

AS PER NEP 2020

University of Mumbai



Title of the program

- A- U.G. Certificate in Financial Markets 2024-25
- B- U.G. Diploma in Financial Markets 2025-26
- C- B.Com. (Financial Markets) 2026-27
- D- B.Com. (Honors) in Financial Markets 2027-28
- E- B.Com.(Honors with Research) in Financial Markets 2028-29

Syllabus for

Semester – I to II

Ref: GR dated 20th April, 2023 for Credit Structure of UG

(With effect from the academic year 2024-25 progressively)

University of Mumbai



(As per NEP 2020)

Sr. No.	Heading	Particulars	
1	Title of program O: _____A	A	U.G. Certificate in Financial Markets
	O: _____B	B	U.G. Diploma in Financial Markets
	O: _____C	C	B.Com. (Financial Markets)
	O: _____D	D	B.Com. (Honors) in Financial Markets
	O: _____E	E	B.Com. (Honors with Research) in Financial Markets
2	Eligibility O: _____A	A	12 th OR Passed Equivalent Academic Level 4.0
	O: _____B	B	Under Graduate Certificate in Financial Markets OR Passed Equivalent Academic Level 4.5
	O: _____C	C	Under Graduate Diploma in Financial Markets OR Passed Equivalent Academic Level 5.0
	O: _____D	D	B. Com. (Financial Markets) with minimum CGPA of 7.5 OR Passed Equivalent Academic Level 5.5
	O: _____E	E	B. Com. (Financial Markets) with minimum CGPA of 7.5 OR Passed Equivalent Academic Level 5.5
3	Duration of program R: _____	A	One Year
		B	Two Years
		C	Three Years
		D	Four Years
		E	Four Years
4	Intake Capacity R: _____	60	

5	Scheme of Examination R: _____	NEP 40% Internal 60% External, Semester End Examination Individual Passing in Internal and External Examination	
6	R: _____ Standards of Passing	40%	
7	Credit Structure Sem. I - R: _____ A Sem. II - R: _____ B	Attached herewith	
	Credit Structure Sem. III - R: _____ C Sem. IV - R: _____ D		
	Credit Structure Sem. V - R: _____ E Sem. VI - R: _____ F		
8	Semesters	A	Sem I & II
		B	Sem III & IV
		C	Sem V & VI
		D	Sem VII & VIII
		E	Sem VII & VIII
9	Program Academic Level	A	4.5
		B	5.0
		C	5.5
		D	6.0
		E	6.0
10	Pattern	Semester	
11	Status	New	
12	To be implemented from Academic Year Progressively	From Academic Year: 2024-25	

Sign of the BOS
Prin. Dr. Vishnu N. Yadav
Board of Studies in Financial Market

Sign of the Offg. Associate Dean
Dr. Ravikant Balkrishna Sangurde
Faculty of Commerce

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

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

Preamble

1) Introduction

B.Com.in Financial Market program is designed to provide students with a comprehensive understanding of essential concepts and practices related to Financial Resources, Financial Systems, and financial Markets effectively. The course encompasses various aspects of market operations, financial analysis, and decision-making, aiming to equip learners with the knowledge and skills required to excel in the corporate world or as entrepreneurs. This program is designed to provide students with a comprehensive understanding of how financial markets operate, the instruments traded within them, and the various factors that influence their behavior.

2) Aims and Objectives

- To develop the Ability to engage in reflective and independent thinking by understanding the concepts in finance.
- To develop the ability to think rationally, analyses situations and solve problems effectively
- To orient the students with a learner centric approach in the domains of finance.
- To provide a fillip to employability of learners through exploring the various dimensions of financial markets.
- To equip the students through a bottom-up approach in understanding the global perspectives of financial aspects in the economy.
- To demonstrate empathy towards social concerns, develop equity centered national development approach and act with an informed awareness of issues and participate in civic life through volunteering.

3) Learning Outcomes

- Learners will learn the approach of finance in the given circumstances.
- They will understand the various financial concepts and their use in the related areas.
- Learning of finance aspects will give them an array of opportunities in the finance areas.
- Learners will develop ability to search for, locate, extract, organize, evaluate and use or present information that is relevant to a particular topic
- They will be technologically updated and independent enough in this world of digitization.

4) Any other point (if any)

1) Credit Structure of the Program (Sem I, II, III, IV, V & VI)

**Under Graduate Certificate in Financial Markets
Credit Structure (Sem. I & II)**

R: _____ A										
Level	Semester	Major		Minor	OE	VSC, SEC (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Cum. Cr. / Sem.	Degree/ Cum. Cr.
		Mandatory	Electives							
4.5	I	6 (4+2)		-	2+2	Credit Rating: Principles and Practices (2)	AEC: 2, VEC: 2, IKS:2	CC :2	22	UG Certificate 44
		Introduction of Financial System (4)				OR Stock Market for Beginners (2)				
	Basics of Financial Services (2)									
R: _____ B										
	II			2	2+2	VSC:2, SEC:2 Negotiation Skills for Finance Professionals (2)	AEC: 2, VEC: 2	CC :2	22	
		Principles of Investment (4)				OR Personal Financial Planning (2)				
		Financial Market Environment (2)								
	Cum Cr.	12	-	2	8	4+4	4+4+2	4	44	

Exit option: Award of UG Certificate in Major with 40-44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor

B.Com. in Financial Markets

SEMESTER - II

Syllabus

**Major Mandatory
Principles of Investment**

PROGRAM	B.COM (FINANCIAL MARKETS)
SEMESTER	II
COURSE TITLE	Principles of Investment
VERTICAL/CATEGORY	MAJOR MANDATORY
COURSE LEVEL	4.5
COURSE CREDIT	4
HOURS PER WEEK	4

COURSE OBJECTIVE

This course provides comprehensive understanding of investment principles, vehicles and practices.

Modules at a Glance

UNIT NO	Modules	No. of Lectures
1	Fundamentals of Investments	15
2	Time Value of Money	15
3	Investment Vehicles	15
4	Ethics and Regulations in Investments	15
TOTAL HOURS		60

Sr.No	Modules/Units
1	Fundamentals of Investments
	Definition and Types of Investments - Investment Objectives and Risk-Return Trade-offs - Financial Markets and Instruments
2	Time Value of Money
	Future value and present value concepts - Calculating compound interest and discounting cash flows - Applications in investment decision-making
3	Investment Vehicles
	Stocks and equity investments - Bonds and fixed-income securities - Mutual funds and Exchange-Traded Funds
4	Ethics and Regulations in Investments
	Code of ethics for investment professionals - Legal and regulatory considerations in investment practices - Ethical decision-making in investment management
<p>Reference Books:</p> <ul style="list-style-type: none"> ● Security Analysis - Authors: Benjamin Graham, David Dodd ● Investment Valuation: Tools and Techniques for Determining the Value of Any Asset - Author: Aswath Damodaran ● Donald E. Fisher and Ronald J. Jordan: Securities Analysis and Portfolio Management, Prentice Hall, New Delhi ● Prasanna Chandra, Investment Analysis and Portfolio Management, McGraw Hill Education India ● Machi Raju, H.R.: Working of Stock Exchanges in India, Wiley Eastern Ltd, New Delhi 	

**Major Mandatory
Financial Market Environment**

PROGRAM	B.COM (FINANCIAL MARKETS)
SEMESTER	II
COURSE TITLE	Financial Market Environment
VERTICAL/CATEGORY	MAJOR MANDATORY
COURSE LEVEL	4.5
COURSE CREDIT	2
HOURS PER WEEK	2

COURSE OBJECTIVE

This course provides a comprehensive overview of the financial market environment, covering foundational concepts, market structures, and macroeconomic influences,

Modules at a Glance

UNIT NO	Modules	No. of Lectures
1	Introduction to Financial Market environment	15
2	Market Forces and Macroeconomic Influences	15
TOTAL HOURS		30

Sr.No	Modules/Units
1	Introduction to Financial Market environment
	Definition and Scope of Financial market environment-Internal Vs. External factors- Market Structure and Trading Mechanisms - Stock Markets: Exchanges and Trading Systems - Bond Markets: Primary and Secondary Markets - Derivatives Markets: Futures and Options - Forex Markets: Currency Trading - Electronic Trading and High-Frequency Trading
2	Market Forces and Macroeconomic Influences
	Supply and Demand Dynamics in Financial Markets - Impact of Economic Indicators on Markets - Interest Rates and Their Effects - Global Economic Events and Market Reactions - Regulatory Changes and Market Adaptations
<p>References:</p> <ul style="list-style-type: none"> ● Indian Financial System - Authors: M. Y. Khan, P. K. Jain ● Financial Markets and Services - Author: Gordon Natarajan ● Investment Management: A Modern Approach- Author: R. K. Agarwal, S. P. Gupta ● Financial Markets and Institutions in India- Author: Preeti Singh ● Indian Financial Market: A Practical Approach- Author: Kevin (K. L. Dhingra) 	

Vocational Skill Course (VSC)
Negotiation Skills for Finance Professionals

PROGRAM	B.COM (FINANCIAL MARKETS)
SEMESTER	II
COURSE TITLE	Negotiation Skills for Finance Professionals
VERTICAL/CATEGORY	Vocational Skill Course
COURSE LEVEL	4.5
COURSE CREDIT	2
HOURS PER WEEK	2

COURSE OBJECTIVE

This course will develop practical negotiation skills tailored for the finance industry, fostering a comprehensive understanding of both theoretical concepts and their real world applications

Modules at a Glance

UNIT NO	Modules	No. of Lectures
1	Foundations of Negotiation	15
2	Negotiation Strategies and Ethical Considerations	15
TOTAL HOURS		30

Sr.No	Modules/Units
1	Foundations of Negotiation
	Understanding negotiation fundamentals - Identifying key elements in financial negotiations - Analyzing negotiation styles and approaches Effective Communication in Finance Negotiations Verbal and non-verbal communication skills - Active listening techniques - Building rapport and trust in financial discussions
2	Negotiation Strategies and Ethical Considerations
	Negotiation Strategies for Finance Professionals Creating value in financial negotiations - Handling difficult negotiations in the finance industry - Case studies and role-playing exercises Navigating legal frameworks in finance negotiations - Ethical considerations in financial decision-making - Compliance and negotiation practices
<p>Reference Books:</p> <ul style="list-style-type: none"> ● Financial Intelligence, Revised Edition: A Manager's Guide to Knowing What the Numbers Really Mean - Authors: Karen Berman, Joe Knight, John Case ● Negotiation Genius: How to Overcome Obstacles and Achieve Brilliant Results at the Bargaining Table and Beyond - Authors: Deepak Malhotra, Max H. Bazerman ● The Handbook of Negotiation and Culture - Editors: Michele J. Gelfand, Jeanne M. Brett ● The Art of Strategy: A Game Theorist's Guide to Success in Business and Life - Author: Avinash K. Dixit, Barry J. Nalebuff 	

**Vocational Skill Course (VSC)
Personal Financial Planning**

PROGRAM	B.COM (FINANCIAL MARKETS)
SEMESTER	II
COURSE TITLE	Personal Financial Planning
VERTICAL/CATEGORY	Vocational Skill Course
COURSE LEVEL	4.5
COURSE CREDIT	2
HOURS PER WEEK	2

COURSE OBJECTIVE

This course provides an understanding of personal financial planning process and its applications. Also, learners will apply cash management, budgeting, forecasting and monitor incomes and expenditures

Modules at a Glance

UNIT NO	Modules	No. of Lectures
1	Introduction to Personal Financial Planning	15
2	Personal Financial Planning Process	15
TOTAL HOURS		30

Sr.No	Modules/Units
1	Introduction to Personal Financial Planning
	Meaning and applications of Personal financial planning, Investment avenues for individuals, financial investment products- Cash inflows and outflows – Cash Management, Income and expenditure statement, Budgeting and forecasting, Monitoring budgets and provisions for savings, Personal Balance sheet and Net Worth.
2	Personal Financial Planning Process
	Establish and Define the Relationship with the Client, Collect Client’s Information, analyze client’s financial status, Risk Profile and Determine Financial Goals, Develop Financial Planning.

Reference Books:

- Personal finance by Jack R Kapoor The McGraw Hill
- Financial advising by MACMILLan IIBF
- Personal financial planning The ICFAI university

Letter Grades and Grade Points:

Semester GPA/ Programme CGPA Semester/ Programme	% of Marks	Alpha-Sign/ Letter Grade Result	Grading Point
9.00 - 10.00	90.0 - 100	O (Outstanding)	10
8.00 - < 9.00	80.0 - < 90.0	A+ (Excellent)	9
7.00 - < 8.00	70.0 - < 80.0	A (Very Good)	8
6.00 - < 7.00	60.0 - < 70.0	B+ (Good)	7
5.50 - < 6.00	55.0 - < 60.0	B (Above Average)	6
5.00 - < 5.50	50.0 - < 55.0	C (Average)	5
4.00 - < 5.00	40.0 - < 50.0	P (Pass)	4
Below 4.00	Below 40.0	F (Fail)	0
Ab (Absent)	-	Ab (Absent)	0

Justification for B.Com. (Financial Market)

1.	Necessity for starting the course:	Since many students have an early interest in finance, they might select this field of study and have a rewarding career. Accounting, financial markets, financial instruments, and financial management are all required for the Bachelor of Commerce in Financial Markets degree. Financial Markets gives a clear understanding of the financial instruments and responsibilities. This Programme is designed for participants who want complete knowledge of the financial market and stock market. Financial markets programme provides a comprehensive overview, systematic evaluation of bonds, stock, and money.
2.	Whether the UGC has recommended the course:	YES
3.	Whether all the courses have commenced from the academic year 2023-24	This Programme will commence from Academic year 2024-25
4.	The courses started by the University are self-financed, whether adequate number of eligible permanent faculties are available?:	Self - Finance
5.	To give details regarding the duration of the Course and is it possible to compress the course?:	<p>A- U.G. Certificate in Financial Markets 2024-25</p> <p>B- U.G. Diploma in Financial Markets 2025-26</p> <p>C- B.Com. in Financial Markets 2026-27</p> <p>D- B.Com. (Honors)in Financial Markets 2027-28</p> <p>E- B.Com.(Honors with Research) in Financial Markets 2028-29</p>
6.	The intake capacity of each course and no. of admissions given in the current academic year:	Intake Capacity : 60

7.	Opportunities of Employability / Employment available after undertaking these courses:	After completing the BFM various career options are available, including becoming an auditor, accountant, export or import manager, tax consultant, stockbroker, or financial risk manager.
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**Sign of the BOS
Prin. Dr. Vishnu N.
Yadav
Board of Studies in
Financial Market**

**Sign of the
Offg. Associate Dean
Dr. Ravikant Balkrishna
Sangurde
Faculty of Commerce**

**Sign of the
Offg. Associate Dean
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Faculty of
Management**

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

Optional Elective

AC – 24/05/2024
Item No. – 6.3 Sem. II (1a)



As Per NEP 2020

University of Mumbai

Syllabus for Basket of OE	
Board of Studies in Mathematics	
UG First Year Programme	
Semester	II
Title of Paper	Credits 2/ 4
I) Financial Mathematics II	2
From the Academic Year	2024-25

Name of the Course: Financial Mathematics - II

Sr. No.	Heading	Particulars
1	Description the course: Including but not limited to:	This course offers a comprehensive exploration of finance and statistical analysis. It covers essential topics such as shares, mutual funds, time series analysis, and index numbers. Students learn about shares and mutual funds, including concepts like face value, market value, and dividends, and how to calculate net income considering various factors. Additionally, they delve into time series analysis, where they explore trend estimation methods like Moving Average and Least Squares, and forecasting techniques using the Least Squares Method. The significance of index numbers in economic analysis is also emphasized, providing students with practical skills and knowledge applicable to real-world scenarios in finance and statistics.
2	Vertical:	OE
3	Type:	Theory
4	Credits:	2 credits (1 credit = 15 Hours for Theory or 30 Hours of Practical work in a semester)
5	Hours Allotted:	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives (CO): (List the course objectives)	<p>This course takes a comprehensive look at important ideas in finance and statistical analysis. Students learn about the complexities of financial instruments like stocks and mutual funds, as well as the principles of time series analysis and index numbers, throughout this course.</p> <p>CO1: To offer a thorough understanding of shares and mutual funds, including their types, components and calculations.</p> <p>CO2: To learn the concepts of time series and index numbers, including trend estimation methods and forecasting techniques.</p> <p>CO3: To develop proficiency in calculating various index numbers and understanding their significance in economic analysis.</p> <p>CO4: To acquire skills in averaging prices through Systematic Investment Plan (SIP) and interpreting its implications in mutual fund investments.</p>
8	Course Outcomes (OC):	

	<p>After completion of the course, students will be able to.</p> <p>OC1: demonstrate a comprehensive understanding of financial instruments such as shares and mutual funds, enabling them to make informed investment decisions.</p> <p>OC2: calculate various index numbers, enabling them to measure price changes and cost of living accurately.</p> <p>OC3: apply statistical tools such as averaging prices through SIP in mutual fund investments, enhancing their practical understanding of financial markets.</p> <p>OC4: analyze time series data and estimating trends using appropriate statistical methods.</p> <p>OC5: develop the ability to forecast future trends using the Least Squares Method, enhancing their predictive capabilities.</p>
9	<p>Modules:-</p> <p>Module 1: Shares and Mutual Funds:</p> <ul style="list-style-type: none"> • Concepts of shares, face value, market value, dividend, equity shares preferential shares, bonus shares, Simple examples. • Mutual Funds, Simple problems on calculation of Net Income after considering entry load, dividend, change in Net Asset Value (N.A.V) and exit load. • Averaging of price under the ‘Systematic Investment Plan (S.I.P)’. <p>Module 2: Time Series and Index Numbers</p> <ul style="list-style-type: none"> • Concept and Components of time series. Estimation of Trend using Moving Average Method & Least Squares Method (only Linear Trend). • Concept of Forecasting using Least Squares Method. • Concept and uses of Index Numbers. Simple and Composite Index Nos. (unweighted, weighted). • Laspeyre’s Price Index No., Paasche’s Price Index No. Fisher’s Price Index No., Dorbish-Bowley’s Index Number, Marshall and Edgeworth Index Number. • Cost of Living Index No., Real Income
10	<p>Text Books</p> <ol style="list-style-type: none"> 1. Fundamentals of Mathematical Statistics, 12th Edition, S. C. Gupta and V. K. Kapoor, Sultan Chand & Sons, 2020. 2. Statistics for Business and Economics, 11th Edition, David R. Anderson, Dennis J. Sweeney and Thomas A. Williams, Cengage Learning, 2011. 3. Introductory Statistics, 8th Edition, Prem S. Mann, John Wiley & Sons Inc., 2013.
11	<p>Reference Books</p> <ol style="list-style-type: none"> 1. A First Course in Statistics, 12th Edition, James McClave and Terry Sincich, Pearson Education Limited, 2018. 2. Introductory Statistics, Barbara Illowsky, Susan Dean and Laurel Chiappetta, OpenStax, 2013.
	<p><u>Scheme of the Examination</u></p>
	<p>The performance of the learners shall be evaluated into two parts.</p> <ul style="list-style-type: none"> • Internal Continuous Assessment of 20 marks for each paper. • Semester End Examination of 30 marks for each paper. • Separate head of passing is required for internal and semester end examination.

12	Internal Continuous Assessment: 40% Semester End Examination: 60%														
13	<p>Continuous Evaluation through: Quizzes, Class Tests, presentations, projects, role play, creative writing, assignments etc. (at least 3)</p> <table border="1" data-bbox="280 478 886 921"> <thead> <tr> <th data-bbox="280 478 358 552">Sr. No.</th> <th data-bbox="358 478 753 552">Particulars</th> <th data-bbox="753 478 886 552">Marks</th> </tr> </thead> <tbody> <tr> <td data-bbox="280 552 358 663">1</td> <td data-bbox="358 552 753 663">A class test of 10 marks is to be conducted during each semester in an Offline mode.</td> <td data-bbox="753 552 886 663">10</td> </tr> <tr> <td data-bbox="280 663 358 810">2</td> <td data-bbox="358 663 753 810">Project on any one topic related to the syllabus or a quiz (offline/online) on one of the modules.</td> <td data-bbox="753 663 886 810">05</td> </tr> <tr> <td data-bbox="280 810 358 921">3</td> <td data-bbox="358 810 753 921">Seminar/ group presentation on any one topic related to the syllabus.</td> <td data-bbox="753 810 886 921">05</td> </tr> </tbody> </table> <p data-bbox="297 961 834 1031">Paper pattern of the Test (Offline Mode with One hour duration): Q1: Definitions/Fill in the blanks/ True or False with Justification. (04 Marks: 4 x 1). Q2: Attempt any 2 from 3 descriptive questions. (06 marks: 2 x 3)</p>			Sr. No.	Particulars	Marks	1	A class test of 10 marks is to be conducted during each semester in an Offline mode.	10	2	Project on any one topic related to the syllabus or a quiz (offline/online) on one of the modules.	05	3	Seminar/ group presentation on any one topic related to the syllabus.	05
Sr. No.	Particulars	Marks													
1	A class test of 10 marks is to be conducted during each semester in an Offline mode.	10													
2	Project on any one topic related to the syllabus or a quiz (offline/online) on one of the modules.	05													
3	Seminar/ group presentation on any one topic related to the syllabus.	05													
14	<p>Format of Question Paper: The semester-end examination will be of 30 marks of one hour duration covering the entire syllabus of the semester.</p> <table border="1" data-bbox="280 1476 1349 1984"> <thead> <tr> <th colspan="4" data-bbox="280 1476 1349 1545">Note: Attempt any TWO questions out of THREE.</th> </tr> </thead> <tbody> <tr> <td data-bbox="280 1545 415 1766">Q.No.1</td> <td data-bbox="415 1545 550 1766">Module 1 and 2</td> <td data-bbox="550 1545 1183 1766">Attempt any THREE out of FOUR. (Each question of 5 marks) (a) Question based on OC1/OC2 (b) Question based on OC3 (c) Question based on OC4 (d) Question based on OC5</td> <td data-bbox="1183 1545 1349 1766">15 Marks</td> </tr> <tr> <td data-bbox="280 1766 415 1984">Q.No.2</td> <td data-bbox="415 1766 550 1984">Module 1 and 2</td> <td data-bbox="550 1766 1183 1984">Attempt any THREE out of FOUR. (Each question of 5 marks) (a) Question based on OC1/OC2 (b) Question based on OC3 (c) Question based on OC4 (d) Question based on OC5</td> <td data-bbox="1183 1766 1349 1984">15 Marks</td> </tr> </tbody> </table>			Note: Attempt any TWO questions out of THREE.				Q.No.1	Module 1 and 2	Attempt any THREE out of FOUR . (Each question of 5 marks) (a) Question based on OC1/OC2 (b) Question based on OC3 (c) Question based on OC4 (d) Question based on OC5	15 Marks	Q.No.2	Module 1 and 2	Attempt any THREE out of FOUR . (Each question of 5 marks) (a) Question based on OC1/OC2 (b) Question based on OC3 (c) Question based on OC4 (d) Question based on OC5	15 Marks
Note: Attempt any TWO questions out of THREE.															
Q.No.1	Module 1 and 2	Attempt any THREE out of FOUR . (Each question of 5 marks) (a) Question based on OC1/OC2 (b) Question based on OC3 (c) Question based on OC4 (d) Question based on OC5	15 Marks												
Q.No.2	Module 1 and 2	Attempt any THREE out of FOUR . (Each question of 5 marks) (a) Question based on OC1/OC2 (b) Question based on OC3 (c) Question based on OC4 (d) Question based on OC5	15 Marks												

Q.No.3	Module 1 and 2	Attempt any THREE out of FOUR . (Each question of 5 marks) (a) Question based on OC1/OC2 (b) Question based on OC3 (c) Question based on OC4 (d) Question based on OC5	15 Marks
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**Sign of the BOS
Chairman
Dr. Bhausahab S Desale
The Chairman, Board of
Studies in Mathematics**

**Sign of the
Offg. Associate Dean
Dr. Madhav R. Rajwade
Faculty of Science &
Technology**

**Sign of the
Offg. Dean
Prof. Shivram S. Garje
Faculty of Science &
Technology**

As Per NEP 2020

University of Mumbai



Syllabus for Basket of OE/ Minor/AEC	
Board of Studies in Data Science	
UG First Year Programme	
Semester	II
Title of Paper	Credits 2/ 4
1. DS_Data Privacy and Security (Open Elective)[OE]	2
From the Academic Year	2024-2025

Sr.No.	Heading	Particulars
1	Description the course : Including but Not limited to:	This syllabus aimed to provide a comprehensive overview of data, its privacy and security. It covers various aspects of data privacy and security to minimize the risk associated with an information system.
2	Vertical :	Open Elective
3	Type :	Theory
4	Credits :	2 credits (1 credit = 15 Hours for Theory)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives(CO):	CO 1.To learn concepts associated with data and data explosion. CO 2. To understand the data privacy and its components. CO 3. To learn types of data privacy attacks and laws associated. CO 4. To explore different Vulnerabilities with Software and data. CO 5. To learn strategies for Analysing Information Risk CO 6. To understand the use and applications of cyber security tools.
8	Course Outcomes (OC):	OC 1. Ability to identify sources and nature of data. OC 2. Knowledge of making a data privacy policy. OC 3. Ability to make and practise data protection strategies. OC 4. Acquire knowledge of vulnerabilities. OC 5. To manage the risks associated with data. OC 6. To deploy data security and protection strategy with cyber security tools.
9	Module 1:	Concept of Data explosion, Nature of data, Causes of data explosion, Big Data explosion. Demographics and Uniqueness of data and Data explosion. Components of Data Privacy: confidentiality, integrity and availability. Need of data privacy and its importance for business. Concept of Data linking and Data profiling. Data Privacy Attacks: Stolen Information Ransomware, Password Guessing, Recording Keystrokes, Phishing, Malware or Virus and Distributed Denial of Service (DDoS). Data Protection policies for the use, monitoring, and management of data. HIPPA (Health Insurance Portability and Accountability Act) components. DISHA (Digital Information Security in Healthcare Act) act.
	Module 2:	Data security: Definition and importance. Levels of Data security: hardware security, software security, and legal security. Understanding security policy: Organizational, system specific and issue specific.

	<p>Software Vulnerabilities and its impact on data.</p> <p>Understanding the role of Data Privacy and Security for any organization Cyber security Risk management: Risk identification, threat modelling and preventive strategies</p> <p>Process of FAIR analysis (Factor Analysis of Information Risk) Different cyber security tools.</p>		
10	<p>Text Books</p> <ol style="list-style-type: none"> 1. "Cyber Security and Data Privacy" by Krishan Kumar Goyal, Amit Garg and Saurabh Singhal. 2. "Cyber Security and Digital Privacy: A Universal Approach" by Gaurav K. Roy. 3. "DATA PRIVACY" by Ashwin Venkataramanan, Ashwin Shriram. 		
11	<p>Reference Books</p> <ol style="list-style-type: none"> 1. " Mastering Your Introduction to Cyber Security" by Dr. Michael C Redmond. 2. "Cybersecurity for Information Professionals: Concepts and Applications" by Hsia-Ching Chang , Suliman Hawamdeh 3. "Security and Data Storage Aspect in Cloud Computing" by Prachi S. Deshpande , Subhash C. Sharma , Sateesh K. Peddoju <p>Weblinks</p> <ol style="list-style-type: none"> 1. https://compliance-group.com/disha-and-hipaa-how-do-they-compare/ 2. https://dataprivacymanager.net/8-best-online-resources-to-learn-more-about-data-privacy-security/ 3. https://safety.google/privacy/privacy-controls/ 		
12	<table border="1"> <tr> <td>Internal Continuous Assessment: 40%</td> <td>Semester End Examination: 60%</td> </tr> </table>	Internal Continuous Assessment: 40%	Semester End Examination: 60%
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13	<table border="1"> <tr> <td> <p>Continuous Evaluation through:</p> <p>Class test of 1 of 15 marks Class test of 2 of 15 marks Average of the two: 15 marks</p> <p>Quizzes/ Presentations/ Assignments: 5 marks</p> <p>Total: 20 marks</p> </td> <td>Semester End Examination of 30 marks</td> </tr> </table>	<p>Continuous Evaluation through:</p> <p>Class test of 1 of 15 marks Class test of 2 of 15 marks Average of the two: 15 marks</p> <p>Quizzes/ Presentations/ Assignments: 5 marks</p> <p>Total: 20 marks</p>	Semester End Examination of 30 marks
<p>Continuous Evaluation through:</p> <p>Class test of 1 of 15 marks Class test of 2 of 15 marks Average of the two: 15 marks</p> <p>Quizzes/ Presentations/ Assignments: 5 marks</p> <p>Total: 20 marks</p>	Semester End Examination of 30 marks		
14	<p>Format of Question Paper: (Semester End Examination : 30 Marks. Duration:1 hour)</p> <p>Q1: Attempt any two (out of four) from Module 1 (15 marks) Q2: Attempt any two (out of four) from Module 2 (15 marks)</p>		

As Per NEP 2020

AC –
Item No. –

University of Mumbai



Syllabus for Basket of VES	
Board of Studies in Value Education	
UG First Year Programme	
Semester	II
Title of Paper	Credits 2
I) Environmental Management & Sustainable Development -II	
From the Academic Year	2024-25

**Name of the Course: Environmental Management
& Sustainable Development -II**

Sr. No.	Heading	Particulars
1	Description the course : Including but Not limited to :	<p>This introductory course explores the interconnectedness of our environment and the challenges it faces. Designed for students from all faculties, it equips you with a foundational understanding of:</p> <ul style="list-style-type: none"> • Ecosystems and biodiversity: Explore the intricate web of life on Earth and the importance of species diversity. • Human impact: Analyse how human activities affect natural resources, climate, and pollution. • Sustainability: Discover principles for living in harmony with the environment and meeting our needs without compromising future generations. <p>Regardless of major, environmental awareness is crucial. This course empowers learner to:</p> <ul style="list-style-type: none"> • Become an informed citizen: Make responsible choices and advocate for environmental protection. • Understand complex environmental issues: Gain a holistic view of challenges like climate change and pollution. <p>Explore solutions and career paths: Discover potential careers in environmental management, conservation, or sustainable development.</p>
2	Vertical :	Open Elective
3	Type :	Theory / Practical
4	Credit:	2 credits / (1 credit = 15 Hours for Theory or 30 Hours of Practical work in a semester)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	<p>Course Objectives:</p> <p>1. To create and disseminate knowledge to the students about environmental problems at local, regional and global scale.</p> <p>2. To introduce about ecosystems, biodiversity and to make aware for the need of</p>	

	<p>conservation.</p> <p>3. To sensitize students towards environmental concerns, issues, and impacts of human population.</p> <p>4. To prepare students for successful career in environmental departments, research institutes, industries, consultancy, and NGOs, etc.</p>
8	<p>Course Outcomes:</p> <p>1. Use principles of Environmental Science for explaining sustainable development and its related ethical concerns</p> <p>2. Display scientific perspective for issues confronting our present day environment.</p> <p>3. Analyze the national and global environmental issues relating air, water, soil, and land use, biodiversity, and pollution.</p> <p>4. Explain the Role of an individual in relation to human population and environmental pollution.</p> <p>5. Recognize the importance of collective efforts for environmental sustainability as reflected in various treaties, conventions and laws</p>
9	<p>Modules:-</p> <p>Unit I: Environmental Pollution and Health (8 lectures)</p> <p>Understanding pollution: Production processes and generation of wastes; Assimilative capacity of the environment; Definition of pollution; Point sources and non-point sources of pollution.</p> <p>Air pollution: Sources of air pollution; Primary and secondary pollutants; Criteria pollutants- carbon monoxide, lead, nitrogen oxides, ground-level ozone, particulate matter and Sulphur dioxide; Other important air pollutants- Volatile Organic compounds (VOCs), Peroxyacetyl Nitrate (PAN), Polycyclic aromatic hydrocarbons (PAHs) and Persistent organic pollutants (POPs); Indoor air pollution; Adverse health impacts of air pollutants; National Ambient Air Quality Standards.</p> <p>Water pollution: Sources of water pollution; River, lake and marine pollution, groundwater pollution; water quality parameters and standards; adverse health impacts of water pollution on human and aquatic life.</p> <p>Soil pollution and solid waste: Soil pollutants and their sources; Solid and hazardous waste; Impact on human health.</p> <p>Noise pollution: Definition of noise; Unit of measurement of noise pollution; Sources of noise pollution; Noise standards; adverse impacts of noise on human health.</p> <p>Thermal and Radioactive pollution: Sources and impact on human health and ecosystems.</p> <p>Unit II: Environmental Management (7 lectures)</p> <p>Introduction to environmental laws and regulation: Constitutional provisions- Article 48A, Article 51A (g) and other derived environmental rights; Introduction to environmental legislations on the forest, wildlife and pollution control.</p> <p>Environmental management system: ISO 14001</p> <p>Life cycle analysis; Cost-benefit analysis</p> <p>Pollution control and management; Waste Management- Concept of 3R (Reduce, Recycle and Reuse) and sustainability; Ecolabeling /Ecomark scheme. Introduction to Millennium Development Goals, Sustainable Development Goals, & Mission Life.</p>

Unit III: Environmental Treaties and Conventions (8 lectures)

1) Major International Environmental Agreements: Stockholm Conference on Human Environment, 1972, Ramsar Convention on Wetlands, 1971, Montreal Protocol, 1987, Basel Convention (1989), Earth Summit at Rio de Janeiro, 1992, Kyoto Protocol, 1997, Earth Summit at Johannesburg, 2002.

2) Major Indian Environmental Legislations: The Wild Life (Protection) Act, 1972; The Water (Prevention and Control of Pollution) Act, 1974; The Forest (Conservation) Act, 1980; The Air (Prevention and Control of Pollution) Act, 1981; The Environment (Protection) Act, 1986; The Biological Diversity Act, 2002

Unit IV: Case Studies and Field Survey (7 lectures)

The students are expected to be engaged in some of the following or similar identified activities:

- Discussion on one national and one international case study related to the environment and sustainable development.
- Field visits to identify local/regional environmental issues, make observations including data collection and prepare a brief report.
- One student one tree initiative.
- Documentation of campus biodiversity.
- Campus environmental management activities such as solid waste disposal, water management, and sewage treatment.

10

Text Books

1. Ahluwalia, V. K. (2015). Environmental Pollution, and Health. The Energy and Resources Institute (TERI).
2. Central Pollution Control Board Web page for various pollution standards. <https://cpcb.nic.in/standards/>
3. Masters, G. M., & Ela, W. P. (2008). Introduction to environmental engineering and science (No. 60457). Englewood Cliffs, NJ: Prentice Hall.
4. Jørgensen, Sven Marques, Erik João Carlos and Nielsen, Søren Nors (2016) Integrated Environmental Management, A transdisciplinary Approach. CRC Press.
5. Barrow, C. J. (1999). Environmental management: Principles and practice. Routledge.
6. Theodore, M. K. and Theodore, Louis (2021) Introduction to Environmental Management, 2nd Edition. CRC Press.
7. Richard A. Marcantonio, Marc Lame (2022). Environmental Management: Concepts and Practical Skills. Cambridge University Press.
8. UNEP (2007) Multilateral Environmental Agreement Negotiator's Handbook, University of Joensuu, ISBN 978-952-458-992-5
9. Ministry of Environment, Forest and Climate Change (2019) A Handbook on International Environment Conventions & Programmes. <https://moef.gov.in/wp-content/uploads/2020/02/convention-V-16-CURVE-web.pdf>
10. Ministry of Environment, Forest and Climate Change (2019) A Handbook on International Environment Conventions & Programmes. <https://moef.gov.in/wp-content/uploads/2020/02/convention-V-16-CURVE-web.pdf>
11. India Code – Digital repository of all Central and State Acts: <https://www.indiacode.nic.in/>
12. University Grants Commission, D.O.No.F. 14-5/2015(CPP-II) dated 2nd August 1 2019.

12	Internal Continuous Assessment: 40%	Semester End Examination : 60%
13	Continuous Evaluation through: Quizzes, Class Tests, presentation, project, role play, creative writing, Field Visits, Case Studies, assignments, One Student one tree initiative etc. (at least 4)	
14	<p>Format of Question Paper: for the final examination For OE: External - 30 Marks (2 Credits) Internal - 20 Marks Question Paper Format for 30 Marks Format of Question Paper: 30 Marks per paper Semester End Theory Examination:</p> <p>1. Duration - These examinations shall be of one hour and 30 minutes duration. 2. Theory question paper pattern: There shall be 04 questions each of 10 marks out of which students will attempt ANY THREE</p>	

Signature:
Prof. Kavita Laghate
Chairman of Board of Studies in Value Education

AC – 20/04/2024
Item No. – 7.8 Sem. II (5a)

As Per NEP 2020

University of Mumbai



Syllabus for Basket of Minor	
Ad- hoc Board of Studies in B. Com. (Management Studies)	
UG First Year Programme	
Semester	II
Title of Paper	Credits 2/ 4
Industry and Service Management I (Basics of I & S)	2
From the Academic Year	2024-25

Sr. No.	Heading	Particulars
1	Description the course: Including but not limited to:	Management is not only an essence in all fields but it is a prevalent tool in the hands of corporates to governments. From planning to controlling and from budgeting to reporting, all managerial elements are the most essential parts of daily life. So the learners need to know about all aspects from rural development to creating artificial intelligence. They will understand how to develop India, one of the fifth most powerful economies in the world. It is expected that the learners should learn how to develop our economy and management for the future generation from these managerial facets.
2	Vertical :	Major/Minor/Open Elective /Skill Enhancement / Ability Enhancement/Indian Knowledge System (Choose By √)
3	Type :	Theory / Practical
4	Credit:	2 credits
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives: <ol style="list-style-type: none"> 1. Differentiate between different types of industries and their defining characteristics 2. Apply industry analysis frameworks to assess competitive landscapes 3. Evaluate the impact of various factors on industry performance and service delivery 4. Design and analyze service models for optimal customer experience. 	

8	<p>Course Outcomes:</p> <ol style="list-style-type: none"> 1. Learners should Differentiate between various industry types and their characteristics 2. Identify the key factors influencing industry performance and competition 3. Understand the core principles of service management and customer experience 4. Analyse the challenges and opportunities unique to service businesses
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9	<p>Modules: -</p> <p>Module 1: Basics of Industry Management</p> <ol style="list-style-type: none"> a) Concept of Industry Management, Characteristics of IM, Types, Pros and Cons of Industry Management b) Industry Analysis: Framework of Porter's Five Forces, Industry Life Cycle, Technological advancement, Government regulations <p>Module 2: Basics of Service Management</p> <ol style="list-style-type: none"> a) Concept of service and service Management, characteristics of services, importance of service industry b) Scope and Classification of services - Specialized services, Customer services and Industrial services, Reasons for growth of service industry in India.
10	<p>Text Books:</p> <ul style="list-style-type: none"> • <i>Service Sector in India - recent policy initiative a New century publication 2008</i> • <i>A. Vijaykumar Service Sector management - An Indian perspective - Bhattacharjee, Jaico publishing House 2011.</i>

	<p>Reference Books:</p> <ul style="list-style-type: none"> • Industry Analysis by Michael E. Porter • Operations Management by Roberta F. Shang and Kenneth S. Meizer • Competitive Strategy by Michael E. Porter • Good Strategy Bad Strategy by Richard Rumelt • <i>Service marketing - Temani V. K. Prism Publication</i> • <i>Management of Service Sector - Bhatia B. S. VP Publication</i>
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12	Internal Continuous Assessment: 40%	External, Semester End Examination Individual Passing in Internal and External Examination : 60%
13	Continuous Evaluation through: Quizzes, Class Tests, presentation, project, role play, creative writing, assignment etc.(at least 3)	
14	Format of Question Paper: for the final examination External Paper Pattern (30 Marks) Q1. Case Study Analysis 10 Marks Q2. Answer the following (Any One) 10 marks A Or B Q3. Answer the following (Any One) 10 Marks A Or B	

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Fulmali
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Sangurde
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Prin. Kishori Bhagat
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Management**

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Faculty of Commerce
& Management**