Statistics
	Regression Analysis, Correlation, ANOVA, Time Series Analysis
	Model Building & Testing Assumptions
	Interpreting Results in the Context of Research Questions
	Graphical Representation and Visualization of Findings
V. Report Writing & Presentation	Structuring a Research Report: Abstract, Introduction, Methodology, Results, Conclusion
	Referencing and Avoiding Plagiarism
	Effective Use of Tables, Charts, and Appendices
	Oral Presentation Techniques: Defending Research in Viva/Panel
	Final Submission, Peer Review, and Evaluation Criteria

Course Outcomes:

1. Students will demonstrate the ability to plan and conduct independent research on a finance-related topic.
2. Students will critically review and synthesize existing literature to build a strong theoretical foundation.
3. Students will apply suitable data collection and analysis methods for empirical research.
4. Students will interpret analytical results using statistical/econometric techniques and derive insightful conclusions.
5. Students will produce a well-documented research report and communicate findings effectively through oral presentations.
6. Students will adhere to ethical research standards and demonstrate academic integrity in all research activities.

Learning Resources:

Required Resources:

- Cooper, D.R. & Schindler, P.S. (2014). *Business Research Methods*. McGraw-Hill Education.
- Gujarati, D.N. & Porter, D.C. (2017). *Basic Econometrics*. McGraw-Hill Education.
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students*. Pearson Education.

Recommended Resources:

- Zikmund, W.G. (2013). *Business Research Methods*. Cengage Learning.
- Wooldridge, J.M. (2019). *Introductory Econometrics: A Modern Approach*. Cengage Learning.
- Jaggia, S., & Kelly, A. (2018). *Business Statistics: Communicating with Numbers*. McGraw-Hill Education.

B.Sc Finance–4th Year
Semester VIII
Business Plan Project 2 BSF MGT 402

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Course Name: Business Plan Project 2
Course Credit Hours: 8
Course Contact Hours: 8
Course Code: BSF MGT 402

Course Objectives:

1. To enable students to refine and implement a comprehensive business plan based on detailed market research, feasibility analysis, and financial modeling.
2. To strengthen students' abilities in entrepreneurial problem-solving, strategic thinking, and business model validation.
3. To provide experiential learning through the execution and presentation of a viable business project.
4. To equip students with tools for financial forecasting, funding strategies, and performance tracking.
5. To develop collaborative, leadership, and communication skills in a real-world business context.
6. To foster an understanding of ethical, legal, and regulatory considerations in launching and scaling a business.

Course Description:

This capstone course allows students to apply their accumulated knowledge of finance, entrepreneurship, and strategic management by developing and implementing a real-world business plan. Building upon Business Plan Project 1, students move from ideation and initial research to operational readiness. The course emphasizes feasibility studies, financial projections, operational planning, and go-to-market strategies. Students engage in pitch presentations to internal and external evaluators, receive structured mentorship, and iterate on their plans based on feedback. By the end of the course, students will have a fully developed and viable business plan ready for investor or incubation opportunities. The course encourages interdisciplinary collaboration and provides hands-on experience in the entrepreneurial process.

Course Content:

Topic/Unit	Content
I. Business Plan Refinement	- Review and Feedback from Business Plan Project 1 - Identifying Gaps and Pivoting Strategy - Business Model Canvas Revisited - SWOT and PESTLE Updates - Problem Validation and Market Need
II. Operational Planning	- Defining Key Activities, Resources, and Partnerships - Supply Chain and Production Planning - Legal and Compliance Requirements - Licensing, Registration, and IP Protection - HR Planning and Organizational Design
III. Marketing and Go-to-Market Strategy	- Target Customer and Positioning - Marketing Plan and Budget - Customer Acquisition Channels - Branding and Communication - Sales Forecasting and CRM Strategy
IV. Financial Plan and Funding Strategy	- Revenue Model and Pricing Strategy - Cost Structure and Break-Even Analysis - Financial Projections (3-5 Years) - Cash Flow Management - Funding Sources: Bootstrapping, Angel, VC, Incubators - Investor Pitch Deck Preparation
V. Final Project Report and Pitch	- Structuring the Final Business Plan Document - Designing and Practicing the Pitch Presentation - Pitch to Panel (Faculty + External Evaluators) - Evaluation Based on Business Viability, Innovation, Presentation, and Financials

Course Outcomes (COs):

1. Students will be able to evaluate and refine a complete business plan with real-world feasibility considerations.
2. Students will demonstrate the ability to design and operationalize business processes aligned with financial and strategic goals.
3. Students will develop an effective go-to-market and customer acquisition strategy.
4. Students will be able to build robust financial models, including funding plans and long-term projections.

5. Students will exhibit entrepreneurial readiness by delivering investor-standard business presentations.
6. Students will apply teamwork, leadership, ethical thinking, and communication skills to real-life business planning and execution.

Learning Resources:

Required Resources:

- *Business Model Generation* by Alexander Osterwalder & Yves Pigneur, Wiley
- *The Startup Owner's Manual* by Steve Blank & Bob Dorf, K&S Ranch Press
- *Entrepreneurial Finance* by J. Chris Leach and Ronald W. Melicher, Cengage

Recommended Resources:

- *Venture Deals* by Brad Feld and Jason Mendelson, Wiley
- *The Lean Startup* by Eric Ries, Crown Publishing
- *Disciplined Entrepreneurship* by Bill Aulet, Wiley


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