AC – 20/05/2025
Item No. – 7.6 (N) (4b) Sem. IV

As Per NEP 2020

University of Mumbai

Syllabus for Open Elective Vertical 3		
Faculty of Commerce		
Board of Studies in B.Com. (Financial Management)		
Second Year Programme in Open Elective V & VI		
Semester	**III & IV**	
Title of Paper:	**Sem.**	**Credits**
I) OE in Financial Management – VI (Fixed Income Securities – II)	**IV**	**2**
From the Academic Year		**2025-26**

Sem - IV

Syllabus
B.Com. (Financial Management)
(Sem.- IV)

Title of Paper: OE in Financial Management – VI (Fixed Income Securities – II)

Sr. No.	Heading	Particulars
1	**Description of the course:** **Including but not limited to:**	This course offers a focused study of India's fixed income markets, covering essential risk management techniques and debt market operations. Learners will master key concepts including credit, interest rate, and liquidity risks, along with practical tools like duration, convexity, and hedging strategies. The curriculum examines India's money market instruments (T-Bills, CPs, CDs), government securities, and corporate bonds, including trading platforms and regulatory frameworks. Designed for aspiring fixed income professionals, the program develops skills for bond valuation, portfolio optimization, and risk assessment - highly relevant for careers in trading, treasury, and investment management. Through two comprehensive modules (Risk Measurement & Mitigation; Debt Market Segments & Regulations), participants gain both theoretical knowledge and practical insights to succeed in India's dynamic debt markets.
2	**Vertical:**	Open Elective
3	**Type:**	Theory
4	**Credit**:	2 credits (1 credit = 15 Hours)
5	**Hours Allotted:**	30 Hours
6	**Marks Allotted**:	50 Marks

7	**Course Objectives**: • To equip learners with risk management tools for identifying and mitigating credit, interest rate, liquidity and reinvestment risks in fixed income securities. • To develop quantitative skills for calculating and interpreting duration, convexity and other measures to assess bond price sensitivity. • To explore the structure, instruments, and regulatory frameworks of Indian money markets, government securities (G-Secs) and corporate bond markets. • To enable practical application of pricing models, yield curves and trading mechanisms for informed investment decisions.
8	**Course Outcomes**: • Learners will be able to analyze risks in fixed income securities and evaluate mitigation strategies using diversification and derivatives. • Learners will be able to measure interest rate sensitivity by computing duration, modified duration, convexity, and PV01 to predict bond price volatility. • Learners will be able to compare instruments and regulations across money markets, G-Secs, and corporate debt markets in India. • Learners will be able to apply valuation techniques to price bonds, interpret yield curves, and assess the impact of embedded options.
9	**Modules**: - **02**
	Module 1: Risk Measurement & Mitigation
	1. Risks in Fixed Income Securities • Credit, Interest Rate, Liquidity and Reinvestment Risks • Mitigation Tools Diversification and Derivatives **2. Measuring Interest Rate Risk** • Price Volatility Characteristics of Option Free Bonds and Bonds with Embedded Options • Concept of Duration • Macaulay Duration • Portfolio Duration • Modified Duration and Interest Rate Sensitivity Approximation • Difference between Modified Duration and Effective Duration • Price Value of Basis Point (PV01) • Convexity Measure, Modified Convexity and Effective Convexity • Taylor's Expansion and Its Application in Approximating Bond Price Changes

Module 2: Debt Market Segments & Regulations

1. Indian Money Market

- **Understanding Money Market and Types of Instruments in Money Market:** Borrowings and Lending Activities (Call Money, Notice Money, Term Money, Market Repo, Triparty Repo, Treasury Bills, Cash Management Bills, Commercial Paper and Certificate of Deposit, Corporate Bond Repo
- **Important Rates in the Indian Inter-Bank Call Market:** Mumbai Interbank Outright Rate (MIBOR), Weighted Average Overnight Call Money Rate (WACR), Economic Utility of Repo Market,

2. Government Debt Market

- **Understanding Government Debt Market and Types of Instruments in the G-Sec Market:** Treasury Bills, Cash Management Bills, Dated G-Secs, Fixed Rate Bonds, Floating Rate Bonds (FRB), Zero Coupon Bonds (ZCB), Capital Indexed Bonds (CIB), Inflation Indexed Bonds (IIBs), Bonds with Call/Put Options or Embedded Option Bonds, Special Securities, Separate Trading of Registered Interest and Principal of Securities (STRIPS), Sovereign Gold Bond (SGB), Savings (Taxable) Bonds and State Development Loans (SDLs)
- **Issuance Mechanism:** Primary Market and Government Borrowing Programme, Auction Mechanism, Underwriting Provisions, Institutional Participants, Foreign Investors and Retail Investors
- **Secondary Market Infrastructure for G-Secs in India:** The NDS-OM Trading Platform, Trading and Reporting
- **Clearing and Settlement of Secondary Market Trades:** Qualified Central Counterparty (QCCP) and Default Handling Mechanism at CCIL
- **G-Sec Valuation in India**

3. Corporate Debt Market

- **Indian Corporate Debt Market:** Issuer, Debenture Trustee, Qualified Institutional Buyer (QIB), Retail Individual Investors and Designated stock exchange
- **Types of Instruments in Corporate Debt Market:** Short Term / Money Market Instruments (Commercial Papers and Certificates of Deposits), Coupon Based (Plain Vanilla Bonds, Floating Rate Bonds, Zero-Coupon Bonds, Caps and Floor, Inverse Floater, Inflation Indexed Bonds, step up Bonds, Deferred Coupon Bonds, Deep Discount Bonds), Currency Based (Foreign Currency Denominated Bonds and Masala Bonds)
- **Issuance Mechanism:** Public Issuance and Private Placement

- **Secondary Market Mechanism:** Trading Mechanism, Reporting Mechanism and Clearing & Settlement

10

Text Books:

- Fixed Income Securities by National Institute of Securities Markets
- "Fixed Income Securities: Tools for Today's Markets" (3rd Ed.) by Bruce Tuckman & Angel Serrat
- "Indian Financial System" (5th Ed.) by Bharati V. Pathak

11

Reference Books:

- "The Handbook of Fixed Income Securities" (9th Ed.) by Frank J. Fabozzi
- "Advanced Fixed Income Analysis" by Moorad Choudhry
- "RBI's Handbook of Statistics on Indian Economy"

12

Internal Continuous Assessment: 40%

External, Semester End Examination 60% Individual Passing in Internal and External Examination

13

Continuous Evaluation through:

	Assessment/Evaluation	Marks
1	Class Test during the lectures. (Physical/ Online mode). (Short notes/ MCQ’s/ Match the Pairs/ Answer in one sentence/ puzzles)	10
2	Participation in Workshop/ Conference/Seminar, Assignment & Viva. (Physical/Online mode)	5
3	Participation in Case Study/ Field Visit /Certificate Course. (Physical/Online mode)	5

Semester End External – 60 Marks

Time – 2 Hours

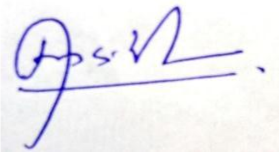
Attempt any 2 out of 3 questions

Question No.	Questions	Marks
Q.1	Practical/ Theory	15
Q.2	Practical/ Theory	15
Q.3	Practical/ Theory	15

Note

1. Equal Weightage is to be given to all the modules.
2. 15 marks question may be subdivided into 8 marks + 7 marks, 10 marks + 5 marks and 5 marks + 5 marks + 5 marks. Internal options may be given however, it is not mandatory.

		3. Use of simple calculator is allowed in the examination. 4. Wherever possible more importance is to be given to the practical problem.



Sign of the BOS Chairman
Prof. Dr Arvind Luhar
Board of Studies in Financial Management

Sign of the Offg. Associate Dean
Prin. Kishori Bhagat
Faculty of Commerce & Management

Sign of the Offg. Associate Dean
Prof. Kavita Laghate
Faculty of Commerce & Management

Sign of the Offg. Dean
Prin. Ravindra Bambardekar
Faculty of Commerce & Management