

**University of Engineering and Management  
Institute of Engineering & Management, Salt Lake Campus  
Institute of Engineering & Management, New Town Campus  
University of Engineering & Management, Jaipur**

**4th Semester Syllabus for MBA Admission Batch 2023**

SL No.	Type	Subject Code	Subject Name	L	T	P	Total	Credit
1	CC	MBA401	Corporate Strategy	4	0	0	4	4
2	FM	FM 401	INTERNATIONAL FINANCE	4	0	0	4	4
3	FM	FM 402	Financial Derivatives	4	0	0	4	4
4	FM	FM 473	BFSI Sector Management- II	2	0	0	2	2
5	HR	HR 401	HUMAN RESOURCE METRICS AND ANALYTICS	4	0	0	4	4
6	HR	HR 402	Performance Management System	4	0	0	4	4
7	HR	HR473	CONSULTING & STRATEGIC HUMAN RESOURCE MANAGEMENT	2	0	0	2	2
8	MM	MM401	Consumer Behaviour	4	0	0	4	4
9	MM	MM402	Services Marketing	4	0	0	4	4
10	SC	SC401	Supply Chain Transformation	4	0	0	4	4
11	SC	SC 402	Supply Chain Design & Strategy	4	0	0	4	4
12	TM	TM 401	Business Forecasting	4	0	0	4	4
13	TM	TM 402	Data Mining	4	0	0	4	4

14	TM	TM 473	Managerial Data Intelligence-II	2	0	0	2	2
15	MM	MM473	Retail & E-commerce Management	2	0	0	2	2
16	GSC	MBAESP401	General Studies and Current Affairs- IV	2	0	0	2	0.5
17	GSC	MBASDP481	Competitive Aptitude Training - IV	2	0	0	2	0.5
18		MOOCS	Massive Open Online Course	0	0	0	0	0
19		IFC	Industry and Foreign Certification	0	0	0	0	0
20	Mandatory Course	MAR481	Mandatory Additional Requirement (MAR)	0	0	0	0	0



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## **Syllabus for MBA Admission Batch 2023**

**Subject Name: Corporate Strategy**

**Credit: 4**

**Lecture Hours: 40**

**Subject Code: MBA401**

**Maximum: 100 marks (Internal: 30 marks; External: 70 marks)**

**List of Faculty Members handling the Subject –**

1. Prof. Bikas Chandra Mandal
2. Prof. Subrata Chattopadhyay

**Pre-requisite:** Marketing Management, Human Resource Management, Financial Management

**Course Objectives:**

1. To make students learn about the strategic management process and the strategic intent
2. To make students learn about environmental, industrial and internal analysis techniques
3. To make students learn about various corporate and business strategic options
4. To make students learn about implementation, evaluation and control methods of strategies formulated

## **Course Outcomes:**

CO1. Will be able to explain the strategic management process and the strategic intent

CO2. Will be able to do the assessment of environmental, industrial and internal environments using strategic management tools

CO3. Will be able to analyze the business situations and formulate the corporate and business strategies

CO4. Will be able to implement, evaluate and control the strategies

## **Relevant Links:**

### **1. Link for Study Material:**

<https://docs.google.com/document/d/1v0My-ywfMEDdwa3JSeWQIk32bZcWyhg7/edit?usp=sharing&oid=112150448021391555890&rtpof=true&sd=true>

### **2. Link for Coursera Course:**

- i) [Coursera E & I analysis](#)
- ii) [Coursera Corporate Strategy](#)
- iii) [Coursera Implementing](#)
- iv) [Coursera Strategy formulation, Implementation](#)

### **3. Link for LinkedIn Learning Course:**

**DETAILED SYLLABUS**

<b>Module number</b>	<b>Topic</b>	<b>Sub-topics</b>	<b>Mapping with Industry and International Academia</b>	<b>Lecture Hours</b>	<b>L AB Assignment/Case study</b>
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1	Introduction to Strategic Management	Definition of Strategic Management, The strategic Management Model, Stages of strategic management, Benefits of engaging in strategic management	<p><b>International Academia</b>  <a href="https://www.coursera.org/programs/iem-faculty-learning-program-rtvr7/learn/strategic-management-mba-fia?source=search">https://www.coursera.org/programs/iem-faculty-learning-program-rtvr7/learn/strategic-management-mba-fia?source=search</a></p> <p><b>AICTE Prescribed Syllabus</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping</b>  Will know about strategic levels in industry</p> <p><b>Reference :</b>  Ch 1 : The nature of strategic management ;  Book : Strategic management: Concepts and Cases by David, Kanjer &amp; Chaudhuri</p> <p><b>Course Outcome</b>  CO1</p>	3	Case study : Ch 1 from text book  Tata Motors Vs Others
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2	Business Vision and Mission	Core Values, Vision, Mission	<p>International Academia</p> <p>AICTE Prescribed Syllabus  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p>Industry Mapping  Will understand about strategy formulation process</p> <p><b>Reference :</b>  Ch 2 : Business Vision and Mission ;  Book : Strategic management: Concepts and Cases by David, Kanjer &amp; Chaudhuri</p> <p><b>Course Outcome</b>  CO1</p>	5	<p>Case study :  Ch 2 from text book</p> <p>Jetblue Airways</p> <p>LAB :  Evaluating and writing vision and mission statements</p>
3	Assessment of External Environment	Analysis of external environment using PESTEL, Competitive analysis and Porter's Five-Forces Model	<p><b>International Academia</b>  <a href="https://www.coursera.org/videos/innovation-technology-be-disruptive/nKhmW?source=search&amp;query=PESTAL%20analysis">https://www.coursera.org/videos/innovation-technology-be-disruptive/nKhmW?source=search&amp;query=PESTAL%20analysis</a></p> <p>AICTE Prescribed Syllabus  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping</b>  Will assess thy impact of external environment and Competitive Position in the industry</p> <p><b>Reference :</b></p>	6	<p>Case study :  Ch 3 from text book</p> <p>The Times of India</p>

			<p>Ch 3 : Environmental appraisal  Book : Strategic management: Concepts and Cases  by David, Kanjer &amp; Chaudhuri</p> <p><b>Course Outcome</b>  CO2</p>		
4	Internal Assessment	<p>Analysis of Internal Environment, Role of management in internal assessment, Role of marketing in internal assessment, Steps for IFE matrix</p>	<p>International Academia</p> <p>AICTE Prescribed Syllabus  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p>Industry Mapping  Will assess effect of internal environment on performance</p> <p><b>Reference :</b>  Ch 4 : The Internal Assessment  Book : Strategic management: Concepts and Cases  by David, Kanjer &amp; Chaudhuri</p> <p><b>Course Outcome</b>  CO2</p>	6	<p>Case study :  Ch 4 from text book</p> <p>A Real Estate Business</p>
5	Strategies in action	<p>Long term Objectives, Levels of strategies , Types of strategies, Integration strategies, Intensive strategies, Diversification strategies, Defensive strategies, Value Chain analysis and Benchmarking, Michael Porter's Generic Strategies</p>	<p>International Academia</p> <p>AICTE Prescribed Syllabus  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p>Industry Mapping  Understanding of Strategies</p> <p>Reference :  Ch 5: Strategies in action</p>	8	<p>Case study :  Ch 5 from text book</p> <p>Zorabian Chicken</p>

			<p>Book : Strategic management: Concepts and Cases by David, Kanjer &amp; Chaudhuri</p> <p>Course Outcome CO3</p>		
6	Strategy analysis and Choice	Strategy analysis and Choice process, SWOT Matrix, BCG Matrix, Grand Strategy Matrix	<p>International Academia  <a href="https://www.coursera.org/programs/iem-faculty-learning-program-rtyr7/specializations/strategic-management?source=search">https://www.coursera.org/programs/iem-faculty-learning-program-rtyr7/specializations/strategic-management?source=search</a></p> <p>AICTE Prescribed Syllabus  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p>Industry Mapping  Understanding of strategic tools</p> <p>Reference :  Ch 6: Strategy analysis and choice  Book : Strategic management: Concepts and Cases by David, Kanjer &amp; Chaudhuri</p> <p>Course Outcome CO3</p>	5	<p>Case study : Ch 6 from text book</p> <p>Athena BPO</p>
7	Implementing Strategies	Allocate resources and Manage conflict, Match structure with strategy, Organizational structure, Strategic operations issues, Strategic human resource issues, Strategic marketing issues	<p>International Academia  <a href="https://www.coursera.org/programs/iem-faculty-learning-program-rtyr7/learn/management-essentials-strategic-planning?source=search">https://www.coursera.org/programs/iem-faculty-learning-program-rtyr7/learn/management-essentials-strategic-planning?source=search</a></p> <p><b>AICTE Prescribed Syllabus</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p>	4	<p>Case study : Ch 7 from text book</p> <p>Revolutionizing Auto Retail</p> <p>Case study from Deloitt  <a href="https://www2.deloitte.com/id/en/pages/about-">https://www2.deloitte.com/id/en/pages/a bout-</a></p>

			<p><b>Industry Mapping</b> Understanding of how to implement strategies</p> <p><b>Reference :</b> Ch 7 : Implementing Strategies Book : Strategic management: Concepts and Cases by David, Kanjer &amp; Chaudhuri</p> <p><b>Course Outcome</b> CO4</p>		deloitte/articles/greenhouse-cases-strategy.html
8	Strategy evaluation and Governance	The strategy evaluation process, Strategy evaluation activities, The Balanced Scorecard	<p>International Academia</p> <p>AICTE Prescribed Syllabus <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p>Industry Mapping Understanding of how to evaluate strategies and take control</p> <p><b>Reference :</b> Ch 9 : Strategic evaluation and control Book : Strategic management: Concepts and Cases by David, Kanjer &amp; Chaudhuri</p> <p><b>Course Outcome</b> CO4</p>	3	<p>Case study :</p> <p>Ch 9 from text book</p> <p>Secret Strategic Planning Works Great For TJX</p>

Module	WORKING DAY	DATE	LESSON PLAN – DESCRIPTION
<b>Module 1: Introduction to Strategic Management</b>	1	Day 1	Definition of Strategic Management, The strategic Management Model
	2	Day 2	The strategic Management Model
	3	Day 3	Stages of strategic management, Benefits of engaging in strategic management Model
<b>Module 2 : Business Vision and Mission</b>	4	Day 1	Analysis of external environment using PESTEL, Competitive analysis and Porter’s Five-Forces Model
	5	Day 2	Analysis of external environment using PESTEL, Competitive analysis and Porter’s Five-Forces Model
	6	Day 3	Mission
	7	Day 4	Evaluating and writing vision and mission statements
	8	Day 5	Evaluating and writing vision and mission statements
<b>Module 3 : Assessment of External Environment</b>	9	Day 1	Analysis of external environment using PESTEL
	10	Day 2	Analysis of external environment using PESTEL
	11	Day 3	Analysis of external environment using PESTEL
	12	Day 4	Competitive analysis and Porter’s Five-Forces Model
	13	Day 5	Competitive analysis and Porter’s Five-Forces Model
	14	Day 6	Competitive analysis and Porter’s Five-Forces Model
<b>Module 4: Internal Assessment</b>	15	Day 1	Analysis of Internal Environment
	16	Day 2	Analysis of Internal Environment
	17	Day 3	Analysis of Internal Environment

	18	Day 4	Role of management in internal assessment
	19	Day 5	Role of marketing in internal assessment
	20	Day 6	Steps for IFE matrix
<b>Module 5: Strategies in action</b>	21	Day 1	Long term Objectives, Levels of strategies
	22	Day 2	Types of strategies , Integration strategies
	23	Day 3	Intensive strategies
	24	Day 4	Diversification strategies,
	25	Day 5	Defensive strategies
	26	Day 6	Value Chain analysis and Benchmarking
	27	Day 7	Michael Porter's Generic Strategies
	28	Day 8	Michael Porter's Generic Strategies
	<b>Module 6: Strategy analysis and Choice</b>	29	Day 1
30		Day 2	SWOT Matrix
31		Day 3	BCG Matrix
32		Day 4	BCG Matrix
33		Day 5	Grand Strategy Matrix
<b>Module 7: Implementing Strategies</b>	34	Day 1	Allocate resources and Manage conflict, Match structure with strategy
	35	Day 2	Organizational structures
	36	Day 3	Strategic operations issues, Strategic human resource issues
	37	Day 4	Strategic marketing issues
<b>Module 8: Strategy evaluation and Governance</b>	38	Day 1	The strategy evaluation process
	39	Day 2	Strategy evaluation activities
	40	Day 3	The Balanced Scorecard

### **Text Books**

1. Strategic management: Concepts and Cases by David, David, David, Jacob, Kanjer & Chaudhuri, Pearson (Ch 1, 2, 3 4, 5, 6, 7, 9)

### **Reference books**

1. Strategic Management and Business Policy by Azhar Kazmi , Tata McGraw Hill
2. Exploring Strategy : Text and Cases by Whittington, Regner, Angwin, Johnson, Scholes
3. Contemporary Strategy Analysis by Grant, Jose, Yayavaram & Pallaathitta

## QUESTION PAPER PATTERN AND DATES

EXAMINATION	Dates	PART – A	PART – B	PART – C	TOTAL MARKS
Mid Term 1	February 10, 2025 to February 21, 2025	Attempt 5 out of 10 questions; Each question carries 2 marks ( $2 \times 5$ )	Attempt 2 out of 4 questions; Each question carries 5 marks ( $5 \times 2$ )	Attempt 1 out of 2 questions; Each question carries 10 marks ( $10 \times 1$ )	30
Mid Term 2	March 24, 2025 to April 2, 2025	Attempt 5 out of 10 questions; Each question carries 2 marks ( $2 \times 5$ )	Attempt 2 out of 4 questions; Each question carries 5 marks ( $5 \times 2$ )	Attempt 1 out of 2 questions; Each question carries 10 marks ( $10 \times 1$ )	30
End Semester Examination	April 21, 2025 to May 9, 2025	Attempt 10 out of 15 questions; Each question carries 2 marks ( $2 \times 10$ )	Attempt 6 out of 9 questions; Each question carries 5 marks ( $5 \times 6$ )	Attempt 5 out of 8 questions; Each question carries 10 marks ( $10 \times 5$ )	100

### Examination Rules & Regulations:

[https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe\\_office\\_iem\\_edu\\_in/EXRcoe3d6oxIogHKO074XeUBC9qm3XNaf\\_qUeSiVTNh5OQ?e=MMQn40](https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe_office_iem_edu_in/EXRcoe3d6oxIogHKO074XeUBC9qm3XNaf_qUeSiVTNh5OQ?e=MMQn40)



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University of Engineering & Management, Jaipur



## Syllabus for MBA Admission Batch 2023

**Subject Name: INTERNATIONAL FINANCE**

**Credit: 4**

**Lecture Hours: 40**

**Subject Code: FM 401**

### Coursera Links

[Coursera Link 1](#) - International Business Operations

[Coursera Link 2](#) - foreign exchange operations

[Coursera Link 9](#) - U.S. Federal Taxation Specialization

[Coursera Link 10](#) - History of US Federal Tax Rates

[Coursera Link 3](#) - Foreign Exchange Translation Exposure

[Coursera 4](#) - Understanding Foreign Exchange Transaction Exposure

[Coursera Link 5](#) - Economics of Money and Banking

[Coursera Link 6](#) - Forex Hedging Strategies

[Coursera Link 7](#) - Foreign Currency Exchange Risk

[Coursera Link 8](#) - Exchange Rates and Foreign Currency

[Coursera Link 11](#) - Legal Basis of U.S. Federal Income Tax

[Coursera Link 12](#) - US Taxation: Foreign Earned Income Exclusion

[Coursera Link 13](#) - US Federal Taxation: Overview and Learning Goals

[Coursera Link 14](#) - US Federal Taxation: Property Transactions

[Coursera link 15](#) - U.S. Taxation of International Transactions

#### **NPTEL**

[NPTEL 1](#) - International Financial Environment

[NPTEL 2](#) - International Parity Conditions and Movement Exchange Rate

[NPTEL 3](#) - Purchasing Power Parity

[NPTEL 4](#) - [Development of Foreign Exchange Market in India](#)

#### **LinkedIn Learning**

[LinkedIn Learning 1](#) - Managerial Finance Foundations

[LinkedIn Learning 2](#) - [Economics for Business Leaders](#)

#### **Study Material**

**Course Objective:**

This course is concerned with the financial management of the firms that operate in the increasingly globalized business environment. Students will discover how the international capital markets, foreign exchange markets, and the derivatives market can be used to manage transaction and operating risks facing the multinational firm. The general emphasis is on the identification and management of opportunities and risk relating to international investments, exchange rate fluctuations, international financial markets and government policy changes.

**Course Outcomes**

**CO1** -- Provide an in-depth understanding of the international financial management i.e. globalization, MNCs and balance of payment

**CO2** -- Understanding of foreign exchange market with a special focus on exchange rate determination

**CO3** -- Understanding of foreign exchange market risks and various strategies in the international financial market.

**CO4** – Knowledge of international financial market, financial instruments and trade practices

**Course Prerequisites****Relation With other subjects**

Subject	Correlation
Financial Accounting	Medium
Financial Management	High
Financial Derivatives and Risk Management	High
Statistics	Medium
Security Analysis and Portfolio Management	Medium

Module number	Topic	Sub -Topic	Mapping with Industry and International Academia	Lecture Hours	Case Studies	Mapping with Hands on Practice in Lab Using Tools.
1	<b>International Financial Management</b>	Domestic Financial Management & International Financial Management. The Emergence of the MNC, Nature of the MNC, BOP Accounting, Components of BOP, Significance of 'Deficit' & 'Surplus' in BOP, India's BOP, Capital Account Convertibility	<p><i>International Academia:</i></p> <p><a href="https://ocw.mit.edu/courses/15-617-the-law-of-corporate-finance-and-financial-markets-spring-2004/">https://ocw.mit.edu/courses/15-617-the-law-of-corporate-finance-and-financial-markets-spring-2004/</a></p> <p><a href="https://ocw.mit.edu/courses/15-223-global-markets-national-politics-and-the-competitive-advantage-of-firms-fall-2011/">https://ocw.mit.edu/courses/15-223-global-markets-national-politics-and-the-competitive-advantage-of-firms-fall-2011/</a></p> <p><a href="https://ocw.mit.edu/courses/14-02-principles-of-macroeconomics-spring-2014/resources/mit14_02s14_current_account/">https://ocw.mit.edu/courses/14-02-principles-of-macroeconomics-spring-2014/resources/mit14_02s14_current_account/</a></p> <p>Text Book:</p> <p style="text-align: center;">International Financial Management, Vyuptakesh Sharan, PHI Learning Private Ltd.</p> <p>Chapter 1 Chapter 2</p>	8	<p><b>Notes on the Balance of Payments</b></p> <p><b>Published by:</b> Harvard Business Publishing UK Case Centre</p>	
2	<b>Exchange Rate Determination</b>	Functions, Participants and	<p><i>International Academia:</i></p> <p><a href="https://ocw.mit.edu/courses/15-012-applied-macro-and-international-economics-spring-2011/">https://ocw.mit.edu/courses/15-012-applied-macro-and-international-economics-spring-2011/</a></p>	12	<ul style="list-style-type: none"> <li>Foreign Exchange Markets and Transactions</li> </ul>	<p><b>Real Time Trading in MATLAB</b></p> <p><a href="https://www.mathworks.com/videos/a-">https://www.mathworks.com/videos/a-</a></p>

		<p>Transactions – Exchange Rates and Quotations – Bid &amp; Ask rate – Cross rate- Indian foreign Exchange Market, Foreign Currency Derivatives – Forward Foreign Exchange Contract, Futures, Forwards, Swaps – Currency Swap and Interest rate Swap, Quality Spread Differential</p>	<p><i>AICTE-prescribed syllabus</i> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b> <a href="https://www.nseindia.com/learn/online-courses-forex-and-commodities-training-program">https://www.nseindia.com/learn/online-courses-forex-and-commodities-training-program</a></p> <p>Text Book: International Financial Management, Vyuptakesh Sharan, PHI Learning Private Ltd.</p> <p>Chapter – 4 Chpater – 5 Chapter- 6 Chapter -7 Chapter- 8 Chapter- 9 Chapter- 10 Chapter - 19</p>		<ul style="list-style-type: none"> <li>• <b>Published by:</b> Harvard Business Publishing UK Case Centre</li> <li>• <b>Exchange Rates and Firms – Harvard Business School</b></li> </ul>	<p><a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">real-time-trading-system-in-matlab-92900.html</a></p> <p>Simulated Trading</p> <p><a href="https://www.forex.com/en/trading-platforms/simulated-trading/">https://www.forex.com/en/trading-platforms/simulated-trading/</a></p>
3	<b>International Parity Conditions</b>	<p>Purchasing Power Parity- Interest rate Parity, Fishers</p>	<p><i>International Academia:</i> <a href="https://ocw.mit.edu/courses/15-012-applied-macro-and-international-economics-spring-2011/resources/mit15_012s11_lec12/">https://ocw.mit.edu/courses/15-012-applied-macro-and-international-economics-spring-2011/resources/mit15_012s11_lec12/</a></p>	12	<p>India’s Rising Foreign Exchange Reserves – Challenges before the Central Bank</p>	

		International Parity Theory, Two dimensions of Foreign Exchange Risk- Transactions Exposure & Translation Exposure, Arbitrage opportunity through Money Market Operation	<a href="https://ocw.mit.edu/courses/15-012-applied-macro-and-international-economics-spring-2011/">https://ocw.mit.edu/courses/15-012-applied-macro-and-international-economics-spring-2011/</a>  <b>Industry Mapping:</b> <a href="https://www.nseindia.com/learn/online-courses-forex-and-commodities-training-program">https://www.nseindia.com/learn/online-courses-forex-and-commodities-training-program</a>  Text Book: International Financial Management, P K Jain, Josette Peyrard, Surendra S Yadav ; Macmillan  Chapter – 6 Chapter - 7			
4	<b>International Banking &amp; Money Market</b>	International banking Services- BASEL Norms, International Money Markets, International Equity Sources - Global Equity	<b>International Standards</b> <a href="https://ocw.mit.edu/courses/15-s12-blockchain-and-money-fall-2018/">https://ocw.mit.edu/courses/15-s12-blockchain-and-money-fall-2018/</a> <a href="https://ocw.mit.edu/courses/15-617-the-law-of-corporate-finance-and-financial-markets-spring-2004/">https://ocw.mit.edu/courses/15-617-the-law-of-corporate-finance-and-financial-markets-spring-2004/</a>  <a href="https://ocw.mit.edu/courses/15-015-macro-and-international-economics-fall-2011/">https://ocw.mit.edu/courses/15-015-macro-and-international-economics-fall-2011/</a>  <a href="https://ocw.mit.edu/courses/15-015-macro-and-international-economics-fall-2011/resources/mit15_015f11_lec06/">https://ocw.mit.edu/courses/15-015-macro-and-international-economics-fall-2011/resources/mit15_015f11_lec06/</a>	8	NOTE ON MONEY AND CRYPTO CURRENCIES;  The globalization of International Finance – the Evolution and Role of International Financial Markets  International Institutions	

		<p>Markets- ADR, GDR, Process of Export and Import- necessary documentation- LC, Bank Guarantee, Letter of Intent etc.</p>	<p><b>AICTE prescribed syllabus</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b>  <a href="https://www.lakshmisri.com/practices/banking-finance/">https://www.lakshmisri.com/practices/banking-finance/</a>  <a href="https://www.lakshmisri.com/practices/international-trade-and-wto/">https://www.lakshmisri.com/practices/international-trade-and-wto/</a></p> <p>Text Book:  International Financial  Management, Vyuptakesh Sharan,  PHI Learning Private Ltd.</p> <p>Chapter – 15  Chpater – 16  Chapter- 17  Chapter -18</p>		<p><b>Published by:</b> Harvard Business Publishing  UK Case Centre</p> <p>A note on depositary receipts - <b>Harvard Business School</b></p>	
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**Suggested Books:**

1. International Financial Management, Vyuptakesh Sharan, PHI Learning Private Ltd.
2. International Financial Management, P K Jain, Josette Peyrard, Surendra S Yadav ; Macmillan

**Reference Books:**

1. Apte, P.G.: International Financial Management, Tata McGraw Hill.
2. Eiteman, Stonehill & Pandey: Multinational Business Finance, Pearson Education
3. Eun & Resnick: International Financial management, Tata McGraw-Hill Jeff Madura: International Corporate Finance, Cenage Learning
4. O’ Brien: International Finance, OUP
5. A. V. Rajwade, H. G. Desai, Foreign Exchange – International Finance Risk Management; SPD

**Lesson Plan**

**Prof. Dr. Sujit Dutta**

Days (two lectures per day)	Module	Chapter/ Topic	Sub topic
1	1	<b>International Financial Management</b>	Domestic Financial Management & International Financial Management.,
			The Emergence of the MNC, Nature of the MNC, BOP Accounting,
2			Components of BOP, Significance of ‘Deficit’ & ‘Surplus’ in BOP , India’s BOP ,
			Capital Account Convertibility
3			<b>Notes on the Balance of Payments</b>
			<b>Published by:</b> Harvard Business Publishing UK Case Centre – Case study discussion

4	2	<b>Exchange Rate Determination</b>	Functions, Participants and Transactions – Exchange Rates and Quotations –
			Bid & Ask rate – Cross rate-
5			<ul style="list-style-type: none"> <li>• Foreign Exchange Markets and Transactions</li> <li>• <b>Published by:</b> Harvard Business Publishing UK Case Centre</li> </ul> <b>Exchange Rates and Firms – Harvard Business School</b> Discussions on Case Study
6			<b>Real Time Trading in MATLAB – practical exposure</b>
7			Simulated Trading – practical exposure
8	4	<b>International Banking &amp; Money Market</b>	International banking Services-
			International Equity Sources - Global Equity Markets- ADR, GDR,
9			NOTE ON MONEY AND CRYPTO CURRENCIES;  The globalization of International Finance – the Evolution and Role of International Financial Markets  International Institutions  <b>Published by:</b> Harvard Business Publishing Cases Discussions and analysis
10			Process of Export and Import- necessary documentation- LC, Bank Guarantee, Letter of Intent UK Case Centre

			A note on depositary receipts - <b>Harvard Business School</b> <b>Case Study analysis</b>

**Prof. Dr. Nivedita Mandal**

Days (two lectures per day)	Module	Chapter/ Topic	Sub topic
1	2	<b>Exchange Rate Determination</b>	Indian foreign Exchange Market, Foreign Currency Derivatives –
2			Forward Foreign Exchange Contract, Futures, Forwards,
3			Swaps – Currency Swap and Interest rate Swap, Quality Spread Differential
4			Simulated Trading <b>Practical Exposure</b>
5			Simulated Trading <b>Practical Exposure</b>
6	3	<b>International Parity Conditions</b>	Purchasing Power Parity- Interest rate Parity, Fishers International Parity Theory,
7			Two dimensions of Foreign

			Exchange Risk-Transactions
8			Exposure & Translation Exposure, Arbitrage opportunity through Money Market Operation
9			India's Rising Foreign Exchange Reserves – Challenges before the Central Bank – case study
10	4	<b>International Banking &amp; Money Market</b>	BASEL Norms, International Money Markets

#### QUESTION PAPER PATTERN AND DATES

EXAMINATION	Dates	PART – A	PART – B	PART – C	TOTAL MARKS
Mid Term 1	February 10, 2025 to February 21, 2025	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)	30
Mid Term 2	March 24, 2025 to April 2, 2025	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)	30
End Semester Examination	April 21, 2025 to May 9, 2025	Attempt 10 out of 15 questions; Each question carries 2 marks (2 × 10)	Attempt 6 out of 9 questions; Each question carries 5 marks (5 × 6)	Attempt 5 out of 8 questions; Each question carries 10 marks (10 × 5)	100

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**Examination Rules & Regulations:**

[https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe\\_office\\_iem\\_edu\\_in/EXrcoe3d6oxlogHKO074XeUBC9qm3XNaf\\_qUeSiVTNh5OQ?e=MMQn40](https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe_office_iem_edu_in/EXrcoe3d6oxlogHKO074XeUBC9qm3XNaf_qUeSiVTNh5OQ?e=MMQn40)



# University of Engineering and Management

Institute of Engineering & Management, Salt Lake Campus  
Institute of Engineering & Management, New Town Campus  
University of Engineering & Management, Jaipur



## Syllabus for MBA Admission Batch 2023

**Subject Name: Financial Derivatives**

**Credit: 4**

**Subject Code: FM402**

**Lecture Hours: 40**

**Course Instructors: Dr. Anik Kumar Hazra, Dr. Nivedita Mandal**

**Lab Instructor: Prof. Sougata Ghosh**

**Course Objective:** This course is designed to provide students with a comprehensive understanding of the derivatives market and the various financial instruments used in it, including forwards, futures, options, and swaps. Students will explore the characteristics of these instruments and gain insights into their valuation and practical applications. The course will also focus on how derivatives can be used for risk management in business and investment strategies. By the end of the course, students will acquire the necessary skills to hedge against risk, speculate on market movements, and apply derivatives in real-world financial contexts.

**Course Outcomes:** After completion of the course, the students will be able to -

**CO1:** Understand the structure of the derivatives market and analyze the characteristics and uses of forward contracts, futures, options, and swaps.

**CO2:** Apply derivative pricing models to accurately value forward, futures and options in varying market conditions.

**CO3:** Design and evaluate risk management strategies using different types of derivatives to hedge against financial risks.

**CO4:** Evaluate speculative investment strategies using derivatives and create tailored strategies to optimize market returns.

### **Course Prerequisites**

#### **Relation With other subjects**

Subject	Correlation
Statistics	High
Financial Management	High
Indian Financial system and Financial Markets	High

### **Relevant Links:**

1. Link for Study Material: [Study Material](#)

2. Link for Coursera Courses:

- Derivatives - Options & Futures - [Couser Course 1](#)
- Advanced Topics in Derivative Pricing - [Couser Course 2](#)

3. Link for LinkedIn Learning Courses:

- Foundations of Treasury Management - [Linkedin Learning 1](#)
- Finance Foundations: Risk Management - [Linkedin Learning 2](#)

#### 4. Link for NPTEL Courses:

- Financial Derivatives And Risk Management - [NPTEL Course 1](#)
- Commodity Derivatives and Risk Management- [NPTEL Course 2](#)

#### DETAIL SYLLABUS:

Module number	Topic	Sub -Topic	Mapping with Industry and International Academia	Lecture Hours	Corresponding Assignment
1	<b>Derivatives: An introduction</b>	Financial derivatives in Indian Financial Markets --- risk management using derivatives, classification of derivatives, functions of derivative markets and participants	<p><b>International Academia:</b>  <a href="https://online.stanford.edu/courses/mse245b-advanced-investment-science">https://online.stanford.edu/courses/mse245b-advanced-investment-science</a></p> <p><b>AICTE-prescribed syllabus:</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b>  <a href="#">Equity Derivatives - Meaning, Benefits &amp; Types   Tradebulls</a></p> <p><b>Text Book Mapping:</b>            Derivatives and Risk Management, Rajiv Srivastava, OUP, 2<sup>nd</sup> Ed.            ➤ Chapter – 1</p>	2	<p><b>MIT OpenCourseWare –</b>  <a href="https://ocw.mit.edu/courses/15-401-finance-theory-i-fall-2008/pages/video-lectures-and-slides/forward-and-futures-contracts/">https://ocw.mit.edu/courses/15-401-finance-theory-i-fall-2008/pages/video-lectures-and-slides/forward-and-futures-contracts/</a></p> <p><b>HBR Reading</b></p> <ol style="list-style-type: none"> <li>1. <a href="#">Introduction to Derivative Instruments</a></li> <li>2. <a href="#">Derivative Markets: Structure and Risks</a></li> </ol>
2	<b>Introduction to Forward Contract</b>	Forward contracts, Limitations of forward markets, pay-offs, Forward Rate Agreement	<p><b>International Academia:</b>  <a href="https://online.stanford.edu/courses/mse245b-advanced-investment-science">https://online.stanford.edu/courses/mse245b-advanced-investment-science</a></p> <p><b>AICTE-prescribed syllabus:</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p>	4	<p><b>MIT OpenCourseWare –</b>  <a href="https://ocw.mit.edu/courses/15-401-finance-theory-i-fall-2008/pages/video-lectures-and-slides/forward-and-futures-contracts/">https://ocw.mit.edu/courses/15-401-finance-theory-i-fall-2008/pages/video-lectures-and-slides/forward-and-futures-contracts/</a></p>

		(FRA) – Cost of Carry Model	<p><b>Industry Mapping:</b>  <a href="#">Equity Derivatives - Meaning, Benefits &amp; Types   Tradebulls</a></p> <p><b>Text Book Mapping:</b>  Derivatives and Risk Management, Rajiv Srivastava, OUP, 2<sup>nd</sup> Ed.  ➤ Chapter – 2</p>		<p><b>Case Study:</b>  <a href="#">Lessons Learned? Brooksley Born &amp; the OTC Derivatives Market (A)</a></p>
3	<b>Introduction to Futures</b>	Introduction to futures, Stock Futures, Index futures, Commodity Futures, Hedging through Commodity and Index Futures, Distinction between futures and forwards contracts.	<p><b>International Academia:</b>  <a href="https://online.stanford.edu/courses/mse245b-advanced-investment-science">https://online.stanford.edu/courses/mse245b-advanced-investment-science</a></p> <p><b>AICTE-prescribed syllabus:</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b>  <a href="#">Introduction to Futures - CME Group</a></p> <p><b>Text Book Mapping:</b>  Derivatives and Risk Management, Rajiv Srivastava, OUP, 2<sup>nd</sup> Ed.  ➤ Chapter – 3, 4</p>	6	<p><b>MIT OpenCourseWare Assignment –</b>  <a href="https://ocw.mit.edu/courses/15-433-investments-spring-2003/c18221d4b592f362e753038089a6171e15433_assignment_3.pdf">https://ocw.mit.edu/courses/15-433-investments-spring-2003/c18221d4b592f362e753038089a6171e15433_assignment_3.pdf</a></p> <p><b>Case Study:</b>  1. Metallgesellschaft AG: An intelligent programme that went awry  2. <a href="#">Risk Management: A Case Study on Derivative</a>  3. <a href="#">BEA Associates: Enhanced Equity Index Funds</a></p>
4	<b>Concept of Margin</b>	Types of Margin in Futures – ITM, ATM, OTM - Concept of Lot size - Open Interest- Hedging through Forward and Futures –	<p><b>International Academia:</b>  (<a href="https://online.stanford.edu/courses/mse245b-advanced-investment-science">https://online.stanford.edu/courses/mse245b-advanced-investment-science</a>)</p> <p><b>AICTE-prescribed syllabus:</b>  (<a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>)</p>	4	<p><b>MIT OpenCourseWare Assignment –</b>  <a href="https://ocw.mit.edu/courses/15-433-investments-spring-2003/c18221d4b592f362e753038089a6171e15433_assignment_3.pdf">https://ocw.mit.edu/courses/15-433-investments-spring-2003/c18221d4b592f362e753038089a6171e15433_assignment_3.pdf</a></p> <p><b>Case Study:</b>  1. Barings Plc: The earthquake that crumbled the old strong edifice</p>

		Contango and Backwardation – Basis Risk	<p><b>Industry Mapping:</b>  <a href="#">Introduction to Futures - CME Group</a></p> <p><b>Text Book Mapping:</b>  Derivatives and Risk Management, Rajiv Srivastava, OUP, 2<sup>nd</sup> Ed.  ➤ Chapter – 4</p>		<p>2. <a href="#">(PDF) The Case Study Used to Analyze How to Use Financial Derivative to Hedge Foreign Exchange Risk</a></p> <p>3. <a href="#">Derivatives and Hedging</a></p>
5	<b>Credit Derivatives</b>	Concept and assessment of credit risk, Types of Credit Derivatives- CDS, TRS, etc, Collateralized Debt Obligations (CDO) – The Indian Scenario - credit risk mitigation	<p><b>International Academia:</b>  <a href="https://online.stanford.edu/courses/mse245b-advanced-investment-science">https://online.stanford.edu/courses/mse245b-advanced-investment-science</a></p> <p><b>AICTE-prescribed syllabus:</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b>  <a href="#">CD Guide final-b Simon .PDF</a></p> <p><b>Text Book Mapping:</b>  Derivatives and Risk Management, Rajiv Srivastava, OUP, 2<sup>nd</sup> Ed.  ➤ Chapter – 20</p>	6	<p><b>MIT OpenCourseWare –</b>  <a href="https://ocw.mit.edu/courses/15-433-investments-spring-2003/resources/1543318creditrisk2/">https://ocw.mit.edu/courses/15-433-investments-spring-2003/resources/1543318creditrisk2/</a></p> <p><b>Case Study:</b></p> <ol style="list-style-type: none"> <li>1. LTCM: The risk management models that crashed</li> <li>2. <a href="#">Delphi Corp. and the Credit Derivatives Market</a></li> <li>3. <a href="#">First American Bank: Credit Default Swaps</a></li> </ol>
6	<b>Option</b>	Option: Call and Put Option- American and European Option- Intrinsic and Time Value, Put Call Parity, distinction between	<p><b>International Standards :</b></p> <p><a href="https://ocw.mit.edu/courses/15-414-financial-management-summer-2003/resources/lec19_options/">https://ocw.mit.edu/courses/15-414-financial-management-summer-2003/resources/lec19_options/</a></p> <p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p>	4	<p>Web Based Simulators:  <a href="https://moneybhai.moneycontrol.com/#google_rewarded">https://moneybhai.moneycontrol.com/#google_rewarded</a></p>

		Options and Futures	Text Book: Derivatives & Risk Management, Rajiv Srivastava, Oxford Publication House Chapter – 1 Chapter - 9			
7	<b>Hedging strategies with Options</b>	stock options, Index options, straddles and strangles, straps and strips, Spreads – Bull/Bear/Butterfly.	<p><i>International Standards :</i></p> <p><a href="https://ocw.mit.edu/courses/15-414-financial-management-summer-2003/resources/lec19_options/">https://ocw.mit.edu/courses/15-414-financial-management-summer-2003/resources/lec19_options/</a></p> <p><i>AICTE prescribed syllabus:</i> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><i>Industry Mapping:</i></p> <ul style="list-style-type: none"> <li>• <a href="https://www.tradebulls.in/learn-stock-market/equity-derivatives/options-strategies">https://www.tradebulls.in/learn-stock-market/equity-derivatives/options-strategies</a></li> <li>• <a href="https://www.optioneducation.org/strategies/all-strategies-en">https://www.optioneducation.org/strategies/all-strategies-en</a></li> </ul> <p>Text Book: Futures and Options ; N D Vohra, B R Bagri; McGraw Hill Education Chapter - 4</p>	6	<p>Case Study <a href="https://casi.sas.upenn.edu/sites/default/files/iit/Derivatives%20-%20Vashishtha.pdf">https://casi.sas.upenn.edu/sites/default/files/iit/Derivatives%20-%20Vashishtha.pdf</a></p> <p><a href="https://nsearchives.nseindia.com/content/research/Paper60.pdf">https://nsearchives.nseindia.com/content/research/Paper60.pdf</a></p> <p>HBR Case Study –</p> <ol style="list-style-type: none"> <li>1. A framework for Risk Management</li> <li>2. The basics of Financial Derivatives</li> </ol>	<p>Web Based Simulators:</p> <p><a href="https://algotest.in/feature/simulator">https://algotest.in/feature/simulator</a></p>

8	<b>Option Greeks:</b>	Delta, Theta, Vega, Gamma, rho and phi	<p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b> <a href="https://www.tastylive.com/concepts-strategies/option-greeks">https://www.tastylive.com/concepts-strategies/option-greeks</a></p> <p><b>Text Book:</b> Derivatives &amp; Risk Management, Rajiv Srivastava, Oxford Publication House Chapter – 13 Chapter - 14</p>	2		<b>Matlab:</b> <a href="https://in.mathworks.com/help/finance/pricing-and-analyzing-equity-derivatives.html">https://in.mathworks.com/help/finance/pricing-and-analyzing-equity-derivatives.html</a>
9	<b>Option Valuation</b>	Pricing and Valuation of Option Contract- Binomial Option Pricing Model - Black Scholes Model – their interpretations, historical and implied volatility	<p><b>International Standards:</b> <a href="https://ocw.mit.edu/courses/15-414-financial-management-summer-2003/resources/lec20_options2/">https://ocw.mit.edu/courses/15-414-financial-management-summer-2003/resources/lec20_options2/</a></p> <p><b>Industry Mapping:</b></p> <ul style="list-style-type: none"> <li>• <a href="https://pages.stern.nyu.edu/~adamodar/New_Home_Page/lectures/opt.html">https://pages.stern.nyu.edu/~adamodar/New_Home_Page/lectures/opt.html</a></li> <li>• <a href="https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/stockbased_compensat/stockbased_compensat_3_US/chapter_8_estimating_US/81_chapter_overview_9_US.html">https://viewpoint.pwc.com/dt/us/en/pwc/accounting_guides/stockbased_compensat/stockbased_compensat_3_US/chapter_8_estimating_US/81_chapter_overview_9_US.html</a></li> </ul> <p><b>Text Book:</b> Derivatives &amp; Risk Management, Rajiv Srivastava, Oxford Publication House Chapter – 10</p>	4	Case Study <a href="https://corporatefinanceinstitute.com/resources/derivatives/options-case-study/#:~:text=Options%20Case%20Study%20Proper,-Let%20us%20examine&amp;text=The%20market%20is%20currently%20at,forecast%20threshold%20the%20manufacturer%20fe">https://corporatefinanceinstitute.com/resources/derivatives/options-case-study/#:~:text=Options%20Case%20Study%20Proper,-Let%20us%20examine&amp;text=The%20market%20is%20currently%20at,forecast%20threshold%20the%20manufacturer%20fe</a>	

			Chapter – 11 Chapter - 12			
10	<b>Swaps</b>	Basic concept and applications	<p><b>International Standards:</b>  <a href="https://ocw.mit.edu/courses/15-617-the-law-of-corporate-finance-and-financial-markets-spring-2004/resources/lec20/">https://ocw.mit.edu/courses/15-617-the-law-of-corporate-finance-and-financial-markets-spring-2004/resources/lec20/</a></p> <p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Text Book:</b></p> <p>Derivatives &amp; Risk Management, Rajiv Srivastava, Oxford Publication House Chapter – 8</p>	2		

**Text Books:**

1. Derivatives & Risk Management, Rajiv Srivastava, Oxford Publication House  
<https://www.amazon.in/DERIVATIVES-RISK-MANAGEMENT-2ND-EDN/dp/0198089155>
2. Futures and Options ; N D Vohra, B R Bagri; McGraw Hill Education  
<https://www.amazon.in/FUTURES-OPTIONS-N-D-Vohra/dp/0070483868>

### Reference Books:

1. Options, Futures and other Derivatives, John C. Hull, Pearson Education  
[https://www.pearson.com/nl/en\\_NL/higher-education/subject-catalogue/finance/Options-Futures-and-Other-Derivatives-Hull.html](https://www.pearson.com/nl/en_NL/higher-education/subject-catalogue/finance/Options-Futures-and-Other-Derivatives-Hull.html)
2. Financial Derivatives, Gupta, S.L., Prentice Hall.  
<https://www.amazon.in/Financial-Derivatives-Theory-Concepts-Problems/dp/812035348X>
3. Financial Derivatives and Risk Management, O.P. Agarwal, Himalaya Publishing  
<https://www.amazon.in/financial-derivatives-risk-management-P-Agarwal/dp/9353674271>
4. Financial Derivatives: Risk Management, Bhalla. V. K., S. Chand & Company  
<https://www.amazon.in/Financial-Derivatives-V-K-Bhalla/dp/8121920949>

## Lesson Plan:

Dr. Nivedita Mandal

Contact Hour [L-T-P]	Module/Topic	Sub Topics
1	<b>Module -1</b>  <b>Derivatives: An introduction</b>	Introduction to Risk Management; Types of Business Risk; Risk management using derivatives; Features of Hedging  Take Home Assignment - HBR Reading-1
2		Derivative Products; Classification of derivatives, Functions of derivative markets and participants; Evolution of derivatives in Indian Financial Markets  Take Home Assignment - HBR Reading -2
3	<b>Module -2</b>  <b>Introduction to Forward Contract</b>	Forward contracts – Motives, Features, Settlement; OTC market and its limitations
4		Pricing a contract; Cost of Carry Model; Value of a Forward Contract; Forward Rate Agreement (FRA); Numerical Exercise
5		Cash and Carry Arbitrage; Reverse Cash and Carry Arbitrage; Numerical Exercise
6		Case Study Discussion: Lessons Learned? Brooksley Born & the OTC Derivatives Market (A)
7	<b>Module -3</b>  <b>Introduction to Futures</b>	Introduction to futures - Stock Futures, Index futures, Commodity Futures; Comparison between Forward and Futures; Pricing a futures contract
8		Relationship between futures and spot prices – Convergence; Normal and Inverted markets; Backwardation, Contango; Expectation Hypothesis, Price Discovery
9		Index Futures – features and specifications; Pricing Index futures
10		Applications of Index futures – Hedging through stock index futures; Hedge Ratio
11		Speculation with stock index futures; Arbitrage with stock index futures
12		Case Study Discussion

13	<b>Module -4</b>  <b>Concept of Margin Trading</b>	Types of margin in futures; Marking to Market
14		Hedging Strategy – Long Hedge, Short Hedge; Numerical Exercises
15		Case Study Discussion
16		Lab Session on Equity Futures
17		Lab Session on Index Futures
18	<b>Module -5</b>  <b>Credit Derivatives</b>	Credit Risk – probability of defaults, Credit VaR;
19		Credit Derivatives- CDS, TRS, CLN, CDO; Credit Risk Mitigation
20		Case Study Discussion

**Dr. Anik Kumar Hazra**

Contact Hour [L-T-P]	Module/Topic	Sub Topics
1	<b>Module -6</b> <b>Option</b>	Option: Call and Put Option- American and European Option, distinction between Options and Futures
2		Intrinsic and Time Value, Put Call Parity
3		Web Based Simulators: Application
4	<b>Module -7</b>  <b>Hedging strategies with Options</b>	Stock options, Index options, Spreads
5		Spreads – Bull.
6		Spreads – Bear
7		Spreads –Butterfly.
8		Straddles and strangles, straps and strips
9		HBR Case Study – 1. A framework for Risk Management 2. The basics of Financial Derivatives
10		Web Based Simulators: Application - hedging

11	<b>Module - 8</b>  <b>Option Greeks</b>	Delta
12		Theta, Vega
13		Gamma, rho and phi
14		<b>Matlab – Applications</b>
15	<b>Module - 9</b>  <b>Option Valuation</b>	Pricing and Valuation of Option Contract
16		Binomial Option Pricing Model - interpretations
17		Black Scholes Model – interpretations
18		Historical and implied volatility
19		Case Study and Numerical examples
20	<b>Module - 10</b>  <b>Swaps</b>	Basic concept and applications

#### QUESTION PAPER PATTERN AND DATES

EXAMINATION	Dates	PART – A	PART – B	PART – C	TOTAL MARKS
<b>Mid Term 1</b>	<b>February 10, 2025 to February 21, 2025</b>	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)	<b>30</b>
<b>Mid Term 2</b>	<b>March 24, 2025 to April 2, 2025</b>	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)	<b>30</b>

<b>End Semester Examination</b>	<b>April 21, 2025 to May 9, 2025</b>	Attempt 10 out of 15 questions; Each question carries 2 marks (2 × 10)	Attempt 6 out of 9 questions; Each question carries 5 marks (5 × 6)	Attempt 5 out of 8 questions; Each question carries 10 marks (10 × 5)	<b>100</b>
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# University of Engineering and Management

Institute of Engineering & Management, Salt Lake Campus  
Institute of Engineering & Management, New Town Campus  
University of Engineering & Management, Jaipur



## Syllabus for MBA Admission Batch 2023

**Subject Name: BFSI Sector Management- II**

**Credit: 2**

**Lecture Hours: 20**

**Subject Code: FM473**

**Course Objective:** The course focuses on deeper understanding of Banking and Financial concepts besides offering the analysis and knowledge of the Insurance Sector providing a combination of theory and practice.

**Course Outcomes**

**CO1:** conceptualization of the basic functioning and framework of the Financial System Including Insurance sector

**CO2:** getting equipped with technological and typical functions of the banking sector and understanding the broader types of insurance schemes

**CO3:** understanding the marketing as well as customer relationship management aspects of banking and insurance sector

**CO4:** following the ethical and regulatory perspectives of both the Banking sector and Insurance Market

**Course Prerequisites**

**Relation With other subjects**

Subject	Correlation
Financial Management	High
Indian Financial system and Financial Markets	High
Marketing Management	Medium

Coursera Courses:

[Coursera 1](#) [Coursera 2](#)

[Introduction to Banking; Foundations of Insurance](#)

LinkedIn Learning Courses:

[LinkedIn Learning 1](#) [LinkedIn Learning 2](#) - Financial Basics Everyone Should Know; Financial Adulting

NPTEL Courses:

[NPTEL 1](#) [NPTEL 2](#) - Banking and Insurance; Introduction to Structure Of Banking Industry

[Study Material](#)

Module number	Topic	Sub -Topic	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment and Case Study	Mapping with Hands on Practice in Lab Using Tools.
<b>PAPER 1 – PRINCIPLES &amp; PRACTICES OF BANKING</b>						
1	Indian Financial System	Indian Financial System – An Overview Role of RBI, Commercial Banks, NBFCs, PDs, FIs, Cooperative Banks, CRR, SLR; Banking Regulation Retail Banking- Products, Opportunities; Wholesale Banking, Products, Types of Money & Debt Market Instruments including G-Secs; ADs, FEMA, LIBOR, MIBOR, etc.	Text Book: Banking, Risk and Insurance Management, N.R. Mohan Prakash, Vikas Publishing  Chapters: Part I Chapter: 1 - 6	2		

		Role and Functions of CIBIL, Codes of BCSBI			
2	Functions Of Banks	<p>Banker Customer Relationship  Different Deposit Products &amp; Services, Bankers' Special Relationship  Mandate; POA; Garnishee Orders; Banker's Lien; Right of Set off Consumer Protection - COPRA, Banking Ombudsman Scheme  Operational Aspects of COPRA Act &amp; Banking Ombudsman Scheme, Ancillary Services  Remittances; Safe Deposit Lockers; Govt. Business; EBT, Priority Sector Advances  Targets; Sub-Targets; Recent Developments  Agricultural Finance  Types of Agricultural Loans; Micro, Small and Medium Enterprises  MSMED Act, 2006 Policy Package for MSMEs; Government Sponsored Schemes  SGSY; SJSRY; PMRY; SLRS  Self Help Groups  Need for &amp; Functions of SHGs; Role of NGOs in Indirect Finance to SHGs; SHGs &amp; SGSY</p>	<p><i>International Academia:</i> <a href="https://ocw.mit.edu/courses/11-405-just-money-banking-as-if-society-mattered-spring-2021/">https://ocw.mit.edu/courses/11-405-just-money-banking-as-if-society-mattered-spring-2021/</a></p> <p><i>AICTE-prescribed syllabus:</i> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p>Text Book:</p> <ul style="list-style-type: none"> <li>Principles of Banking- Indian Institute of Banking &amp; Finance; MACMILLAN</li> </ul> <p>Chapters-  Module B: Chapter 22- 41</p>	6	<p>Risk Management case study  <a href="https://gargaincollege.ac.in/pdf/publications/1/pub_more/68.pdf">https://gargaincollege.ac.in/pdf/publications/1/pub_more/68.pdf</a></p>

		<p>Scheme; Credit Cards, Home Loans, Personal Loans, Consumer Loans; Different Modes of Charging Securities- Assignment; Lien; Set-off; Hypothecation; Pledge; Mortgage</p> <p>Types of collaterals and their characteristics</p> <p>Land &amp; Buildings; Goods; Documents of Title to Goods; Advances against Insurance Policies, Shares, Book Debts, Term Deposits, Gold, etc.; Supply Bills</p> <p>Non-Performing Asset</p>				
3	Banking Technology	<p>Payment Systems and Electronic Banking</p> <p>ATMs; HWAK; PIN; Electromagnetic Cards; Electronic Banking; Signature Storage &amp; Retrieval System; CTS; Note &amp; Coin Counting Machines; Microfiche; NPC; RUPAY Data Communication Network and EFT systems</p> <p>Components &amp; Modes of Transmission; Major Networks in India; Emerging Trends in Communication Networks for Banking; Evolution of EFT System; SWIFT; Automated Clearing Systems; Funds Transfer</p>	<p><b>Industry Mapping:</b> <a href="https://www.icicibank.com/blogs/internet-banking/what-is-internet-banking">https://www.icicibank.com/blogs/internet-banking/what-is-internet-banking</a></p> <p>Text Book:</p> <ul style="list-style-type: none"> <li>Principles of Banking- Indian Institute of Banking &amp; Finance; MACMILLAN</li> </ul> <p>Chapter: Module C; Chapter 42-50</p>	2	<p>Harvard Business School Case Study:</p> <p>1. Eko – Mobile Banking and Payments in India</p>	<p>Usage of MATLAB in Banking</p> <p><a href="https://www.designtechproducts.com/articles/matlab-finance-banking#:~:text=The%20Financial%20Toolbox%20in%20MATLAB%20enables%20economists%20to%20estimate%20risk,a%20va">https://www.designtechproducts.com/articles/matlab-finance-banking#:~:text=The%20Financial%20Toolbox%20in%20MATLAB%20enables%20economists%20to%20estimate%20risk,a%20va</a></p>

		Systems; Risk Concern Areas; Types of Threats; Control Mechanism; Computer Audit; IS Security; IS Audit; Evaluation Requirements Preventive Vigilance in Electronic Banking				<a href="#">riety%20of%20stochastic%20processes.</a>
4	Support Services - Marketing Of Banking Services/ Products	Social Marketing/ Networking Evolution, Importance & Relevance of Social Marketing/ Networking, Distribution Channels; Channels for Banking Services; Net Banking; Mobile Banking Channel Management; Role of Promotion in Marketing; Promotion Mix Role of Direct Selling Agent/ Direct Marketing Agent in a bank Definition; Relevance; Banker as DSA/ DMA; Delivery Channels in Banks; Benefits Product Planning, Development, Strategies, etc.; CRM	<p><b>International Standards</b> <a href="https://ocw.mit.edu/courses/15-015-macro-and-international-economics-fall-2011/resources/mit15_015f11_lec05/">https://ocw.mit.edu/courses/15-015-macro-and-international-economics-fall-2011/resources/mit15_015f11_lec05/</a></p> <p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b> <a href="https://www.scribd.com/document/342342773/0602017-Marketing-Strategy-of-Hdfc-Bank-India">https://www.scribd.com/document/342342773/0602017-Marketing-Strategy-of-Hdfc-Bank-India</a></p> <p>Text Book:</p> <ul style="list-style-type: none"> <li>Banking, Risk and Insurance Management, <u>N.R. Mohan</u> Prakash, Vikas Publishing</li> </ul> <p>Chapters: Chapter 12, 13,14</p>	2	Case Studies and assignments  <a href="https://www.nibmindia.org/statistic/documents/Selected_Cases_in_Banking.pdf">https://www.nibmindia.org/statistic/documents/Selected_Cases_in_Banking.pdf</a>	Monetary analysis and inform critical monetary policy decisions. <a href="https://in.mathworks.com/solutions/finance-and-risk-management/central-banking.html">https://in.mathworks.com/solutions/finance-and-risk-management/central-banking.html</a>  AI in Banking <a href="https://cloud.google.com/discover/ai-in-banking">https://cloud.google.com/discover/ai-in-banking</a>
5	Ethics In Banks And Financial Institutions	Business Ethics & Banking: An Integrated Perspective; Employees Obligation to Bank/ Third Parties, Abuse of Official Position, Sexual Harassment, Conflict of Interest, Fair Accounting Practices, HRM	<b>International Standards</b> : <a href="https://ocw.mit.edu/courses/14-09-financial-crises-january-iap-2016/resources/mit14_09iap16_lec5_edit/">https://ocw.mit.edu/courses/14-09-financial-crises-january-iap-2016/resources/mit14_09iap16_lec5_edit/</a>	2	Case Studies and assignments  <a href="https://www.nibmindia.org/s">https://www.nibmindia.org/s</a>	

		Ethics, Code of Ethics Manual, Whistleblowing in Banks, Whistleblowing Laws in India Banking Ethics: Changing Dynamics Ethics and Technology, Data Security and Privacy, Intellectual Property Rights, Patents and Proprietary Rights, Ethics of Information Security	<p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b> <a href="https://www.rbsinternational.com/global/about-us/board-and-governance.html">https://www.rbsinternational.com/global/about-us/board-and-governance.html</a></p> <p>Text Book:</p> <ul style="list-style-type: none"> <li>Principles of Banking- Indian Institute of Banking &amp; Finance; MACMILLAN</li> </ul> <p>Chapters- Module D : Chapter 51- 55</p>		<a href="#">tatic/documents/Selected Cases in Banking.pdf</a>	
<b>Part II - Insurance</b>						
6	Introduction to general insurance	Introduction to general insurance Basic concept, General nature of Insurance companies, principles of Insurance, Insurance market in India	<p><b>International Standards</b> <a href="https://ocw.mit.edu/courses/14-472-public-economics-ii-spring-2004/resources/ssfacts/">https://ocw.mit.edu/courses/14-472-public-economics-ii-spring-2004/resources/ssfacts/</a></p> <p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b> <a href="https://www.bajajallianz.com/commercial-insurance.html">https://www.bajajallianz.com/commercial-insurance.html</a></p> <ul style="list-style-type: none"> <li>Text Book: Insurance Principles and Practice –M.N Mishra and S.B. Mishra; S.Chand</li> </ul> <p>Chapters: Chapter 1 - 4</p>	2		
7	Classification of Insurance	Classification of Insurance Life and Non - Life Insurance,	<b>International Standards</b>	3	Case Study	

		Difference between Insurance and Assurance, Bancassurance	<p><a href="https://ocw.mit.edu/courses/14-472-public-economics-ii-spring-2004/pages/lecture-notes/">https://ocw.mit.edu/courses/14-472-public-economics-ii-spring-2004/pages/lecture-notes/</a></p> <p><a href="https://ocw.mit.edu/courses/14-472-public-economics-ii-spring-2004/resources/socisecurolgsett-1/">https://ocw.mit.edu/courses/14-472-public-economics-ii-spring-2004/resources/socisecurolgsett-1/</a></p> <p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b> <a href="https://licindia.in/insurance-plan">https://licindia.in/insurance-plan</a></p> <ul style="list-style-type: none"> <li>Text Book: Insurance Industry in India: Features, Reforms and Outlook – Uma Narang; New Century Publications</li> </ul> <p>Chapters- Part II: Chapter : 6 – 10 Part III: Chapter – 11, 12,16,19,21</p>		<p><a href="https://www.investprogram.org/Resources/case-studies/6th-case-study-life-insurance.pdf">https://www.investprogram.org/Resources/case-studies/6th-case-study-life-insurance.pdf</a></p> <p>HBR Case Study – Competing For Coverage Strategies and Challenges for India’s Life Insurance Market</p>	Impact of AI in Insurance  <a href="https://www.mckinsey.com/industries/financial-services/our-insights/insurance-2030-the-impact-of-ai-on-the-future-of-insurance">https://www.mckinsey.com/industries/financial-services/our-insights/insurance-2030-the-impact-of-ai-on-the-future-of-insurance</a>
8	Insurance Regulatory Framework	Insurance Regulatory Framework Overview, Main reasons for Insurance Regulation, IRDAI	<p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b> <a href="https://irdai.gov.in/guidelines">https://irdai.gov.in/guidelines</a></p> <ul style="list-style-type: none"> <li><b>Text Book:</b> Insurance Principles and Practice –M.N Mishra and S.B. Mishra; S.Chand</li> </ul> <p>Chapter - 51</p>	1	Case Study <a href="https://www.businesstoday.in/personal-finance/insurance/story/irdai-new-claim-settlement-rules-insurers-to-settle-claims-within-7-days-surveyors-to-submit-">https://www.businesstoday.in/personal-finance/insurance/story/irdai-new-claim-settlement-rules-insurers-to-settle-claims-within-7-days-surveyors-to-submit-</a>	

					<a href="#">reports- within-15- days-check- other-details- 432968-2024- 06-11</a>	
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**Suggested Books:**

- Principles of Banking- Indian Institute of Banking & Finance; MACMILLAN  
<https://www.amazon.in/Principles-Practices-Banking-2023-IIBF/dp/9356660328>
- Insurance Principles and Practice –M.N Mishra and S.B. Mishra; S.Chand  
<https://www.amazon.in/Insurance-Principles-Practice-22nd-Mishra-ebook/dp/B06XK5TF8J>
- Insurance Industry in India: Features, Reforms and Outlook – Uma Narang; New Century Publications  
<https://www.amazon.in/Insurance-Industry-India-Features-Reforms/dp/817708352X>
- Banking, Risk and Insurance Management, N.R. Mohan Prakash, Vikas Publishing  
<https://www.amazon.in/Banking-Insurance-Management-Mohan-Prakash/dp/9325994054>

## Lesson Plan

Days (Two Lectures Per Day)	Module	Topic	Sub topic
1	1	Indian Financial System	Indian Financial System – An Overview Role of RBI, Commercial Banks, NBFCs, PDs, FIs, Cooperative Banks, CRR, SLR; Banking Regulation
2			Retail Banking- Products, Opportunities; Wholesale Banking, Products, Types of Money & Debt Market Instruments including G-Secs; ADs, FEMA, LIBOR, MIBOR, etc. Role and Functions of CIBIL, Codes of BCSBI
3	2	Functions Of Banks	Banker Customer Relationship - Different Deposit Products & Services, Bankers' Special Relationship Mandate; POA; Garnishee Orders; Banker's Lien; Right of Set off Consumer Protection - COPRA, Banking Ombudsman Scheme Operational Aspects of COPRA Act & Banking Ombudsman Scheme; Ancillary Services Remittances; Safe Deposit Lockers; Govt. Business; EBT, Priority Sector Advances Targets; Sub-Targets; Recent Developments Agricultural Finance Types of Agricultural Loans; Micro, Small and Medium Enterprises MSMED Act, 2006 Policy Package for MSMEs;
4			Government Sponsored Schemes SGSY; SJSRY; PMRY; SLRS - Self Help Groups Need for & Functions of SHGs; Role of NGOs in Indirect Finance to SHGs; SHGs & SGSY Scheme; Credit Cards, Home Loans, Personal Loans, Consumer Loans; Different Modes of Charging Securities- Assignment; Lien; Set-off; Hypothecation; Pledge; Mortgage Types of collaterals and their characteristics Land & Buildings; Goods; Documents of Title to Goods; Advances against Insurance Policies, Shares, Book Debts, Term Deposits, Gold, etc.; Supply Bills Non-Performing Asset Assignment - Case Study on Risk Management

5	3	<b>Banking Technology</b>	<p>Payment Systems and Electronic Banking-ATMs; HWAK; PIN; Electromagnetic Cards; Electronic Banking; Signature Storage &amp; Retrieval System; CTS; Note &amp; Coin Counting Machines; Microfiche; NPC; RUPAY Data Communication Network and EFT systems-Components &amp; Modes of Transmission; Major Networks in India; Emerging Trends in Communication Networks for Banking; Evolution of EFT System; SWIFT; Automated Clearing Systems; Funds Transfer Systems; Risk Concern Areas; Types of Threats; Control Mechanism; Computer Audit; IS Security; IS Audit; Evaluation Requirements- Preventive Vigilance in Electronic Banking - Idea about MATLAB application in Banking</p> <p><b>Assignment - Harvard Business School Case Study: Eko – Mobile Banking and Payments in India,</b></p>
6	4	<b>Support Services - Marketing Of Banking Services/ Products</b>	<p>Social Marketing/ Networking - Evolution, Importance &amp; Relevance of Social Marketing/ Networking, Distribution Channels; Channels for Banking Services; Net Banking; Mobile Banking - Channel Management; Role of Promotion in Marketing; Promotion Mix - Role of Direct Selling Agent/ Direct Marketing Agent in a bank Definition; Relevance; Banker as DSA/ DMA; Delivery Channels in Banks; Benefits-Product Planning, Development, Strategies, etc.; CRM</p> <p>Practical aspects exposure - Monetary analysis and inform critical monetary policy decisions and AI in Banking</p> <p><b>Practice Assignments – Case Study</b></p>
7	5	<b>Ethics In Banks And Financial Institutions</b>	<p>Business Ethics &amp; Banking: An Integrated Perspective; Employees Obligation to Bank/ Third Parties, Abuse of Official Position, Sexual Harassment, Conflict of Interest, Fair Accounting Practices, HRM Ethics, Code of Ethics Manual, Whistleblowing in Banks, Whistleblowing Laws in India</p> <p>Banking Ethics: Changing Dynamics- Ethics and Technology, Data Security and Privacy, Intellectual Property Rights, Patents and Proprietary Rights, Ethics of Information Security</p> <p><b>Assignment – Case Study</b></p>

<b>8</b>	<b>6</b>	<b>Introduction to general insurance</b>	Introduction to general insurance Basic concept, General nature of Insurance companies, principles of Insurance, Insurance market in India
<b>9</b>	<b>7</b>	<b>Classification of Insurance</b>	Classification of Insurance Life and Non - Life Insurance, Difference between Insurance and Assurance, Bancassurance Practical Exposure - Impact of AI in Insurance <b>Assignment - HBR Case Study – Competing For Coverage Strategies and Challenges for India’s Life Insurance Market</b>
<b>10</b>	<b>8</b>	<b>Insurance Regulatory Framework</b>	Insurance Regulatory Framework Overview, Main reasons for Insurance Regulation, IRDAI <b>Assignment – Case Study</b>

**Evaluation and Examination – Submission of Assignments in Google Classroom, Class-work Assignments and VIVA-VOCE**

**Examination Rules & Regulations:**

[https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe\\_office\\_iem\\_edu\\_in/EXrcoe3d6oxlogHKO074XeUBC9qm3XNaf\\_qUeSiVTNh5OQ?e=MMQn40](https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe_office_iem_edu_in/EXrcoe3d6oxlogHKO074XeUBC9qm3XNaf_qUeSiVTNh5OQ?e=MMQn40)

## Syllabus for MBA Admission Batch 2024-26

**Subject Name: HUMAN RESOURCE METRICS AND ANALYTICS**

**Lecture Hours: 40**

**Subject Code: HR 401**

**Maximum: 100 marks (Internal: 30 marks; External: 70 marks)**

**List of Faculty Members handling the Subject –**

1. Prof. Dr. Nadinla Srividya
2. Prof. Debasree Saha

**Pre-requisite:** Basic understanding of organizations, evolution, structure and functions

**Relevant Links:**

**[Study Material](#)**

**[LinkedIn](#) –**

- **People Analytics** - <https://www.linkedin.com/learning/people-analytics>
- **Using AI to Improve Human Resources Practices** - [https://www.linkedin.com/learning/using-ai-to-improve-human-resources-practices?trk=learning-serp\\_learning-search-card\\_search-card&upsellOrderOrigin=default\\_guest\\_learning](https://www.linkedin.com/learning/using-ai-to-improve-human-resources-practices?trk=learning-serp_learning-search-card_search-card&upsellOrderOrigin=default_guest_learning)

**[Coursera](#) -**

- **Human Resources Analytics** - <https://www.coursera.org/programs/iem-faculty-learning-program-rtvr7/learn/human-resources->

[analytics?source=search](#)

- **Using Metrics in HR: Driving Decisions and Measuring Success** - <https://www.coursera.org/videos/human-resources-analytics/y7Vjx?source=search&query=HR%20analytics>

**NPTEL**

**AI FOR HR**

## **COURSE OBJECTIVES:**

- To understand various terms in HRM and be able to manage the human resources of an organization effectively and efficiently
- To understand the different compliance related measures, industrial relations and labour laws for better employee relations

## PROGRAM OUTCOMES

PO 1	<b>Problem Analysis</b>	Identify, formulate, research literature, and analyze managerial problems reaching substantiated conclusion using principles of Mathematics, techniques of Finance, and Modern Management subjects
PO 2	<b>Modern Tool Usage</b>	Create, Select and apply appropriate techniques, resources, and modern management and IT tools including prediction and modeling to complex managerial activities with an understanding of limitations.
PO 3	<b>Communication</b>	Communicate effectively on complex managerial activities with the organizational community, Government, Customers, Competitors and other potential stakeholders and with the society at large, such as being able to comprehend and write effective reports, make effective presentation, and give and receive clear instruction
PO 4	<b>Ethics</b>	Apply ethical principles and commit to professional ethics and responsibilities and norms of the management practice.
PO 5	<b>Project Management and Finance</b>	Demonstrate knowledge and understanding of the financial and management principles and apply these to one's work, as a member and leader in a team, to manage projects in multidisciplinary environment.
PO 6	<b>The Manager and Society</b>	Apply reasoning informed by the contextual knowledge to assess societal, health, legal, cultural and community issues and the consequent responsibility relevant to the professional management practice
PO 7	<b>Individual and Team work</b>	Function effectively as an individual, and as a member or leader in diverse streams, and in multidisciplinary settings
PO 8	<b>Lifelong Learning</b>	Recognize the need for, and have the preparation and ability to engage in, independent and life-long learning in the broadest context of technological change.

PO9	<b>Creative BusinessSolution</b>	Analyzing, diagnosing and prescribing creative solutions to solvereal life business problems and situations.
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## COURSE OUTCOMES

**CO1:** Developing a knowhow on definitions and classifications used in the study of Human Resource Management to grasp concepts involving best HR Management practices

**CO2:** Apply the information to plan and recruit employees of an organization thoroughly to achieve the organizational goals in an effective, efficient and optimum way.

**CO3:** Analyze the performance aspects of individual employees and evaluate as per organizational parameters and communicate shortcomings in a positive way to improve the organization's effectiveness.

**CO4:** Create a benchmark for best HRM practices that shall aid in establishing sustainable and positive work culture at workplace.

## DETAILED SYLLABUS

Module number	Topic	Sub -Topic	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
1	<b>1. Introduction to HR Analytics</b>	Introduction, Traditional HRM, Changing Trends in HRM and Emergence of Strategic HRM, HR Analytics Phase	<p><b>International Academia</b>  <a href="https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data">https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data</a></p> <p><b>AICTE Prescribed Syllabus</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping</b></p> <p><b>Application Case :</b>  <b>Importance of HR Analytics: A Case study of HEG Limited</b>                      -Nishant Uppal – Page No 29</p> <p><b>Text Book Mapping :</b>                      HR Analytics Connecting Data and Theory, Rama Shankar Yadav, Sunil Maheswari, Wiley Chapter 1</p>	4	<p><b>Data Examination and Purification</b></p> <p><b>Group Exercise - HR Analytics in Action</b></p> <p><b>HBR Case Study: Money Cash Flow Inc.: HR Analytics Applied to Employee Retention and Well-Being Issues (A)</b> Product No: HEC162-PDF-ENG</p> <p><a href="https://hbsp.harvard.edu/product/HEC162-PDF-ENG?Ntt=Case%20studies%20on%20HR%20analytics">https://hbsp.harvard.edu/product/HEC162-PDF-ENG?Ntt=Case%20studies%20on%20HR%20analytics</a></p>

Module number	Topic	Sub -Topic	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
1	2. Understanding HR Analytics	Introduction, How to conduct a purposeful workforce analytics, Key influencers in the HR Analytics Process, Model for Adoption of HR Analytics, Application and status of HR Analytics	<p><b>International Academia</b>  <a href="https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data">https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data</a></p> <p><b>AICTE Prescribed Syllabus</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b>  <b>Application Case :</b>  <b>Human Resource Planning through HR Analytics in CPP Mill, Lakuan,</b>            Nishant Uppal Page No 32</p> <p><b>Text Book Mapping :</b>            HR Analytics Connecting Data and Theory, Rama Shankar Yadav, Sunil Maheswari, Wiley Chapter 2</p>	8	<p><b>Data Analysing Techniques – Regression Analysis</b></p> <p><b>Uk case study –</b>  <a href="https://www.thecasecentre.org/products/view?id=147436">https://www.thecasecentre.org/products/view?id=147436</a> - Reference no. HEC163 -            Money Cash Flow Inc: HR Analytics Applied to Employee Retention and Well-being Issues</p>

Module number	Topic	Sub -Topic	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
1	<b>3. HR Analytics Tools and Techniques</b>	Importance of data, Types of Data, Data Capturing Methods, Data Examination and Purification, Data Analysing Techniques	<p><b>International Academia</b></p> <p><a href="https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data">https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data</a></p> <p><b>AICTE Prescribed Syllabus</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping</b></p> <p><b>Application Case :</b>  <i>“Y2K or KMN”</i>            Human Information Systems -            Nicolas A. Valcik            Meghna Sabharwal            Teodoro J. Benavides</p> <p><b>Text Book Mapping :</b>            HR Analytics Connecting Data and Theory, Rama Shankar Yadav, Sunil Maheswari, Wiley</p>	6	<p><b>Data Analysing Techniques – Clustering Analysis</b></p> <p><b>HBR case study –</b></p> <p>Two Brothers, Two Methods: "Happiness Index" vs. "Data &amp; Analytics" - SCM102-PDF-ENG</p> <p><a href="https://hbsp.harvard.edu/product/SCM102-PDF-ENG?activeTab=overview&amp;itemFindingMethod=">https://hbsp.harvard.edu/product/SCM102-PDF-ENG?activeTab=overview&amp;itemFindingMethod=</a></p>

Module number	Topic	Sub -Topic	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
			Chapter 3		
2	<b>4. Usage of HR Analytics</b>	Introduction, Recruitment and Selection, Training and Development, Performance Appraisal (PA), Talent Management, Employee Engagement, Compensation Management, Expatriate Management).	<p><b>International Academia</b>  <a href="https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data">https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data</a></p> <p><b>AICTE Prescribed Syllabus</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping</b></p> <p><b>Application Case :</b>  <b>The Employee who was “Deadpool” in HRIS</b>                      Human Information Systems -                      Nicolas-A.-Valcik-                      Meghna-Sabharwal-                      Teodoro-J. Benavides</p> <p><b>Text Book Mapping :</b>                      HR Analytics Connecting Data and Theory, Rama Shankar</p>	6	<p><b>Data Analysing Techniques – Association Analysis</b></p> <p><b>Icebreaker - HR Analytics Scavenger Hunt</b></p> <p><b>HBR Case Study: Money Cash Flow Inc.: HR Analytics Applied to Employee Retention and Well-Being Issues (B)</b></p> <p><b>Product Number: HEC163-PDF-ENG</b></p> <p><a href="https://hbsp.harvard.edu/product/HEC163-PDF-ENG?Ntt=Case%20studies%20on%20HR%20analytics">https://hbsp.harvard.edu/product/HEC163-PDF-ENG?Ntt=Case%20studies%20on%20HR%20analytics</a></p>

Module number	Topic	Sub -Topic	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
			Yadav, Sunil Maheswari, Wiley Chapter 4		
2	<b>5. Building an HR Analytics Culture</b>	Current status of HR Analytics in Organisations, HR Analytics as a Change-Management Process, Establishing a Culture of HR Analytics, Build versus Buy Approach	<p><b>International Academia:</b> <a href="https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data">https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data</a></p> <p><b>AICTE-prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b> <b>The Big Database that “Couldn’t”</b> Human Information Systems - Nicolas A. Valcik Meghna Sabharwal Teodoro J. Benavides</p> <p><b>Text Book Mapping :</b> HR Analytics Connecting Data and Theory, Rama Shankar Yadav, Sunil Maheswari, Wiley Chapter 6</p>	6	<p><b>Data Analysing Techniques – Anomaly Detection Analysis</b></p> <p><b>Assignment on Cost Per Hire (CPH)</b></p> <p><b>HBR Case study: How AI Can Help Stressed-Out Managers Be Better Coaches</b></p> <p><b>Product Number: H07P33-PDF-ENG</b></p> <p><a href="https://hbsp.harvard.edu/product/H07P33-PDF-ENG?Ntt=Case%20studies%20on%20HR%20analytics">https://hbsp.harvard.edu/product/H07P33-PDF-ENG?Ntt=Case%20studies%20on%20HR%20analytics</a></p>

Module number	Topic	Sub -Topic	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
2	<b>6.Future of HR Analytics</b>	Introduction, Factors determining adoption of HR Analytics, HR Analytics Adoption: Responsibility of HR Department	<p><b>International Standards</b>  <a href="https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data">https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data</a></p> <p><b>AICTE prescribed syllabus:</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE MBA.pdf</a></p> <p><b>Industry Mapping:</b>  <b>Failure to Launch</b>                      Human Information Systems -                      Nicolas A. Valcik                      Meghna Sabharwal                      Teodoro J. Benavides</p> <p><b>Text Book Mapping :</b>                      HR Analytics Connecting Data and Theory, Rama Shankar Yadav, Sunil Maheswari, Wiley Chapter 7</p>	4	<p><b>Data Analysing Techniques – Correlation</b></p> <p><b>Case Study – Uk cases</b></p> <p>HR Reference no. AD-0369-E - Analytics at Barney  <a href="https://casecent.re/p/180982">https://casecent.re/p/180982</a></p>

Module number	Topic	Sub -Topic	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
2	7.AI for HR Analytics	Introduction to Artificial Intelligence, Core HR Functions Impacted by AI: Recruitment, talent management, performance evaluation, employee engagement, and retention, Benefits of AI in HR: Improving decision-making, predictive insights, efficiency, and personalized employee experiences, HR Data Sources: Types of data available for HR analytics (e.g., recruitment data, performance metrics, employee surveys), Data Preprocessing: Cleaning, transforming, and organizing HR data for analysis, Ethics and Privacy in HR Data: Ensuring data privacy and ethical use of employee data	<p><b>International Standards:</b>  <a href="https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data">https://professional.mit.edu/course-catalog/people-analytics-transforming-management-behavioral-data</a></p> <p><b>AICTE prescribed syllabus:</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b>            “Houston, we have a problem.”            Human Information Systems -            Nicolas→A.→Valcik→            Meghna→Sabharwal→            Teodoro→J. Benavides</p>	6	<p><b>AI Exercises</b></p> <p><b>Absenteeism Trend Analysis using AI.</b></p> <p><b>ET UK Case Centre: HR Analytics at ScaleneWorks: Behavioral Modeling to Predict Renege</b></p> <p><b>Case-Reference no. IMB551</b>  <a href="https://casecent.re/p/132934">https://casecent.re/p/132934</a></p>

## Lesson Plan:

**Module 1: 1.Introduction to HR Analytics, 2. Understanding HR Analytics and 3. HR Analytics Tools and Techniques (Faculty: Prof. Nadindla Srividya)**

WORKING DAY	Chapter No	Chapter	LESSON PLAN – DESCRIPTION
1	1	Introduction to HR Analytics	Introduction, Traditional HRM
2	1	Introduction to HR Analytics	Changing Trends in HRM
3	1	Introduction to HR Analytics	Emergence of Strategic HRM
4	1	Introduction to HR Analytics	HR Analytics Phase
5	2	Understanding HR Analytics	Introduction
6	2	Understanding HR Analytics	How to conduct a purposeful workforce analytics.
7	2	Understanding HR Analytics	Key influencers in the HR Analytics Process.
8	2	Understanding HR Analytics	Key influencers in the HR Analytics Process.
9	2	Understanding HR Analytics	Model for Adoption of HR Analytics
10	2	Understanding HR Analytics	Model for Adoption of HR Analytics
11	2	Understanding HR Analytics	Application and status of HR Analytics
12	2	Understanding HR Analytics	Application and status of HR Analytics

13	3	HR Analytics Tools and Techniques	Importance of data
14	3	HR Analytics Tools and Techniques	Types of Data
15	3	HR Analytics Tools and Techniques	Data Capturing Methods
16	3	HR Analytics Tools and Techniques	Data Examination and Purification
17	3	HR Analytics Tools and Techniques	Data Analysing Techniques
18	3	HR Analytics Tools and Techniques	Data Analysing Techniques

**Module 2: 4. Usage of HR Analytics, 5. Building an HR Analytics Culture, 6. Future of HR Analytics and 7. AI for HR Analytics .**  
**Prof. Debasree Saha**

19	4	Usage of HR Analytics	Introduction
20	4	Usage of HR Analytics	Recruitment and Selection
21	4	Usage of HR Analytics	Training and Development
22	4	Usage of HR Analytics	Performance Appraisal (PA)
23	4	Usage of HR Analytics	Talent Management
24	4	Usage of HR Analytics	Employee Engagement, Compensation Management, Expatriate Management)
25	5	Building an HR Analytics Culture	Current status of HR Analytics in Organisations
26	5	Building an HR Analytics Culture	HR Analytics as a Change-Management Process
27	5	Building an HR Analytics Culture	Establishing a Culture of HR Analytics,

28	5	Building an HR Analytics Culture	Establishing a Culture of HR Analytics,
29	5	Building an HR Analytics Culture	Build versus Buy Approach
30	5	Building an HR Analytics Culture	Build versus Buy Approach
31	6	Future of HR Analytics	Introduction
32	6	Future of HR Analytics	Factors determining adoption of HR Analytics
33	6	Future of HR Analytics	HR Analytics Adoption: Responsibility of HR Department
34	6	Future of HR Analytics	HR Analytics Adoption: Responsibility of HR Department
35	7	AI for HR Analytics	Introduction to Artificial Intelligence
36	7	AI for HR Analytics	Core HR Functions Impacted by AI: Recruitment, talent management, performance evaluation, employee engagement, and retention
37	7	AI for HR Analytics	Benefits of AI in HR: Improving decision-making, predictive insights, efficiency, and personalized employee experiences,
38	7	AI for HR Analytics	HR Data Sources: Types of data available for HR analytics (e.g., recruitment data, performance metrics, employee surveys),
39	7	AI for HR Analytics	Data Preprocessing: Cleaning, transforming, and organizing HR data for analysis, Ethics and Privacy in HR Data: Ensuring data privacy and ethical use of employee data
40	7	AI for HR Analytics	Ethics and Privacy in HR Data: Ensuring data privacy and ethical use of employee data

## QUESTION PAPER PATTERN AND DATES

EXAMINATION	Dates	PART – A	PART – B	PART – C	TOTAL MARKS
Mid Term 1	February 10, 2025 to February 21, 2025	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)	30
Mid Term 2	March 24, 2025 to April 2, 2025	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)	30
End Semester Examination	April 21, 2025 to May 9, 2025	Attempt 10 out of 15 questions; Each question carries 2 marks (2 × 10)	Attempt 6 out of 9 questions; Each question carries 5 marks (5 × 6)	Attempt 5 out of 8 questions; Each question carries 10 marks (10 × 5)	100

### Examination Rules & Regulations:

[https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe\\_office\\_iem\\_edu\\_in/EXrcoe3d6oxIogHKO074XeUBC9qm3XNaf\\_qUeSiVTNh5OQ?e=MMQn40](https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe_office_iem_edu_in/EXrcoe3d6oxIogHKO074XeUBC9qm3XNaf_qUeSiVTNh5OQ?e=MMQn40)

## CO-PO MAPPING

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	3	2	1	1	1	1	1	1
CO2	3	2	3	1	1	3	3	2	1
CO3	1	1	3	2	2	3	3	2	2
CO4	1	1	2	3	3	2	3	2	1

### Text Book

**HR Analytics Connecting Data and Theory, Rama Shankar Yadav, Sunil Maheswari**

### [Amazon Link](#)

### Reference Books

1. Michael Armstrong, A Handbook Of Human Resource Management Practice, Kogan Page
2. Gueutal and Stone, The Brave New World Of e-HR
3. Monk and Wagner, Concepts in Enterprise Resource Planning, Thomson
4. Steve VanWieren, Quantifiably Better: Delivering Human Resource Analytics from start to finish.
5. Bernard Marr, Data-driven HR: How to use Analytics and Metrics to drive performance.
6. Ramesh Soundararajan, Kuldeep Singh, Winning on HR Analytics: Leveraging data for competitive advantage.



# University of Engineering and Management

Institute of Engineering & Management, Salt Lake Campus  
Institute of Engineering & Management, New Town Campus  
University of Engineering & Management, Jaipur



## Syllabus for MBA Admission Batch 2024-26

**Subject Name:** Performance Management System

**Credit:** 4

**Lecture Hours:** 40

**Subject Code:** HR 402

**Maximum:** 100 marks (Internal: 30 marks; External: 70 marks)

### List of Faculty Members handling the Subject:

1. Prof. Chirabrata Majumder
2. Prof. Pritha Chanda

**Pre-requisite:** Basic understanding of organizations, evolution, structure and functions

### Relevant Links:

[Study Material](#)

[LinkedIn](#)

[Coursera](#)

[NPTEL](#)

[AI FOR HR](#)

### COURSE OBJECTIVES:

- To understand various terms in Performance Management and be able to manage PMS Program of an organization effectively and efficiently
- To understand the different compliance related measures, industrial relations and ethics for better employee performance.

## PROGRAM OUTCOMES

PO 1	<b>Problem Analysis</b>	Identify, formulate, research literature, and analyze managerial problems reaching substantiated conclusion using principles of Mathematics, techniques of Finance, and Modern Management subjects
PO 2	<b>Modern Tool Usage</b>	Create, Select and apply appropriate techniques, resources, and modern management and IT tools including prediction and modeling to complex managerial activities with an understanding of limitations.
PO 3	<b>Communication</b>	Communicate effectively on complex managerial activities with the organizational community and with the society at large, such as being able to comprehend and write effective reports, make effective presentation, and give and receive clear instruction
PO 4	<b>Ethics</b>	Apply ethical principles and commit to professional ethics and responsibilities and norms of the management practice.
PO 5	<b>Project Management and Finance</b>	Demonstrate knowledge and understanding of the financial and management principles and the apply these to one's work, as a member and leader in a team, to manage projects in multidisciplinary environment.
PO 6	<b>The Manager and Society</b>	Apply reasoning informed by the contextual knowledge to assess societal, health, legal, cultural and community issues and the consequent responsibility relevant to the professional management practice
PO 7	<b>Individual and Team work</b>	Function effectively as an individual, and as a member or leader in diverse streams, and in multidisciplinary settings
PO8	<b>Lifelong Learning</b>	Recognize the need for, and have the preparation and ability to engage in, independent and life-long learning in the broadest context of technological change.
PO9	<b>Creative Business Solution</b>	Analyzing, diagnosing and prescribing creative solutions to solve real life business problems and situations.



# University of Engineering and Management

Institute of Engineering & Management, Salt Lake Campus  
Institute of Engineering & Management, New Town Campus  
University of Engineering & Management, Jaipur



## COURSE OUTCOMES

- CO1: Understand and apply the definitions and concepts used in the study of performance.
- CO2: Understand the performance indices and performance management processes
- CO3: Apply the information thus gathered to predict a specific PMS that caters to the needs of the organization and analyse the different Performance management systems to improve the organisation's effectiveness and individual development.
- CO4: Evaluate the effectiveness of performance appraisal techniques within organizational context to create a benchmark for assessing the performance of an employee for sustainability.

## DETAILED SYLLABUS

Module number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
1	<b>Performance Management:</b>	Overview, principle, measuring performance versus measuring action, contribution of Performance management to competitive advantage, difference between Performance Management and Performance Appraisal, Performance Management Process, Challenges of PMS, Managing team performance.	<b>International Academia</b> <a href="https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/calendar/">https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/calendar/</a> <b>(Point-4)</b>  <b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <b>Industry Mapping</b>  <b>Text Book Mapping :</b> Performance Management - AS Kohli & T Deb  Chapter 2	6	<b>Reality Check : Ideal Vs. Actual Performance Management Systems</b> Herman Aguinis Pearson Edition 3–Page No 28
1	<b>Performance planning:</b>	Role/job description, key result areas, key activities, goal setting, performance agreement	<b>International Academia</b> <a href="https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/calendar/">https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/calendar/</a>  <b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <b>Industry Mapping:</b>	6	<b>Choosing a Performance Measurement Approach at Paychex, Inc.</b> Herman Aguinis Pearson Edition 3–Page No 102

Module number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
			<b>Text Book Mapping :</b> Performance Management - AS Kohli & T Deb  Chapter 5		
1	<b>Monitoring:</b>	Performance monitoring and feedback, identifying problems, providing support.	<b>International Academia</b> <a href="https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/calendar/">https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/calendar/</a> Point 5,7  <b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <b>Industry Mapping</b>  <b>Text Book Mapping :</b> Performance Management - AS Kohli & T Deb Chapter 8	2	<b>Bad is always beautiful</b> - Exhibit 8.3 - page 256 Performance Management - AS Kohli & T Deb
1	<b>Developing:</b>	Capability, willingness, work environment, technology, systems, group dynamics, Quality of supervision	<b>International Academia</b> <a href="https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/calendar/">https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/calendar/</a> Point 9,14  <b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <b>Industry Mapping</b>	4	<b>Case Study:</b>  <b>Translating Strategy in to HR Policies and Practices Case</b>  <b>Improving Performance at the Hotel Paris</b>  <b>(The New Performance Management System)</b>  Gary Dessler – Page No 336

Module number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
			<b>Text Book Mapping :</b> Performance Management - AS Kohli & T Deb Chapter 9		
2	<b>Performance Appraisal:</b>	Meaning, objective. Appraisal Process, Issues in appraisal Design. Appraisal Methods – Traditional methods, Modern Methods: Management By Objectives (MBO), Assessment Centres, 360 degree Feedback. Designing KRA based performance appraisal system, Problems of Rating, Appraisal Interview, Archiving and Use of appraisal data, Legal issues associated with Performance appraisal	<b>International Academia:</b> <a href="https://harvard.simplesyllabus.com/en-US/doc/nybz47trc">https://harvard.simplesyllabus.com/en-US/doc/nybz47trc</a>  <b>AICTE-prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <b>Industry Mapping:</b>  <b>Text Book Mapping :</b> Performance Management - AS Kohli & T Deb Chapter 7	4	<b>Translating Strategy in to HR Policies and Practices Case</b>  <b>Improving Performance at the Hotel Paris</b>  (The New Performance Management System)  Gary Dessler – Page No 336
2	<b>Potential Appraisal:</b>	Concept, objectives. Potential Appraisal system, requirements of an effective system. Performance Appraisal and Potential Appraisal	<b>International Standards</b> : <a href="https://harvard.simplesyllabus.com/en-US/doc/nybz47trc">https://harvard.simplesyllabus.com/en-US/doc/nybz47trc</a>  <b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <b>Text Book Mapping :</b> Performance Management - AS Kohli & T Deb Chapter 7	4	<b>Translating Strategy in to HR Policies and Practices Case</b>  <b>Improving Performance at the Hotel Paris</b>  (The New Performance Management System)  Gary Dessler – Page No 336

Module number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
2	<b>Reward management:</b>	Meaning, importance, objectives. Reward, recognition, financial and non- financial rewards, performance pay, competency-based pay, Reward management process	<p><b>International Standards:</b> <a href="https://harvard.simplesyllabus.com/en-US/doc/nybz47trc">https://harvard.simplesyllabus.com/en-US/doc/nybz47trc</a></p> <p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping:</b></p> <p>Case Study of Zoho People <a href="https://www.zoho.com/people/">https://www.zoho.com/people/</a></p> <p><b>Text Book Mapping :</b> Performance Management - AS Kohli &amp; T Deb Chapter 10</p>	6	<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>• Role-play exercise with mock recruitment using AI-based candidate sourcing and assessment tools.</li> <li>• Review of a sample AI-driven applicant tracking system (ATS)</li> <li>• Group project: Designing an employee Chatbot to answer basic HR questions.</li> <li>• Exploration of an AI tool that customizes training recommendations based on employee profiles.</li> </ul>
2	<b>Competency Mapping:</b>	Concept, objectives, benefits, Process of Competency mapping. Identifying competency levels, developing competency maps for different positions	<p><b>International Standards:</b> <a href="https://harvard.simplesyllabus.com/en-US/doc/nybz47trc">https://harvard.simplesyllabus.com/en-US/doc/nybz47trc</a></p> <p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Text Book Mapping :</b> Performance Management - AS Kohli &amp; T Deb Chapter 5</p>	4	<a href="#">Case Study based Situational Analysis of a Competency Mapping Framework for an Indian Enterprise</a>
	<b>AI and Ethics in Performance Management</b>	Meaning, Nature, Types, Drivers of AI in Performance Management & Ethical	<p><b>International Standards:</b> <a href="https://harvard.simplesyllabus.com/en-US/doc/nybz47trc">https://harvard.simplesyllabus.com/en-US/doc/nybz47trc</a></p>		

Module number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
		Strategies., developing code of Ethics.	<p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Text Book Mapping :</b>                      Performance Management - AS Kohli &amp; T Deb                      Chapter 12</p>		
	<b>Performance management Implementation and Balance Scorecard:</b>	Bottlenecks in the implementation and strategies for effective implementation of Balance Scorecard approach to PMS, HR score card, Malcolm Balridge business excellence model.	<p><b>International Standards:</b>  <a href="https://harvard.simplesyllabus.com/en-US/doc/nybz47trc">https://harvard.simplesyllabus.com/en-US/doc/nybz47trc</a></p> <p><b>AICTE prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Text Book Mapping :</b>                      Performance Management - AS Kohli &amp; T Deb                      Chapter 9</p>		

## CO-PO MAPPING

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	3	2	1	1	1	1	1	1
CO2	3	2	3	1	1	3	3	2	1
CO3	1	1	3	2	2	3	3	2	2
CO4	1	1	2	3	3	2	3	2	1

## Text Book

**Performance Management - AS Kohli & T Deb**

## Reference Books

**Performance Management – Herman Aguinis**

**Performance Management – Towards organization excellence – TV Rao**

### Lesson Plan for Performance Management HR 402

Working Day	Chapter / Module No	Topic	Lesson Plan Details
	<b>Module 1- Chapter 1</b>	<b>Performance Management</b>	
1			Introduction to Performance Management, principles, and importance.
2			Measuring performance versus measuring action; contributions to competitive advantage.
3			Difference between Performance Management and Performance Appraisal.
4			Performance Management Process and challenges.
5			Managing team performance – concepts and techniques.
6			Recap and Q&A on Performance Management - with Case study
	<b>Module 1- Chapter 2</b>	<b>Performance planning</b>	
7			Role/job description and key result areas (KRAs).
8			Key activities and goal setting.
9			Creating performance agreements – principles and practices.
10			Case study or group activity on performance planning.

	<b>Module 1- Chapter 3</b>	<b>Performance Monitoring</b>	
11			Performance monitoring and providing feedback.
12			Identifying performance problems and offering support.
	<b>Module 1- Chapter 4</b>	<b>Developing:</b>	
13			Capability, willingness, and work environment.
14			Technology, systems, and group dynamics.
15			Quality of supervision – importance and techniques.
16			Recap and Q&A on development strategies.
	<b>Module 2 - Chapter 1</b>	<b>Performance Appraisal</b>	
17			Meaning, objectives, and appraisal processes.
18			Issues in appraisal design; traditional and modern methods.
19			KRA-based performance appraisal; problems in rating and appraisal interviews.
20			Archiving and use of appraisal data; legal issues.
	<b>Module 2 - Chapter 2</b>	<b>Potential Appraisal</b>	
21			Concept and objectives of potential appraisal.
22			Effective potential appraisal systems.
23			Comparison and integration of performance and potential appraisal.
24			Case study or role-play on potential appraisal.
	<b>Module 2 - Chapter 3</b>	<b>Reward management</b>	
25			Meaning, importance, and objectives of reward management.

26			Financial vs. non-financial rewards and performance pay.
	<b>Module 2 - Chapter 4</b>	<b>Competency Mapping</b>	
27			Concept, objectives, and benefits of competency mapping.
28			Process of competency mapping and identifying competency levels.
29			Techniques for creating competency maps for various positions.
30			Workshop or activity on competency mapping.
	<b>Module 2 - Chapter 5</b>	<b>AI and Ethics in Performance Management</b>	
31			Meaning, nature, and drivers of AI in performance management.
32			Ethical strategies and developing a code of ethics.
33			Challenges in implementing performance management systems.
34			Strategies for overcoming implementation issues.
	<b>Module 2 - Chapter 6</b>	<b>Performance management Implementation and Balance Scorecard</b>	
35			Balanced Scorecard approach; HR Scorecard.
36			Malcolm Baldrige Business Excellence Model.
37			Summary of key concepts and open Q&A.
38			Group discussion or presentation on lessons learned.
39			Case study-based assessment on performance management.
40			Course Re-cap - Feedback session and course closure.

## QUESTION PAPER PATTERN AND DATES

EXAMINATION	Dates	PART – A	PART – B	PART – C	TOTAL MARKS
<b>Mid Term 1</b>	<b>February 10, 2025 to February 21, 2025</b>	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)  Type of questions to test the proficiency of remembering	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)  Type of questions to test the proficiency of understanding, analyzing and evaluate	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)  Type of questions to test the proficiency of understanding, analyzing and create	<b>30</b>
<b>Mid Term 2</b>	<b>March 24, 2025 to April 2, 2025</b>	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)  Type of questions to test the proficiency of remembering	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)  Type of questions to test the proficiency of understanding, analyzing and evaluate	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)  Type of questions to test the proficiency of understanding, analyzing and create	<b>30</b>
<b>End Semester Examination</b>	<b>April 21, 2025 to May 9, 2025</b>	Attempt 10 out of 15 questions; Each question carries 2 marks (2 × 10)  Type of questions to test the proficiency of remembering	Attempt 6 out of 9 questions; Each question carries 5 marks (5 × 6)  Type of questions to test the proficiency of understanding, analyzing and evaluate	Attempt 5 out of 8 questions; Each question carries 10 marks (10 × 5)  Type of questions to test the proficiency of understanding, analyzing and create	<b>100</b>

### Examination Rules & Regulations:

<https://iemcollege->

[my.sharepoint.com/:b/g/personal/iemcoe\\_office\\_iem\\_edu\\_in/EXrcoe3d6oxIogHKO074XeUBC9qm3XNaf\\_qUeSiVTNh5OQ?e=MMQn40](https://iemcollege-my.sharepoint.com/:b/g/personal/iemcoe_office_iem_edu_in/EXrcoe3d6oxIogHKO074XeUBC9qm3XNaf_qUeSiVTNh5OQ?e=MMQn40)



# University of Engineering and Management

Institute of Engineering & Management, Salt Lake Campus  
Institute of Engineering & Management, New Town Campus  
University of Engineering & Management, Jaipur



## Syllabus for MBA Admission Batch 2024-26

**Subject Name: CONSULTING & STRATEGIC HUMAN RESOURCE MANAGEMENT**

**Credit: 2**

**Lecture Hours: 20**

**Subject Code: HR473**

**Pre-requisite:** Basic understanding of organizations, evolution, structure and functions

**Relevant Links:**

**Study Material**

[LinkedIn](#)

[Coursera](#)

[NPTEL](#)

[AI FOR HR](#)

### **COURSE OBJECTIVES:**

- To understand various terms in Performance Management and be able to manage PMS Program of an organization effectively and efficiently
- To understand the different compliance related measures, industrial relations and ethics for better employee performance.

## PROGRAM OUTCOMES

PO 1	<b>Problem Analysis</b>	Identify, formulate, research literature, and analyze managerial problems reaching substantiated conclusion using principles of Mathematics, techniques of Finance, and Modern Management subjects
PO 2	<b>Modern Tool Usage</b>	Create, Select and apply appropriate techniques, resources, and modern management and IT tools including prediction and modeling to complex managerial activities with an understanding of limitations.
PO 3	<b>Communication</b>	Communicate effectively on complex managerial activities with the organizational community and with the society at large, such as being able to comprehend and write effective reports, make effective presentation, and give and receive clear instruction
PO 4	<b>Ethics</b>	Apply ethical principles and commit to professional ethics and responsibilities and norms of the management practice.
PO 5	<b>Project Management and Finance</b>	Demonstrate knowledge and understanding of the financial and management principles and the apply these to one's work, as a member and leader in a team, to manage projects in multidisciplinary environment.
PO 6	<b>The Manager and Society</b>	Apply reasoning informed by the contextual knowledge to assess societal, health, legal, cultural and community issues and the consequent responsibility relevant to the professional management practice
PO 7	<b>Individual and Team work</b>	Function effectively as an individual, and as a member or leader in diverse streams, and in multidisciplinary settings
PO8	<b>Lifelong Learning</b>	Recognize the need for, and have the preparation and ability to engage in, independent and life-long learning in the broadest context of technological change.
PO9	<b>Creative Business Solution</b>	Analyzing, diagnosing and prescribing creative solutions to solve real life business problems and situations.

## COURSE OUTCOMES

CO1: Understand and apply the definitions and concepts used in the study of performance.

CO2: Understand the performance indices and performance management processes

CO3: Apply the information thus gathered to predict a specific PMS that caters to the needs of the organization and analyse the different Performance management systems to improve the organisation's effectiveness and individual development.

CO4: Evaluate the effectiveness of performance appraisal techniques within organizational context to create a benchmark for assessing the performance of an employee for sustainability.

## DETAILED SYLLABUS

Module Number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
1.	Overview of Consulting Practice, the Professional Consultant, Marketing and Selling of Consulting Services	<input type="checkbox"/> Definition and Scope of Consulting <input type="checkbox"/> Evolution of Consulting as a Profession <input type="checkbox"/> The Role of a Consultant in Business Growth <input type="checkbox"/> Industry Trends and Emerging Areas in Consulting <input type="checkbox"/> Ethical Considerations in Consulting Practice  <b>Chapter 1, Understanding the concept of SHRM,</b>  <b>Text Book : Essentials of Strategic HRM, Dr. Anjali Ghanekar</b>	<b>International Academia</b>  <a href="https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/">https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/</a>  <b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <b>Industry Mapping</b>  <b>Four Sample Mission Statements - Example to Critique Page No 154</b> <b>Text Book : Essentials of Strategic HRM, Dr. Anjali Ghanekar</b>	4	<b>Case Study: Career Development at Corning Page no 97, Box 4.1, Strategic HRD Srinivas R. Kandula</b>
2	Understanding the business model & organization strategy, HR contribution to strategy; Strategy as Design, Experience,	Understanding the Business Model & Organization Strategy <ul style="list-style-type: none"> <li>• Key Components of a Business Model</li> <li>• Aligning Strategy with Vision</li> </ul>	<b>International Academia</b>  <a href="https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/">https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/</a>	6	<b>Strategic Responses of Organizations to changing Environment Page No 300,</b>

Module Number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
	Ideas	<p>and Mission</p> <ul style="list-style-type: none"> <li>Competitive Advantage and Value Proposition</li> <li>Organizational Structure and Strategic Alignment</li> <li>HR Contribution to Strategy</li> <li>Strategic Workforce Planning</li> <li>Talent Management and Succession Planning</li> <li>HR's Role in Driving Organizational Culture</li> </ul> <p>Chapter 2,3,4, Understanding the concept of SHRM,</p> <p>Text Book : Essentials of Strategic HRM, Dr. Anjali Ghanekar</p>	<p>AICTE Prescribed Syllabus  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p>Industry Mapping</p> <p>Identifying the Key elements of SHRM Thinking in a Startup organization, Page No 205            Text Book : Essentials of Strategic HRM, Dr. Anjali Ghanekar</p>		Strategic HRD Srinivas R. Kandula
3	Overview of Strategic Human Resource Management; basic difference with traditional HRM	<p>Chapter 7, Strategic HRM Models, Page No 208</p> <p>Text Book : Essentials of Strategic HRM, Dr. Anjali Ghanekar</p>	<p>International Academia</p> <p><a href="https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/">https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/</a></p> <p>AICTE Prescribed Syllabus  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p>	2	HR and Takeover: Experience of Royal Bank of Scotland, Page No. 126, Strategic HRD Srinivas R. Kandula

Module Number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
			<b>Industry Mapping</b>  <b>Table 1. Miles and Snow Four Modes of Strategic Orientation Page No 231,</b>  <b>Text Book : Essentials of Strategic HRM, Dr. Anjali Ghanekar</b>		
4	Re-looking at key HR processes through the SHRM lens: Linking Business Strategies and HR Strategies	<b>Chapter 8, 9 Page No 240</b>  <b>Text Book : Essentials of Strategic HRM, Dr. Anjali Ghanekar</b>	<b>International Academia</b>  <a href="https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/">https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/</a>  <b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <b>Industry Mapping</b>  <b>Four Sample Mission Statements - Example to Critique Page No 154</b> <b>Text Book : Essentials of Strategic HRM, Dr. Anjali Ghanekar</b>	2	<b>HR Facilitating TQM at Motorola, Box 5.3, Page No 142, Strategic HRD Srinivas R. Kandula</b>

Module Number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
5	Assessing maturity of HR processes and systems and integrating Innovation Strategies in People Function.	<b>Chapter 11, Page No 369</b>  <b>Text Book : Essentials of Strategic HRM, Dr. Anjali Ghanekar</b>	<b>International Academia</b>  <a href="https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/">https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/</a>  <b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>	2	<b>Box 5.4 Employee Empowerment at Federal Express</b> <b>Page No 143,</b> <b>Strategic HRD</b> <b>Srinivas R. Kandula</b>
6	Conducting organization diagnostics using various HR tools, using Gen AI and Other Diagnostic Audit Instruments		<b>International Academia</b>  <a href="https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/">https://ocw.mit.edu/courses/15-660-strategic-hr-management-spring-2003/pages/syllabus/</a>  <b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>	4	<b>Conduct Audit of Innovation Readiness of Company X using Different Auditing Instruments</b>

## CO-PO MAPPING

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	3	2	1	1	1	1	1	1
CO2	3	2	3	1	1	3	3	2	1
CO3	1	1	3	2	2	3	3	2	2
CO4	1	1	2	3	3	2	3	2	1

### Text Book:

**Essentials of Strategic HRM, Dr. Anjali Ghanekar, Everest Publishing House**

### Readings:

Strategic Human Resource Development, Srinivas R. Kandula, Prentice Hall

Charles R Greer (2009) – Strategic Human Resource Management, Pearson Education.

Fred K Faulkes (2010) – Strategic Human Resource Management, Prentice Hall

Rajib Lochan Dhar (2009) – Strategic Human Resource Management, Excel Books.

## Syllabus Structure:



**University of Engineering and Management**  
**Institute of Engineering & Management, Salt Lake Campus**  
**Institute of Engineering & Management, New Town Campus**  
**University of Engineering & Management, Jaipur**



### **Syllabus for MBA Admission Batch 2023**

**Subject Name: Consumer Behaviour**

**Credit: 4**

**Lecture Hours: 40**

**Subject Code: MM401**

**Pre-requisite: Fundamentals of Marketing**

**Relevant Links: [Study Material](#)      [LinkedIn](#)      [Coursera](#)      [NPTEL](#)**

#### **COURSE OBJECTIVES:**

1. This course is designed to impart knowledge to the students in enabling them to identify the behavior of consumers before, during and after purchase.
2. Students will gain a conceptual knowledge of how the intrinsic and extrinsic factors influence the consumer in making purchase decisions.
3. To help the students to gain an insight about the application of consumer behavior concepts and analyze the trends in consumer
4. To equip the students to develop better marketing programs and strategies in solving practical problems

## COURSE OUTCOMES:

1. To understand the fundamental concepts of consumer behaviour
2. To gain an insights into intrinsic factors of consumer Behaviour in connection to Consumer personality, perception and learning perspective and its impact on marketing decisions.
3. To comprehend the influences of consumer motivation , self concepts and attitude on devising marketing strategies
4. To Identify and critically examine factors which influence consumer behaviour inclusive of family, society and culture in regard to solve practical marketing problems.

Module number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
1	<b>Introduction to Consumer Behaviour:</b>	Defining consumer behaviour, Impact on marketing strategies, Current trends in consumer behavior, socially responsible marketing Consumer Behavior in the networked era . interactive communication channel, Consumer Behavior., Consumer in digital era, technolofy and consumer satisfaction and retention. Role of Generative AI in consumer behaviour and its related issues, Ethical issues in consumer behaviour	<p><b>International Standards:</b>  <a href="https://apps.wharton.upenn.edu/syllabi/2022/A/MKTG211002/AICTE%20prescribed%20syllabus/">https://apps.wharton.upenn.edu/syllabi/2022/A/MKTG211002/AICTE prescribed syllabus:</a>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE MBA.pdf</a></p> <p><b>Industry Mapping:</b>                      Developing marketing strategy                      Case study: Marico Industries                      Text Book:  <b>Consumer Behavior, 12/e 2018</b>                      by Kumar Leon G., Schiffman;Joe,</p>	3	Locate two websites that you visit regularly and discuss how they can (and probably do) track your behavior and enable marketers to target you more effectively.

			Wisnblit;S. Ramesh Ch. 1		
1	<b>Segmentation and Targeting</b>	Market Segmentation, Bases of segmentation, Behavioural targeting and Positioning, Repositioning	<b>International Standards</b> <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a> <i>AICTE prescribed syllabus:</i> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> <i>Industry Mapping:</i> <i>Case study: Porsche</i>  STP Frame work Text Book: <b>Consumer Behavior, 12/e 2018</b> <b>Ch. 2</b> by Kumar Leon G., Schiffman;Joe, Wisnblit;S. Ramesh HBR Case: Taj Hotels : Jewel in the crown	3	The owners of a local health-food restaurant have asked you to prepare a psychographic profile of families living in the community surrounding the restaurant's location. Construct a 10-item psychographic questionnaire that measures a family's dining out preferences  Tools Mixpanel

1	<b>Consumer Decision Process:</b>	Need recognition, information search, evaluation of alternatives, purchase decision, consumption and post-purchase evaluation, disposing of products. Variables that shape decision process- individual differences, psychological processes, environmental influences, Types of decision process – complex decision making, variety seeking, impulse buying, loyalty, degree of involvement in buying, Buying Roles	<p><i>International Standards</i>  <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a>  <i>AICTE prescribed syllabus:</i>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><i>Industry Mapping:</i></p> <p>Consumer Decision making process and marketing strategy  <b>Case study:</b>  Evolution of matrimonial websites</p> <p>Text Book:  <b>Consumer Behaviour : Sangeeta Sahney,</b>  Oxford Publication  Ch. 4  HBR case: Sorry for your data loss : Managing customer</p>	2	<p>Compare high and low involvement product with respect to nature of the product, frequency of purchase, perceived risk, post purchase behavior</p> <p>Tools: CleverTap</p>
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2	<b>Individual Characteristics</b>	Demographic and psychographic characteristics and market segmentation, Personality, personal values, lifestyle concepts and measurements Self concept Perspective of self, Consumption and self concept, Gender roles	<p><i>International Standards</i>  <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a>  <i>AICTE prescribed syllabus:</i>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><i>Industry Mapping:</i></p> <p>Identifying customer persona  <b>Case study</b> : Brand personality of Surf  Text Book:  <b>Consumer Behavior, 12/e 2018</b>  by <a href="#">Kumar Leon G.</a>, <a href="#">Schiffman;Joe,</a>  <a href="#">Wisnblit;S. Ramesh</a>  Ch.3  Self concept : <b>Consumer Behaviour : Sangeeta Sahney,</b>  Oxford Publication  Ch. 8</p>	4 <p>. Interview three friends about their favorite leisure-time activities. Do your leisure-time preferences differ from those of your friends? Which personality traits might explain why your preferences are different from or the same as those of your friends, and how so?</p> <p>Tools: Hubspot Buyer persona</p>
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2	<b>Consumer Perception</b>	Marketing stimuli and perception, Perceptual selection - organization, interpretation, selective perception process	<p><i>International Standards</i>  <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a></p> <p><i>AICTE prescribed syllabus:</i>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><i>Industry Mapping:</i>  Advertising strategy and consumer perception</p> <p><b>Case Study:</b>  Airlines</p> <p>Text Book:  <b>Consumer Behavior, 12/e 2018</b>  by Kumar Leon G., Schiffman; Joe, Wisenblit; S. Ramesh  Ch.4</p>	3	<p>Select a company that produces several versions of the same product under the same brand name (do not use one of the examples discussed in this chapter). Visit the firm's website and prepare a list of the product items and the benefits that each item offers to consumers. Are all these benefits believable, and will they persuade consumers to buy the different versions of the product? Explain your answers.</p>
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2	<b>Learning and Memory</b>	: Information acquisition and processing, Learning elements, Theories, Memory processes	<p><i>International Standards</i>  <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a></p> <p><i>AICTE prescribed syllabus</i>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><i>Industry Mapping:</i>  Developing Marketing strategy to boost</p>	3	<p>Visit a supermarket. Can you identify any packages where you think the marketer's knowledge of stimulus generalization or stimulus discrimination was incorporated into the package design? Note these examples and present them in class.</p> <p>Tools : Mixpanel</p>
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			<p>memory  Case study : Luxor writing Instruments Pvt. Ltd  Text Book:  <b>Consumer Behavior, 12/e 2018</b>  by Kumar Leon G., Schiffman;Joe, Wisenblit;S. Ramesh  Ch. 5</p>		
2	<b>Consumer Motivation</b>	: Nature and role of motives, Classifying motives, Motive arousal, Motivation and involvement	<p><i>International Standards</i>  <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a>  <i>AICTE prescribed syllabus</i>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <i>Industry Mapping:</i>  <i>Customer motivation techniques</i>  <i>Case study:</i> Renault Duster  Text Book:  <b>Consumer Behavior, 12/e 2018</b>  by Kumar Leon G., Schiffman;Joe, Wisenblit;S. Ramesh  Ch.3</p>	3	Find two examples of ads that are designed to arouse consumer needs and discuss their effectiveness.

2	<b>Consumer Attitude:</b>	Characteristics and functions of attitude, Attitude development, Attitude theories and models, Role of belief in attitude formation, Relationship of attitude and behaviour, Attitude reinforcement and change, Consumer persuasion	<p><i>International Standards</i>  <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a></p> <p><i>AICTE prescribed syllabus</i>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><i>Industry Mapping</i></p> <p>Attitude models</p> <p><b>Case Study :</b></p> <p>Banking with an Indian public sector Bank or Others</p> <p>Text Book:  <b>Consumer Behavior, 12/e 2018</b>  by Kumar Leon G., Schiffman; Joe, Wisenblit; S. Ramesh  <i>Ch. 6</i></p>	4	<p>Find advertisements that illustrate each of the four motivational functions of attitudes. Describe how each ad either reinforces an existing attitude or is aimed at changing an attitude</p> <p>Tools : Mixpanel</p>
3	<b>Culture Subculture and Social Class</b>	Nature of culture, Cultural values, Changing values, Cross-cultural understanding of consumer behaviour, Types of subculture and their influence on behaviour, Nature of social class, Social stratification	<p><i>International Standards</i>  <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a></p> <p><i>AICTE prescribed syllabus</i>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><i>Industry Mapping:</i></p> <p><i>Questionnaire tool</i></p> <p><i>Case study : TATA's Gold Plus Jewellery</i></p>	3	<p>a. Find advertisements for two brands of deodorants. Do a content analysis of the written and pictorial aspects of each ad. Identify any core values portrayed in each ad and explain your choices. b. Describe how the symbols in each ad convey the deodorant's characteristics and brand image.</p>

			<p>Text Book:  <b>Consumer Behavior, 12/e 2018</b>          by Kumar Leon G., Schiffman;Joe,          Wisenblit;S. Ramesh  <i>Ch.11</i></p>		
3	<b>Reference Group Influence</b>	<p>Nature and types of reference groups,          How groups influence individuals,          Opinion leadership, Word-of-mouth,          Innovation and diffusion</p>	<p><i>International Standards</i>  <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a>  <i>AICTE prescribed syllabus</i>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <i>Industry Mapping:</i>          Questionnaire tool          Text Book:          Standard Chartered Bank  <b>Consumer Behavior, 12/e 2018</b>          by Kumar Leon G., Schiffman;Joe,          Wisenblit;S. Ramesh  <i>Ch.9</i></p>	3	<p>Prepare a list of negative rumors that you (or your friends) have heard recently about a company or a product.</p>

3	<b>Family and Household</b>	Structural and sociological variables affecting families and households, Family life cycles, Role behaviour, Conflict resolution, Changing role of women, Children and household consumer behaviour	<p><i>International Standards</i>  <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a></p> <p><i>AICTE prescribed syllabus</i>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><i>Industry Mapping:</i></p> <p><i>Advertisement study</i>  <i>Case Study: Which school to choose from</i>  Text Book:  <b>Consumer Behavior, 12/e 2018</b>  by Kumar Leon G., Schiffman; Joe, Wisenblit; S. Ramesh  <i>Ch.10</i>  <b>Consumer Behaviour : Sangeeta Sahney</b>, Oxford Publication  <i>Ch.12</i></p>	3	we have considered how parents and siblings play a role in the consumer socialization of their children and young brothers and sisters, and how adults continue to be socialized throughout their lives. However, we have not considered how children (especially teens and young adults) influence the socialization of their parents. Make a list of ten ways in which you have contributed to or influenced the ongoing socialization of your parents
4	<b>Organizational and Institutional Buying Behaviour:</b>	Basic concepts, Organizational buyers versus consumers, Factors influencing business buying, Types of buying situations, Organizational buying process	<p><i>International Standards</i>  <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a></p> <p><i>AICTE prescribed syllabus:</i>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><i>Industry Mapping:</i></p> <p>Organizational buying behavior framework  <b>Case Study:</b> Crompton Greaves</p>	2	Interview 10 of your friends and enquire whether their purchases for the following products is based on brand loyalty a. toothpaste b. bathing soap, c. fruit juice d. shoes e. formal apparel wear. Tools : SPSS

			Text Book: <b>Consumer Behaviour : Sangeeta Sahney</b> , Oxford Publication <b>Ch.5</b>		
4	<b>Models of Consumer Behaviour:</b>	Basic understanding and applications of Nicosia, Howard-Sheth & EKB Model	<i>International Standards</i> <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a>  <i>AICTE prescribed syllabus</i>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <i>Industry Mapping:</i> Case Study : Booming Batter Business <i>Component study</i> Text Book: <b>Consumer Behaviour : Sangeeta Sahney</b> , Oxford Publication <b>Ch.5</b>	2	

4	<b>AI &amp; consumer Behaviour</b>	Concept and application of different AI tools.	<p><i>International Standards</i>  <a href="https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/">https://apps.wharton.upenn.edu/syllabi/2022A/MKTG211002/</a></p> <p><i>AICTE prescribed syllabus</i></p> <p><a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><i>Industry Mapping:</i></p> <p>Application of AI tools</p>	2	AI Tools application: Hotjar
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No	Coursera	LinedIn	NPTEL
1.	An Introduction to Consumer Neuroscience & Neuromarketing <a href="https://www.coursera.org/learn/neuromarketing">https://www.coursera.org/learn/neuromarketing</a>	<a href="#">Marketing Foundations: Consumer Behavior</a>	<a href="https://archive.nptel.ac.in/courses/110/105/110105054/">https://archive.nptel.ac.in/courses/110/105/110105054/</a>  Module 1: Introduction To The Study of Consumer Behaviour Module 2: Market Research and Consumer Behavior Module 3: Market Segmentation and Positioning Module 4: The Consumer Decision Making Process Module 5: Models Of Consumers Module 6: Psychological Influences on Consumer Decision Making Module 7 : Sociological Influences on Consumer Decision Making Module 8: Diffusion of Innovation
2.	Market Research and Consumer Behavior <a href="https://www.coursera.org/learn/market-research">https://www.coursera.org/learn/market-research</a>	<a href="#">Customer Insights and Consumer Analytics for Organizations: Concepts</a>	
3.	Enhancing Customer Insights with Generative AI <a href="https://www.coursera.org/learn/enhancing-">https://www.coursera.org/learn/enhancing-</a>	<a href="#">Consumer Behavior: Using Neuroscience to Improve Your Marketing</a>	

	<a href="#">customer-insights-with-generative-ai</a>		
4.		<a href="#">Customer Insights and Consumer Analytics for Organizations: Tools and Analysis</a>	
5.		<a href="#">Consumer Behavior Trends: Meet the Postmodern Consumer</a>	

### Lesson Plan

#### Module 1

Day	Chapter	Description
1	<b>Introduction to Consumer Behaviour</b>	Defining consumer behaviour, Impact on marketing strategies, Current trends in consumer behavior, socially responsible marketing Consumer Behavior in the networked era.
2		Interactive communication channel, Consumer Behavior., Consumer in digital era, technology and consumer satisfaction and retention
3		Role of Generative AI in consumer behaviour and its related issues, Ethical issues in consumer behaviour
4	<b>Segmentation and Targeting</b>	Market Segmentation, Bases of segmentation,
5		Behavioural targeting and Positioning, Repositioning
6		Assignment and case study
7	<b>Consumer Decision Process:</b>	Need recognition, information search, evaluation of alternatives, purchase decision, consumption and post-purchase evaluation, disposing of products. Variables that shape decision process- individual differences, psychological processes, environmental influences,

8		Types of decision process – complex decision making, variety seeking, impulse buying, loyalty, degree of involvement in buying, Buying Roles Assignment
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### Module 2

9	<b>Individual Characteristics</b>	Personality, personal values, lifestyle concepts and measurements
10		Personality theories and assignment
11		Self concept Perspective of self, Consumption and self concept, Gender roles
12		Assignment
13	<b>Consumer Perception</b>	Marketing stimuli and perception, Element of perception ,Perceptual selection - organization
14		interpretation, selective perception process
15		Assignment
16	<b>Learning and Memory</b>	Information acquisition and processing, Learning elements, Theories, Memory processes
17		Theories and memory
18		Assignment
19	<b>Consumer Motivation</b>	Nature and role of motives, Classifying motives,
20		Motive arousal, Motivation and involvement
21		Theories and assignment
22	<b>Consumer Attitude:</b>	Characteristics and functions of attitude, Attitude development, Attitude theories and models,
23		Role of belief in attitude formation, Relationship of attitude and behaviour,
24		Attitude reinforcement and change, Consumer persuasion
25		Assignment & Discussion

### Module 3

26	<b>Culture Subculture and Social Class</b>	Nature of culture, Cultural values, Changing values, Cross-cultural understanding of consumer behaviour,
27		Types of subculture and their influence on behaviour, Nature of social class, Social stratification

28		Assignment
29	<b>Reference Group Influence</b>	Nature and types of reference groups, How groups influence individuals,
30		Opinion leadership, Word-of-mouth, Innovation and diffusion
31		Assignment
32	<b>Family and Household</b>	Structural and sociological variables affecting families and households, Family life cycles,
33		Role behaviour, Conflict resolution, Changing role of women, Children and household consumer behaviour
34		Assignment

#### Module 4

35	<b>Models of Consumer Behaviour:</b>	Basic understanding and applications of Nicosia
36		Howard-Sheth & EKB Model and application
37	<b>Models of Consumer Behaviour:</b>	Basic understanding and applications of Nicosia
38		Howard-Sheth & EKB Model and application
39	<b>AI &amp; consumer Behaviour</b>	Concept and application of different AI tools.
40		<b>Assignment</b>

#### **TEXT BOOK:**

##### **Consumer Behavior, 12/e 2018**

- by Kumar Leon G., Schiffman; Joe, Wisenblit; S. Ramesh, Pearson Publication
- Sahney Sangeeta, Consumer Behaviour, Oxford Higher Education

##### **Reference Books:**

- Satish K . Batra ,S.H.H Kazmi & Satish K . Batra :Consumer Behaviour: Text and Cases: Excel Book
- Loudon & Bitta, Della: Consumer Behaviour; TMH
- Solomon, M. R., Consumer Behaviour, Pearson Education

### QUESTION PAPER PATTERN AND DATES

EXAMINATION	Dates	PART – A	PART – B	PART – C	TOTAL MARKS
<b>Mid Term 1</b>	<b>February 10, 2025 to February 21, 2025</b>	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)	<b>30</b>
<b>Mid Term 2</b>	<b>March 24, 2025 to April 2, 2025</b>	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)	<b>30</b>
<b>End Semester Examination</b>	<b>April 21, 2025 to May 9, 2025</b>	Attempt 10 out of 15 questions; Each question carries 2 marks (2 × 10)	Attempt 6 out of 9 questions; Each question carries 5 marks (5 × 6)	Attempt 5 out of 8 questions; Each question carries 10 marks (10 × 5)	<b>100</b>

#### Examination Rules & Regulations:

[https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe\\_office\\_iem\\_edu\\_in/EXrcoe3d6oxIogHKO074XeUBC9qm3XNaf\\_qUeSiVTNh5OQ?e=MMQn40](https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe_office_iem_edu_in/EXrcoe3d6oxIogHKO074XeUBC9qm3XNaf_qUeSiVTNh5OQ?e=MMQn40)



**University of Engineering and Management**  
**Institute of Engineering & Management, Salt Lake Campus**  
**Institute of Engineering & Management, New Town Campus**  
**University of Engineering & Management, Jaipur**



**4th Semester Syllabus for MBA Admission Batch 2023**



**University of Engineering and Management**  
**Institute of Engineering & Management, Salt Lake Campus**  
**Institute of Engineering & Management, New Town Campus**  
**University of Engineering & Management, Jaipur**



**Syllabus for MBA Admission Batch 2023**

**Subject Name: Services Marketing**

**Credit: 4**

**Lecture Hours: 40**

**Subject Code: MM402**

**List of Faculty Members handling the Subject –**

1. Dr. Bikas Chandra Mandal

**Pre-requisite: Basic understanding of marketing management**

**COURSE OBJECTIVES:**

1. To make the students learn various concepts, characteristics and marketing challenges in service marketing (CO1)
2. To make students learn about service quality gaps and service quality models (CO2)
3. To make students learn various models or frameworks as analysis tools used in service marketing for framing marketing strategies in real life situations. (CO3, CO4)

**Course Outcomes:**

CO 1 : Students will understand the various concepts in service marketing : PO 1 : (Ch 1, 2)

CO 2 : Students will understand about service quality gaps and how to improve the service quality : PO 1 : (Ch 3)

CO 3 : Students will be able to apply various models in service marketing to analyze the situations and design the services : PO 1 : (Ch 4 to 7)

CO 4 : Students will learn how to communicate the service, manage the performance and manage the people : PO 1 : (Ch 8 to 10)

**Relevant Links:****1. Link for Study Material:**

<D:\Bikash files\Study material MM 402.docx>

**2. Link for NPTEL Course:****3. Link for Coursera Course:**

- 1) [Coursera1](#)
- 2) [Coursera2](#)
- 3) [Coursera3](#)
- 4) [Coursera4](#)

**4. Link for LinkedIn Learning Course:**

## DETAILED SYLLABUS

Module number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Assignment
1	Introduction to services	Definition of services, Tangibility spectrum Characteristics of services compared to goods, Service marketing challenges, Marketing mix for services, Categories of services.	<p><b>International Academia</b></p> <p><a href="https://www.coursera.org/videos/healthcare-marketing-hospitality-management/NxFsm?query=services%20marketing&amp;source=search">https://www.coursera.org/videos/healthcare-marketing-hospitality-management/NxFsm?query=services%20marketing&amp;source=search</a></p> <p><a href="https://www.coursera.org/videos/healthcare-marketing-hospitality-management/e4AVh?query=services%20marketing&amp;page=2&amp;sortBy=BEST_MATCH&amp;source=search">https://www.coursera.org/videos/healthcare-marketing-hospitality-management/e4AVh?query=services%20marketing&amp;page=2&amp;sortBy=BEST_MATCH&amp;source=search</a></p> <p><a href="https://www.coursera.org/videos/organizational-concepts-and-language/psydn?query=services+marketing&amp;source=search">https://www.coursera.org/videos/organizational-concepts-and-language/psydn?query=services+marketing&amp;source=search</a></p> <p><a href="https://www.coursera.org/videos/launch-online-business/LUiu5?query=services%20marketing&amp;page=6&amp;sortBy=BEST_MATCH&amp;source=search">https://www.coursera.org/videos/launch-online-business/LUiu5?query=services%20marketing&amp;page=6&amp;sortBy=BEST_MATCH&amp;source=search</a></p> <p><b>AICTE Prescribed Syllabus</b>  <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping</b>            To understand the characteristics of services and the specific challenges due to these characteristics</p> <p><b>Reference :</b>            Ch 1: Introduction to services ; Book : Services Marketing by Zeithaml, Bitner, Gremler &amp; Pandit</p>	4	Case study Case 1 : Sullivan Ford Auto World, From text book by Lovelock

			<p><b>Course Outcome</b> CO1</p>		
2	Consumer behavior in a services context	Three stage model of service consumption, Pre purchase stage, service encounter, moments of truth, zone of tolerance.	<p><b>International Academia</b></p> <p><b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping</b> To understand the consumer buying process for buying services so that one can be a good sales person in service industry</p> <p><b>Reference :</b> Ch 2 : Consumer behavior in a services context Book : Services marketing by Lovelock, Wirtz &amp; Chatterjee</p> <p><b>Course Outcome</b> CO1</p>	4	
3	Service quality	Service quality, Dimensions of service quality (SERVQUAL model), Customer gap, Provider gaps, Integrated Gap Model	<p>International Academia</p> <p><b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p><b>Industry Mapping</b> To be able to measure service quality as received by the consumers, to analyze the situations to find the reasons for quality gaps and to take corrective actions to improve the service quality</p> <p><b>Reference :</b> Ch 2: The gaps model of service quality ; Book : Services Marketing by Zeithaml, Bitner, Gremler &amp; Pandit</p>	3	Case study Case 4 : The quality improvement customers didn't want from text book by Zeithaml

			<b>Course Outcome</b> CO2		
4	Developing service products	Planning and creating service products, Designing service product through flower of service model	<b>International Academia (MIT)</b> AICTE Prescribed Syllabus  <b>Industry Mapping</b> To be able to develop service products that will satisfy the customers and generate more revenue and profits  <b>Reference :</b> Ch 4 : Developing service products; Book : Services marketing by Lovelock, Wirtz & Chatterjee  <b>Course Outcome</b> CO3	3	
5	Service Marketing Pricing	Approaches to pricing of services (cost based pricing, value based pricing, competition based pricing)	International Academia  AICTE Prescribed Syllabus <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  Industry Mapping  <b>Reference :</b> Ch 6 : Setting prices and implementing revenue management; Book : Services marketing by Lovelock, Wirtz & Chatterjee  <b>Course Outcome</b> CO3	3	
6	Designing service process	Flowcharting service delivery process, Designing service process through service blue printing	International Academia  <b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>	4	

			<p><b>Industry Mapping</b> To be able to design the service delivery process so that customer service is satisfactory</p> <p><b>Reference :</b> Ch 8 : Designing &amp; managing service processes Book : Services marketing by Lovelock, Wirtz &amp; Chatterjee</p> <p><b>Course Outcome</b> CO3</p>		
7	Planning the service environment	Physical evidence, Servicescapes, Roles of physical evidence, Stimulus-Response model, Guidelines for servicescape strategies through servicescape model.	<p>International Academia</p> <p>AICTE Prescribed Syllabus <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p>Industry Mapping</p> <p><b>Reference :</b> Ch 10 : Crafting the service environment; Book : Services marketing by Lovelock, Wirtz &amp; Chatterjee</p> <p><b>Course Outcome</b> CO3</p>	4	
8	Managing Service Demand and Capacity	Capacity constraints, Strategies for managing capacity and demand	<p>International Academia</p> <p>AICTE Prescribed Syllabus <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a></p> <p>Industry Mapping</p> <p><b>Reference :</b> Ch 9 : Balancing Demand and productive capacity; Book : Services marketing by Lovelock, Wirtz &amp; Chatterjee</p>	4	

			Course Outcome CO4		
9	Communicating the service	Communications and the services marketing triangle, Approaches for integrating services marketing communication	International Academia  AICTE Prescribed Syllabus <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  Industry Mapping  Reference : Ch 16 : Integrated services marketing communication ; Book : Services Marketing by Zeithaml, Bitner, Gremler & Pandit  <b>Course Outcome</b> CO4	4	
10	Managing People	Service culture & leadership, Critical importance of service employees, Strategies for delivering service quality through people	International Academia  AICTE Prescribed Syllabus <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  Industry Mapping  Reference : Ch 12 : Employees' Roles in service delivery ; Book : Services Marketing by Zeithaml, Bitner, Gremler & Pandit  Course Outcome CO4	4	

## Lesson Plan

Module	WORKING DAY	DATE	LESSON PLAN – DESCRIPTION
<b>Module 1: Introduction to services</b>	1	Day 1	Definition of services, Tangibility spectrum, Characteristics of services compared to goods
	2	Day 2	Characteristics of services compared to goods
	3	Day 3	Service marketing challenges
	4	Day 4	Marketing mix for services, Categories of services
<b>Module 2 : Consumer behavior in a services context</b>	5	Day 1	Three stage model of service consumption
	6	Day 2	Pre purchase stage
	7	Day 3	Pre purchase stage
	8	Day 4	Service encounter, moments of truth , zone of tolerance
<b>Module 3 : Service quality</b>	9	Day 1	Service quality , Dimensions of service quality (SERVQUAL model),
	10	Day 2	Customer gap, Provider gaps
	11	Day 3	Integrated Gap Model
	12	Day 4	Integrated Gap Model
<b>Module 4: Developing service products</b>	13	Day 1	Planning and creating service products,
	14	Day 2	Designing service product through flower of service model
	15	Day 3	Designing service product through flower of service model
<b>Module 5: Service Marketing Pricing</b>	16	Day 1	Approaches to pricing of services , Cost based pricing, Value based pricing
	17	Day 2	Value based pricing
	18	Day 3	Competition based pricing
<b>Module 6: Designing service process</b>	19	Day 1	Flowcharting service delivery process
	20	Day 2	Designing service process through service blue printing
	21	Day 3	Designing service process through service blue printing
	22	Day 4	Designing service process through service blue printing
<b>Module 7: Planning the service environment</b>	23	Day 1	Physical evidence, Servicescapes, Roles of physical evidence
	24	Day 2	Stimulus-Response model
	25	Day 3	Guidelines for servicescape strategies through servicescape model.
	26	Day 4	Guidelines for servicescape strategies through servicescape model.
	27	Day 5	Guidelines for servicescape strategies through servicescape model.

	28	Day 6	Guidelines for servicescape strategies through servicescape model
<b>Module 8: Managing Service Demand and Capacity</b>	29	Day 1	Capacity constraints
	30	Day 2	Strategies for managing capacity and demand
	31	Day 3	Strategies for managing capacity and demand
	32	Day 4	Strategies for managing capacity and demand
<b>Module 8 : Managing Service Demand and Capacity</b>	29	Day 1	Capacity constraints
	30	Day 2	Strategies for managing capacity and demand
	31	Day 3	Strategies for managing capacity and demand
	32	Day 4	Strategies for managing capacity and demand
<b>Module 9 : Communicating the service</b>	33	Day 1	Communications and the services marketing triangle
	34	Day 2	The services marketing triangle
	35	Day 3	Approaches for integrating services marketing communication
	36	Day 4	Approaches for integrating services marketing communication
<b>Module 9 : Communicating the service</b>	33	Day 1	Communications and the services marketing triangle
	34	Day 2	The services marketing triangle
	35	Day 3	Approaches for integrating services marketing communication
	36	Day 4	Approaches for integrating services marketing communication
<b>Module 10 : Managing People</b>	37	Day 1	Service culture & leadership,
	38	Day 2	Critical importance of service employees,
	39	Day 3	Strategies for delivering service quality through people
	40	Day 4	Strategies for delivering service quality through people

### **Text Books**

1. Services marketing by Lovelock, Wirtz & Chatterjee (Ch 2, 4, 6, 8, 9, 10)
2. Services Marketing by Zeithaml, Bitner, Gremler & Pandit (Ch 1, 2, 12, 16)

## QUESTION PAPER PATTERN AND DATES

EXAMINATION	Dates	PART – A	PART – B	PART – C	TOTAL MARKS
Mid Term 1	February 10, 2025 to February 21, 2025	Attempt 5 out of 10 questions; Each question carries 2 marks ( $2 \times 5$ )	Attempt 2 out of 4 questions; Each question carries 5 marks ( $5 \times 2$ )	Attempt 1 out of 2 questions; Each question carries 10 marks ( $10 \times 1$ )	30
Mid Term 2	March 24, 2025 to April 2, 2025	Attempt 5 out of 10 questions; Each question carries 2 marks ( $2 \times 5$ )	Attempt 2 out of 4 questions; Each question carries 5 marks ( $5 \times 2$ )	Attempt 1 out of 2 questions; Each question carries 10 marks ( $10 \times 1$ )	30
End Semester Examination	April 21, 2025 to May 9, 2025	Attempt 10 out of 15 questions; Each question carries 2 marks ( $2 \times 10$ )	Attempt 6 out of 9 questions; Each question carries 5 marks ( $5 \times 6$ )	Attempt 5 out of 8 questions; Each question carries 10 marks ( $10 \times 5$ )	100

### Examination Rules & Regulations:

[https://iemcollege-my.sharepoint.com/:b/g/personal/iemcoe\\_office\\_iem\\_edu\\_in/EXrcoe3d6oxIogHKO074XeUBC9qm3XNaf\\_qUeSiVTNh5OQ?e=MMQn40](https://iemcollege-my.sharepoint.com/:b/g/personal/iemcoe_office_iem_edu_in/EXrcoe3d6oxIogHKO074XeUBC9qm3XNaf_qUeSiVTNh5OQ?e=MMQn40)



**University of Engineering and Management**  
**Institute of Engineering & Management, Salt Lake Campus**  
**Institute of Engineering & Management, New Town Campus**  
**University of Engineering & Management, Jaipur**



## Syllabus for MBA Admission Batch 2023

**Subject Name: Retail & E-commerce Management Credit: 2**

**Lecture Hours: 20**

**Subject Code: MM473**

### Course Outcomes:

1. Demonstrate their awareness and knowledge about the functioning of local and global business environment and society.
2. Demonstrate competencies in quantitative and qualitative techniques and usage of industrial simulation softwares.
3. Demonstrate a global outlook with the ability to identify aspects of global business and Cross-Cultural Understanding.
4. Demonstrate responsiveness to contextual business issues / problems and exploring solutions.

[link for study material](#) [Channel Management & Retailing](#) [Retail Management - NPTEL - Jan 2025](#) [AI Case Studies](#) [Digital Marketing & Ecommerce](#)

Module number	Topic	Sub-topics	Book Chapter	Mapping with Industry and International Academia	Lecture Hours
1	Retail Fundamentals	The Retailer's Role in a Supply Chain - Economic and Social Significance of Retailing - The Growing Importance of Retailing and Retailers - The Retail Management Decision Process	Chapter 1 Retailing Management by Michael Levy & Dhruv Grewal	<a href="#">Retail Simulation Game</a>	2
2	Types of Retailers	Retailer characteristics – Food retailers – General Merchandise retailers – Service providers using retailing principles – types of ownership	Chapter 2 Retailing Management by Michael Levy & Dhruv Grewal		2

3	Digital Retailing	The 7C framework of digital retailing – mobile and social retailing – types of media – influencer marketing – engaging customers	Chapter 3 Retailing Management by Michael Levy & Dhruv Grewal		2
4	Multichannel & Omnichannel Retailing	Relative strengths of retail channels – opportunities and challenges	Chapter 4 Retailing Management by Michael Levy & Dhruv Grewal		2
5	Retail Market Strategy	What is a retail strategy – central concepts – growth strategies – the strategic retail planning process	Chapter 6 Retailing Management by Michael Levy & Dhruv Grewal	<a href="#">Retail Simulation Game</a>	2
6	Information Systems and Supply Chain Management	Creating Strategic Advantage through SCM and information systems – the flow of information through a supply chain – the flow of merchandise through a supply chain – system design issues and trends	Chapter 10 Retailing Management by Michael Levy & Dhruv Grewal		2
7	Customer Relationship Management	The CRM process – collecting customer shopping data – identifying target customers – developing and implementing CRM programs	Chapter 11 Retailing Management by Michael Levy & Dhruv Grewal		2
8	Managing the Merchandise Planning Process	Merchandise Management Overview – merchandise planning process – forecasting category sales – developing an assortment plan – setting inventory and product availability levels – establishing a control system – merchandise allocation – analysing performance	Chapter 12 Retailing Management by Michael Levy & Dhruv Grewal		3
9	Buying Merchandise	Brand alternatives - buying national brand merchandise – developing and sourcing store based merchandise – vendor negotiation – strategic relationships – legal, ethical and social responsibility	Chapter 13 Retailing Management by Michael Levy & Dhruv Grewal		3

10	Introduction to foundations of digital marketing and ecommerce	Core skills of digital marketing and e-commerce specialists - Roles and responsibilities in digital marketing and e-commerce - E-commerce, ecommerce, or eCommerce?	<a href="https://www.coursera.org/learn/foundations-of-digital-marketing-and-e-commerce">https://www.coursera.org/learn/foundations-of-digital-marketing-and-e-commerce</a>		
11	The customer journey and the marketing funnel	Advantages and challenges of digital marketing - Inclusive marketing - What is a touchpoint? - The traditional marketing funnel to the digital marketing funnel - Case study: How MERSEA structures its marketing funnel - The future of e-commerce	<a href="https://www.coursera.org/learn/foundations-of-digital-marketing-and-e-commerce">https://www.coursera.org/learn/foundations-of-digital-marketing-and-e-commerce</a>		
12	Digital marketing and ecommerce strategy	Brand safety - Find your audience and understand your customers - How to set SMART goals - Display advertising - Choose the right platforms for your target audience - Types of email campaigns	<a href="https://www.coursera.org/learn/foundations-of-digital-marketing-and-e-commerce">https://www.coursera.org/learn/foundations-of-digital-marketing-and-e-commerce</a>		
13	Measure performance success	Common metrics for success - Data ethics - Story structure	<a href="https://www.coursera.org/learn/foundations-of-digital-marketing-and-e-commerce">https://www.coursera.org/learn/foundations-of-digital-marketing-and-e-commerce</a>		

**Textbooks:**

1. Retailing Management by Michael Levy & Dhruv Grewal, 10<sup>th</sup> Edition, Tata McGraw Hill

**Additional Readings: Case Studies (HBR)**

1. Sears
2. Decathlon
3. QuikTrip
4. Can Retailers Win Back Shoppers Who Browse then Buy Online?

**Program Outcomes:**

PO 1	<b>Problem Analysis</b>	Identify, formulate, research literature, and analyze managerial problems reaching substantiated conclusion using Meaning, Importance, Overview, Objective, Process Overview, Process tools, Supply chain dynamics.
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PO 2	<b>Modern Tool Usage</b>	Apply appropriate <b>AI techniques</b> , resources, and modern management and IT tools including prediction and modeling to complex managerial activities with an understanding of limitations.
PO 3	<b>Communication</b>	Communicate effectively on complex managerial activities with the organizational community, Government, Customers, Competitors and other potential stakeholders and with the society at large, such as being able to comprehend and write effective reports, make effective presentation, and give and receive clear instruction
PO 4	<b>Ethics</b>	Apply ethical principles and commit to professional ethics and responsibilities and norms of the management practice.
PO 5	<b>Supply Chain Management and Design</b>	Demonstrate knowledge and understanding of the operation management principles and apply these to one's work, as a member and leader in a team, to manage projects in multidisciplinary environment.
PO 6	<b>The Manager and Society</b>	Apply reasoning informed by the contextual knowledge to assess societal, health, legal, cultural and community issues and the consequent responsibility relevant to the professional management practice
PO 7	<b>Individual and Team work</b>	Function effectively as an individual, and as a member or leader in diverse streams, and in multidisciplinary settings
PO8	<b>Lifelong Learning</b>	Recognize the need for, and have the preparation and ability to engage in, independent and life-long learning in the broadest context of technological change.
PO9	<b>Creative Business Solution</b>	Analyzing, diagnosing and prescribing creative solutions to solve real life business problems and situations.

#### CO-PO MAPPING:

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	3	2	1	2	1	1	1	3
CO2	2	3	3	1	1	3	3	2	1
CO3	1	1	3	2	2	3	3	2	2
CO4	3	3	2	3	3	2	3	3	1

Students develop these skills and knowledge through the following course activities and assignments:

- **Lectures/Class Discussion:** Delivery of basic concepts, architecture, and terminology of eCommerce along with its impact on global sourcing, analytics,

manufacturing, and logistics. The course will also teach students how to modify work processes for speedy decision making via basic change management techniques. Class discussions will be held on weekly readings of current events. Consistent student participation and engagement is critical to success.

- **In-class (and Homework) Software Exercises.** Mock business situations will be outlined for students to solve during class time using Tableau. Students will be expected to share out their results via short presentations. Concise and effective business communication will be practiced and refined via feedback from the instructor and student peers.

- **Case Study Analysis:** Each student is required to individually complete a 3-5 page analysis of a case study, which will be assigned in Canvas. The case study will be in the form of a .doc report (letter size paper, 1.5-lines spaced, Times New Roman, and 12 pt. font) should be submitted. The report should focus on 1) description of the case, 2) a critical interpretation of the case, 3) what you have learned, and, 4) your suggestions if any. You should consider using additional sources to supplement your understanding of the case and its implications.

- **Team Research Project & Presentations:** Students will select a research topic of their choice with details as follows:

Any topic related to the course contents is acceptable, such as capability descriptions, case studies, and implementation plans. The project/presentation can focus on one of the many emerging areas of the digital supply chain. This will help students better understand the business transformation challenges for both small and large businesses struggling to keep pace in the digital era.

Groups of three (3) or four (4) students each will be assigned to a team. Student teams will be posted along with email contact information in Canvas near the beginning of the semester. Students are responsible to check to see to which team number they are assigned and what date their team is scheduled to present.

Each team prepare will prepare a 20-minute presentation (with no more than fifteen slides excluding the title page) outlining and discussing the chosen topic. The project score is determined by the creativity of the topic, the quality of work and the effectiveness of presentation (clarity, time control, engagement, team work, Q&A, etc.).

## Lesson Plan:

Sl	Module	Lecture Day	Lesson Plan - Description
1	Retail Fundamentals	1	The Retailer’s Role in a Supply Chain - Economic and Social Significance of Retailing - The Growing Importance of Retailing and Retailers - The Retail Management Decision Process
2	Types of Retailers	2	Retailer characteristics – Food retailers – General Merchandise retailers – Service providers using retailing principles – types of ownership
3	Digital Retailing	3	The 7C framework of digital retailing – mobile and social retailing – types of media – influencer marketing – engaging customers
4	Multichannel	4	Relative strengths of retail channels – opportunities and challenges

	& Omnichannel Retailing		
<b>5</b>	Retail Market Strategy	<b>5</b>	What is a retail strategy – central concepts – growth strategies – the strategic retail planning process
<b>6</b>	Information Systems and Supply Chain Management	<b>6</b>	Creating Strategic Advantage through SCM and information systems – the flow of information through a supply chain – the flow of merchandise through a supply chain – system design issues and trends
<b>7</b>	Customer Relationship Management	<b>7</b>	The CRM process – collecting customer shopping data – identifying target customers – developing and implementing CRM programs
<b>8</b>	Managing the Merchandise Planning Process	<b>8</b>	Merchandise Management Overview – merchandise planning process – forecasting category sales – developing an assortment plan – setting inventory and product availability levels – establishing a control system – merchandise allocation – analysing performance
<b>9</b>	Buying Merchandise	<b>9</b>	Brand alternatives - buying national brand merchandise – developing and sourcing store based merchandise – vendor negotiation – strategic relationships – legal, ethical and social responsibility

# University of Engineering and Management Institute of Engineering & Management, Salt Lake Campus Institute

## Syllabus for MBA Admission Batch 2023-25

**Subject Name: Supply Chain Transformation**

**Lecture Hours: 48**

**Credit: 4**

**Ssubject Code: SC401**

### Pre-requisite:

Fundamental concepts of SCM

1. Showing how SCM, together with other disciplines, contributes to the mission of the firm.
2. Introducing practical issues and challenges in managing the resource flows for products and services and showing how cross-functional approaches can lead to effective business solutions and
3. Pinpointing the relationship between SCM and other business disciplines.

### Relevant Links:

[Study Material](#)

[LinkedIn](#)

[Coursera](#)

[NPTEL](#)

### Course Description:

Supply Chain transformation has been applied by a few innovative companies, from Apple to Amazon to Dell, to transform their businesses and achieve a significant increase in their revenue and profit while decreasing costs. In all these cases, the objective is to apply business analytics to transform the way the organization manages its business, from manufacturing, supply chain, marketing, and revenue optimization all the way to understanding consumers' preferences and innovating new products.

Supply chain management was once a relative backwater, but it has moved decisively to center stage in recent years. A well-managed supply chain operation is, increasingly, a critical factor, even the critical factor, in a business's success. This guide to supply chain transformation leads you through the process of aligning retail and supply chain planning with a business's strategic goals, all the way to technical implementation.

Transforming a supply chain operation and bringing it up to date generally involves not just the introduction of powerful new technology but a fundamental review of processes and organization.

Global competition, constant disruption and the emergence of Industry 5.0 are forcing organisations to rethink established business models. Now more than ever, it is crucial for supply chains to revolutionise their strategies and solutions to proactively respond to both current and future disruptions, enabling organisations to thrive.

The Leading Supply Chain Transformation programme is a pioneering and rewarding learning experience, designed to inspire supply chain professionals from all sectors to revise their operations and business practices. You'll reevaluate your end-to-end strategy, enhance your knowledge, and apply the latest thinking to navigate the ever-changing technological advancements and digital disruptors. Successfully lead the future of your supply chain by building a resilient and efficient supply chain that is both sustainable and high performing.

The Supply Chain Transformation is now motivating many companies in a variety of industries to reinvent their supply chains, from demand and supply planning to production and distribution. This course introduces unique framework that combines the three technology trends, digitization, analytics and automation, to reinvent the supply chain. Participants will gain a deeper understanding of:

- Applications of these trends to improve efficiency, profitability, and growth
- The required processes to improve supply chain visibility, flexibility, and resiliency
- The appropriate organization and talent change

### Course Objectives:

- The objectives of this course are to help the student develop knowledge and skills in the areas of purchasing and materials management, an increasingly important element of modern global commerce.
- This course aims to equip the participants, with the knowledge and techniques of purchasing as well as the legal issues affecting purchasing, the principles and practical knowledge required to plan and control inventory, a working knowledge on the principles and techniques of good sourcing practices for effective management of their organization.

### Course Outcome:

CO1: Obtain an understanding on the function and importance of Supply Chain Transformation and how it plays a critical role in identifying opportunities for transforming and creating end-to-end supply chain value.

CO2: Understand the Learn from case studies of organizations that successfully implemented digital transformations, as well as from the challenges they faced.

CO3: Able to explore the latest knowledge, tools, methods, strategies, and solutions to management supply chain in the Industry 5.0 era.

CO4: Able to gain proficiency in analyzing and interpreting business to increase sales by improving forecast accuracy and a clear understanding and apply current frameworks and practices to leverage new technologies that captures and delivers valuable solutions in the evolving landscape.

### Complete Syllabus:

Module number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Lab Assignment
Module 1	Aligning Supply chain for Managing Performance	<ul style="list-style-type: none"> <li>• Aligning Supply Chains</li> <li>• Supply Chain Performance Management</li> <li>• Strategic Challenges and Change for Supply Chain</li> <li>• <b>Generative AI Value Chain</b></li> </ul> <p><b>Text Book:</b></p> <ul style="list-style-type: none"> <li>• Supply Chain Management: A Logistics Perspectives C. John Langley, Jr. Robert A. Novack, Brian J. Gibson, John J. Coyle Cengage, 11<sup>th</sup> Edition</li> </ul> <p><b>Part IV: Chapter 12, Chapter 13, Chapter 15</b></p> <ul style="list-style-type: none"> <li>• Purchasing &amp; Supply Chain Management Robert M. Monczka, Robert B. Handfield, Lary C. Giunipero, James L. Patterson Cengage, 7<sup>th</sup> Edition</li> </ul> <p><b>Part V: Chapter 19</b></p> <ul style="list-style-type: none"> <li>• Supply Chain Management: Concepts and Cases, 2nd Edition, Altekar, Rahul V., PHI</li> </ul> <p><b>Part 1: Chapter 7</b></p>	<p><b>International Academia</b> <a href="https://scm.mit.edu/supply-chain-management-masters-curriculum-residential/">https://scm.mit.edu/supply-chain-management-masters-curriculum-residential/</a></p> <p><b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/Model_Curriculum/AICTE-%20Logistic%20and%20supply%20chain%20(MTECH%20Y).pdf">https://www.aicte-india.org/sites/default/files/Model_Curriculum/AICTE-%20Logistic%20and%20supply%20chain%20(MTECH%20Y).pdf</a></p> <p><b>Industry Mapping</b></p> <p><b>HBR Case Study</b> <b>Linked Case Study:</b> <a href="#">IRCTC Supply Chain Management</a> <b>Linked Case Study:</b> <a href="#">Supply Chain Management of PepsiCo</a> <b>Linked Case Study:</b> <a href="#">Dell's Supply Chain Management Practices</a> <b>Linked Case Study:</b> <a href="#">Supply Chain Management@BigBasket(Hyperlocal e-Commerce Service)</a></p>	12	SPSS, SAP-MM

Module 2	Managing Cross-Functional Drivers in a Supply Chain	<ul style="list-style-type: none"> <li>Sourcing Decision in Supply Chain</li> <li>Pricing and Revenue Management in Supply Chain</li> <li>Sustainability and The Supply Chain</li> <li><a href="#">NIKE Supply Chain in the New Digital Age</a></li> </ul> <p><b>Text Book:</b></p> <ul style="list-style-type: none"> <li>Supply Chain Management: Strategy, Planning and Operation Sunil Chopra, Dharam Vir Kalra, Gourav Dwivedi Pearson (7<sup>th</sup> Edition, Revised) <b>Part VI: Chapter 15, Chapter 16, Chapter 17</b></li> </ul>	<p><b>International Academia</b> <a href="https://scm.mit.edu/supply-chain-management-masters-curriculum-residential/">https://scm.mit.edu/supply-chain-management-masters-curriculum-residential/</a></p> <p><b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/Model_Curriculum/AICTE-%20Logistic%20and%20supply%20chain%20(MTECH%202Y).pdf">https://www.aicte-india.org/sites/default/files/Model_Curriculum/AICTE-%20Logistic%20and%20supply%20chain%20(MTECH%202Y).pdf</a></p> <p><b>Industry Mapping</b> <b>HBR Case Study</b></p> <p><b>Linked Case Study:</b> <a href="#">Strategic Sourcing at Whirlpool China: Finding the Ideal Supplier</a></p>	12	SPSS, SAP-MM
Module 3	Managing Supply Chain Relationship	<ul style="list-style-type: none"> <li>Supply Chain Relationships</li> <li>Types of Supply Chain Relationships</li> <li>The Role of Trust</li> <li>Managing Conflict and Dispute Resolution</li> <li>Negotiation Concepts, Styles</li> <li><a href="#">Supply Chain Networks in the Age of Generative AI</a></li> </ul> <p><b>Text Book:</b></p> <ul style="list-style-type: none"> <li>Supply Chain Management: A Global Perspective (An Indian Adaptation) Nada R. Sanders, Sidhartha S. Padhi Wiley, 3<sup>rd</sup> Edition <b>Part 1: Chapter 11</b></li> <li>Principles of Supply Chain Management: A Balanced Approach Joel D. Wisner, Keah-Choon Tan, G. Keong Leong <b>Cengage, 5<sup>th</sup> Edition</b> <b>Part 2: Chapter 3</b></li> </ul>	<p><b>International Academia</b> <a href="https://scm.mit.edu/supply-chain-management-masters-curriculum-residential/">https://scm.mit.edu/supply-chain-management-masters-curriculum-residential/</a></p> <p><b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/Model_Curriculum/AICTE-%20Logistic%20and%20supply%20chain%20(MTECH%202Y).pdf">https://www.aicte-india.org/sites/default/files/Model_Curriculum/AICTE-%20Logistic%20and%20supply%20chain%20(MTECH%202Y).pdf</a></p> <p><b>Industry Mapping</b> <b>HBR Case Study</b></p> <p><b>Linked Case Study:</b> <a href="#">Unilever Group in Arabia: Towards Strategic Sourcing</a></p>	12	SPSS, SAP-MM
Module 4	Managing Demand & Digitization in Supply Chain Transformation	<ul style="list-style-type: none"> <li>Forecasting and Demand Planning</li> <li>Capacity Management</li> <li>Process Analysis and Resource Utilization</li> <li>Digital Supply Chain Transformation</li> <li>Digital SC Transformation Capabilities</li> <li>The Role of Technology</li> <li>Digital SC Transformation Roadmap</li> <li><b>Tortoise, Not the Hare: Digital Transformation of Supply</b></li> </ul>	<p><b>International Academia</b> <a href="https://digitalsc.mit.edu/wp-content/uploads/2020/08/MIT-SCM-294-DigitalSC-Transformation-Syllabus_20_21.pdf">https://digitalsc.mit.edu/wp-content/uploads/2020/08/MIT-SCM-294-DigitalSC-Transformation-Syllabus_20_21.pdf</a></p> <p><b>AICTE Prescribed Syllabus</b> <a href="https://www.aicte-india.org/sites/default/files/Model_Curriculum/AICTE-%20Logistic%20and%20supply%20chain%20(MTECH%202Y).pdf">https://www.aicte-india.org/sites/default/files/Model_Curriculum/AICTE-%20Logistic%20and%20supply%20chain%20(MTECH%202Y).pdf</a></p> <p><b>Industry Mapping</b></p>	12	SPSS, SAP-MM

		<p align="center"><b>Chain Business Processes</b></p> <p><b>Text Book:</b></p> <ul style="list-style-type: none"> <li>Operations and Supply Chain Management, Collier, Evans Cengage (2<sup>nd</sup> Edition) <b>Part 3: Chapter 9, Chapter 10, Chapter 11, Chapter 14</b></li> <li>Supply Chain Management: A Global Perspective (An Indian Adaptation) Nada R. Sanders, Sidhartha S. Padhi Wiley, 3<sup>rd</sup> Edition <b>Part 1: Chapter 8</b></li> <li>Supply Chain Management: Concepts and Cases, 2nd Edition, Altekar, Rahul V., PHI <b>Part 1: Chapter 2, Chapter 6</b></li> </ul>	<p><b>HBR Case Study</b></p> <p><b>Linked Case Study:</b> Whirlpool Corporation Global Procurement</p> <p><b>Linked Case Study:</b> Mars Incorporated: Online Procurement</p>		
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**Program Outcomes:**

PO 1	<b>Problem Analysis</b>	Identify, formulate, research literature, and analyze managerial problems reaching substantiated conclusion using Meaning, Importance, Overview, Objective, Process Overview, Process tools, Supply chain dynamics.
PO 2	<b>Modern Tool Usage</b>	Apply appropriate techniques, resources, and modern management and IT tools including prediction and modeling to complex managerial activities with an understanding of limitations.
PO 3	<b>Communication</b>	Communicate effectively on complex managerial activities with the organizational community, Government, Customers, Competitors and other potential stakeholders and with the society at large, such as being able to comprehend and write effective reports, make effective presentation, and give and receive clear instruction
PO 4	<b>Ethics</b>	Apply ethical principles and commit to professional ethics and responsibilities and norms of the management practice.
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**CO-PO MAPPING:**

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	3	2	1	1	1	1	1	1
CO2	3	2	3	1	1	3	3	2	1
CO3	1	1	3	2	2	3	3	2	2
CO4	1	1	2	3	3	2	3	2	1

### Text Books

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2. Supply Chain Management: A Logistics Perspective, 11<sup>th</sup>, Edition, C. John Langley, Jr. | Robert A. Novack | Brian J. Gibson | John J. Coyle, Cengage
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2. Supply Chain Management: Concepts and Cases, 2nd Edition, Altekar, Rahul V., PHI
3. Principles of Supply Chain Management: A Balanced Approach, Joel D. Wisner, Keah-Choon Tan, G. Keong Leong, Cengage, 5<sup>th</sup> Edition

### Referred Cases

1. e-Procurement at Cathay Pacific Airways: e-Business Valuation
2. Unilever Restructures Its Supply Chain Management Practices
3. HyperPure: Zomato's Foray into B2B Foodtech
4. Wal-Mart's Supply Chain Management Practices
5. Supply Chain Transformation at Starbucks (B)
6. Supply Chain Transformation at Starbucks (A)
7. TSG Hoffenheim: Step-by-Step Analysis in Excel
8. DHL Supply Chain: Spurring Capacity Building to Fuel Expansion in India
9. Reimagining Amazon Product Packaging

**Students develop these skills and knowledge through the following course activities and assignments:**

▪ **Lectures/Class Discussion.** Delivery of basic concepts, architecture, and terminology of eCommerce along with its impact on global sourcing, analytics, manufacturing, and logistics. The course will also teach students how to modify work processes for speedy decision making via basic change management techniques. Class discussions will be held on weekly readings of current events. Consistent student participation and engagement is critical to success.

▪ **In-class (and Homework) Software Exercises.** Mock business situations will be outlined for students to solve during class time using Tableau. Students will be expected to share out their results via short presentations. Concise and effective business communication will be practiced and refined via feedback from the instructor and student peers.

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Groups of three (3) or four (4) students each will be assigned to a team. Student teams will be posted along with email contact information

in Canvas near the beginning of the semester. Students are responsible to check to see to which team number they are assigned and what date their team is scheduled to present.

Each team prepare will prepare a 20-minute presentation (with no more than fifteen slides excluding the title page) outlining and discussing the chosen topic. The project score is determined by the creativity of the topic, the quality of work and the effectiveness of presentation (clarity, time control, engagement, team work, Q&A, etc.).

## Module 1

- **Aligning Supply chain for Managing Performance,**
- Supply Chain Performance Management
- Strategic Challenges and Change for Supply Chain
- **Generative AI Value Chain**

WORKING DAY	DAY ORDER	LESSON PLAN – DESCRIPTION
1	I	Syllabus Orientation-Module 1
2	II	Supply Chain Transformation
3	III	Aligning Supply chain for Managing Performance
4	IV	Aligning Supply chain for Managing Performance
5	V	Supply Chain Performance Management
6	VI	Supply Chain Performance Management
7	VII	Strategic Challenges and Change for Supply Chain
8	VIII	Strategic Challenges and Change for Supply Chain
9	IX	Case Discussion & Presentation
10	X	Case Discussion & Presentation
11	XI	Case Discussion & Presentation
12	XII	Case Discussion & Presentation

## Module 2

- **Managing Cross-Functional Drivers in a Supply Chain,** Sourcing Decision in Supply Chain

- Pricing and Revenue Management in Supply Chain
- Sustainability and The Supply Chain
- [NIKE Supply Chain in the New Digital Age](#)

WORKING DAY	DAY ORDER	LESSON PLAN – DESCRIPTION
1	I	Syllabus Orientation-Module II
2	II	Managing Cross-Functional Drivers in a Supply Chain
3	III	Sourcing Decision in Supply Chain
4	IV	Pricing and Revenue Management in Supply Chain
5	V	Pricing and Revenue Management in Supply Chain
6	VI	Pricing and Revenue Management in Supply Chain
7	VII	Sustainability and The Supply Chain
8	VIII	Sustainability and The Supply Chain
9	IX	Case Discussion & Presentation
10	X	Case Discussion & Presentation
11	XI	Case Discussion & Presentation
12	XII	Case Discussion & Presentation

### Module 3

- **Managing Supply Chain Relationship**, Supply Chain Relationships
- Types of Supply Chain Relationships
- The Role of Trust
- Managing Conflict and Dispute Resolution
- Negotiation Concepts, Styles
- [Supply Chain Networks in the Age of Generative AI](#)

WORKING DAY	DAY ORDER	LESSON PLAN – DESCRIPTION
1	I	Syllabus Orientation-Module III

2	II	Managing Supply Chain Relationship, Supply Chain Relationships
3	III	Managing Supply Chain Relationship, Supply Chain Relationships
4	IV	Types of Supply Chain Relationships & The Role of Trust
5	V	Managing Conflict and Dispute Resolution
6	VI	Managing Conflict and Dispute Resolution
7	VII	Negotiation Concepts, Styles
8	VIII	Negotiation Concepts, Styles
9	IX	Case Discussion & Presentation
10	X	Case Discussion & Presentation
11	XI	Case Discussion & Presentation
12	XII	Case Discussion & Presentation

## Module 4

- **Managing Demand & Digitization in Supply Chain Transformation**, Forecasting and Demand Planning
- Capacity Management
- Process Analysis and Resource Utilization
- Digital Supply Chain Transformation
- Digital SC Transformation Capabilities
- The Role of Technology
- Digital SC Transformation Roadmap
- **Tortoise, Not the Hare: Digital Transformation of Supply Chain Business Processes**

WORKING DAY	DAY ORDER	LESSON PLAN – DESCRIPTION
1	I	Syllabus Orientation-Module IV
2	II	Managing Demand & Digitization in Supply Chain Transformation, Forecasting and Demand Planning
3	III	Managing Demand & Digitization in Supply Chain Transformation, Forecasting and Demand Planning
4	IV	Capacity Management

5	V	Process Analysis and Resource Utilization
6	VI	Digital Supply Chain Transformation
7	VII	Digital SC Transformation Capabilities
8	VIII	The Role of Technology & Digital SC Transformation Roadmap
9	IX	Case Discussion & Presentation
10	X	Case Discussion & Presentation
11	XI	Case Discussion & Presentation
12	XII	Case Discussion & Presentation

## Text Books

4. Supply Chain Management: Strategy, Planning and Operation, Sunil Chopra, Dharam Vir Kalra, Gourav Dwivedi, Pearson (7<sup>th</sup> Edition, Revised)
5. Supply Chain Management: A Logistics Perspective, 11<sup>th</sup>, Edition, C. John Langley, Jr. | Robert A. Novack | Brian J. Gibson | John J. Coyle, Cengage
6. Supply Chain Management: A Global Perspective (An Indian Adaptation), Nada R. Sanders, Sidhartha S. Padhi, Wiley, 3<sup>rd</sup> Edition

## Reference Books

4. **Purchasing & Supply Chain Management, Robert M. Monczka, Robert B. Handfield, Lary C. Giunipero, James L. Patterson, Cengage, 7th Edition**
5. **Supply Chain Management: Concepts and Cases, 2nd Edition, Altekar, Rahul V., PHI**
6. Principles of Supply Chain Management: A Balanced Approach, Joel D. Wisner, Keah-Choon Tan, G. Keong Leong, Cengage, 5<sup>th</sup> Edition.

## EVALUATION AND MARKS

1. **TERM 1 EXAMINATION (30 Marks)**
2. **TERM 2 EXAMINATION (30 Marks)**
3. **Internal Evaluation (40 Marks)**
4. **END TERM EXAMINATION (100 Marks)**
  
5. **Attendance – 5 Marks**
  - 95% and More Attendance – 5 Marks
  - 90% to 94.99% - 4 Marks
  - 85% to 89.99% - 3 Marks
  - 80% to 84.99% - 2 Marks
  - 75% to 79.99% - 1 Mark
  - Less than 75% - Nil



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## **Syllabus for MBA Admission Batch 2023**

**Subject Name: Supply Chain Design & Strategy**

**Credit: 4**

**Lecture Hours: 40**

**Subject Code: SC 402**

### **Course Description**

Supply Chain Design & Strategy explores the principles of designing efficient, resilient supply chains aligned with business strategies. Students learn demand forecasting, network design, inventory management, and risk mitigation. Emphasizing real-world applications, the course integrates sustainability, global trade, and emerging technologies to develop innovative supply chain strategies for competitive advantage.

### **Course Outcomes:**

1. Exploring key management tasks important in operating an effective and efficient supply chain system.
2. Applying the knowledge of supply chain and its strategic role in corporate performance.
3. Optimize supply chain efficiency and apply value oriented management techniques in supply chain management.
4. Applying supply chain analytics techniques for optimizing performance

### **Course Pre-requisites:**

- English
- Reasoning Skills
- Basic Mathematics
- Statistics
- Advanced Excel

Study Material

[Linkedin Learning](#)

[Coursera 1](#)

[Coursera - 2](#)

[Swayam/NPTEL](#)

[Book Link](#)

Module number	Topic	Sub-topics	Text Book Mapping	Mapping with Industry and International Academia	Lecture Hours	Lab Assignment
1	<b>Introduction</b>	Introduction to supply chain management design, competitive cost analysis, capacity sizing, strategic games and capacity sizing. Supply Chain Drivers and Metrics: Understand key performance drivers such as cost, quality, and service, and the metrics used to evaluate them	<b>Ch-1 David Simchi-Levi</b>  <b>HBS Case Study Apple Inc.: Global Supply Chain Management</b>	1. <a href="https://hbsp.harvard.edu/catalog/collections/core-curriculum-operations-management">https://hbsp.harvard.edu/catalog/collections/core-curriculum-operations-management</a> 2. <a href="https://ocw.mit.edu/courses/15-761-introduction-to-operations-management-spring-2013/pages/syllabus/">https://ocw.mit.edu/courses/15-761-introduction-to-operations-management-spring-2013/pages/syllabus/</a> <b>AICTE Syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>  <b>INDUSTRY CONNECT</b>  CASE STUDIES FROM HARVARD PUBLISHING SERVICES & THE TEXT BOOK  <b>HOME BASED SIMULATION LAB</b>	6	SPSS SAP MM
2	<b>Forecasting and Demand Planning</b>	Time Series Analysis and Forecasting Techniques: Methods for predicting future demand based on historical data. Quantitative Methods: Techniques such as Regression models to improve forecasting accuracy. Managing Seasonality and Trends: Adjustments to account for seasonal variations and long-term trends in demand data	<b>Ch-9 U. Dinesh Kumar</b>  <b>HBS Case Study H&amp;M's Global Supply Chain Management Sustainability: Factories and Fast Fashion</b>		6+2(Lab)	SPSS SAP MM
3	<b>Inventory Management</b>	Inventory Models: Strategies including Economic Order Quantity (EOQ), safety stock, and reorder points to manage inventory levels. Multi-Echelon Inventory Optimization: Techniques for optimizing inventory across multiple stages of the supply chain	<b>Ch-3 David Simchi-Levi</b>  <b>HBS Case Study Manage the Suppliers That Could Harm Your Brand</b>	<a href="https://www.anylogistix.com/download-free-supply-chain-simulation-software/">https://www.anylogistix.com/download-free-supply-chain-simulation-software/</a>	6	SPSS SAP MM

4	<b>Network planning &amp; Coordinated product and supply chain design</b>	Principles of Network Design: Core concepts in designing an efficient supply chain network. Optimization Models and Tools: Utilization of tools like Excel Solver for network optimization. Design Under Uncertainty: Strategies for network design considering uncertainties and the need for flexibility. <b>Generative AI Supply Value Chain and Design</b>	<b>Ch-2 David Simchi-Levi</b>		6	SPSS SAP MM
5	<b>Supply chain analytics</b>	Predictive Analytics and Modeling: Using data to predict future supply chain events and trends. Machine Learning Techniques: Application of machine learning to enhance supply chain analytics	<b>Ch-2 U. Dinesh Kumar HBS Case Study Lenovo: Digital Transformation for Supply Chain Intelligence</b>		6 + 2(Lab)	SPSS SAP MM
6	<b>Transportation and Logistics</b>	Transportation Models and Cost Optimization: Methods to optimize transportation costs and improve logistics efficiency. Logistics Management and Distribution Strategies: Planning and management of logistics activities and distribution networks. Role of Technology: The impact of technological advancements on transportation and logistics management.	<b>Ch-5 David Simchi-Levi  HBS Case Study Dell: Roadmap of a Digital Supply Chain Transformation</b>		6	SPSS SAP MM

**Program Outcomes:**

PO 1	<b>Problem Analysis</b>	Identify, formulate, research literature, and analyze managerial problems reaching substantiated conclusion using Meaning, Importance, Overview, Objective, Process Overview, Process tools, Supply chain dynamics.
PO 2	<b>Modern Tool Usage</b>	Apply appropriate <b>AI techniques</b> , resources, and modern management and IT tools including prediction and modeling to complex managerial activities with an understanding of limitations.
PO 3	<b>Communication</b>	Communicate effectively on complex managerial activities with the organizational community, Government, Customers, Competitors and other potential stakeholders and with the society at large, such as being able to comprehend and write effective reports, make effective presentation, and give and receive clear instruction
PO 4	<b>Ethics</b>	Apply ethical principles and commit to professional ethics and responsibilities and norms of the management practice.
PO 5	<b>Supply Chain Management and Design</b>	Demonstrate knowledge and understanding of the supply chain management principles and apply these to one's work, as a member and leader in a team, to manage projects in multidisciplinary environment.
PO 6	<b>The Manager and Society</b>	Apply reasoning informed by the contextual knowledge to assess societal, health, legal, cultural and community issues and the consequent responsibility relevant to the professional management practice
PO 7	<b>Individual and Team work</b>	Function effectively as an individual, and as a member or leader in diverse streams, and in multidisciplinary settings
PO8	<b>Lifelong Learning</b>	Recognize the need for, and have the preparation and ability to engage in, independent and life-long learning in the broadest context of technological change.
PO9	<b>Creative Business Solution</b>	Analyzing, diagnosing and prescribing creative solutions to solve real life business problems and situations.

**CO-PO MAPPING:**

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	2	3	2	1	1	1	1	1	3
CO2	2	3	3	1	1	3	3	2	1
CO3	1	1	3	2	2	3	3	2	2
CO4	2	1	2	3	3	2	3	2	1

**Textbooks:**

1. *Designing and Managing The Supply Chain: Concepts, Strategies, And Case Studies*  
4th Edition, 9355321783 · 9789355321787, By David Simchi-Levi, Philip Kaminsky, Edith Simchi-Levi, Ravi Shankar, Mc Graw Hill
2. *Business Analytics: The Science of Data - Driven Decision Making*, By U Dinesh Kumar, Wiley
3. *Case Studies: Harvard Publishing & Textbook [INDUSTRY CONNECT]*
4. *Supply Chain Simulation Software*: <https://www.anylogistix.com/download-free-supply-chain-simulation-software/>

Students develop these skills and knowledge through the following course activities and assignments:

- **Lectures/Class Discussion:** Delivery of basic concepts, architecture, and terminology of eCommerce along with its impact on global sourcing, analytics, manufacturing, and logistics. The course will also teach students how to modify work processes for speedy decision making via basic change management techniques. Class discussions will be held on weekly readings of current events. Consistent student participation and engagement is critical to success.
- **In-class (and Homework) Software Exercises.** Mock business situations will be outlined for students to solve during class time using Tableau. Students will be expected to share out their results via short presentations. Concise and effective business communication will be practiced and refined via feedback from the instructor and student peers.
- **Case Study Analysis:** Each student is required to individually complete a 3-5 page analysis of a case study, which will be assigned in Canvas. The case study will be in the form of a .doc report (letter size paper, 1.5-lines spaced, Times New Roman, and 12 pt. font) should be submitted. The report should focus on 1) description of the case, 2) a critical interpretation of the case, 3) what you have learned, and, 4) your suggestions if any. You should consider using additional sources to supplement your understanding of the case and its implications.
- **Team Research Project & Presentations:** Students will select a research topic of their choice with details as follows:  
Any topic related to the course contents is acceptable, such as capability descriptions, case studies, and implementation plans. The project/presentation can focus on one of the many emerging areas of the digital supply chain. This will help students better understand the business transformation challenges for both small and large businesses struggling to keep pace in the digital era.

Groups of three (3) or four (4) students each will be assigned to a team. Student teams will be posted along with email contact information in Canvas near the beginning of the semester. Students are responsible to check to see to which team number they are assigned and what date their team is scheduled to present.

Each team prepare will prepare a 20-minute presentation (with no more than fifteen slides excluding the title page) outlining and discussing the chosen topic. The project score is determined by the creativity of the topic, the quality of work and the effectiveness of presentation (clarity, time control, engagement, team work, Q&A, etc.).

## Lesson Plan

Sl	Module	Lecture Hour	Lesson Plan - Description	Faculty
1	Introduction	1	Introduction to supply chain management design	Prof. Shouvik Chattopadhyay
		2	Competitive cost analysis, capacity sizing	Prof. Shouvik Chattopadhyay
		3	Strategic games and capacity sizing	Prof. Shouvik Chattopadhyay
		4	Supply Chain Drivers and Metrics	Prof. Shouvik Chattopadhyay
		5	Understand key performance drivers such as cost, quality, and service, and the metrics used to evaluate them	Prof. Shouvik Chattopadhyay
		6	Understand key performance drivers such as cost, quality, and service, and the metrics used to evaluate them	Prof. Shouvik Chattopadhyay
2	Forecasting and Demand Planning	1	Time Series Analysis and Forecasting Techniques	Prof. Dr. Udit Chawla
		2	Methods for predicting future demand based on historical data	Prof. Dr. Udit Chawla
		3	Quantitative Methods: Techniques such as Regression models to improve forecasting accuracy	Prof. Dr. Udit Chawla
		4	Quantitative Methods: Techniques such as Regression models to improve forecasting accuracy	Prof. Dr. Udit Chawla
		5	Managing Seasonality and Trends: Adjustments to account for seasonal variations and long-term trends in demand data	Prof. Dr. Udit Chawla
		6	Managing Seasonality and Trends: Adjustments to account for seasonal variations and long-term trends in demand data	Prof. Dr. Udit Chawla
		7	LAB - 1	Prof. Dr. Udit Chawla
		8	LAB - 2	Prof. Dr. Udit Chawla
3	Inventory Management	1	Inventory Models: Strategies including Economic Order Quantity (EOQ), safety stock, and reorder points to manage inventory levels.	Prof. Dr. Udit Chawla
		2	Inventory Models: Strategies including Economic Order Quantity (EOQ), safety stock, and reorder points to manage inventory levels.	Prof. Dr. Udit Chawla
		3	Inventory Models: Strategies including Economic Order Quantity (EOQ), safety stock, and reorder points to manage inventory levels.	Prof. Dr. Udit Chawla
		4	Multi-Echelon Inventory Optimization: Techniques for optimizing inventory	Prof. Dr. Udit Chawla

			across multiple stages of the supply chain	
		5	Multi-Echelon Inventory Optimization: Techniques for optimizing inventory across multiple stages of the supply chain	Prof. Dr. Udit Chawla
		6	Multi-Echelon Inventory Optimization: Techniques for optimizing inventory across multiple stages of the supply chain	Prof. Dr. Udit Chawla
4	Network planning & Coordinated product and	1	Principles of Network Design: Core concepts in designing an efficient supply chain network.	Prof. Shouvik Chattopadhyay
		2	Utilization of tools like Excel Solver for network optimization	Prof. Dr. Udit Chawla
		3	Design Under Uncertainty: Strategies for network design considering uncertainties and the need for flexibility	Prof. Dr. Udit Chawla
		4	Design Under Uncertainty: Strategies for network design considering uncertainties and the need for flexibility	Prof. Dr. Udit Chawla
		5	Generative AI in Supply Value Chain Design	Prof. Shouvik Chattopadhyay
		6	Generative AI in Supply Value Chain Design	Prof. Shouvik Chattopadhyay
5	Supply chain analytics	1	Predictive Analytics and Modeling	Prof. Dr. Udit Chawla
		2	Using data to predict future supply chain events and trends	Prof. Dr. Udit Chawla
		3	Machine Learning Techniques	Prof. Dr. Udit Chawla
		4	Application of machine learning to enhance supply chain analytics	Prof. Dr. Udit Chawla
		5	Application of machine learning to enhance supply chain analytics	Prof. Dr. Udit Chawla
		6	Application of machine learning to enhance supply chain analytics	Prof. Dr. Udit Chawla
		7	LAB - 1	Prof. Dr. Udit Chawla
		8	LAB – 2	Prof. Dr. Udit Chawla
6	Transportation and Logistics	1	Transportation Models and Cost Optimization: Methods to optimize transportation costs and improve logistics efficiency.	Prof. Dr. Udit Chawla
		2	Methods to optimize transportation costs and improve logistics efficiency	Prof. Dr. Udit Chawla
		3	Logistics Management and Distribution Strategies	Prof. Shouvik Chattopadhyay
		4	Planning and management of logistics activities and distribution networks	Prof. Shouvik Chattopadhyay
		5	Planning and management of logistics activities and distribution networks	Prof. Shouvik Chattopadhyay
		6	Role of Technology: The impact of technological advancements on	Prof. Shouvik Chattopadhyay

			transportation and logistics management.	



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**Syllabus and Lesson Plan for MBA Admission Batch 2023**

**Subject Name: Business Forecasting**

**Credit: 4**

**Lecture Hours: 40**

**Subject Code: TM 401**

**Maximum: 100 marks (Internal: 30 marks; External: 70 marks)**

**List of Faculty Members handling the Subject –**

1. Prof. Anupam Bhattacharya
2. Prof. Writaparna Mukherjee

**Pre-Requisite:** Mathematics, Machine Learning.

**Course Objectives:**

1. **Understand Forecasting Techniques:** Equip students with a solid understanding of various forecasting methods, both qualitative and quantitative, used in business decision-making.

2. **Analyze Data for Forecasting:** Enable students to analyze historical data effectively to make accurate business predictions, including identifying trends, cycles, and patterns.
3. **Evaluate Forecasting Models:** Teach students to critically evaluate and select the most appropriate forecasting models for different business contexts, based on accuracy, cost, and complexity.
4. **Apply Forecasting to Business Decisions:** Encourage the practical application of forecasting techniques to real-world business problems, helping students make informed strategic decisions.

### Course Outcome:

**CO1: Ability to Apply Forecasting Methods:** Students will be able to apply various forecasting methods (e.g., time series analysis, regression analysis, and qualitative forecasting) to predict future business outcomes.

**CO2: Data Interpretation and Analysis Skills:** Students will be proficient in interpreting historical data and using it to generate meaningful forecasts, recognizing patterns and seasonality in business data.

**CO3: Model Evaluation and Selection:** Students will be able to assess and select the most suitable forecasting model based on factors such as data characteristics, forecast horizon, and accuracy metrics.

**CO4: Informed Decision-Making:** Students will demonstrate the ability to use forecasting results to make strategic and operational decisions in areas such as sales, inventory management, and market demand planning.

### Relevant Links:

1. **Links for Study Material:** <https://drive.google.com/file/d/1auMCevdkZtlYW-zP0ttv2UtB45fT9yeV/view?usp=sharing>
2. **Link for LinkedIn Learning Course (Time Series Modeling in Excel, R, and Power BI):** <https://www.linkedin.com/learning/time-series-modeling-in-excel-r-and-power-bi/predicting-the-future-with-time-series-models?u=229219690>
3. **Link for NPTEL Course (Applied Time-Series Analysis, IIT Madras, Dr. Arun K.Tangirala):** <https://nptel.ac.in/courses/103106123>
4. **Link for Coursera Course (Practical Time Series Analysis):** <https://www.coursera.org/learn/practical-time-series-analysis>

## Detailed Syllabus:

Module number	Topic	Sub-topics	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
1	Historical Insights into Business Forecasting: Concepts and Key Differences	Historical perspective of Business Forecasting: Concept of Business forecasting, Difference between Mathematics and Statistics.	<b>International Academia:</b> ( <a href="https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/">https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/</a> ) <b>AICTE-prescribed syllabus:</b> ( <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> ) <b>Textbook Mapping:</b> Business Forecasting, John E. Hanke, Dean W. Wichern, Pearson Education <b>Chapter 1, 2</b>	2L	Platform: Excel, Python, R. Topics: Historical milestones, trend analysis, regression modeling, and math vs. stats in forecasting.

1	Regression Models	Regression Model: Steps, Linear, nonlinear.	<b>International Academia:</b> <b>International Academia:</b> <a href="https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/">(https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/)</a> <b>AICTE-prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> ) <b>Textbook Mapping:</b> Business Forecasting, John E. Hanke, Dean W. Wichern, Pearson Education Chapter 5, 6	4L	Platform: Excel, Python, R. Topics: Regression steps, linear vs. nonlinear models, and practical implementation.
1	Modelling in R	Introduction to R studios: Programming in R for time series forecasting	<b>International Standards</b> <b>International Academia:</b> <a href="https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/">(https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/)</a> <b>AICTE-prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> ) <b>Textbook Mapping:</b> Business Forecasting, John E. Hanke, Dean W. Wichern, Pearson Education	4L	Develop sales forecasting models using R.
1	Univariate Time Series Analysis: Linear Models, Stationarity, and ARIMA	Univariate time series: Linear model, Stationarity, Autocorrelation, Partial Auto correlation, Multicollinearity, ARIMA, ARMA process.	<b>International Academia:</b> <b>International Academia:</b> <a href="https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/">(https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/)</a>	10 [4L + 6P]	Platform: Excel, Python, R, MATLAB. Topics: Univariate time series, linear models, stationarity, autocorrelation, ARIMA, ARMA processes.

	Processes		<a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">fall-2013/</a> <b>AICTE-prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">(<a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>)</a> <b>Textbook Mapping:</b> Business Forecasting, John E. Hanke, Dean W. Wichern, Pearson Education Chapter 8		
1	Stationarity and Unit Root Tests: An Introduction and Methods	Stationarity and Unit Roots Tests: Introduction, Unit Roots tests, Stationarity tests	<b>International Academia:</b> <b>International Academia:</b> <a href="https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/">(<a href="https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/">https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/</a>)</a> <b>AICTE-prescribed syllabus:</b> ( <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> ) <b>Textbook Mapping:</b> Business Forecasting, John E. Hanke, Dean W. Wichern, Pearson Education Chapter 7	4L	Apply basic time series forecasting using R analytical environment
1	Introduction to Volatility Models (ARCH & GARCH)	Univariate Time Series: Volatility Models-Introduction, The ARCH Model, The GARCH Model	<b>International Academia:</b> <a href="https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/">(<a href="https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/">https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/</a>)</a> <b>AICTE-prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">(<a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>)</a> <b>Textbook Mapping:</b>	6	Platform: Excel, Python, R, MATLAB. Topics: GARCH, ARCH.

			Time series analysis by Hamilton Chapter 21		
2	Multivariate Time Series Analysis	Multivariate Time Series Analysis: Vector Autoregression Model–Cointegration	<p><b>International Academia:</b> (<a href="https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/">https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/</a>)</p> <p><b>AICTE-prescribed syllabus:</b> (<a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> )</p> <p><b>Textbook Mapping:</b> Time series analysis by Hamilton Chapter 17</p>	4	Platform: Python, R. Topics: Multivariate time series, Vector Autoregression (VAR) model, Cointegration analysis.
2	Reinforcement and deep learning	Introduction to Reinforcement learning and deep learning. Introduction to ANN.	<p><b>International Academia:</b> (<a href="https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/">https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/</a>)</p> <p><b>AICTE-prescribed syllabus:</b> (<a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> )</p> <p><b>Textbook Mapping:</b> Introduction to Data Science by B Uma Maheswari R. Sujatha, Wiley Chapter 15</p>	4	Platform: Python (TensorFlow, Keras, PyTorch). Topics: Reinforcement learning, deep learning, introduction to Artificial Neural Networks (ANN).
2	CASE Study	Walmart: Demand Forecasting for Inventory Management  Amazon: Sales Forecasting for Dynamic Pricing and Inventory Management	<p><b>International Academia:</b> (<a href="https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/">https://ocw.mit.edu/courses/14-384-time-series-analysis-fall-2013/</a>)</p> <p><b>AICTE-prescribed syllabus:</b> (<a href="https://www.aicte-">https://www.aicte-</a></p>	2	PYTHON.

			<a href="http://india.org/sites/default/files/AI_CTE_MBA.pdf">india.org/sites/default/files/AI_CTE_MBA.pdf</a> )		
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**Lesson Plan:**

Working Day	Topic	Lesson Plan Description
1	<b>Introduction to Business Forecasting</b>	Introduction to Business Forecasting Definition and Importance Applications in Business Historical Perspective Lab Session: Introduction to Excel/ R/ Python for Forecasting
2	<b>Key Differences: Mathematics vs. Statistics</b>	Difference between Mathematics and Statistics in Forecasting Application of both methods Lab Session: Hands-on with Excel to demonstrate basic data analysis techniques
3	<b>Overview of Forecasting Techniques</b>	Types of Forecasting Methods Qualitative vs. Quantitative Methods Time Series vs. Causal Forecasting Lab Session: Exploring simple forecasting methods in Excel
4	<b>Introduction to Regression Models</b>	Introduction to Regression Models Simple Linear Regression Lab Session: Implementing Simple Linear Regression in Excel
5	<b>Simple Linear Regression</b>	Formula and Calculation of Simple Linear Regression Assumptions in Simple Linear Regression Lab Session: Fitting a Simple Linear Regression Model in R
6	<b>Multiple Linear Regression</b>	Multiple Linear Regression Extending Linear Regression to Multiple Variables Lab Session: Building a Multiple Linear Regression Model in R
7	<b>Regression Model Assumptions</b>	Key assumptions: Linearity, Independence, Homoscedasticity, and Normality Lab Session: Checking Regression Assumptions in Excel/R

8	<b>Introduction to Nonlinear Regression</b>	Nonlinear Regression Models Examples and Business Applications Lab Session: Implementing Nonlinear Regression Models in Python
9	<b>Stationarity in Time Series</b>	What is Stationarity? Importance of Stationarity in Time Series Forecasting Lab Session: Identifying Stationary Series in Excel
10	<b>Autocorrelation and Partial Autocorrelation</b>	Introduction to Autocorrelation Partial Autocorrelation and its Applications Lab Session: Calculating Autocorrelation in R
11	<b>Univariate Time Series Models</b>	Introduction to Univariate Time Series Models (ARIMA, ARMA) Basic Concepts and Applications Lab Session: Building a Basic ARIMA Model in R
12	<b>ARIMA Models (Autoregressive Integrated Moving Average)</b>	ARIMA Model Structure Building and Implementing ARIMA Models Lab Session: Forecasting using ARIMA in R
13	<b>ARMA (Autoregressive Moving Average) Models</b>	ARMA vs ARIMA Application of ARMA Models Lab Session: Implementing ARMA Model in Python
14	<b>Unit Root and Stationarity Tests</b>	Unit Root Tests (ADF, KPSS) Testing for Stationarity Lab Session: Performing Unit Root Test in R
15	<b>Advanced Unit Root Tests</b>	Advanced Unit Root Tests Augmented Dickey-Fuller and KPSS Test in Detail Lab Session: Applying ADF and KPSS Tests on Real-World Data
16	<b>Volatility Models: Introduction</b>	Introduction to Volatility Models (ARCH & GARCH) Why Volatility Models Matter Lab Session: Implementing Basic ARCH Model in Python
17	<b>ARCH Model</b>	Detailed Study of ARCH Model Applications in Forecasting Lab Session: Building an ARCH Model in R
18	<b>GARCH Model</b>	Understanding the GARCH Model How GARCH Improves Forecasting Accuracy Lab Session: Forecasting using GARCH Model in R

19	<b>Multivariate Time Series Analysis</b>	Introduction to Multivariate Time Series Vector Autoregressive (VAR) Model Lab Session: Implementing VAR Model in Python
20	<b>Vector Autoregressive (VAR) Models</b>	Deep Dive into VAR Models Use cases and Applications Lab Session: Forecasting with VAR in R
21	<b>Cointegration in Time Series</b>	What is Cointegration? How to apply Cointegration in Time Series Forecasting Lab Session: Cointegration Testing in R
22	<b>Reinforcement Learning in Forecasting</b>	Introduction to Reinforcement Learning How RL is applied to Forecasting Problems Lab Session: Simple Reinforcement Learning models in Python
23	<b>Introduction to Deep Learning</b>	Introduction to Deep Learning and ANN Role of Deep Learning in Forecasting Lab Session: Introduction to Keras and TensorFlow for time series forecasting
24	<b>Deep Learning for Time Series Forecasting</b>	Recurrent Neural Networks (RNN) Using RNN for Forecasting Lab Session: Implementing an RNN for forecasting in Python
25	<b>Introduction to R Programming for Forecasting</b>	Basics of R Programming for Time Series Forecasting Essential Functions in R for Forecasting Lab Session: Data handling in R for Forecasting Models
26	<b>R Programming for ARIMA Models</b>	Building ARIMA models in R Best Practices and Key Considerations Lab Session: Building and Forecasting ARIMA Models in R
27	<b>Practical ARIMA Applications in Business</b>	Real-World Applications of ARIMA Models Industry Use Cases Lab Session: Case Study Implementation: Forecasting in Business using ARIMA
28	<b>Forecasting with Excel</b>	Using Excel for Business Forecasting Overview of Excel Forecasting Functions Lab Session: Hands-on Forecasting using Excel
29	<b>Case Study: Walmart Demand Forecasting</b>	Demand Forecasting at Walmart

		Business Use of Forecasting Models in Retail Lab Session: Practical Case Study Analysis of Walmart's Demand Forecasting
30	<b>Case Study: Amazon Sales Forecasting</b>	Sales Forecasting for Dynamic Pricing and Inventory Management at Amazon Lab Session: Using Forecasting to Predict Sales in Excel
31	<b>Forecasting for Inventory Management</b>	Forecasting for Inventory Control Methods for Optimizing Stock and Reducing Shortages Lab Session: Inventory Forecasting with Python or R
32	<b>Time Series Forecasting in Retail</b>	Forecasting Techniques in Retail Industry Demand Forecasting for Products and Services Lab Session: Retail Demand Forecasting with ARIMA/ Exponential Smoothing in Excel
33	<b>Forecasting for Financial Markets</b>	Time Series Forecasting in Financial Markets Financial Forecasting with ARIMA and GARCH Models Lab Session: Forecasting Stock Prices using ARIMA in R
34	<b>Forecasting with Neural Networks</b>	Introduction to Neural Networks in Forecasting Forecasting with Artificial Neural Networks (ANN) Lab Session: Hands-on implementation of ANN for Forecasting in Python
35	<b>Practical Implementation in Python</b>	Time Series Forecasting using Python Overview of Libraries like pandas, statsmodels, and scikit-learn Lab Session: Practical Example of Time Series Forecasting in Python
36	<b>Model Validation and Accuracy Metrics</b>	Key Metrics for Model Validation (RMSE, MAE, MAPE) Comparing and Evaluating Forecasting Models Lab Session: Model Evaluation in Excel and Python
37	<b>Cross-Validation in Forecasting</b>	Cross-Validation Techniques in Time Series Forecasting Why Cross-Validation is important for Time Series Models Lab Session: Implementing Cross-Validation for Time Series Models in Python
38	<b>Error Analysis and Adjustments</b>	Common Forecasting Errors and How to Fix Them Adjusting Forecasting Models Based on Errors Lab Session: Error Analysis and Model Adjustment using Excel/R
39	<b>Reviewing Case Studies and Real-World</b>	Review of Key Case Studies: Walmart, Amazon, and Retail Applications

40	<b>Applications</b>	Real-World Industry Applications of Forecasting Lab Session: Analyzing Case Studies using Forecasting Models in R/Python
	<b>Final Exam and Course Review</b>	Course Review Final Assessment (Theory and Practical) Lab Session: Final Practical Assessment and Q&A

**SUGGESTED READINGS:**

**TEXT BOOKS:**

1. Business Forecasting, John E. Hanke, Dean W. Wichern, Pearson Education
2. James D. Hamilton, Time Series Analysis, Princeton University Press
3. Introduction to Data Science by B Uma Maheswari R. Sujatha, Wiley

**REFERENCE BOOKS:**

1. R for Data Science – Hadley Wickham and Garrett Golemund

## QUESTION PAPER PATTERN AND DATES

EXAMINATION	Dates	PART – A	PART – B	PART – C	TOTAL MARKS
Mid Term 1	February 10, 2025 to February 21, 2025	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)	30
Mid Term 2	March 24, 2025 to April 2, 2025	Attempt 5 out of 10 questions; Each question carries 2 marks (2 × 5)	Attempt 2 out of 4 questions; Each question carries 5 marks (5 × 2)	Attempt 1 out of 2 questions; Each question carries 10 marks (10 × 1)	30
End Semester Examination	April 21, 2025 to May 9, 2025	Attempt 10 out of 15 questions; Each question carries 2 marks (2 × 10)	Attempt 6 out of 9 questions; Each question carries 5 marks (5 × 6)	Attempt 5 out of 8 questions; Each question carries 10 marks (10 × 5)	100

### Examination Rules & Regulations:

[https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe\\_office\\_iem\\_edu\\_in/EXRcoe3d6oxIogHKO074XeUBC9qm3XNaf\\_qUeSiVTNh5OQ?e=MMQn40](https://iemcollege-my.sharepoint.com/:b:/g/personal/iemcoe_office_iem_edu_in/EXRcoe3d6oxIogHKO074XeUBC9qm3XNaf_qUeSiVTNh5OQ?e=MMQn40)



**University of Engineering and Management**  
**Institute of Engineering & Management, Salt Lake Campus**  
**Institute of Engineering & Management, New Town Campus**  
**University of Engineering & Management, Jaipur**



## Syllabus for MBA Admission Batch 2023

**Subject Name: Data Mining**

**Credit: 4**

**Lecture Hours: 40**

**Subject Code: TM 402**

Relevant Links:

[Study Material](#)

[LinkedIn](#)

[Coursera](#)

[NPTEL](#)

- <https://www.coursera.org/specializations/data-mining>
- <https://www.linkedin.com/learning/predictive-analytics-essential-training-data-mining/data-mining-and-predictive-analytics?u=229219690>
- [https://onlinecourses.nptel.ac.in/noc21\\_cs06/preview](https://onlinecourses.nptel.ac.in/noc21_cs06/preview)
- <https://www.iemlearning.com/courses/data-mining>

Module number	Topic	Sub-topics	Text Book As Per Syllabus	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
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1	Introduction to Data Mining	Definition, Scope, Goals Significance of data mining, Stages of the Data Mining Process, Data Mining Techniques, Related technologies - Machine Learning, Statistics , Knowledge Representation Methods, Applications	Data Mining and Business Intelligence By S.K.Shinde, U Chadrasekher, Dreamtech Press  Ch-1  Data Mining Techniques & Applications By Hongbo Du, Cengage Ch-1,2	<p><b>International Academia:</b> (<a href="https://online.stanford.edu/courses/soe-yics0007-mining-massive-data-sets">https://online.stanford.edu/courses/soe-yics0007-mining-massive-data-sets</a>)</p> <p><b>AICTE-prescribed syllabus:</b> (<a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>)</p>	4	Students will taught to use basic machine learning features on sales and marketing dataset
2	Data Warehouse	Data Warehouse and DBMS ,Multidimensional data model, OLAP operations, AI Tools for Data mining	Data Mining Concepts and Techniques, by Jiawei Han , Micheline Kamber and Jian Pei ,3 <sup>rd</sup> Edition,  Ch-4	<p><b>Industry Mapping:</b></p> <p>Explore Data Preprocessing Techniques using AI Tools</p> <p><a href="https://www.akkio.com/post/ai-data-mining">https://www.akkio.com/post/ai-data-mining</a></p> <p><a href="https://julius.ai/">https://julius.ai/</a></p>	2	Students will study various data extraction process from multidimensional database using drill down, drill up, slicing, dicing techniques.

3	Data Preprocessing	Data cleaning, Data transformation, Data reduction, Discretization , Installing Weka, Basic Data Mining Operation Through WEKA	Data Mining Techniques & Applications By Hongbo Du, Cengage Ch-3	<b>International Standards</b> ( <a href="https://ocw.mit.edu/courses/15-062-data-mining-spring-2003/pages/lecture-notes/">https://ocw.mit.edu/courses/15-062-data-mining-spring-2003/pages/lecture-notes/</a> )  <b>AICTE-prescribed syllabus:</b> ( <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> )  <b>Industry Mapping:</b> WEKA Tool	4	Students will study various Marketing and Sales Data Preprocessing techniques using basic analytical tools
4	Data Mining Knowledge Representation	Task relevant data, Background knowledge, Interestingness measures, knowledge, Visualization techniques, Experiments with Weka-visualization	Data Mining Techniques & Applications By Hongbo Du, Cengage Ch-9	<b>International Standards</b> :( <a href="https://online.stanford.edu/courses/cs246-mining-massive-data-sets">https://online.stanford.edu/courses/cs246-mining-massive-data-sets</a> )  <b>AICTE-prescribed syllabus:</b> ( <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> )  <b>Industry Mapping:</b> WEKA, Orange Tools	6	Students will also learnt to handle business data for extraction, clearing and decision making prospective.
5	Attribute Oriented Analysis	Attribute generalization, Attribute relevance, Class comparison, Statistical measures ,Concept of Text mining & Neural Network	Data Mining Techniques & Applications By Hongbo Du, Cengage Ch-9	<b>International Standards</b> :( <a href="https://online.stanford.edu/courses/cs246-mining-massive-data-sets">https://online.stanford.edu/courses/cs246-mining-massive-data-sets</a> )  <b>AICTE-prescribed syllabus:</b> ( <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> )  <b>Industry Mapping:</b> WEKA, Orange Tools	4	Students will explore Text mining and sentimental analysis features using analytical tools
6	Data Mining Algorithms I	Association rules, Market Basket Analysis, Generating item sets and rules efficiently,	Data Mining and Business Intelligence By S.K.Shinde, U Chadrsekher,	<b>International Academia:</b> ( <a href="https://online.stanford.edu/courses/soe-ycs0007-">https://online.stanford.edu/courses/soe-ycs0007-</a>	4	Case Study Solutions on Product Management, Product

		Correlation analysis	Dreamtech Press Ch-7	<a href="#">mining-massive-data-sets /</a>  <b>AICTE-prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> <b>Industry Mapping:</b> <i>KNIME Tools</i>		Affinity Analysis based problems solving
7	Data Mining Algorithms II	: Classification, Basic learning/mining tasks, Inferring rudimentary rules: 1R algorithm, Decision trees, Covering rules	Data Mining Concepts and Techniques, by Jiawei Han , Micheline Kamber and Jian Pei ,3 <sup>rd</sup> Edition, Ch-9	<b>International Academia:</b> <a href="https://ocw.mit.edu/courses/15-062-data-mining-spring-2003/pages/lecture-notes/">https://ocw.mit.edu/courses/15-062-data-mining-spring-2003/pages/lecture-notes/</a>  <a href="https://www.cse.iitk.ac.in/pages/CS685.html">https://www.cse.iitk.ac.in/pages/CS685.html</a>  <b>AICTE-prescribed syllabus:</b> <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> <b>Industry Mapping:</b> Handling Large Datasets For Product association Analysis using WEKA and Math lab	6	Students will study to apply various classification techniques for product segmentation , product categorization etc

8	Data Mining Algorithms III	: Prediction, The prediction task, Statistical (Bayesian) classification, Bayesian networks, Instance-based methods (nearest neighbor), Linear models	Data Mining Concepts and Techniques, by Jiawei Han , Micheline Kamber and Jian Pei ,3 <sup>rd</sup> Edition, Ch-9	<b>International Academia:</b> ( <a href="https://online.stanford.edu/courses/stats203v-introduction-regression-models-and-analysis-variance-summer">https://online.stanford.edu/courses/stats203v-introduction-regression-models-and-analysis-variance-summer</a> )	4	Students will study to develop sales forecasting models using analytical platforms
9	Clustering	Definition, types of Clustering, Application, Basic issues in clustering, conceptual clustering system, Partitioning methods: k-means, expectation maximization (EM) ,Hierarchical methods: distance based agglomerative and divisible clustering ,Conceptual clustering: Cobweb	Data Mining Concepts and Techniques, by Jiawei Han , Micheline Kamber and Jian Pei ,3 <sup>rd</sup> Edition, Ch-10	( <a href="https://www.cse.iitk.ac.in/pages/CS685.html">https://www.cse.iitk.ac.in/pages/CS685.html</a> )  <b>AICTE-prescribed syllabus:</b> ( <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> )  <b>Industry Mapping:</b> <i>Math Lab</i>	4	Students will study to apply clustering techniques for market segmentation
10	Case Study	<a href="https://hbr.org/2022/11/can-ai-really-help-you-sell">https://hbr.org/2022/11/can-ai-really-help-you-sell</a>  <a href="https://hbr.org/2018/05/using-analytics-to-prevent-customer-problems-before-they-arise">https://hbr.org/2018/05/using-analytics-to-prevent-customer-problems-before-they-arise</a>			2	Case Study Solutions on various functional domains of Business Management. Generative AI use cases in Business

## SUGGESTED READINGS:

### Suggested Readings:

- Data Mining and Business Intelligence by S.K.Shinde and U Chandrasekhar, DreamTech Press
- Data Mining Techniques and Applications by Hongbo Du, Cengage
- Tan, Steinbach and Kumar, Introduction to Data Mining, Pearson ,3<sup>rd</sup> Edition
- J.Han, M. Kamber and J Pei , Data Mining: Concepts and Techniques, Morgan Kaufmann
- Foreman, Data Smart: Using Data Science to Transform Information into Insight, John Wiley

- Dunham, Data Mining : Introductory and Advanced Topics, Pearson

### ***Course Objectives:-***

The aim of this paper is to prepare management students for understanding and applying data mining techniques for extraction, association , clustering ,prediction and decision making from business prospective. The course will also help students to understand various machine learning algorithms and their application in business.

### **Course Outcomes:-**

At the end of this course the students will be able to:

CO1	Demonstrate fundamental understanding of Data mining, Machine learning techniques.
CO2	Apply basic principles of Data mining in solutions that require problem-solving, inference, perception, knowledge representation, and learning.
CO3	Demonstrate proficiency in applying data mining techniques for Business prediction
CO4	Discuss different data mining algorithms and tools for better data management

### **Mapping of Cos with POs:**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	3	2			1	2	2	
CO2	3	3		1				2	2
CO3	3	3					2	1	
CO4		3	1		1			1	1

[Key: While “3” indicates High, “2” indicates Medium & “1” indicates Low levels of mapping.]

## Lesson Plan

Working Day(2 Hours Class/Day)	Date	Description	Module/Chapter
1	As per Routine	Definition, Scope, Goals Significance of data mining, Stages of the Data Mining Process, Data Mining Techniques, Related technologies	Module 1
2	As per Routine	Machine Learning, Statistics , Knowledge Representation Methods, Applications	Module 1
3	As per Routine	Data Warehouse and DBMS ,Multidimensional data model, OLAP operations, AI Tools for Data mining	Module 2
4	As per Routine	Data cleaning, Data transformation, Data reduction, Discretization	Module 2
5	As per Routine	Installing Weka, Basic Data Mining Operation Through WEKA	Module 3
6	As per Routine	Task relevant data, Background knowledge	Module 4
7	As per Routine	Interestingness measures, knowledge, Visualization techniques	Module 4
8	As per Routine	Experiments with Weka- visualization	Module 4
9	As per Routine	Attribute generalization, Attribute relevance, Class comparison	Module 5
10	As per Routine	Statistical measures ,Concept of Text mining & Neural Network	Module 5
11	As per Routine	Association rules, Market Basket Analysis	Module 6
12	As per Routine	Generating item sets and rules efficiently, Correlation analysis	Module 6
13	As per Routine	Classification, Basic learning/mining tasks	Module 7
14	As per Routine	Inferring rudimentary rules: 1R algorithm,	Module 7
15	As per Routine	Decision trees, Covering rules	Module 7
16	As per Routine	Prediction, The prediction task, Statistical (Bayesian)classification, Bayesian networks	Module 8
17	As per Routine	Instance-based methods (nearest neighbor), Linear models	Module 8
18	As per Routine	Definition, types of Clustering, Application, Basic issues in clustering, conceptual clustering system, Partitioning methods: k-means	Module 9
19	As per Routine	Expectation maximization (EM) ,Hierarchical methods: distance based agglomerative and divisible clustering ,Conceptual clustering: Cobweb	Module 9
20	As per Routine	Case Study Solutions on various functional domains of Business Management	Module 10



**University of Engineering and Management**  
**Institute of Engineering & Management, Salt Lake Campus**  
**Institute of Engineering & Management, New Town Campus**  
**University of Engineering & Management, Jaipur**



## Syllabus for MBA Admission Batch 2023

**Subject Name: Managerial Data Intelligence-II**

**Credit: 2**

**Lecture Hours: 20**

**Subject Code: TM 473**

Relevant Links:

[Study Material](#)

[LinkedIn](#)

[Coursera](#)

[NPTEL](#)

- <https://www.coursera.org/specializations/data-mining>
- <https://www.linkedin.com/learning/predictive-analytics-essential-training-data-mining/data-mining-and-predictive-analytics?u=229219690>
- [https://onlinecourses.nptel.ac.in/noc21\\_cs06/preview](https://onlinecourses.nptel.ac.in/noc21_cs06/preview)
- <https://www.iemlearning.com/courses/data-mining>

Module number	Topic	Sub-topics	Text Book As Per Syllabus	Mapping with Industry and International Academia	Lecture Hours	Corresponding Lab Assignment
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1	Introduction to Data Mining	Definition, need, Significance of data mining, Data Mining Stages and Techniques, Application of Data mining in Business	Data Mining Techniques & Applications By Hongbo Du, Cengage Ch-1,2	<p><b>International Academia:</b> (<a href="https://online.stanford.edu/courses/soe-ycs0007-mining-massive-data-sets">https://online.stanford.edu/courses/soe-ycs0007-mining-massive-data-sets</a>)</p> <p><b>AICTE-prescribed syllabus:</b> (<a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a>)</p>	4	Students will taught to use basic machine learning features on sales and marketing dataset
2	Data Preprocessing	Data cleaning, Data transformation, Data reduction, Discretization , Basic Data Mining Operations through analytical tools WEKA	Data Mining Techniques & Applications By Hongbo Du, Cengage Ch-3	<p><b>Industry Mapping:</b></p> <p>Explore Data Preprocessing Techniques using AI Tools</p> <p><a href="https://www.akkio.com/post/ai-data-mining">https://www.akkio.com/post/ai-data-mining</a></p> <p><a href="https://julius.ai/">https://julius.ai/</a></p>	4	Students will study various Marketing and Sales/Marketing Data Preprocessing techniques using basic analytical tools

3	Introduction to Business forecasting	Data Driven Decision Making and Essentials of Predictive Analytics, Types of Forecasting, Time series analysis, Regression Analysis	Business Forecasting: John E Hanke and Dean Wichern, Pearson, 9th Edition Ch-1,2,3	<b>International Standards</b> (( <a href="https://ocw.mit.edu/courses/15-062-data-mining-spring-2003/pages/lecture-notes/">https://ocw.mit.edu/courses/15-062-data-mining-spring-2003/pages/lecture-notes/</a> ) <b>AICTE-prescribed syllabus:</b> ( <a href="https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf">https://www.aicte-india.org/sites/default/files/AICTE_MBA.pdf</a> ) <b>Industry Mapping:</b> WEKA Tool	6	Students will also learnt to forecast business for decision making prospectives
4	<b>Case Study</b>	<a href="https://hbr.org/2022/11/can-ai-really-help-you-sell">https://hbr.org/2022/11/can-ai-really-help-you-sell</a> <a href="https://hbr.org/2018/05/using-analytics-to-prevent-customer-problems-before-they-arise">https://hbr.org/2018/05/using-analytics-to-prevent-customer-problems-before-they-arise</a>			6	Case Study Solutions on various functional domains of Business Management. Generative AI use cases in Business Research articles on predictive modelling will highly appreciated

**SUGGESTED READINGS:**

Suggested Readings:

- Data Mining and Business Intelligence by S.K.Shinde and U Chandrasekhar, DreamTech Press
- Data Mining Techniques and Applications by Hongbo Du, Cengage
- Tan, Steinbach and Kumar, Introduction to Data Mining, Pearson ,3<sup>rd</sup> Edition
- J.Han, M. Kamber and J Pei , Data Mining: Concepts and Techniques, Morgan Kaufmann
- Foreman, Data Smart: Using Data Science to Transform Information into Insight, John Wiley

- Dunham, Data Mining : Introductory and Advanced Topics, Pearson

### **Course Objectives:-**

The aim of this paper is to prepare management students for understanding and applying data mining techniques for extraction, association , clustering ,prediction and decision making from business perspective. The course will also help students to understand various machine learning algorithms and their application in business.

### **Course Outcomes:-**

At the end of this course the students will be able to:

CO1	Demonstrate fundamental understanding of Data mining, Machine learning techniques.
CO2	Apply basic principles of Data mining in solutions that require problem solving, inference, perception, knowledge representation, and learning.
CO3	Demonstrate proficiency in applying data mining techniques for Business prediction
CO4	Discuss different data mining algorithms and tools for better data management

### **Mapping of Cos with POs:**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CO1	3	3	2			1	2	2	
CO2	3	3		1				2	2
CO3	3	3					2	1	
CO4		3	1		1			1	1

[Key: While “3” indicates High, “2” indicates Medium & “1” indicates Low levels of mapping.]

### **Lesson Plan**

<b>Working Day (2 hours/Day)</b>	<b>Date</b>	<b>Description</b>	<b>Module/Chapter</b>
1	As Per Routine	Definition, need, Significance of data mining	Module 1
2	As Per Routine	Data Mining Stages and Techniques, Application of Data	Module 1

		mining in Business	
3	As Per Routine	Data cleaning, Data transformation, Data reduction, Discretization	Module 2
4	As Per Routine	Basic Data Mining Operations through analytical tools WEKA	Module 2
5	As Per Routine	Data Driven Decision Making and Essentials of Predictive Analytics	Module 3
6	As Per Routine	Types of Forecasting, Time series analysis	Module 3
7	As Per Routine	Regression Analysis	Module 3
8	As Per Routine	Case Study Solutions on various functional domains of Business Management	Module 4
9	As Per Routine	Research Articles Format Discussion	Module 4
10	As Per Routine As Per Routine	Case Study Solutions on various functional domains of Business Management	Module 4