MBA SYLLABUS AND COURSE CURRICULUM 2021-23

KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY

Deemed to be University U/S 3 of the UGC Act, 1956

SCHOOL OF MANAGEMENT

Contents

MBA Curriculum 2021-23

MBA Curriculum 2021-23
Programme Educational Objectives (PEOs)

- Building a strong foundation in all the key functional areas of business
- Fostering strong personal, interpersonal, group and communication skills
- Providing academic flexibility to promote the customization and personalization of knowledge
- Engage with industry for executive education
- Develop centers of excellence aligned with emerging areas of knowledge

Programme Outcomes (POs)

- Provide educational preparation for a career in business management
- Support members of faculty for development of intellectual capital
- Network with industry and greater academia to create, share and use knowledge.
- Meet institutional social responsibilities aligned to the vision and regulations.
- Building a responsive sustainable financial management model

Programme Specific Outcomes (PSOs)

- Business Environment and Domain Knowledge (BEDK)
- Critical thinking, Business Analysis, Problem Solving and Innovative Solutions (CBPI)
- Global Exposure and Cross-Cultural Understanding (GECCU)
- Social Responsiveness and Ethics (SRE)
- Effective Communication (EC)
- Leadership and Teamwork (LT)

Course Structure for MBA Program

Semester wise Core courses and credits

Semester I

Sl. No.	Course Code	Subject	L	T	P	Total Contact Hours	Credit
1	BM5301	Marketing Management – I	2	0	0	30	2
2	BM5204	Accounting for Managers	2	0	0	30	2
3	BM5103	Organizational Behavior	2	0	0	30	2
4	BM5401	Managerial Economics – I	2	0	0	30	2
5	BM5503	Quantitative Techniques – I	2	0	0	30	2
6	BM5601	Information Technology for Managers	2	0	0	30	2
7	BM5702	Business Communication	2	0	0	30	2

8	BM6702	Legal Aspects of Business	2	0	0	30	2
9	BM5102	Human Resource Management	2	0	0	30	2
10	BM5803	Production & Operations Management – I	2	0	0	30	2
Semester Total Credits							**20**

Semester II

Sl. No.	Course Code	Subject	L	T	P	Total Contact Hours	Credit
11	BM5302	Marketing Management – II	2	0	0	30	2
12	BM5202	Cost and Management Accounting	2	0	0	30	2
13	BM5403	Managerial Economics – II	2	0	0	30	2
14	BM5205	Corporate Finance – I	2	0	0	30	2
15	BM5104	Organization Theory	2	0	0	30	2
16	BM5804	Production and Operations Management – II	2	0	0	30	2
17	BM5502	Business Research Methods	2	0	0	30	2
18	BM5504	Quantitative Techniques – II	2	0	0	30	2
19	BM6703	Business Ethics and Corporate Social Responsibility	2	0	0	30	2
20	BM6829	Business Analytics	2	0	0	30	2
Semester Total Credits							**20**
On-the-job Training							**8**

Semester III

Sl. No.	Course Code	Subject	L	T	P	Total Contact Hours	Credit
21	BM6704	Strategic Management	2	0	0	30	2
Semester Credits							**2**
The semester will also have 16 credits in 8 elective courses							

Semester IV

Sl. No.	Course Code	Subject	L	T	P	Total Contact Hours	Credit

There will be no core courses in the semester and 12 credits in 6 elective courses

Area wise courses

Area: Strategic Management

Sl. No.	Course Code	Subject	L	T	P	Credit
Core Courses						
1	BM6702	Legal Aspects of Business	2	0	0	2
2	BM5702	Business Communication	2	0	0	2
3	BM6703	Business Ethics and Corporate Social Responsibility	2	0	0	2
4	BM6704	Strategic Management	2	0	0	2
Elective Courses						
1	BM6705	Blockchain Applications in Business	1.5	0	.5	2

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6702	Legal Aspects of Business	2	0	0	2

1. Introduction

Business executives have an obligation to create value for their stakeholders, while confirming to basic rules of society, both those embodied in law and those embodied in ethical custom. Law, in one form or another, permeates modern society at all levels of government—local, state, federal, and in limited circumstances, international. Consequently, today's businesspersons and executives benefit by developing a working knowledge of law. In the business world, we may not always know what the substantive law is; but if we can spot the issue (before it becomes a problem), we will able to raise it within the organization, with outside counsel, to find answers. Businesspersons who are adept at issue-spotting are invaluable to their organizations.

2. Intended learning outcomes

The following are the intended learning outcomes of the course, aligning with the programme outcome- Business Environment and Domain Knowledge (BEDK):

- Gain understanding of substantive law- law that creates and controls the rights and duties of parties.

- Gain understanding of procedural law - law that creates and controls the process of enforcing the rights and duties under substantive law.
- Develop issue-spotting skills- spot the issue (hopefully before it becomes a problem), to raise it with the appropriate persons within the organization, with outside counsel, or find the answer by self.

3. Course content

- Introduction and overview, scope & subject matter of legal environment.
- Indian contract act, 1872: offer & acceptance; competence of the parties to contract; objects , consideration, contingent & quasi contracts, performance, termination, breach of contracts & remedies; void, voidable, illegal & unlawful agreements; guarantee & indemnity; contract of agency
- Sale of goods act, 1930: contract of sale, price; conditions, warranties; rights & duties of seller & buyer; rights of an unpaid seller, remedies of breach of contract; auction sale.
- Arbitration & conciliation act, 1996: legal provisions relating to arbitration & business contracts; provisions relating to conciliation,
- Indian companies act 2013: , nature, types and characteristics of a company; incorporation of a company; lifting of corporate veil; MOA & AOA; shares & share capital; corporate governance; accounts & audit;
- Negotiable instruments act meaning, nature & types of negotiable instruments; law relating to negotiable instruments; rights & liabilities of paying banker & collecting banker.
- Overview of Consumer Protection Act, 1986
- Overview of Information Technology Act, 2000

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Legal Aspects of Business	Kumar, Ravinder	Cengage	4th
Reference Books				
1	A Manual of Business Law	S N Maheshwari and S K Maheshwari	HPH	2011
2	Legal Aspects of Business	R. Kumar	Taxman Publications	2015
3	The Companies Act, 2013	Ministry Of Corporate Affairs		2015
4	Legal Aspects of Business	Daniel Albuquerque	Oxford Publications	2015
5	Legal Aspects of Business	Akhileswar Pathak	McGraw Hill	7th, 2019
6.	Elements of Mercantile Law	N. D Kapoor,	S. Chand	4th, 2014

Course	Name of the course	Credits

Code		L	T	P	Total
BM5702	Business Communication	2	0	0	2

1. Introduction

There is a growing evidence that effective communication is the key for keeping an enterprise, as a system of individuals, working together for winning in the market place. In a volatile, uncertain, complex and ambiguous world, an organization needs the ability to respond fast. In order to be able to respond fast, effective communication is of prime importance at any organization today. It supports open interaction with a free flow of information, managing organizational communication processes, and creating an open and adaptive communication system. Accordingly, management graduates are expected to be proficient in written and oral communication.

2. Intended learning outcomes

- Apply the six fundamentals of effective writing (focus and coherence, organization and structure, development of ideas, voice, word choice, and conventions)
- Demonstrate the ability to write effectively in a variety of modes, including business proposals, incident reports, and policy documents
- Use the principles of oral communication to make presentations supported with audio-visual aids and deliver prepared as well as extempore speech.
- Develop structured resume and covering letter.

3. Course content

- **Module 1**: An introduction to business communication – the process, and the barriers. Types, channels, directions of Business Communication in an Organizational Communication Network.
- **Module 2**: Oral Communication. Understanding the importance of non-verbal communication; Kinesics, Proxemics, Paralanguage; Other minor components; Active listening; Improving public speaking skills; Designing structured presentations; Using Visual Aids effectively during Business Presentations; and Engaging in vibrant business-related conversations.
- **Module 3**: Written Communication – I. Enhancing meeting productivity, preparing an agenda, notifying participants, and writing the minutes.
- **Module 4**: Written Communication – II. Organizing and composing routine, good news, bad news and persuasive messages, Writing business letters, Writing business reports and proposals, Creating concise memos, circulars and office orders, and Effective Email writing
- **Module 5**: Written Communication – III. Tailoring the perfect resume as an effective self-marketing tool and Drafting cover letters

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				

1	Essential Strategies for Twenty-first Century Managers	Shalini Verma	Vikas Publications	2nd
Reference Books				
1	Business Communication Today	Bovee, Thill and Chaturvedi	Pearson Education	9th, 2008
2	Basic Business Communication	Lesikar and Flatley	Tata McGraw-Hill	9th, 2001
3	Speaking and Writing for Effective Business Communication	Francis Soundararaj	Macmillan India Ltd.	2015
4	Contemporary Business Communication	Scot Ober	Biztantra	6th, 2006
5	Basic Managerial Skills For All	E. H. McGrath, S. J.	PHI	9th, 2011

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6703	Business Ethics and Corporate Social Responsibility	2	0	0	2

1. Introduction

Managing ethical issues both within an organization and in relationship to a range of external stakeholders, is important for the purposes of ensuring organizational integrity, enhancing organizational legitimacy, and managing risk. The concerns for protecting rights of minority, being fair to stakeholders, promoting and protecting common good and virtues, while creating greater good for the greater number has been growing. Increasingly, companies employ ethics and sustainability officers, or managers, to help implement their core values and strategy. In the last few years many companies embraced "sustainability" and begun reporting not just financial performance but social and environmental performance as well. Management graduates are expected to demonstrate awareness of ethical issues, distinguish ethical and unethical behaviours, and resolve ethical dilemmas.

2. Intended learning outcomes

- To understand concepts concerning approaches to ethics, individual moral development, corporate moral development, and sustainability.
- To apply the learned concepts to resolve ethical dilemmas.
- To analyse ethical issues in functional area of management and generate perspectives for ethical decision-making.
- To evaluate the current level of individual and corporate moral development and create development plans to achieve the desired level of moral development.
- To formulate and execute CSR plan in line with the prevailing regulations, duly aligned with the sustainability development goals and CSR theories.

3. Course content

- **Ethical theory and business:** the utilitarian approach; the rights approach; the fairness and justice approach; the common good approach; the virtue approach; spheres of executive responsibility; ethical dilemmas; and a framework for ethical reasoning.
- **Moral development:** individual moral development- moral sensitivity, moral reasoning, moral motivation & moral character); corporate moral development through development of organizational culture- amoral, legalistic, responsive, emerging ethical and ethical organizations.
- **Ethics and functional areas of business management:** ethics in human resource management; ethics in marketing management; ethical issues in finance and accounting; ethical issues in productions and operations management; ethical issues in emerging technologies.
- **Corporate responsibility:** CSR theories- instrumental theories, political theories, integrative theories and ethical theories; sustainability performance – environment sustainability, economic sustainability and social equity sustainability.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
No textbook is prescribed. Handout covering readings and case studies will be given.				
5. Reference Books				
1	Social Responsibilities of the Businessman	Howard R. Bowen	University of Iowa Press	2013
2	Business Ethics: Straight talk about how to do it right	Linda Klebe Trevino and Katherine A. Nelson	John Wiley & Sons, Inc.	5th, 2011
3	Ethical Theory and Business	Arnold, Besuchamp & Bowie	Pearson	9th, 2013
4	Business Ethics – Concepts and Cases	Manual G. Velasquez	Pearson	7th, 2011
5	Business Ethics	Willam H. Shaw	Cengage Learning	8th, 2013
6	Business Ethics – A Case Perspective	Ferrell, Fraedrich and Ferrell	South-Western College Pub	10th, 2014

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6704	Strategic Management	2	0	0	2

1. Introduction

Strategy is an integrated set of choices that uniquely positions the firm in its industry to create sustainable advantage and superior value relative to the competition. Every management staff in an

organization needs to understand how s/he as an individual, his/ her function, and team contribute to creating superior value. Students will learn a number of frameworks and models to better understand and analyse the macro-environment, the industry environment, firm level resources and strategy formulation and implementation at functional, single business and multi-business level.

2. Intended learning outcomes

- Understand key concepts/ frameworks such as, a) strategic direction, b) opportunities and challenges- where to play, c) key success factors, d) competitive advantage, e) dynamic capability, f) the Delta Model- how to win, and f) management systems for strategy execution.
- Apply the learned concepts to develop, a) strategic direction, b) appropriate where-to-play profile, c) appropriate how-to-win profile, e) capabilities, and f) appropriate management systems.
- Analyse given contexts/ case studies to identify drivers of firm performance.
- Evaluate alternatives for improving firm performance and select the most appropriate choice(s)
- Create performance enhancement plan for a business entity, capturing where-to-play and how-to-win.

3. Course content

- **Overview and fundamental dimensions of strategy:** Ten schools of thought, five Ps of strategy, why organizations need strategy, creating value, managing imitation and managing perimeter.
- **Winning aspirations:** Vision, mission, core values, goals and objectives.
- **Where to play:** Product/ service/ solution categories, consumer segments, channels, vertical scope of firms and horizontal scope of firms.
- **Competitor analysis:** Competitors' response profile- current strategy, capabilities, future goals and assumptions.
- **How to win:** best products- cost leadership, differentiation & dual advantage; total customer solutions- redefining customer experience, managing horizontal breadth & customer integration; and system lock-in- restricted access, dominant exchange & managing proprietary standards.
- **Firm's capabilities:** Resources, organisational capabilities; profit earning potential; developing resources & capabilities required capabilities to create and sustain competitive advantage and dynamic capabilities.
- **Strategy implementation:** Systems, structures, and processes required to support firm's positioning choices.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
No textbook is prescribed. Handout covering readings and case studies will be given.				
Reference Books				
1	Economics of Strategy	Besanko, Dranove, Shanley & Chaefer	John Weley & Sons	7th (2015)

2	Playing to Win: How Strategy Really Works	A.G.Lafely and Roger L. Martin	Harvard Business Review Press	2013
3	Competitive Advantage	Michael E. Porter	Free Press	1st (1985)
4	Fundamentals of Business Strategy	Edited By Augier & Teece	Sage	1st (2008)

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6705	Blockchain Applications in Business	1.5	0	0.5	2

1. Introduction

Blockchain is touted as the new internet. It is in the same stage of development and capability of disruption as the internet was in the 1990s. It is a digital platform where information and assets can be shared. It is rapidly changing the way markets and organizations function. As per latest reports released by LinkedIn, 1 out of 10 jobs announced in the blockchain niches posted from India. Blockchain developers, smart contract developers, and blockchain generalists are in high demand. Several conglomerates and leading players across sectors in India have announced large blockchain projects to tackle different use cases. Even the country's Government think tank, NITI Aayog has announced IndiaChain – an indicator of the immense opportunities for growth in this sector in the nation.

2. Intended Learning Outcomes

- Acquire comprehensive knowledge of Blockchain and its underlying technology
- Understand various use cases of blockchain in business.
- Use open source tools to create a blockchain use case.
- Be able to view the topics of this course in a larger business/economic perspective

3. Course Content

- **Introduction to blockchain:** Evolution of Blockchain, Types of Blockchain
- **Blockchain Technology and frameworks:** Introduction to popular Blockchain technologies, Smart Contracts & DApps, Identity and Anonymity on Blockchain, Governance and Consensus
- **Use cases of blockchain in business applications:** Blockchain and Cryptocurrency (Bitcoin, Ethereum), Blockchain and NFT, Blockchain in Supply Chain and Manufacturing, Blockchain in Fintech, Blockchain in Healthcare, Blockchain in Government and Public Service
- **Hands-on exercises on blockchain,** Hyperledger and Ethereum – concepts and application, Hyperledger Composer

4. Text Book(s)

No prescribed textbook. Reading materials will be shared by faculty

5. Reference Book(s)

Title	Author(s)	Publisher	Edition

Blockchain Revolution	Don Tapscott Alex Tapscott	Penguin Random House UK	1st Edition
A practical Guide to Developing Business, Law and Technology Solutions	Joseph J. Bambara, Paul R. Allen,	McGrawHill	1st Edition
The Business Blockchain	Vitalik Buterin Mougayar, William	Wiley	1st Edition
Applications of Blockchain Technology in Business_ Challenges and Opportunities	Mohsen Attaran, Angappa Gunasekaran	Springer International Publishing	1st Edition
Business Transformation through Blockchain (Vol I & II)	Horst Treiblmaier, Roman Beck	Palgrave Macmillan	1st Edition

Area: Business Economics

Sl. No.	Course Code	Subject	L	T	P	Credit
Core Courses						
1	BM5401	Managerial Economics – I	2	0	0	2
2	BM5403	Managerial Economics – II	2	0	0	2
Elective Courses						
1	BM6219	Industrial Economics & Financing	1.5	0	0.5	2
2	BM6401	Sustainable Development	1.5	0	0.5	2
3	BM6402	Macroeconomic and Financial Challenges: Covid 19 and	1.5	0	0.5	2

Course Code	Name of the course	Credits			
		L	T	P	Total
BM5401	**Managerial Economics – I**	2	0	0	2

1. **Introduction**

The course is designed to serve as a foundation of economic decision making that forms the basis of almost all disciplines of management. Decisions taken by individuals, businesses and government or regulator, and a framework to evaluate those decisions is the subject matter of this course. Different factors underlying the behaviour of firms under various market structures are studied and the resulting market outcomes are tested through case studies. The course also incorporates insights on

the impact of asymmetric information and uncertainty on decisions and outcomes. In order to make the course application oriented solution of various real life cases are included in the pedagogy.

2. **Intended Learning Outcomes**

- To develop an understanding of different types of economic agents and their economic motives, and how the self-interest of these agents lead to the formation of markets.
- To develop a theoretical understanding of economic concepts like production functions, cost structure, firm and market structures, and the significance of the economic assumptions underlying the theoretical models.
- To develop an understanding of the implications on prices and welfare of different market structures, the causes of market failures, and the need for regulation.
- To develop the capacity to relate to the Indian economic environment -- how do certain markets work, role of information and uncertainty in economic decision making.
- To be able to apply the knowledge in solving real life problems during the period of SIP and placement.

3. **Course Contents**

- **Module 1:** How the Economy Works? (Household/ Firms/ Co-operatives/Government), Economic Decision Making highlighting the three central problems of our economy. Theory of Demand: Consumer Behaviour: Demand-Supply Analysis and Elasticity Analysis and Applications of Elasticity for Demand and Supply; Demand Forecasting. Graphing using Excel.
- **Module 2:** Production theory & Analysis: Dealing with Short run and Long run behaviour; Cost Theory & Analysis: Linkage between cost, revenue and output through optimization. Use of Calculas and Derivatives in Cost Analysis. Graphing using Excel.
- **Module 3:** Market Structure & Market Morphology: Price and output determination under Perfect and Imperfect Market in both short run and long run; Pricing Strategies in Markets, Perfect or Fair Competition, Monopoly (Barriers/ Restrictions/exclusive rights or ownership), The three degrees of Price Discrimination. Case Insights. Competition in the Indian Mutual Fund Market.
- **Module 4:** Monopolistic competition: Price & output decision under monopolistic competition. Oligopoly- Perfect & Imperfect Oligopoly, Cartels, Price leadership.
  Application of game theory to determine optimal outcome under oligopoly market. Case Insights. Case on OPEC as a Cartel. Price war between OPEC vs. Non-OPEC Nation as per the current scenario.
- **Module 5:** Market Imperfections: Market failure, Imperfect & asymmetric information; & Decision under uncertainty.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Principles of Microeconomics	N. Gregory Mankiw	Cengage	7th Edition
Reference Books				
1	Economics for Business & Management	K Alec Chrystal & Richard G. Lipsey	Oxford University Press	Latest
2	Managerial Economics in a Global Economy	Dominick Salvatore	McGraw Hill	3rd Edition
3	Managerial Economics	Paul G Keat, Philip K	Pearson	6th

4		Y Young and Sreejata Banerjee		Edition
4	Economics	Paul A Samueson and William D Nordhaus	McGraw Hill	19th Edition
5	Principles of Economics	Deviga Vengadaslam & Karunagaran Madhavan	Oxford University Press	3rd Edition

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM5403	**Managerial Economics – II**	2	0	0	2

1. **Introduction**

The course is designed to equip the students with tools to understand and relate to the economic reality around them through an understanding of various macroeconomic concepts and to use the tools to evaluate the implications of the government policy on businesses, sectors, industries and the economy. In order to make the course application oriented solution of various real life cases are included in the pedagogy.

2. Intended Learning Outcomes

- To develop an understanding of the macroeconomic aggregates such as output, unemployment, inflation, productivity and the major challenges associated with the measurement of these aggregates.
- To develop a theoretical understanding of the role of the central bank and money supply, linkages between financial markets and the real economy, and how these linkages influence the impact of economic policies over different time horizons.
- To enable students understand the basics and rationale of Fiscal and Monetary policy instruments and their role in policy making and during the phases of the business cycles
- To develop an understanding about the international linkages of an open economy, international capital flows, balance of payments, and the determination of exchange rates.
- To develop the capacity to relate the theoretical concepts with the real world with reference to the Indian economy. Different periods of Indian growth and development will be studied to highlight the structural aspects of growth, issues and prospects of the Indian economy.
- To be able to apply the knowledge in solving real life problems during the period of SIP and placement.
- To be able to design and formulate models based on their learning.

3. Course Contents

- **Module 1:** Macroeconomics Issues, Concepts & Model Building, National Income Accounting; Income & Spending; Money Interest & Income. Key Concepts- Gross Domestic Product. Calculation of Gross Domestic product. Difference between GDP and GNP. Measuring GDP through various approaches- GDP according to product approach. GDP according to expenditure approach. GDP according to income approach. Real Vs. Nominal GDP, GDP deflator Product-income- expenditure identity
- **Module 2:** Product & Money Market Analysis. Theory of National Income Determination; The Multiplier Effect. Aggregate Demand; Aggregate Supply function; Money Market: Theory of Money Supply, Various Measures of Money Supply- M0, M1, M2, M3, M4.
- **Module 3:** Role of Central and Commercial Banks as Credit Mechanism. The Central Bank, money and credit. The money stock and the money multiplier. The money multiplier, high powered money and

adjustment. The role of Commercial Bank as a Credit Creator. The process of Credit creation by individual bank and multiple banks. Case insights on Current COVID-19

- **Module 4:** Monetary & Fiscal Policy. Quantitative and Qualitative tools of Credit Control – CRR, SLR, Repos, RRR, MSF, Margin Requirements etc. to counter business cycles. Use of Fiscal tools to combat cyclical downturns. Fiscal Math using Excel. Case Insights on current COVID-19.
- **Module 5:** The Dynamics of Inflation & Unemployment. Inflation and aggregate supply curve. Dynamics of aggregate demand. Measurement CPI vs. WPI. Trade-off between Inflation & Unemployment-Phillips Curve Short Vs. Long run
- **Module 6:** Exchange rate Determination & Indian Economic Overview, Budget Analysis. Adjustment under fixed and flexible exchange rate. Exchange rate changes and Trade adjustments. Monetary approach to the Balance of Payments, PPP Approach, Interest Rate Parity Approach. Case Insights on current market crisis. Growth vs. Development; Role of Agriculture, Industry & Service Sector in Indian Economy; Economics Reforms. Analysis of the current Union Budget.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Macro Economics, Policy & Practices	Frederic S. Mishkin	Pearson	Second Edition
Reference Books				
1	Macro Economics	Andrew B. Abel & Ben Bernanke	Pearson	Latest edition
2	Macro Economics	Oliver Blanchard	Pearson Education	Latest edition
3	Macro Economics	Rudiger Dornbush, Stanley Fisher and Richard Startz	McGraw Hill Education	Latest edition
4	Macro economics Theory & Policy	D.N Dwivedi	McGraw Hill Education	5th edition
5	Economic Policy Reforms and the Indian Economy	by Anne O. Krueger	University of Chicago Press	
6	Indian Economy since Independence	Uma Kapila	Academic Foundation	Latest edition

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6219	**Industrial Economics & Financing**	1.5	0	0.5	2

1. Introduction

The primary objective of this course is to develop an understanding on various aspects of industrial organization and its mode of financing. It starts by examining the internal structure of firms. It then moves on to the analysis of various aspects of strategic interaction between firms and the determinants of industrial structure. Finally, it discusses the various sources of industrial financing and lays out policy in the context of industrial policies and regulation. The emphasis will be throughout on understanding how the theoretical tools can be used to analyse real world issues. The theory will be confronted against empirical evidence, and its implications for public policy and industrial strategy will be discussed. It deals with the application of those concepts in the process of

business decision making in the broad macroeconomic environment. In order to make the course application oriented solution of various real life cases are included in the pedagogy.

2. Intended learning outcomes

- To enable the student to understand the structure of Industrial organisation and evaluate the IPR of a state.
- Understanding and analysing the determinants of the size and structure of firms and its implications
- To enable the students in acquiring managing and governance skills, enriching their understanding of the institutional framework of business, and improve their analytical ability.
- Apply analytical models of firm behaviour and strategic interaction to evaluate various business practices
- Acquaint students with the legal dimensions and financing in industry.

3. Contents

Module-1 Framework of Industrial Organization & IPR

- Meaning, Nature, Scope, Need & Significance of the Study of Industrial Organisation.
- The growth of Firm & its determinants
- Concept and organization of a firm ownership control and objectives of the firm
- Conceptual framework & some empirical findings
- The behavioural theory of firm
- The Industrial policy and the business decisions firms make within the market framework.
- Case Insights- Measuring the determinants of firm growth in Manufacturing Industry

Module-2 National Industrial Classification

- Broad classification of Indian Industries and its basis of classification
- Significance of each cog in the wheel of developing India
- Variables in Multifactor Productivity Database – The Heckman model
- Concordance of Study Industries (minimal) with different NICs (National Industrial Classifications)
- Case Insights

Module-3 Industrial Locational Analysis - Network Effect & Measuring Productivity & Efficiency

- Determinants of Industrial location.
- Approaches to Industrial Location Analysis
- Theories of Industrial Location, Weber, Sargent Florence
- Industrial Imbalance, Causes and Measures.
- Technology, changing scales of production, network effects and formation of industrial clusters.
- Measuring Concentration Ratio- HHI Index, Entropy, Lerner, HOR, GIN Index
- Case Insights- Market Concentration in Indian Manufacturing Sector: Measurement Issues.
- Productivity & Profitability - Norms and Measurement
- Factors affecting Productivity and Capacity Utilization
- Measures required for Improving Productivity and Efficiency.
- Leontief I-O Matrix

Module-4- Industrial Financing- Institutions and Instruments

- Meaning, Scope, Importance of Industrial Finance
- Sources of Industrial Finance- Internal self-financing, Equity vs Debt (Working Capital Loan, Term Loan, Debentures), Hybrid Instruments, Lease Financing, Money Market, Commercial Papers, Trade Finance, ECGC, Foreign Capital
- Funding mix in Indian economy- Banking system debt (ECBs and bonds)
- Role of Commercial Banks and NBFCs
- Role of Foreign Direct Investment, Foreign Institutional Investment,
- Role of External Commercial Borrowings, FCCB, ADR , GDR
- Role of Financial Institutions – Insurance companies, Pension Funds, SIDBI, SFCs, etc.
- Masala & Maharaja Bond. Samurai Bond, Dim sum Bond
- Venture Capital, Angel Investing and Alternate Investment Fund(AIF)
- Projects Assigned-
- Measuring the Concentration Ratio of Indian Aviation Industry/Telecom Sector
- Market Concentration in Indian Media & Entertainment Industry: Measurement Issues.
- Measuring efficiency, effectiveness and overall performance in the banking sector
- Long-run factors of firm growth: A study of Indian Firms
- Project Report on Raising Equity capital through ADR & GDR

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Industrial Economics	RR Barthwal	New Age Publication	3rd edition
Reference Books				
1	Industrial Economics: Economic Analysis & Public Policy	Stephen Martin	Wiley & Sons	2nd Edition
2	Industrial Economics	D.Aay & D.J Morris,	Oxford University Press	10th edition

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6401	**Sustainable Development**	1.5	0	0.5	2

1. Introduction

The aim of the course is to give an understanding of the key challenges and pathways to Sustainable Development (SD) – economic development that is also socially inclusive and environmentally sustainable. The challenge of SD boils down to the fundamental question: how the world economy can continue to develop in a way that that meets the needs of the present without compromising the ability of future generations to meet their own needs. The course describes the complex interactions between the world economy and the Earth's physical environment. Ecological processes and constraints (climate, disease ecology, physical resources such as soils and energy sources, topography and transport conditions) significantly shape the patterns of economic development, demography, and wealth and poverty. At the same time, human activities (farming, land use, urbanization, demographic change, and energy use) change the physical environments, increasingly in dangerous ways. The course offers a broad overview of the key challenges and potential solutions to achieve sustainable development in the 21st century.

2. Intended Learning Outcomes:

- Understand the basic concept of Sustainable Development (SD), the environmental, social and economic dimensions.
- Know the history of the SD idea.
- Be able to discuss the conflicts which are involved in the SD concept on the national as well as on the global scale.
- Be familiar with potential strategic options for SD
- Understand the SD challenge for companies, their responsibility and their potentials for action.

3. Course Content

- **Introduction to Sustainable Development and its history:** The challenges we face -- a case for sustainable development. How did we get here? A historical perspective on development and its outcomes. SD for business and management; responsibilities of government and business. Sustainable business strategies.
- **Economic development in a historical perspective:** How do we measure economic development and how it varies around the world? Define the dimensions of inequality and measures of well-being. A short history of economic development from industrial revolution to globalization with a focus on technology and its diffusion around the world.
- **Basic Concepts, Strategies and Measurement:** Develop different dimensions of SD goals, targets and measurement metrics, as well as different strategies forming part of government policy to meet SD goals.
- **Innovation and Green Growth:** Limitations of the GDP growth as a leading parameter of development. What is Green Growth and how it has brought focus on environmental issues? How has the change in development perspective impacted the greening of technology and innovation
- **Poverty and Inequality**: Why did some countries advanced while others remained in poverty? The role of physical geography: transport, energy, disease, crops; the role of culture: demography, education, gender; the role of politics. Which countries are still stuck in poverty? The Millennium Development Goals (MDGs) and the end of extreme poverty.
- **Governance, Education and Health:** The ethics of wealth, poverty, and inequality. Human Rights and divided societies. Gender inequality and solutions. A life-cycle approach to human development. The rising returns to education and the supply response. Social mobility and the role of higher education in sustainable development. The human right to health. Poverty and disease; designing and financing a primary health system in Low-Income Countries.
- **Sustainable Cities and Curbing Climate Change:** What makes a city sustainable? Smart infrastructure, urban resilience and planning for sustainable cities. The basic science of climate change. The consequences of climate change and its mitigation. Policies and global cooperation for climate change
- **Biodiversity:** What is biodiversity? Threats to biodiversity -- Oceans and fisheries; deforestation. International dynamics
- **Company Perspectives:** The role of the corporate sector in advancing sustainable development. Corporate Social Responsibility as a tool for change. Voluntary policies to support green goals -- renewable energy, recycled papers, work from home, etc.
- **Government Policy in India to Meet SD Goals:** SD defined in the Indian context and the policy constraints given the country's developmental goals. Indian position at Rio and on environmental commitments; and role of Niti Ayog to develop and monitor programmes to meet SD Goals. Mapping of government programmes to each SD goal and targets for 2030.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
No textbook is prescribed. Course handout will be given by the instructor.				
Reference Books				
1	The Age of Sustainable Development	Jeffrey Sachs	Columbia University Press	2015
2	Our Common Future	Report of The World Commission on	Oxford University Press	1987

		Environment and Development		
3	Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty,	Esther Duflo & Abhijit Banerjee	Penguin	2011
4	Towards Green Growth	OECD	Oecd.org (download available online)	2011

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6402	Macroeconomic and Financial Challenges: Covid 19 and beyond	1.5	0	0.5	2

1. Introduction

The entire world is now in the clutches of the uninvited guest that have taken shelters into our homes and hearth. While COVID-19 is having a devastating impact on the global economy it's quite but pertinent to include it as a part of a course in major B-Schools. An insightful and up-to-date course that addresses the challenges presented by current economic and financial markets events against the backdrop of COVID-19 and beyond.

The deadly virus has not only infected millions across the globe but has also been responsible for tens of thousands in fatalities. In its wake, the virus has had a devastating impact on the global economy due to government mandated lockdowns and disruptions in global trade. This course is designed to explore the intricacies of the inter-locked systems of production, consumption, trade and finance, and how such systems can quickly unravel due to an external shock, the Covid 19 pandemic in particular. This course will offer a mix of lectures and student-led discussions involving KSOM faculty and industry experts and expert external speakers. A key feature of this course is the focus on current events.

2. Intended Learning Outcome

- Cultivate a good grasp over the up-to-date economic theories that interpret current events
- Understand the role of the US dollar in the current international monetary system and how it affects vulnerabilities in emerging market economies.
- Understand how the current COVID-19 crisis is affecting the conduct of monetary and fiscal policies and its geopolitical implications.
- Achieve an understanding and analysis of the economic linkages between current macroeconomic events.
- Analysing the economic and financial implications of the current pandemic situation in India and its fragility.
- Gain a greater understanding of China's role in the global economy and its impact of its policies on ROW.

3. Course Content

- **Module-1-** The Pandemic Covid -19 – Meaning, Nature and Beyond
  o The current COVID-19 crisis and its differences with the Global Financial Crisis of 2008-2009.

- o The macroeconomic and geopolitical implications of the Covid-19-induced recession along with the potential risk of deflation or stagflation.
- o The impact of Covid-19 on the ongoing balkanisation of global supply chains
- o The ongoing technological disputes between US and China, with repercussions for cyber risk and strategy
- **Module-2- Paradox of Pandemic**
  - o Policy responses to the macroeconomic and financial fallout
  - o Cost-benefit analysis of fiscal, monetary and quasi-fiscal responses
  - o Long-run implications: public debt, central bank independence, inflation, recession
  - o Macroeconomic impact on various sectors viz. Primary, Secondary & Tertiary
  - o Measures undertaken for Flattening the Curve
  - o Emerging market vulnerabilities in the Covid-19 environment, the problem of dollar-funding and the global role of the Fed.
  - o Are advanced economies trapped in world of low growth and low interest rates?
- **Module-3- Financial Implications of the Pandemic**
  - o Effect of pandemic on financial performance of Firms
  - o Strain on supply chain financing to small business
  - o Stock market spill over effect on investments into unlisted entities
  - o Impact on liquidity and capital structure of business conglomerate
  - o Banks and NBFCs responses to the financial fallout
  - o Transformations in banking operations and emergence of Fin-techs
- **Module-4- Behavioural dimensions of investment of this Pandemic and its implications on market**
  - o Behavioural aspects of investing in this Pandemic situation
  - o Investor Behaviour, Market Outcome, BB & K Five way model, Value Investing.
  - o External factors and investor behaviour: Fear & Greed in financial market, emotions and financial markets: geomagnetic storm, statistical methodology for capturing the effects of external influence onto stock market returns.
  - o Incorporating Behavioural Finance in practice.
- **Module 5- Global Issues& Future Ahead**
  - o Spill overs via Supply Chains, Multinationals, Markets, Central Banks - Emerging markets vs Developed economy policy trade-offs,
  - o Role of IMF and World Bank
  - o Planning for Future - Pandemic and Climate Stress Tests - Investing in Robustness against Low-Risk, High-Cost shocks - Implications for Resilience in Health, Business, Economy, and Policy.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
No textbook is prescribed. Course handout will be given by the instructor.				
Reference Books				
Various reports from McKinsey, Boston Consulting Group, Harvard Business Review, Deloitte, etc.				

Area: Marketing Management

Sl. No.	Course Code	Subject	L	T	P	Credit
Core Courses						
1	BM5301	Marketing Management – I	2	0	0	2

2	BM5302	Marketing Management – II	2	**0**	**0**	**2**
Elective Courses						
1	BM6301	Consumer Behavior	1.5	**0**	**0.5**	**2**
2	BM6302	Product and Brand Management	1.5	0	0.5	**2**
3	BM6303	Services Marketing	1.5	0	0.5	**2**
4	BM6305	Retail Management	1.5	0	0.5	**2**
5	BM6306	B2B Marketing	1.5	0	0.5	**2**
6	BM6307	Real Estate Marketing	1.5	0	0.5	**2**
7	BM6308	Customer Relationship Management	1.5	0	0.5	**2**
8	BM6309	Integrated Marketing Communication	1.5	0	0.5	**2**
9	BM6310	Hospitality & Tourism Marketing	1.5	0	0.5	**2**
10	BM6311	Marketing Research	1.5	0	0.5	**2**
11	BM6312	Digital and Social Media Marketing	1.5	0	0.5	**2**
12	BM6313	Agency & Media Management	1.5	0	0.5	**2**
13	BM6314	Pricing Management *	1.5	0	0.5	**2**
14	BM6304	Sales & Distribution Management	1.5	0	0.5	**2**
15	BM6315	Digital Marketing Analytics	1.5	0	0.5	**2**

* Offered in both Marketing & Finance Area

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM5301	Marketing Management – I	2	**0**	**0**	**2**

1. Introduction

Marketing is one of the fundamental functions of any firm. Business environment is always in a state of dynamism. This necessitates changes in marketing strategies adopted by firms that have to be aligned along the changing contours of market. Marketing decisions involve both strategic and tactical level activities of developing products and services with an emphasis on creating customer value and building customer relationships. The course develops concepts and skills necessary for

taking marketing decision-making and illustrates how various decision-making tools and strategic frameworks apply to actual business scenarios. The goal of this course is to develop a disciplined process for addressing marketing issues and problems in a variety of settings, and to give students the tools and background necessary to think through marketing problems. The aim of the course is to develop these skills in a deep-rooted manner so that students retain the marketing skills learnt through the course.

2. Intended learning outcomes

1. Define markets and its types
2. Understand the concepts of marketing and their evolution
3. Relate the strategic frameworks developed to marketing function
4. Understand the macro and micro factors of marketing environment
5. Explain the marketing process
6. Develop a marketing plan
7. Understand the consumer buying behaviour and the theories underlying the behaviours
8. Relate buying behaviour with respect to organizational buyer
9. Understand the customer relationship management
10. Understand the marketing research objectives and techniques
11. Understand the fundamentals of Segmentation, Targeting & Positioning
12. Understand the concept of Customer Relationship Management, Customer Lifetime Value

3. Course content

- **Module 1: Core concepts of Marketing:** Objectives and Definitions of marketing, Fundamental Marketing concepts: Needs and Wants and Demands, Orientations to the market – Concepts, Marketing Myopia, and Differentiating between the three with illustrations.
- **Module 2: Understanding the Strategic Planning Models:** Strategic Planning Models-Business Unit Planning, Value Chain Analysis, Decision making through: SWOT Analysis, Porter's Generic Strategies and 5 forces, BCG Matrix, and Ansoff's grid.
- **Module 3: Marketing Environment:** Importance of environment scanning, Understanding Macro Environment variables/components, Understanding Micro Environment variables/components, and Differences between macro & micro variables
- **Module 4: Consumer Buying Behaviour:** Define Consumer & its types, Buyer Roles, Theories of Consumer decision making (Buying Situation), Factors influencing Consumer Behaviour, Consumer buying processes & its stages, Behaviour Key Psychological Processes, Consumerism
- **Module 5: Organizational Buying Behaviour:** B2B- Business Market vs. Consumer Market, Stages in Buying Process, B2B Customer Relationship Management,
- **Module 6: Developing a Marketing Plan:** Marketing as a process, Marketing Plan components, and evaluation and understanding
- **Module 7**: **Marketing Research:** Marketing Research, Types of MR, Quantitative and qualitative, The MR process, Demand estimation, sales forecasting, forecasting methods,
- **Module 8:** **Segmentation, Targeting, Positioning:** Levels of Segmentation, Basis for Segmentation and methods, Segmentation Criteria and evaluation of Segments, Selection of Target Segment, Product differentiation, Differentiation strategies, Positioning stances, and positioning strategies

- **Module 9: Customer Relationship Management:** Customer Lifetime Value-The concept of Value delivery chain and supply chain, Differentiation between the two, Customer value and satisfaction, and Customer Lifetime Value.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Marketing Management – A South Asian Perspective	Kotler, Philip/ Keller, Kevin /Koshy, Abraham/Jha, M	Pearson	15th
Reference Books				
1	MKTG	Lamb, Hair, McDaniel	Cengage	Latest
2	Marketing Management	Ramaswamy, VS & Namkumari, S	Macmillan	Latest
3	Marketing	Paul Fill Baines, & Chris Page, Kelly	Oxford University Press	Latest
4	Marketing Management	Arun Kumar & N Meenakshi	Vikas	3rd Edition

Course Code	Name of the course	Credits			
		L	T	P	Total
BM5302	Marketing Management – II	2	0	0	2

1. Introduction

In this course, students develop a critical appreciation of the basic concepts and techniques of marketing management and strategy with an emphasis on creating customer value and building customer relationships. This course simply takes up from where Marketing Management - I ends. The course develops concepts and skills necessary for marketing decision-making and illustrates how various decision-making tools apply to actual business situations. This course focuses on how the major elements of the marketing mix - product policy, channels of distribution, communication, and pricing - fit within different analytical frameworks that are useful to managers. A detailed analysis of these elements shall be done in order to conduct a thorough strategic analysis of marketing opportunities and communicate marketing decisions. This will be followed by coverage of related concepts in services marketing, brand management and competitive strategies. The course will enable students to see "marketing in action" in the business world.

2. Intended learning outcomes

- Explain the role each element plays in creating value
- Compare different pricing models
- Evaluate the use of different channels of distribution by existing businesses

- Critique advertising execution
- Create a persuasive advertising piece
- Understand the concept of services marketing
- Explain concepts of Brand Strategy, Brand Equity and Brand Management
- Detail various competitive strategies
- Have a view of Holistic Marketing and ability to develop a comprehensive marketing plan

3. Course content

- **Module 1: Marketing Mix Variables:** Product Decisions- concept of a Product - Product mix decisions' New Product Development – Steps in Product Development. Price Decision: Pricing objectives, Different pricing methods, Product Mix pricing strategies, Price adjustment strategy. Channel Decision: Nature of Marketing Channels, Types of Channel flows, Functions of Distribution Channel, Channel co-operation, conflict and competition, and Channel members – Distributors, Wholesalers and Retailers. Promotion Decision: Promotion mix, Advertising objectives, Developing Advertising Program, Evaluating Advertisement effectiveness, Role of Media in Advertising, and Role of Sales Promotion
- **Module 2: Services Marketing:** Service Industries, Marketing Strategy for service firms, and 7Ps, Managing Service Quality, Product Support Services
- **Module 3: Brand Equity and Brand Management:** Building and measuring Brand Equity, Brand Management tools, and Brand collaborations
- **Module 4: Marketing in Different Contexts:** Competitive Marketing Strategy, Rural Marketing, International Marketing

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Marketing Management	Kotler, Philip & Keller, Kevin	Pearson Education	15th
Reference Books				
1	MKTG – A South Asian Perspective	Lamb, Hair, Sharma, McDaniel	Cengage Learning	1st

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6301	Consumer Behavior	1.5	0	0.5	2

1. Introduction

This course entails both theoretical and conceptual aspects of consumer behavior. This course focuses on studying the psychology of individual decision making and choice making strategies, pattern of behavior exhibited by aggregate groups of consumers and the sociological and cultural influence on the consumer behavior. The aim of this course is to develop an understanding of the core aspects of consumer psychology from economic and marketing perspective

2. Intended learning outcomes

- Remember the major marketing concepts related to consumer behaviour such attitude formation, personality motivation
- Understand and analyse the customer as an individual, attitude
- Apply the key theories of consumer behaviour to analyse a case/real world scenario
- Analyse the customer behaviour formation

3. Contents

Module One

- Introduction to Consumer Behavior- The marketing Concept, Technology and Consumers, Customer value, Satisfaction and retention, Consumer Decision Making
- Consumer Behavior and Personality- The Dynamics of motivation, System of needs, Personality development, Personality Traits, Anthropomorphism, Self-Perception
- Consumer Learning- The elements of consumer learning, Classical Conditioning, Instrumental conditioning, Observational Learning, Cognitive learning, Consumer Involvement and hemispheric lateralization, Outcomes and measures of consumer learning

Module Two

- Family and its Social Understanding- Family and Consumer socialization, Family decision making and member's role, Family life cycle
- Cultural Values and Consumer behaviour- Culture's role and dynamics, learning cultural values, Measuring cultural values, Core cultural values
- Consumer Attitude formation and Change- Attitude formation, The Tri Component attitude model, Attitude's additional function, Cognitive Dissonance and Conflict resolution, Causality and Attribution model

Module 3

- Consumer lifetime value model- The Elaboration Likelihood model, Muti-Attribute model, CLV model, and VALS. Theory of Reasoned Action and Theory of Planned Behaviour

Module 4

- Consumer behaviour analysis- Conjoint analysis, Discriminant analysis, SERVQUAL analysis, Consumer Differences and Product Preferences; Product Positioning
- Consumer Behavior Simulation-– Analysis of profitability

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
1	Consumer Behaviour	Leon, Joseph, Ramesh	(Pearson Publication)	12 e

5. Reference Books				
1	Consumer Behaviour	Dinesh Kumar	Oxford	4e
2	Consumer Behaviour	Leon and Leslie	Prentice	5e
3	Consumer Behaviour	Albert and David	Mc Graw	5e

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6302	Product and Brand Management	1.5	0	0.5	2

1. Introduction

The course develops concepts and skills necessary for understanding and serving the markets. This course aims to broaden the horizon of marketing emphasizing on a whole range of intricate and complicated activities starting from market research, new product or product category planning, R&D, product launching, sales strategies, integrated communication formats, distribution, pricing and overall strategizing. Shortening PLCs, increased power of suppliers, increased focus on customer retention programs and integration into the global space has made it imperative for the students specializing in marketing to understand the fundamentals of building, measuring, analyzing and managing brands and product categories for a company. The course reinforces learning through hands-on exposure to developing new products to conducting brand audit of existing brands gives the students an ample opportunity to hone their skills in product and brand management.

2. Intended learning outcomes

- Appreciate the importance of product brand management as a part of marketing function in a business organization.
- Relate the concept and various aspects of product management.
- Appreciate and relate practices with respect to new product development.
- Understand the evolution of branding as a concept and be able to internalize them through real time cases
- Carry out a brand audit for an existing brand in the market
- Understand the need to study brand architecture so the brand portfolio can be more robust.
- Relate to the latest trends and research carried out in the industry.

3. Course content

- Module 1: Product Management. Introduction to Product Management -An overview of Product Management: Brushing up the basics of Product Mix, Hierarchy, Types of product, Product organization, Product Manager vs Marketing Manager, Skills Required, Changes affecting Product Management, Role of a Product Manager, Product Strategies.
- Module 2: Marketing Planning. Elements of Marketing Plan, Needs and Benefits, Elements, SWOT Analysis, Objectives, Segmentation, Targeting and Positioning
- Module 3: Competitor Analysis. Competition and Competitor Analysis - Defining Competitive Set, Bases of Competition, Levels, Methods for Determining Competitors, Product Deletion, Need for Competitor Analysis, Value Chain, Segmentation Variables for Consumer Markets, Cluster Analysis

- Module 4: Category Attractiveness. Category Attractiveness - Aggregate Category Factors, Marketing Variables, Category Attractiveness over PLC, Category Factors, Category Rivalry
- Module 4: Category Attractiveness. Developing Product Strategy - Elements of a product strategy, Strategic Alternatives, Customer target selection, Value Proposition, Differentiation Strategies, Managing PLC. New Product Development - Need, Categories, Product Modification, Line Extensions, Success Factors, Stages of NPD, Really New Products, Impact of Product Redesign
- Module 5: Brand Management. Introduction to branding, concepts in brand building process, Strategic Planning for creating a brand vision, strategic fit and use of brand knowledge pyramid, concept of brand identity & brand image
- Module 6: Brand Evolution. Selection of branding strategy, Brand evolution grid & trajectory, concept of brand architecture and its implication on branding strategy.
- Module 7: Managing Brands over time. Brand strategies, Managing Brand Architecture, brands over time, brands in a borderless world.
- Module 8: Understanding and measuring brand equity. Concept of brand equity, Understanding Brand equity models like Aaker model, CBBE model, researching and measuring brand equity, Brand value and its measurement by various methods.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
1	Brand Management- Principles and Practices	Kirti Dutta	Oxford	1st
5. Reference Books				
1	Product Management	Donald R. Lehman & Russell S. Winer	Tata McGraw Hill	Latest
2	Product Management	Dr. C. Anandan	Tata McGraw Hill	Latest
3	New Product Management	Crawford and Benedetto	Tata McGraw Hill	Latest
4	Brand Management	Harsh V Verma	Excel Books	Latest
5	Strategic Brand Management	Kevin Lane Keller	Pearson Education	Latest
6	Strategic Brand Management	Jean Noel Kapferer,	Kogan Page India Pvt.	Latest
7	Managing Brand Equity by	David Aaker	Free Press	Latest
8	Behind Powerful Brands -From strategy to campaign	John Philip Jones	Tata McGraw Hill	Latest
9	Creating Powerful brands	Leslie de Cheratony & Malcolm McDonald	Elsevier	Latest
10	Brand Vision to Brand Evaluation: The strategic process of growing and strengthening brands	Leslie Cheratony	Elsevier	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6303	Services Marketing	1.5	0	0.5	2

1. Introduction

This course examines the importance and growing role of Services Marketing. The course will focus on current issues in services marketing and Customer Service strategies. This course focuses on effective customer relationship management, key service delivery elements, and service recovery strategies that lead to the successful implementation of a customer focus in service-based businesses.

2. Intended learning outcomes

- Explain the unique challenges of services marketing, including the elements of product, price, place, promotion, processes, physical evidence, and people
- Understand the profound impact of technology on service
- Explain service blueprinting, the integration of new technologies, and other key issues facing today's customer service providers and service managers
- Analyse and identify important trends in services
- Evaluate differences between goods and services and the resulting challenges and opportunities for service businesses
- Apply the expanded marketing mix for services and the philosophy of customer focus in real life situation
- Design service quality measurements to build customer loyalty and evaluate the effectiveness and efficiency of customer service offerings
- Create special services marketing practices to develop new market

3. Contents:

- Module I: What are Services, Why services marketing, Differences between goods and services, Classification of services, Services Sectors and Industry, Characteristics of Services, Identify important trends in services
- Module II: Service Marketing Mix and its elements, The Gap Model, Customer Expectations & Perceptions of Services, Listening customers through Research, Building customer relationship
- Module III: Recovery, Service Guarantees, Customer Defined Service Standards, Service Blueprint, Service Innovation and Design, Strategic role of Servicescape, Employees and Customers role in Service Delivery
- Module IV: Managing Demand and Capacity, Services Marketing Communications, Pricing strategies of Services corresponding to the value definitions

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				

1	Services Marketing: Integrating customer focus across the firm	Valarie A. Zeithaml, Mary Jo Bitner, Dwayne, D. Gremler and Ajay Pandit	McGraw Hill Education	7th
Reference Books				
1	Services Marketing: People, Technology, Strategy – A South Asian Perspective	Christopher Lovelock, Jochen Wirtz, Jayanta Chatterjee	Pearson	8th
2	Services Marketing: Text & Cases	Rajendra Nargundkar	Tata McGraw-Hill	3rd
3	Services Marketing	John E. G. Bateson and K. Douglas Hoffman	Cengage Learning	4th

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6305	Retail Management	1.5	0	0.5	2

1. Introduction

This course enables the students to understand the retailing process, the environment within which it operates and the various retail institutions along with their functions. Make students aware of the retail marketing strategies and the financial performance of retail business. The course would provide knowledge and inculcate analytical skills required for retail management and build strong foundation for students who plan to make their career in field of retailing factoring in current globalization/internationalization trends.

2. Intended learning outcomes

- Understand and analyze retail marketing for creating value with product and price strategy.
- Develop aptitude to create and craft the retail brand positioning/ equity by evaluating retail brands and identifying retail market segments and targets. Exercise efficiently choosing, creating and communicating customer worth in retail markets and converting that worth into returns growth and profitability.
- Understand how different retail formats compete for share of retail wallet and why certain retail concepts perform better than others across different retail segments. Make cognisant choices of models of examination and other theoretical tools intended for the challenges that companies in retail marketing face.
- Learn about retail operations and why it is so difficult to implement a winning retail strategy. Develop a mechanized retail marketing plan for business that mainly targets retail customers.
- Develop ideas about how consumers look at retailers and how they value different companies.
- Learn to create and develop retail marketing strategies and plans for conducting retail marketing responsibly for long-term success.

3. Contents

- Module 1: Retailing in India. Introduction, Market Size, Investment Scenario, Government Initiatives, What Does the Retailing Industry Include? The Importance of Retailing, Retail Strategy and Structure, Margin Turnover Model, Store Strategy Mix, Non-Store Retailing, Retailing Decisions, Emerging Trends in Retailing.
- Module 2: Retail formats & theories. Introduction, Classification of Retail Formats, Form of Ownership, The Wheel of Retailing, Traditional Retail Formats, Modern Retail Formats, Types of Chain Stores in the Indian Context.
- Module 3: Retail Strategy. Introduction, What are the Key Growth Imperatives and Enablers, The Need for Strategy Formulation, Organizational Objectives Driven by Planning, Strategic Options Available to Retailers for Exploring Opportunities, The Indian Context of Retailing, Significance of Category Management as a Strategy Tool, Role of Promotional Mix in Retail Strategy, Services Retailing: A Growth Area.
- Module 4: Understanding Retail Consumers. Introduction, Retail Activities, Consumer Behavior, Patterns, Factors Affecting Consumer Decision Making Process, Stages of Consumer Decision Process, Types of Consumer Decision Making Process, Influence of Situational Variables on Shopping Behavior, Consumer Images of Retail Stores, A Sample of a Customer Profile and Analysis.
- Module 5: Location, Store Design & Layout. Introduction, Importance of Locational Decisions in Retailing, Aspects of Locational Decisions and Influencing Factors, Nature of Retail Locations, Nature of Consumer Goods and Location Decision Area, Techniques for Locational Assessment and Retail Locational Theories.
- Module 6: Retail Merchandising, Merchandising Buying & Control. Introduction, Merchandising, Cross Merchandising, Objectives of Merchandising, Merchandise Planning, Category, Category Captains, Private vs. National Brands, Quality as a Parameter of Merchandising, Merchandise Mix, Factors Affecting Merchandise Mix Decisions, Merchandise Logistics, Supply Chain Management, Planogram.
- Module 7: Retail Atmospherics. Introduction, Importance of Atmospherics Planning, Key Components of Retail Atmospherics, Visual Merchandising in India, Store Space Management, Retail Performance Measures, Atmospherics in Context with Internet Retailing.
- Module 8: Retail Pricing & Merchandise. Introduction, External Influences on Retail Pricing Strategy, Retail Pricing Objectives, Retail Pricing Approaches, Retail Pricing Strategies, Tactics for Fine Tuning the Base Price, Setting Retail Prices, Methods for Setting Retail Prices, Role of Price Elasticity and Sensitivity- Consumer Responsiveness to Prices.
- Module 9: Retail Operations, Measuring Retail Performance. Introduction, The Merchandise Decision Matrix, Merchandise Management in Organised Retail Category Management, Merchandise, Planning - The Key in Category Management, Measuring Profitability in Retail Operations, Monitoring Performance in Retail Operations, Maintaining Uniformity Across Retail Outlets.

- Module 10: Technology in Retailing. Introduction, Need for Technology, Application of Technology in Various Areas of Retailing, Factors Influencing Selection of Technology, Latest Trends of Technology in Retailing, Precautions While Handling to Technology in Retail, Electronic Article Surveillance (EAS), American Business Systems (ABS).
- Module 11: Retail Marketing & Communication. Introduction, Reasons Governing the Change in Customer Attitude, Retail Marketing Communication, Basic Tasks of Communication, Integrated Marketing Communication: The Concept, Steps for Designing and Effective IMC

Strategy, Positioning of a Retail Store, Store Atmosphere and Visual Merchandising, Retail Promotions, Promotional Objectives, Types of Sales Promotions, Role of Salespeople and Sales Promotion.

- Module 12: Service in Retail Sector. Image and presentation, Promotion and services, Contact and communication with customers, Service delivery, Monitoring and improving services, Resolving Customer problems, Customer relationship management, The Evolution of Customer Relationship Marketing, Strategies of Customer Relationship Marketing in Retailing Industry, Customer Relationship Marketing (CRM) in Organised Vs. Unorganised Retail Sector, Establishing Loyalty Programmes.
- Module 13: Omni channel and Customer Experience. Traditional Customer Life Cycle, Digital Customer Life Cycle, The future of Customer Experience, Omni channel feat marketing technology. Experiential retailing, Retailtainment
- Module 14: Green Retailing. Curbing Waste, Reducing packaging, Better use of energy, Fewer distribution trips, Reducing Product Miles by sourcing more products locally, The green paradox, Balancing the needs of shareholders, consumers and environment.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Retail Management	Chetan Bajaj, RajnishTuli and Nidhi Varma Srivastava	Oxford Publication	3rd
Reference Books				
1	Retailing Management	Swapna Pradhan	McGraw Hill	2nd
2	Retail Management: A Strategic Approach	– Barry Berman & Joel R. Evans	Pearson	9th
3	Introduction to Retailing	Robert F. Lusch , Patrick M. Dunne & James R. Carver	Cengage Learning	8th
4	Retail Management: Functional Principles and Practices	Gibson G. Vedamani	Pearson	5th
5	Retail Management	Sudarshan Seshanna & Raghu Prasad	MC Graw Hill	1st
6	Fundamentals of Retailing	KVS Madan	MC Graw Hill	1st
7	Retail Buying Techniques	Fiona Elliott & Janet Rider	Jaico Books	1st
8	Managing Retail	Piyush Kumar Sinha &Dwarika Prasad Uniyal	Oxford Publication	2nd
9	Retailing Management	Levy, Michael / Weitz, Barton.	McGrawHill/Irwin	6th

Course Code	Name of the course	Credits			
		L	T	P	Total

BM6306	B2B Marketing	1.5	0	0.5	2

1. Introduction

This course is designed primarily for students seeking a Sales and Marketing career in organizations that market products and services to other organizations. The course should be of special importance to individuals who wants to start their own business in B2B domain as case studies and lecturers focus on B2B marketing skills including: organizational buying and selling models; launching B2B products and services; pricing a product line; sales management and support; managing distribution partners; and social media for B2B promotion. The course is also appropriate for those students seeking careers in consulting, start-ups, and in other functional areas. The course emphasizes the tactical aspects of business marketing as well as the conceptual and strategic elements. This course explores the challenges in the marketplace by delving into unique problems confronting Business to-Business Markets today across a broad spectrum of organizations ranging from the traditional industries to high-tech enterprises. It has been specially customized to meet the specific requirements of future managers by raising intriguing questions, debating options and possible alternatives based on the challenges faced on a daily basis.

2. Intended learning outcomes

- Learn best practice frameworks and tools to succeed in rapidly evolving, complex B2B markets.
- Sharpen critical analysis, problem-solving, and communication skills necessary to lead effective B2B marketing strategy design and execution.
- Practice effectively choosing, creating and communicating customer value in B2B markets and converting that value into revenue growth and profitability.
- Make conscious choices of models of analysis and other theoretical tools designed for the challenges that companies in B2B markets face.
- Develop a business marketing plan for a real local company that mainly targets business customers.
- Make presentations in front of an audience (both verbal and non-verbal skills in presentation).

3. Contents

- Module 1: Exploring Business Markets and Business Marketing. Introduction to B2B Marketing and Organizational Buying Behaviour
- Module 2: Creating Value for Business Customers. B2B Market Segmentation and Estimation, New Product Development in B2B context and Managing Services in B2B context
- Module 3: Managing B2B Channels and Supply Chain. Managing Value Delivery Networks, Supply Chain Management and Value Network, Strategic Alliances
- Module 4: Building Strong Pricing, Advertising, and Sales Strategies. Pricing Strategies in B2B Marketing, Advertising and Sales Promotion, Managing the Personal Selling Function
- Module 5: Designing Profitable Customer Relationships. CRM Strategies in B2B Marketing and Strategic account management: customer value creation through customer alignment
- Module 6: B2B Marketing Strategy and Product & Brand Management. Strategic Positioning, CBBE Pyramid, Technology Adoption Life Cycle
- Module 7: Marketing Performance Measurement. Level of Marketing Control and Strategy Map and Balance Scorecard.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	B2B Marketing – A South Asian Perspective	Michael D.Hutt, Thomas W. Speh & Dheeraj Sharma	Cengage	11th
Reference Books				
1	Business Market Management	Anderson and Narus	Prentice Hall	Latest
2	Business-to-Business Marketing	Brennan, Canning, McDowell	Sage	Latest
3	Industrial Marketing Text and Cases	Krishna K. Havaldar	McGraw-Hill	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6307	Real Estate Marketing	1.5	0	0.5	2

1. Introduction

The aim and objective of Real Estate Management (REM) course is to inculcate, infuse and build in the students an understanding on real estate business and new business potentials. It shall make the candidates understand the needs, concepts, principles and practices of Real Estate Marketing. Issues of new economy and emerging market forces yielding to profitable business on homing, and infrastructure. Emphasis shall be on real estate management related exercises, articles, case studies, simulation games, role plays , reviews , current article analysis , field visit, individual and group assignments/ projects. They shall foster a holistic idea in the candidate and make him designed to orient accordingly.

2. Intended learning outcomes

- Become a full proof manager in reality business.
- Operate online or offline for housing, infrastructure and allied business.
- Understand the significance of business and management.
- Shall implement innovative ideas of business for the new markets in new economy.
- Know the elements of the domain which plays in creating value and business, including financial products.
- Shall ascertain different facets of business models in Public Private Partnership
- Evaluate the usage of channels of distribution and cross functionality
- Ensure the e-advertising options in the reality sector
- Understand the scope and concept of consumer behaviour and services marketing
- Develop on the ideas of brand management and competitive strategies
- Understand on the holistic aspects of marketing for comprehensive approach to business plans for start ups.

3. Course Contents

- Module-1: Real Estate Marketing and Business. Introduction and Overview of REM, Why Real Estate? Introduction to Real Estate Marketing. What is real estate? Concept, origin, merging business, global scenario. The Principle and practice of real estate markets. Genesis of privatization and housing privatization. Scenario of real estate. Housing policies in a comparative study. Theory and practice of privatisation worldwide. Philosophy of privatization and governance unfolding market forces. Types of privatisation, housing privatization, global phenomenon. Housing programs and paradigms globally. Privatization approach and housing Market. Conflicting issues during transition. Importance of land use. Growth and development.

- Module 2 Strategic Marketing Through PPP and Smart Cities. Smart cities, Housing programs and paradigms- Privatization and approach, Market in the scales, Conflicting issues and during transition, and Land use. Housing paradigms and project management- Development of Institutions, Capacity building, management of natural resource and sustainable development, and PPP in Infrastructure, human settlement, UN Role. Urban design in development- Urban design and development, Builders market potential, Urban layouts, development, and planning for business, Urban Land use planning, Municipality, Tahasils, Stakeholders, Environment and sustainable development, and Global strategy for shelter.

- Module 3 Laws and Regulations: Governance and Markets. Marketing, advertisement and salesmanship in housing. BB Pay Master committee, Co-operative housing, first legislation, Marketing issues and advertising, Business Ethics in real estate marketing. Developer housing regulations. Business ethics in real estate, P.G. Kher Committee in Maharashtra, PPP legislation in 1975. IT Usage in real estate market and property business. Population boom, Urban policy planning, community participation, Markets in buildings, population migration, GIS,GPS and networking.

- Module 4 Business Development and Evolving Reality Business. Governance and business development. Confrontations and Compromises. E-governance, New business, Product innovation, R and R Policy. Housing Business, New Business, and Integrated Marketing communication. Business Communication in real estate, sales promotion, Direct selling, BDA. Lagal aspects of real estate market. Legalisation of business, Phases in development of laws, laws governing business. Finance Market Promotion, Potential of private housing developers, finance markets. Marketing and Financial aspects of Realty, Golden Coffer and Society, Age old business.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Real Estate Market	Biswajit Das and Asish Kumar Pani	Excel Books	1st Edition
Reference Books				
1	Marketing for Hospitality and Tourism	*Philip* T. *Kotler*, John T. Bowen, James Makens Ph.D., Seyhmus Baloglu	Pearson	7th
2	Marketing Management	Phillip Kotler and Kevin Lane Keller	Pearson	14th edition

3	Privatization of Public Enterprises in India	J. Prakash	Himalaya Publishing House	1st
4	MKTG – A South Asian Perspective	Lamb, Hair, Sharma, McDaniel	Cengage Learning	
5	The Real Book of Real Estate	Robert Kiyosaki	Mass Market Paper Back	

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6308	Customer Relationship Management	1.5	0	0.5	2

1. Introduction

The goal of any service organization is to create value for customers. In order to survive in the long run companies must retain and attract profitable customers. In order to estimate the life time value of a customer or customer group manager need a deeper understanding of the fundamental principles of the service economy. Service culture/quality, customer satisfaction, corporate image, job satisfaction and relationship-building are critical success factors.

2. Intended Learning Outcomes

- Understand the use of electronic commerce technologies for the effective management of relationships with individual customers
- Ensure product and service delivery on the web
- Communicate using the web infrastructure
- Analyze the consumer data to take decisions
- Understand the personalized exchange of information with customers and new models of managing customer relationships both internal and external

3. Course Content

- Module 1: Introduction to Customer Relationship Management. Customer Relationship Management, Types of CRM used across industry, Relationship Marketing and the Concept of Customer Value, Role of Relationship Marketing and its various function
- Module 2: Strategic CRM. Strategic CRM strategies and implementation, Deployment and Execution Challenges, Customer Analytics, Data Mining tools and their application, Using Databases, Software Tools and Dashboards, Loyalty Programs: Design and Effectiveness, Loyalty Programs: Design and Effectiveness
- Module 3: Campaign Management, Impact of CRM on Marketing Channels, Customer Relationship Management Issues in the Business-To-Business Context, Customer Privacy Concerns and Privacy Protective Responses
- Module 4: Applications of CRM in B2B and B2C Scenarios, Future of CRM.

4. Text and reference books

Sl.	Title	Author(s)	Publisher	Edition

No.				
Text Book				
1	Customer Relationship Management	Kumar, V. Werner, Reinartz	Springer	Latest
Reference Books				
1	CRM at the Speed of Light	Greenberg, Paul	McGraw Hill	4th

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6309	Integrated Marketing Communication	1.5	0	0.5	2

1. Introduction

The aim of the subject is to introduce, foster and infuse an understanding on advertising, IMC and ignite interest in the participants, for hands-on experience. This subject shall help acquire knowledge in the principles and practices of marketing communication. To think and act strategically, plan and design IMC projects in sync with business and creativity. The session shall educate on the new knowledge of agile professionals. This subject shall consist of lectures, case study analysis, discussions, classroom interactions, exercises, articles, role plays and games, reviews, guest lecture, individuals and group assignments.

2. Intended Learning Outcomes

- Shall become a candidate full proof manager with knowledge on advertising and Integrated Marketing Communication.
- Shall understand the significance of advertising and management communication.
- Explain the infused innovative understanding with better knowledge
- Skilled with hands on understanding of the state of the art advertisement.
- Explain the element that constitute IMC and create value.
- Understand the significance of 4 P's with special reference to Marketing Mix.
- Able to evaluate on the application of different tools and techniques in advertising in the existing businesses
- Understand the critique nuances of advertising implementation for positioning
- Create a persuasive advertising appeal through detail understanding of the essence of marketing communication
- Inculcate ideas on the concept of IMC Strategy and planning and Brand positioning.
- Holistic ability to develop a comprehensive IMC planning as an advertiser.

3. Course Content

- Module -1   Marketing Promotion Mix. 1. Advertising and IMC rudiments Introduction, Marketing Communication, Concepts, definitions and cases etc. 2. Genesis of Marketing Promotion and advertising Marketing, Communication, Marketing Mix. 3. Advertising and IMC in Practice Integrated Marketing Communication, Concepts and practice, definitions for application. 4. Knowing IMC and advertising and Market Environment. IMC: Integral part of marketing: marketing strategy, marketing mix, Promotion, integrating IMC in marketing mix. 5.

Consumer behaviour and its application to IMC. Planning promotion, Culture, society, persona, psychology, decision making, Advertisement influencer

- Module -2   Consumer Behaviour and IMC Tools. 1. Consumer behaviour related to IMC. Planning promotional programme, Learn on socio-cultural-eco-environmental psychology and decision making. 2. Advertising and IMC , Communications Process. Communication process, consumer response hierarchy, message, consumer involvement, cognitive processing. 3. Advertising and IMC, Structure of Advertisement and Promotional World. Organisations that business Interacts, advertising agency, integrating advertising to business. 4. Advertising and IMC, IMC Tools for Advertising. Advertising strategy: advertising campaign, strategy statement and approach
- Module 3   Advertising Creative and Sales Promotion. 1. Advertising and IMC Tools. Finding the 'big idea': Getting creative, brainstorming for creative ideas, creative concepts. Creative execution: execution of big idea, creativity in ad idea, creative belief, celebrity support. A strategic advertising tool: Research process, common error in research. 2. Advertising and IMC (Other Promotion Tools). Sales Promotion and Direct marketing (Introduction, elements of direct marketing, marketing media, internet, direct marketing agencies, ethics). 3. Advertising and IMC , PR, Publicity and Corporate Advertising. Introduction to PR, types of PR, tools of PR, Managing PR, Publicity, Corporate Advertising.
- Module-4 Media Plan Development and Ethics. 1. Advertising and IMC , Media Planning and Strategy, Developing the Media Plan. Developing the Media Plan Introduction to media planning, developing media plan, Steps, Information required, Consumer media, audience measurement, evaluation of mass media types, media budgets. Print media, broadcast media, media planning and developing, Information required and steps, Consumer and audience measurement, mass media budgets. 2. Advertising and IMC , The Legal and Ethical Environments. Legislation of advertising, self-regulatory codes of conduct in advertising, legal and ethical concepts and issues. Regulation governing sales promotion, packaging, labelling, direct marketing, internet marketing.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
1	Advertising and Integrated Marketing Communications	Kruti Shah	McGraw-Hill Education, Chennai	6th Reprint, 2017
5. Reference Books				
1	Advertising and Promotion: An Integrated Marketing Communications Perspective	George E. Belch, Michael A. Belch and Keyoor Purani	Mcgraw Hill Education	9e 2017
2	Advertising Management	Rajeev Batra, John Myers and David A. Aaker,	Pearson, New Delhi	2016
3	Integrated Marketing Communication in Advertising and Promotion	Terence A. Shimp	Cengage Learning 8e 2017	2018
4	Advertising Management	Jaishri Jethwaney and Shruti Jain	Oxford Higher Education	2017

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6310	Hospitality & Tourism Marketing	1.5	0	0.5	2

1. Introduction

The course introduces the participants to the Hospitality and Tourism Marketing. It will brush up the basics of Marketing Management with the exclusive insight, examples, cases and application of the Hospitality and Tourism industry in particular and Service industry in general. In this course due emphasizes on the practical aspects of the subject as well as the concepts is given. It draws extensively examples and short case studies of marketing in action. It equip the participants to analyse theory and applied case studies related to Hospitality and Tourism industry particularly in Indian context and the global context in general. The course shall prepare quality managers to take up responsibilities in a very broad area such as Hotels, Motels, Airlines, Cruise-lines, Travels agencies, Tour Operators, Travel BPO's, Consultancies, Customer Care and many other service industries such as Telecommunication, Healthcare, Entertainment etc.

2. Intended learning outcomes

- Understand and   appreciate the basic concepts and practices of modern Hospitality and Tourism Marketing
- Understand the relationships between the world's hospitality and travel industry
- Understand why the marketing concept calls for a customer orientation
- Apply these concepts Hospitality and Tourism Marketing to Hospitality and Tourism industry
- Identify marketing strategies for competitive advantage
- Analyse the relationships between customer value and satisfaction
- Demonstrate an understanding of the interrelated macro environment components influencing Hospitality and Tourism industry
- Students will be able to discuss prevailing world conditions associated with marketing of Hospitality and Tourism products and services at local, global, international, and intercultural levels
- Evaluate marketing and outline the steps in the marketing process
- Students will be able to analyse the different components of market segments in local, global, international, and intercultural environments of Hospitality and Tourism industry
- Apply the concept of the lifetime value of a customer and be able to relate it to customer loyalty and retention
- Students will create the target marketing strategy of a well-known Hospitality and Tourism firm.

3. Contents

- Module I: Understanding the hospitality and tourism marketing process: marketing for hospitality and tourism, service characteristics of hospitality and tourism marketing, hospitality and tourism marketing systems.
- Module II: Developing hospitality and tourism marketing opportunities and strategies: the marketing environment, managing customer information to gain customers insights, consumer markets and consumer buying behaviour, organizational buyer behaviour of group market,

customer driven marketing strategy, creating value for target customers, factors that influence customers' perceptions of hospitality and travel services.

- Module III: Developing the hospitality and tourism customer value-driven strategy and mix: designing and managing products and brands, building customer value, internal marketing, understanding and capturing customer value, marketing channels, engaging customers and communicating customer value, public relations and sales promotion, professional sales, direct, online, social media and mobile, major demand and supply influencing today's hospitality and travel industry, characteristics of personal selling in the hospitality and travel industry
- Module IV: Managing hospitality and tourism marketing: destination marketing, next year's marketing plan, building-block approach for setting a marketing budget and explain its benefits, process used to control the marketing plan.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Marketing for Hospitality & Tourism	Philip Kotler, John Bowen & James Makens	Pearson Education	7th
Reference Books				
1	Introduction to Tourism & Hospitality Industry	Sudhir Andrews	TMH	3rd
2	Marketing Essentials in Hospitality and Tourism	Stowe Shoemaker, Margaret Shaw	Pearson Education	3rd
3	Sales & Marketing – A Textbook for Hospitality Industry	Sudhir Andrews	TMH	2nd

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6311	Marketing Research	1.5	0	0.5	2

1. Introduction

The main objective of this course is to equip students with the key concepts and methods of marketing research, and allow student to understand how to apply those tools to solve real-life business problems. This course focuses equally on (i) technical competence and (ii) application to real-life problems. We cover the technical aspects of marketing research (both qualitative and quantitative research methods) through the lectures and individual homework assignments. We also discuss real life application using various mini-cases. The other important element of this course is a marketing research project (more details under the "Suggested Projects" section below) where students identify and solve a real business problem using marketing research methods.

2. Intended learning outcomes

- To be able to design and execute a Marketing research project.
- To translate a marketing problem into a feasible research question
- Conduct research, assimilate data in the desired format for analysis followed by the required analysis
- Making meaningful conclusions for effective decision making i.e. brand positioning, buying preference studies etc
- To use SPSS for Data Analysis
- To have a general understanding of univariate and basic bivariate data analysis techniques (i.e., should be able to decide when a technique is appropriate and understand the managerial implications of analytical results)
- Understand the basics of SPSS to do various kind of analysis namely, cluster, factor, conjoint, Discriminant, regression analysis.
- To Effectively communicate research in a written report and presentation
- Make presentations in front of an audience (both verbal and non-verbal skills in presentation)

3. Contents

- Module 1: The Marketing Research Process: An Overview- Research Design, Clarifying the Research Question through Secondary Data and Exploration
- Module 2: Qualitative Research- Focus Group Discussion, In Depth Interview techniques, Projective Techniques, Ethnography, New trends in Qualitative Research
- Module 3: Quantitative Research- Measurement Scales, Questionnaire Design, Sampling Concepts
- Module 4: Data Preparation and Description (with SPSS and MS Excel)- Exploring, Displaying, and Examining Data, Hypothesis Testing, Measures of Association and Difference and Regression Analysis
- Module 5: Multivariate Data Analysis (With SPSS)- Introduction to Multivariate Statistics, Factor Analysis, Multidimensional Scaling, Cluster Analysis, Conjoint Analysis (CA).
- Module 6: Report Preparation and Presentation- Structure of research report, Presentation of report

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Marketing Research: An Applied Orientation	Naresh K. Malhotra, Satyabhushan Dash	Pearson Education	Latest
Reference Books				
1	Marketing Research	Aaker, Kumar, Day & Leone	Willey	Latest
2	Essentials of Marketing Research	W Zikmund	Cengage	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total

BM6312	Digital and Social Media Marketing	1.5	0	0.5	2

1. Introduction

As the usage of internet is growing at an exponential rate, all businesses around the globe are moving their marketing efforts to online channels. Further, many of them are looking for people (especially MBA graduates) who have the understanding as well as a practical experience with digital marketing process. The course will help train candidates to address challenges faced by marketers in utilizing digital and social media to market their products, services, brands, events or organizations. Digital and Social Media are going to be the mainstay of marketing and advertising in times to come and our students need to be equipped with the right tools to be good marketing managers.

2. Intended learning outcomes

- Appreciate the role of Digital and Social Media in the larger media mix of a company
- Define Digital and Social Media Channels
- Create appropriate objectives for each channel in Digital and Social Media
- Understand the components of a Digital Plan
- Understand the components of a Social Media Plan
- Create a Digital and Social media plan
- Assign appropriate content marketing strategies for each media and channel
- Appreciate SEO and SEM
- Converse intelligently with an SEO and SEM provider with clear objectives and critical appreciation
- Appreciate the importance of Google Adwords
- Run an Adwords campaign with minimal professional support
- Run paid and unpaid Campaigns on Facebook, Twitter and LinkedIn with no or minimal professional support

3. Course content

- Introduction to digital and Social Media: Objective of the course, Course Overview, Defining Social Media, Defining Digital Media, Why Digital and Social Media? Evolution of the various Digital Media, The Social Media Story and evolution, Marketing through "new" media, Digital Marketing Strategy and Components,
- Web Development and Designing
- Introduction, Key terms and concepts, how it works, Planning and Designing
- SEO and SEM
- Basic Concepts, Illustrations, Differentiation, Techniques, Copywriting for SEO. Creating SEO content and designing a SEM based content hierarchy
- Email Marketing: Introduction, Key concepts, History, Techniques and illustrations – Students will do an in-class exercise of writing an email marketing a new technology product
- Online Advertisement: Introduction, Key terms and concepts, how it works, various forms and types, The future of online advertising, The good and the bad, The bigger picture
- Social Media Channels: Exploration and understanding of various social media channels, Identifying Social Media Channels for a campaign, Social Media Strategy, Social Media to solve

business challenges, Steps in creating a social media strategy and campaign. Use of different channels in different ways, Creation of Social Media Disruption

- Twitter: Key Concepts, Twitter presence and followers, how to have meaningful followers, Creation and sustenance of a twitter campaign, use and misuse of hashtags
- Facebook: Facebook pages for companies, Facebook as a page, Facebook ecosystem, Facebook advertisements, creating compelling content for Facebook sharing
- Web Analytics and Measurement: Web Analytics tools, how they work, how to interpret data from analytics, what to look for.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
No Text Book. Instructor handouts and online resources will be provided				
Reference Books				
1	eMarketing: The essential guide to digital marketing	Rob Stokes	Free E-Book	6th Edition
2	All Marketers are Liars Tell Stories	Seth Godin	Penguin / Portfolio	2012
3	Social Media Marketing	Tracy L. Tuten, Michael R. Solomon,	SAGE	2nd Edition
4	The Social Media Marketing Book	Dan Zarrella	O'Reilly	2017
5	Permission Marketing : Turning Strangers into Friends and Friends into Customers	Seth Godin	Penguin / Portfolio	2017

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6313	Agency & Media Management	1.5	0	0.5	2

1. Introduction

This course builds the necessary competence in managers to manage accounts in advertising or media agencies. This also builds a good appreciation of the agency side of the business if you are on the client side. This course is logically divided into two parts - (i) Agency Management, (ii) Media Management. In agency management, the students gets an appreciation of the major parts, functions and methods of an ad agency. In media management students get an appreciation of the media planning, buying and selling functions. As a by-product, students also learn client pitching and presentation. Account planning exists for the sole purpose of creating advertising that truly connects with consumers. The course advocates an approach to consumer research that is based on simplicity, common sense, and creativity giving key consumer insights, develops ongoing relationships with them. Students gain critical insights in various campaigns and get an opportunity to revamp the strategies. Media planning and buying is another important component of campaign development. In this course students get the opportunity to work on projects involving intense media planning

through use of media mix options, media scheduling and optimal usage of media budget. Use of proper media vehicles to deliver the communication to the intended target audience .

2. Intended learning outcomes

- After end of the course, the student would be able to:
- Understand process of ad campaign development and execution.
- Understand the role played by the agencies and functional departments involved in the process.
- Understand the client's part of the involvement.
- Get a holistic idea of how to manage the agency client relationship.
- Understand the key insights of the market and brainstorm the same during the campaign development.
- Gain key insights in creative aspects of the campaign along with the fundamentals of media planning and buying.
- Present the creative as well as media plan to the client.
- Prepare media plans through proper use of media budget, media vehicle and well spread out schedule of ad releases.

3. Course content

- Module 1: Introduction to AMM. Understanding Marketing Communication, Emerging complexities in marketing communication, Defining the communication objectives and its execution- Cognitive response model, Elaboration Likelihood Model. Implication of using FCB Grid in campaign development.
- Module 2: Agency Management. Introduction to the advertising industry, Structure and types of agencies, Specialized agencies, Functions of an advertising agency, Departments of an advertising agency, Agency Operations & Management- Client Agency Relationship, Pitch and its types, Factors affecting selection of ad agencies
- Module 3: Account Planning. Introduction to campaign development, creative briefing, creative development- big idea using market / consumer insights, account planning and development, reinforcement of creative inputs through brand revitalization, brand repositioning, rebranding techniques.
- Module 4: Media Management. Roles of the Media Buyer, Seller and Agencies, Media Basics, Media Strategy, Media Weights, Media Mix Decisions, Scheduling, Building a Plan, Evaluating Media Buys, The Buying Process, Budget Setting

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Media Planning and Buying	Arpita Menon	Tata McGraw - Hill Education	1st
Reference Books				
1	Advertising Media Planning, Seventh Edition	Roger Baron, Jack Z. Sissors	McGraw-Hill	Latest
2	Media Planning & Buying in the 21st Century Workbook	MR Ronald, D. Geskey Sr	Createspace	Latest

3	Advertising Media Planning, Seventh Edition	Roger Baron, Jack Z. Sissors	McGraw-Hill	Latest
4	Media Planning & Buying in the 21st Century Workbook	MR Ronald, D. Geskey Sr	Create space	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6314	Pricing Management *	1.5	0	0.5	2

1. Introduction

Pricing is one of the most important but least understood marketing decisions. Thus the necessity, a) to learn and practice concepts, techniques, and get to grips with the latest thinking on assessing and formulating pricing policies, and b) analyze how firms attempt to capture value, as well as profits, in the revenues they earn. How much should an organization charge for a new product? Can pricing performance be improved for existing products? Setting the right price for a product or service is not easy. Pricing decisions can have a significant and often immediate effect on an organization's bottom line, yet there is much confusion about how best to determine and execute a successful pricing policy. This course is designed to demystify the science behind purchase behaviour and provide participants with a logical and systematic approach to crafting an optimal price structure.

2. Intended learning outcomes

- Understand qualitative and quantitative techniques for formulation of pricing policies
- Apply pricing theories to create pricing policy for new offerings
- Analyse dynamic pricing in emerging contexts
- Evaluate prices of existing offerings

3. Contents

- Value cascade: Value creation & communication, price structure, pricing policy, pricing level & price competition
- Value creation: The Source of Pricing Advantage, The Role of Value in Pricing, Estimate Economic Value, Value-Based Market Segmentation.
- Value communication: Adapting the Message for Product Characteristics, Strategies for Conveying Value, Multiple Participants in the Buying Process
- Pricing structure: Offer Configurations, Price Metrics, Price Fences, Peak Pricing and Yield Management
- Pricing policy: Policies for: Different Buyer Types, Dealing with Power Buyers, Successfully Managing Price Increases, Leading an Industry-Wide Increase, Transitioning from Flexible to Policy-Based Pricing
- Price setting: Define the Viable Price Range, Make Strategic Choices, Assess Breakeven Sales Changes, Gauge Price Elasticity, Account for Psychological Factors
- Managing conflict in pricing: Understanding the Pricing Game, Competing to Grow Profitably, Reacting to Competition: Think Before You Act, Managing Competitive Information, Collect

and Evaluate, Competitive Information, Selectively Communicate Information, When Should You Compete on Price?

- Research techniques for pricing management: Types of Measurement Procedures, Experimentally Controlled Studies of Actual Purchases, Uncontrolled Studies of Preferences and Intentions

- Pricing and product life cycle: Pricing an Innovation, Price Reductions in Growth, Pricing the Established Product in Maturity

- Organizing for effective pricing management: Creating Alignment on Pricing Objectives, Matching the Extent of Pricing Centralization with Organizational Needs, Decision Rights Specify Pricing Roles and Responsibilities, Pricing Processes to Ensure Successful Strategy Implementation, Performance Measures and Incentives: Aligning Sales Incentives with Strategy

- Managing Export Prices in Foreign Currencies, Foreign Market Sales Strategy, Competitive Impact of Exchange Rate Shifts, Four Generic Strategies for Managing Exchange Rate Price Adjustments

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
1	The Strategy and Tactics of Pricing	Thomas T. Nagle & Georg Müller	Routledge	6th, 2018
5. Reference Books				
1	Pricing Strategies: A Marketing Approach	Robert M. Schindler	SAGE Publications, Inc	2012
2	Pricing for Profit: How to Develop a Powerful Pricing Strategy for Your Business	Peter Hill	Kogan Page Ltd, United Kingdom	2015
3	Smart Pricing: How Google, Priceline, and Leading Businesses Use Pricing Innovation for Profitability	Jagmohan Raju Z. Zhang	FT Press	2010

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6304	Sales & Distribution Management	1.5	0	0.5	2

1. **Introduction**

Sales and Distribution is a critical aspect for a firm engaged in marketing of goods and services. A marketer needs to ensure that the product/ service offered by the firm reaches the target customer base at the right time, at the right place with the right value. However availability of a product does not ensure sale and hence the marketer needs to employ the right sales strategy befitting the product, the market environment, firm context and personal selling skills.

2. Intended learning outcomes

- Understand all major steps of sales process, know how to apply them in real life situations and be ready to kick start their sales career (Understand)
- Develop the expertise of planning and implementing sales programs in corporate environment (Apply)
- Gain an understanding of sales personnel management and maintenance of relationship with channel partners (Understand)
- Appreciate and evaluate channel selection, design, implementation and effective monitoring with a cross industry perspective (Evaluate)
- Take up channel management activities at entry level in corporate houses (Create)

3. **Contents**

- **Introduction:** Importance of Sales Management and types of Personal Selling
- **Personal Selling:** Selling Styles, Selling Situations and Required Selling Skills, Various Stages of Selling Process
- **Channel Management.** Definition and interdependence of Marketing Strategy and Channel Strategy; Definition, Role & Function of Distribution Channels from Consumer Perspective, Channel Partners, Environment, Selling Strategy and Designing Distribution Channels; Choice of Channel, Channel Preferences and Formats, Cannel Length, Functions, Distribution of Services, Distribution of Perishables, Models - Cash & Carry, Hub & Spoke; Operational Decisions in Channel Management, Channel Partners – Roles and Responsibilities; Online Channels: Designing omni-channels and making use of online channels.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
There shall be no textbook but a course handbook on distribution management compiled by the instructor.				
Reference Books				
1	Sales and Distribution Management: An Indian Perspective	Pingali Venugopal	Sage	1st Edition
2	Marketing Channels	Dinesh Kumar	Oxford	1st Edition
3	Marketing Channels: A Management View	Bert Rosenbloom	Cengage Learning	8th Edition
4	Sales and Distribution Management	Panda and Sahadev	Oxford	2nd Edition

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6315	Digital Marketing Analytics	1.5	0	0.5	2

1. Introduction

This course focuses on data analysis and metrics used for digital marketing. There is no prerequisite for the class. However, students would have to become comfortable with data analysis (mostly using Microsoft Excel). It would be easier if students have taken some statistics or digital marketing courses prior to this. The course will cover important tools and techniques in measuring and analysing Digital Marketing application and their outcomes. The analytics will be structured around the three main components of digital media - owned media, paid media, and earned media. The course will deal with analytical techniques used for managerial decisions in these media. The course is designed around business applications and caselets. These caselets will provide the context for the analysis. The data analysis and visualisations will be done using two industry standard tools – Microsoft Excel and Tableau. Extensive use of platforms like Facebook, Google Analytics and Google Marketing Platform will also be done.

2. Intended learning outcomes

- Understanding various data analytics tools for digital marketing
- Analysing digital marketing data: Cleaning data, Staging data, Analyse data, and Report data
- Creating data visualisations
- Become familiar with data mining and statistical methods
- Creating digital marketing analytics dashboards

3. Contents

- Introduction to Digital Marketing Analytics: What is analytics, What is digital marketing, What is analytics for digital marketing
- Digital Media components: Owned Media, Paid Media, Earned Media
- Analytics with Excel: Advanced Excel for digital marketing analysis, Exercises with data analytics using Excel
- Data Visualisation: Introduction to Tableau, Data visualisation exercises with Excel and Tableau.
- Economics and Technologies involved in Digital Marketing
- Search Engine Marketing Analytics: Basics, Metrics, Mechanics, Analytics for SEM, Issues with SEM Analytics, Measuring ROI for Search ads
- Online / Display Advertising Analytics: Basics, Metrics, Mechanics of Online Ads, Measuring Online Ads ROI, Issues with Display Ad Analytics, Assessing impact of marketing investments using Regression Analysis, A-B Testing experiments and analysis
- Web Analytics: Basics, Metrics, Web Analytics through Google Analytics, Alternatives to Google Analytics, Exercises and experiments
- Email Analytics: Basics, Metrics, Analysis of metrics
- Social Media Analytics: Facebook Analytics, YouTube, Twitter Analytics, Calculating ROI and making better decisions

4. Text and reference books

Text Book
There shall be no textbook but a course handbook on distribution management compiled by the instructor.

	Reference Books			
1	Digital Marketing Analytics: Making Sense of Consumer Data in a Digital World, 2nd Edition	Chuck Hemann Ken Burbary	Pearson	2nd
2	Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity	Avinash Kaushik	Sybex	1st

Area: Financial Management

Sl. No	Course Code	Subject	L	T	P	Credit
Core Courses						
1	BM5204	Accounting for Managers	2	0	0	2
2	BM5202	Cost and Management Accounting	2	0	0	2
3	BM5205	Corporate Finance – I	2	0	0	2
Elective Courses						
1	BM6213	Corporate Finance-II	1.5	**0**	**0.5**	**2**
2	BM6206	Security Analysis & Portfolio Management	1.5	**0**	**0.5**	**2**
3	BM6201	International Financial Management	1.5	**0**	**0.5**	**2**
4	BM6214	Financial Reporting and Corporate Governance	1.5	**0**	**0.5**	**2**
5	BM6223	Banking & Financial Services	1.5	**0**	**0.5**	**2**
6	BM6204	Mergers, Acquisitions & Corporate Restructuring	1.5	**0**	**0.5**	**2**
7	BM6216	Project & Infrastructure Finance	1.5	**0**	**0.5**	**2**
8	BM6207	Derivatives & Risk Management	1.5	**0**	**0.5**	**2**
9	BM6210	Business Analysis and Valuation	1.5	**0**	**0.5**	**2**
10	BM6211	Management Control System	1.5	**0**	**0.5**	**2**
11	BM6217	Financial Time Series & Analysis	1.5	**0**	**0.5**	**2**
12	BM6218	Risk Management in Banks	1.5	**0**	**0.5**	**2**

13	BM6220	Fixed Income and Alternative Investment	1.5	0	0.5	2
14	BM6221	Financial Markets and Regulation	1.5	0	0.5	2
15	BM6222	Quantitative Finance Using R	1.5	0	0.5	2
16	BM6314	Pricing Management *	1.5	0	0.5	2

* The course details are given in Marketing Management area

Course Code	Name of the course	Credits			
		L	T	P	Total
BM5204	**Accounting for Managers**	2	0	0	2

1. Introduction

Accounting has two perspectives. First, recording transactions and developing accounting reports and second, use of the report in decision-making. Three sets of issues are covered- the process of recording of the transactions, generation of summary reports, financial statements and use of financial data for decision-making.

2. Intended learning outcomes

- Able to remember all the accounting concepts
- Able to understand the various concepts
- Able to apply the concepts for the real life experience
- Able to analyze the accounting information
- Able to evaluate the various alternatives of accounting information
- Able to create the new ideas differently for the analysis of financial statements

3. Contents

- **Accounting basic and process:** Accounting process and financial statement preparation as per the Indian Company Act 2013
- **Indian Accounting Standards in convergence with IFRS:** Ind AS-1: Presentation of Financial Statements; Ind AS-7: Statement of Cash flows; Ind AS-8: Accounting Policies, Changes in Accounting Estimates and Errors; Ind AS-10: Events after the reporting Period; Ind AS 18- Revenue Recognition (Goods and Services); Ind AS-37- Provision, Contingent liabilities and Contingent Assets.
- **Cash flow statement preparation and analysis-** stand alone and consolidated financial statements
- **Company Annual Report-** discussion on annual report contents including schedules, management discussion and investor presentation by companies
- **Analysis of Financial Statement** – how to read balance sheet, tools used for analysis of Financial Statements- Ratio Analysis- Balance Sheet Ratios, Profit and loss account and Inter-statement ratio
- **Financial Planning**- Financial planning and forecasting, projected cash flow estimation, pro-forma financial statement preparation

- **Sectoral Financial Statement Analysis** – analysis of financial statements of banks, insurance companies, non-profit organizations

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Financial Accounting -A Managerial Perspective	Narayan Swamy R	PHI Publication	Latest
Reference Books				
1	Financial Accounting for Managers	T.P.Ghosh	Taxman Publication	Latest
2	Financial Accounting for Management	Ramchandran N & Ramkumar K	Mcgraw Hill	Latest
3	Accounting (Text & Cases)	Anthony Robert N	TMH Publication	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM5202	**Cost and Management Accounting**	2	0	0	2

1. **Introduction:**

This course of Cost and Management Accounting has been designed to equip students with the desired skill set and knowledge, which will help them to become better decision makers to carry out their responsibility at different managerial positions. The course guides the students to collect relevant information to make the most beneficial use of it to take appropriate decisions. The course teaches the mechanisms to evaluate the performance of departments/jobs/individuals and suggests control mechanisms to bring the job to the track, if found necessary. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended Learning Outcomes:

- Students will develop the understanding of the cost concepts, which they can use in their day to day decision making.
- They will be able to calculate the cost of jobs and services and fix the selling price.
- They will develop the skill to evaluate and analyse alternatives for profitable business decisions.
- Students will be able to prepare budgets for various activities, and control the cost in a better way.

- Finally they can prepare better MIS and Performance reports for the need of higher management

3. Course Content:

- **Managerial Accounting and Cost Concepts-** General Cost Classification- Product costs and Period costs, Fixed Cost/Variable cost, Opportunity cost, Sunk Cost
- **Job order costing-** Allocation and Absorption of Indirect cost (Overhead): Primary and Secondary Distribution
- **Process Costing-**Cost flow in Process Costing, Equivalent units of Production
- **Activity Based Costing-**Why ABC? ABC vs. Traditional Costing, Designing an Activity Based Costing System, Limitations of Activity Based Costing
- **Cost Volume Profit Analysis-**Cost Behaviour Pattern, Contribution Margin Ratio, Break Even Analysis, Sales Mix and Break Even Analysis
- **Relevant costs for decision making** – short term decision making, shut down decision, make or buy decision, segmented profit planning decision, product mix decisions, etc.
- **Profit Planning and performance analysis** -The Basic Framework of Budgeting, Preparing the Master Budget, Operating and financial Budget, Cash Budget
- **Variance analysis and MIS reporting** - Activity Variance, Revenue and Cost variance, efficiency ratios etc.
- **Contemporary issues:** Life cycle costing, Kaizen costing, Target Costing, Balanced Scorecard, etc.

4. Text and Reference Books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	No text book is prescribed. Course handout will be used			
Reference Books				
1	Management and Cost Accounting	Colin Drury	Cengage	Latest
2	Basic financial Accounting for Management	Paresh Shah	Oxford Publications	Latest
3	Managerial Accounting	Garrison, Noreen & Brewer	McGraw Hill	Latest
4	Cost Accounting	Horngren, Datar Rajan	Pearson	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM5205	**Corporate Finance – I**	2	0	0	2

1. Introduction

The Corporate Finance-I is an introductory course in finance area. The students are introduced to the financial management decision making process. The course is designed for a general management graduate, who can comprehend the role and function of the chief finance officer of a corporate setup. The course includes the basic topics of finance, like time value of money, Indian financial system, risk and return estimation, raising capital and investment of free cash. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended Learning Outcomes:

- How the financial management framework works?
- Role and functions of a CFO
- What is the worth of time in financial decision making process?
- How a country's financial system works?
- How to take stock investment decision from risk and return prospective?
- Basic understanding of capital investment process

3. Course Contents:

- **Introduction to Corporate Finance & Financial Environment:** Understanding the Finance function, Financial Manager's role, Shareholders wealth maximization, agency cost/theory. Significance of Environment, social and corporate governance (ESG) aspects in corporate financial management practices. Overview of Indian financial system; stock market operations-both cash & derivative market
- **Time Value of Money-** Importance of TVM in financial decision making, present value, future value estimations- use of excel functions in value estimations
- **Valuation of Stocks and Bonds**- how common stocks are valued- dividend discounting model, discounted cash flow model, bond valuation. Use of excel functions in estimation and analysis
- **Cost of capital Estimation**- component cost and weighted average cost of capital and opportunity cost estimation, yield to maturity (YTM) etc. Use of excel functions in estimation and analysis
- **Risk and Return:** How to measure historical and expected return, risk measurement, portfolio risk and return estimation, CAPM, Beta estimation and interpretations, Security Market Line. Use of excel functions in estimation and analysis
- **Leverage Analysis**: Operating leverage and financial leverage, EBIT-EPS relationship. Use of excel functions in estimation and analysis
- **Long term Investment Decision:** Cash Flow estimation, Capital budgeting concepts, cash flow estimation, methods of capital investment evaluation-NPV, IRR and other methods. Use of excel functions in estimation and analysis
- **Working Capital Management:** liquidity and profitability concept, working capital cycle, working capital estimation, introduction to the components of working capital- inventory, receivables, cash, sources of short-term finance.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Financial Management	Pandey, IM	Vikash	Latest
Reference Books				
1	Financial Management: Theory & Practice	Chandra, Prasanna	Tata McGraw Hill	Latest

2	Principles of Corporate Finance	Brealey, Myers, Allen, Mohanty	Mcgraw Hill Education	Latest
3	Financial Management	Khan & Jain	Tata McGraw Hill	Latest
4	Corporate Finance: Theory & Practice	Damodaran	Wiley	Latest
5	Modern Corporate Finance	Alan C Shapiro and S D Balbirer	Pearson Education	Latest
6	Corporate Finance	Stephen A Ross, R W Westerfield, Jeffrey Jaffe and R K Kakani	TMH Publishing	8th Edition

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6213	**Corporate Finance-II**	1.5	0	0.5	2

1. Introduction:

The ever-changing economic environment does not allow the finance manager to operate in an ideal business situation. The manager will have to learn how to respond to the impending business situations and finally achieve the goal of sustenance and growth for the Organisation. In order to achieve this goal, the manager should have the ability to analyze and respond to the business environment relating to different finance functions. This course is an extension of the Corporate Finance – I which elaborates the finance functions with more detail having an analytical perspective. Further. It discusses on dividend decisions, capital structure theories and indicators of insolvency which are in present times has become a major decision making area for a finance manager. Management students can work effectively in the finance function of an organization after studying this subject. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended Learning Outcomes:

- know what are the impact of leverage on profitability of an organisation.
- relate effective strategic financial decisions to value maximisation
- Apply the knowledge of operational and strategic finance in the decision making process
- Examine the impact of different kinds of risks on finance decisions
- Evaluate projects through sensitivity and scenario analysis
- Develop dividend and working capital policies of an organisation

Course Content:

- **Capital Budgeting Decision under risk-** introduction to risk analysis in capital budgeting, methods of risk analysis in capital budgeting- certainty equivalence, risk adjusted discounting rates, simulation and sensitivity analysis, decision tree analysis etc.
- **Financing Decision (Capital Structure) -** Capital structure decision, theories in capital structure, sources of long term financing. Financing and investment function linkage. Latest financing structures of companies with industry data
- **Dividend Decision-** dividend policies, dividend theories; Gordon Model, Walter Model, types of dividend-buyback of shares, stock dividend, stock split. Optimum Dividend Decision: Linter Model ; Latest dividend policies of companies and analysis

- **Working Capital Management:** working capital performance analysis of firms, working capital related ratio analysis, inventory management techniques, management of receivables and payables, management of cash methods and models, working capital financing options for companies.Latest working capital management of companies with industry performance data.
- **Insolvency:** Indicators of insolvency, Negative net worth, Altman Analysis, Insolvency in Indian Companies
- **Global Experience in Corporate Finance.**

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Financial Management	Pandey, IM	VikashPublising	Latest
Reference Books				
1	Financial Management: Theory & Practice	Chandra, Prasanna	Tata McGraw Hill	Latest
2	Financial Management	Khan & Jain	Tata McGraw Hill	Latest
3	Corporate Finance: Theory & Practice	Damodaran	Wiley	Latest
4	Modern Corporate Finance	Alan C Shapiro and S D Balbirer	Pearson Education	Latest
5	Corporate Finance	Stephen A Ross, R W Westerfield, Jeffrey Jaffe and R K Kakani	TMH Publishing	8th Edition

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6206	**Security Analysis & Portfolio Management**	1.5	0	0.5	2

1. Introduction:

The investors those who are exposed to the stock market, should understand the company and stock in detail before investing. Identification of stock, managing stock and earning better return on the stock investment are the processes that every investor should practice. This course includes the similar topics like-types of stocks and stock selection, trading strategies, valuation and performance evaluation of securities etc. The pedagogy of the course includes, excel based exercises with real data and case studies. The online stock market trading will be demonstrated by the experts from the industry for better understanding the subject. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended Learning outcomes:

- Best Stock market strategies for investment
- Stock selection techniques
- Fundamental analysis methods for value investing
- Technical analysis indicators
- Valuation of fixed income securities and strategies of investment
- Portfolio construction and selection
- Performance evaluation of portfolio and mutual funds

3. Course Contents:

- **Introduction to security analysis**- Investment Concepts, Investment styles-passive and Active, Growth, Momentum &Value investing, asset classes- Physical Assets-Real Estate, Commodity, Gold, financial asset types including debt & equity, types of investors, investor psychology
- **Indian Stock market:** segments in the stock market- cash, derivative and debt, stock trading requirements- demat account, trading account, stock market operation, online trading and settlement process, stock market index and its measurement
- **Derivative market:** structure of derivative market, types of future and option instruments, trading requirements, process and settlements in derivative market. stock and index derivates, option trading and strategies, derivatives and risk hedging
- **Analysis of Fixed Income Securities** - valuation of bonds, Different bond yield and return measures , Understanding term structure of interest rates ,analysis of risks in bonds-duration and its types and convexity. Bond portfolio management- passive & active bond management, bond immunization strategies. Excel application in bond valuation and analysis with real market data.
- **Fundamental Analysis**: fundamental factors for stock analysis, economic, industry and company analysis.
- **Technical Analysis**: technical charts and patterns, technical indicators for stock analysis, technical analysis and forecasting of stock performance
- **Portfolio analysis & Selection**- Return and risk estimation for both stock & portfolio, optimum portfolio, efficient frontier. Beta, Capital Asset Pricing Model & SML, Markowitz Diversification model, optimal portfolio, efficient frontier & CML, Single, Multi & Industry Index Model. Use of excel functions in stock and portfolio analysis with real stock market data
- **Portfolio performance evaluation**- Arbitrage pricing model, Sharpe index, Treynor Index, Jensen's alpha, Information ratio, Fama's decomposition measure
- **Mutual fund performance**- types of mutual fund, asset allocation and NAV calculation, MF performance evaluation
- **Efficient Market Hypothesis**- different forms of market efficiency, event study method

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
5	Investments	Bodie , Kane, Marcus & Mohanty	TMH	Latest
Reference Books				
1	Security Analysis	Graham, Benjamin Dodd, David	McGraw Hill	Latest

2	The Intelligent Investor	Graham, Benjamin	Harper Collins	Latest
3	The Essays of Warren Buffett: Lessons for Corporate America	Cunningham, Lawrence	Carolina Academic Press	Latest
4	Damodaran on Valuation: Security Analysis for Investment and Corporate Finance	Damodaran, Aswath	Wiley-India	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6201	**International Financial Management**	1.5	0	0.5	2

1. Introduction

The objective of this course is to develop an understanding on various international trade and financing concepts. In a globalized economic scenario, international trade and the financial system are important components of the business environment in which firms operate. The course will explore the implications of trade theories and financial markets for multinational companies and apply those concepts in business decision making under a broad macroeconomic environment. Trade finance and its forms will be studied including the role of capital flows in an open economy. In order to make the course application oriented solution of various real life cases are included in the pedagogy. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended Learning Outcomes

- Understand the concept and nature of international capital and foreign exchange market
- Identify and appraise investment opportunities in the international environment.
- Analyzing the nature and functioning of foreign exchange markets, determinations of exchange rates and interest rates and their forecasting
- Identify risk relating to exchange rate fluctuations and develop strategies to deal with them
- Gain knowledge about the trade practices, procedures and documentation of international trade finance.
- Knowing the environment of international finance and understanding and analyzing the various sources of trade financing drawing its implications on international business.
- Develop strategies to deal with other types of country risks associated with foreign operations
- Above all, designing financial strategies in a global environment.

3. Contents

- **Module-1:** Introduction to International Financial Environment, A Snapshot of Theories of International Trade, Factor Movements and International Trade in Services and Balance of Payments
- **Module-2:** Exchange Rate System, Foreign Exchange Market, and Foreign Exchange Facilities and Regulations.
- **Module-3:** EXIM Operations and Documentation, EXIM Policy Framework, and International Trade Terms

- **Module-4:** Trade Financing, Export Payment Terms, Export Credit Risk Management, Customs Duty & Custom Clearance Procedure of Exports and International Shipping Practices.
- **Module-5**: Investment opportunities in International Market

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	International Financial Management-	Jeff Madura	Cengage	13th Edition
Reference Books				
1	International Economics: Trade & Finance	Dominick Salvatore	Wiley	11th edition
2	International Financial Management	Alan C. Shapiro and Peter Moles	Wiley	2nd edition
3	International Trade operations	Ram Singh	Excel Books	2nd edition

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6214	**Financial Reporting and Corporate Governance**	1.5	0	0.5	2

1. Introduction:

The course is aimed at understanding the necessity of reporting of the health of the organization to all the stakeholders of the firm. The changing requirements of reporting due to developments in the corporate disclosure policies of companies make the course relevant for finance students. The course enables them to visualize the need of fair reporting of companies status and the role played by different bodies, like board of directors and different committees of directors and auditors to protect the interest of investors and other stakeholders. The course become even important at a time when large corporate are found to be involved in accounting frauds related to disclosure. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended Learning Outcomes:

- The course will enable a student to read and analyze financial reports of different companies
- It will exemplify the application of accounting standards in financial reporting.
- The students will be able to differentiate the companies with good corporate governance to the bad ones.
- The students will be able to critiquing the financials of an organization through forensic audit.

3. Course Contents

- **Introduction:** Concepts of financial reporting and financial statements, Detailed study of the intricacies of annual report.

- **IFRS &Ind AS:** Convergence of Indian Accounting Standard with the IFRS, Major Accounting Standards: Revenue Recognition, Inventory, Cash Flow Statement, Fixed Asset Accounting, Inter Corporate Investment, Foreign Exchange Translation and others.
- **Financial statement analysis**: Techniques of financial statement analysis and indicators of financial performance from various statement prepared, Sector specific financial ratios and their implications.
- **Corporate Governance**: Theory and Practices, Evolution and development of corporate governance in India, Companies Act 2013 and recommendation of various committees, Board of directors, Whistle Blower's Policy, Role of Various Committees, Mandatory and Voluntary Disclosures
- **Forensic Audit:** Financial figures and their trends as the indicators of red flag in a company, Investors' perspective of forensic audit, Discussion on forensic audit of Indian Companies.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Corporate Governance: Principles, Policies and Practices	A C Fernando	Pearson	Latest
Reference Books				
1	Corporate Governance (Modules of Best Practices)	Indian Institute of Corporate Finance (IICF)	Taxman's Publication	Latest
2	Corporate Financial Reporting: Theory, Practice & Cases	Jawahar Lal	Taxmann's	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6223	**Banking & Financial Services**	1.5	0	0.5	2

1. Introduction:

The banking system provides the backbone that supports the plethora of financial services firms and financial markets in any economy. In addition to financial intermediation, it provides a payment system to facilitate transactions, currency exchange and trade finance to facilitate international trade, and financial advisory to individuals and firms among other roles. The course aims to provide an overview of the functioning of banks – organizational structure, products, key functions, and regulation. The course will also introduce the students to other financial services – investment banking, NBFC (shadow banking), MFI, insurance and asset management. The specific roles these financial intermediaries serve in the economy and the regulations covering their activities will be covered. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended learning outcomes

- A good understanding of the Indian Banking System. Retail Bank and Wholesale banking

- Understanding of different players in the Indian Financial Services.
- Understanding of the processes involved in the selected financial services taught in this session.

3. Course content

- **Indian Financial System:** Recent developments in Indian Financial System, Market Structure and Financial Innovation, RBI, SEBI, IRDA and their major functions; Role & Function of banks; Regulatory provisions; Enactments Governing Banks (Banking Regulation Act 1949, RBI Act 1935 etc.); Basic concepts of Retail banking, Wholesale banking, International Banking; Role and function of Money Market-CP; Importance of Risk Management in Banks (credit, market, liquidity, operational and Interest rate risk); Impact of Basel I, II & III & Capital Adequacy Ratio
- **Functions of banks:** Deposits, credits, ALM And risk management, payment and settlement,
- **Non-Banking Financial Companies (NBFCs)** – Types of NBFCs and their regulatory framework; Asset finance, gold loans, housing finance, infrastructure finance, real estate finance, loans against securities, vehicle finance and Micro Finance Institutions (MFIs)
- **Financial Services:** Merchant banking and investment banking services, Insurance services, Asset Management, Mutual Funds, Venture Capital and Private Equity, Alternate Investment Fund and Hedge Funds and Other Financial Services

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Modern Banking Theory and Practice	Muraleedharan, D.	PHI	Latest
Reference Books				
1	Indian Financial System	Pathak, Bharati	Pearson Education	Latest
2	Financial Services	Kahn	Tata McGraw Hill	Latest
3				
4	Financial Services and Systems	Sasidharan, K	Tata McGraw Hill	Latest
5	The Financial System in India	Das, S. C	PHI Publications	Latest
6	Banking Principles and Operations	Gopinath, M.N.	Snow White	Latest
7	Introduction to Banking	Iyengar, Vijayaraghavan	Excel Books	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6204	**Mergers, Acquisitions & Corporate Restructuring**	1.5	0	0.5	2

1. Introduction:

Indian enterprises are refocusing on the core competency, market share and global competitiveness through business consolidation or merger and acquisitions. The course includes the legal framework,

concepts of valuation, modes of squaring the deals, etc. As a student of Finance, studying and learning the different aspects of mergers and acquisitions will help them in understanding the intricacies of the deals happening all over the world. The pedagogy of this course includes a wide range of literature and cases on mergers and acquisitions and other forms of corporate restructuring. The combination of lectures and discussing cases will enhance knowledge and maturity of judgment with respect to M&A decisions. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Learning Objectives:

- Facilitate participants to focus on corporate growth and strategies (expansion and diversification) through mergers, acquisitions, and divestments
- Create a good understanding of valuation methods and issues pertaining to M&A activities
- Familiarize participants with target selection, swap ratio estimation and integration issues
- Students can learn the financing options in M&A- LBO & MBO
- Sensitize participants to various forms of corporate restructuring including the latest insolvency and bankruptcy code (IBC) 2016

3. Course Content:

- **Introduction to M&A-**Strategic & Economic Aspects of M&A, merger terminology, types & forms of M&A, merger waves in India and abroad
- **M&A Process**- Demergers, steps in M&A process, role of Investment Bankers/financial advisors, Management & shareholders at various stages of a deal, due diligence Process, deal estimation including swap ratio
- **Merger Motive**; value creation in merger deals; merger as a business strategic decision, economic aspects of merger, corporate governance and merger decisions
- **Indian takeover code**- tax, regulatory framework for M&A, Accounting for M&A in India
- **Growth & Value creation:** Valuation of M&A deal-Various approaches to valuation, synergy valuation methods, pre merger stand alone valuation, value of control
- **Hostile takeovers and Defensive tactics:** the pre and post hostile takeover defense strategies
- **M&A financing-** Leveraged Buyout, management buyout and other methods of merger financing
- **Corporate Restructuring**- internal & external corporate restructuring- including Insolvency and bankruptcy code 2016. Indian case discussion
- **Post-Merger performance-** post merger performance audit, literature study on performance after merger deals, successful and failure deals.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Mergers and Restructuring And Corporate Control	Weston, Chung and Hoag	Pearson Education	Latest
Reference Books				
1	Mergers, Acquisitions, and Other Restructuring Activities	Donald DePamphilis	Academic Press	Latest
2	Mergers acquisitions and	Vadapalli, Ravindhar	Excel Books	Latest

	Business valuation			
3	Merger Acquisitions & Corporate Restructuring	Krishna Murthy, Chandrashekar Vishwanath, S.R	Sage Publication	Latest
4	Takeovers, Restructuring And Corporate Governance	Weston, Mitchel And Mulherin	Pearson Education	Latest
5	Value Creation From Mergers And Acquisitions	Sudi Sudarsanam	Pearson Education	Latest

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6216	**Project & Infrastructure Finance**	1.5	0	0.5	2

1. Introduction

Project finance is used to finance trillions of rupees of capital intensive infrastructure projects annually. This increasingly critical financial technique relies on the cash flows of a specific infrastructure project not the cash flows of a corporation or third party guarantor to service debt and provide investor returns. Not all projects can support project financing. Project finance is a specialized financial tool requiring both proper structuring and risk mitigation. The purpose of the course is to understand what project finance is, why it is used and how it is used. Public-Private Partnership (PPP) is an important model of infrastructure project finance in India, and its success depends on the clear demarcation of the role of the private and public sectors. Learning the essential elements of structuring such projects is a major takeaway from this course.

2. Intended learning outcomes:

- Understand essential difference between project finance and corporate finance.
- Learn key features of different infrastructure sectors viz. power, telecom, roads, airports, hospitality, logistics, healthcare etc.
- Learn the necessary elements that support the use of project finance, viz contractual agreements, technology sponsors, risk identification and mitigation, sources of capital, financial structuring, the use of financial modeling, accounting considerations, and tax considerations.
- Understand the role of different parties involved in the execution of infrastructure projects.
- Understand the role of government in facilitating execution of such projects.
- Most importantly, learn the skills needed to model the financial investment and return for large projects.

3. Course content

- **Introduction to Project Finance:** What is project finance; Project Finance vis-à-vis Corporate Finance; Project Planning and Analysis – key elements of project planning, statutory approvals; typical timeline and milestones in a project
- **Infrastructure projects and their financing in India:** Classification of infrastructure projects, Procurement of infrastructure projects through Public Private Partnership route-Types of PPP models – BOO, BOOT, BOLT etc.; Contractual structure of PPP projects, Value for money evaluation, Lifecycle of PPP projects, PPP procurement process
- **Project evaluation I**: Estimating the cost of the project, market demand and revenue projection; assumptions/market study/contractual nature of revenue projection; future cash flow estimation
- **Project evaluation II:** Financial structuring of projects – debt and equity; designing security arrangements, waterfall mechanism for payments in the post completion phase; analyzing project

viability; project risk analysis (risk identification techniques, risk allocation frameworks, risk mitigation strategies); political risk and discount rate adjustment; and Viability Gap Funding (VGF)

- **Project evaluation III:** Rate of Return (project IRR), scenario analysis & stress testing impact on IRR and Social Cost Benefit Analysis
- **Issues in infrastructure financing/investment** – Sources of infrastructure financing, public and private finance, public guarantees (NIIF), role of banks and infrastructure finance companies, post completion financing structures (InvIT), etc.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Financially Focused Project Management	Cappels, Thomas M	J Ross Publications	Latest
Reference Books				
1	Introduction to Project Finance	Machiraju, H.R.	Vikas Publications	Latest
2	Projects: Planning, Analysis, Selection, Financing, Implementation & Review	Chandra, Prasanna	TMH Publications	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6207	**Derivatives & Risk Management**	1.5	0	0.5	2

1. Introduction

Derivatives are considered as the most complex and double-edged sword financial instruments. The basic use of derivative is to manage risks that the investor may be exposed to while trading. There are several types of derivative products available, which are being used by stock traders, banks and insurance companies and also by corporate to minimize risk exposure. The kind of derivative product to be used depends on the motive and type of risk to be hedged. In India derivative market is in a growth phase and volume of derivative transactions is also increasing rapidly. Students with good understanding and knowledge of derivatives would be able make lucrative careers in finance. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended learning outcomes:

- Understanding of the Derivatives Marketplace, Practices, Conventions and Players
- Understanding of the Derivatives Products like Forwards, Futures, Swaps, Options etc.
- Ability to select the right kind of derivative for a specific situation
- Ability to calculate/determine forward interest rate and forward exchange rate from bond prices and swap rate
- Understanding the option market strategy
- Building curve using boot strap method
- Determining the price/value of different derivative products
- Learn how to set up a Swap Arrangements between two parties with or without a financial intermediary between them
- Understanding of Credit Derivatives like CDS, ABS, CDO, Synthetic CDO.

3. Course Content:

- **Introduction to Derivatives** - Meaning of Derivative, Insurance vs. derivatives, types of derivatives Instruments (Forwards, Futures, Swaps, Options), Types of derivative traders (Hedger, Speculator, Arbitrageur), Economic Functions of Derivative- Price Discovery and Risk Management Use and Misuses of Derivatives.
- **Derivative Market -** Size of Derivative Market, Exchange Traded Derivative Market, Over the Counter Derivative Market, Participants in the Derivative Market, Trading and Settlement Mechanism
- **Fundamentals of Forward and Future Contract -** Meaning of Forward and Future Contract, Pricing of forward and future contract, Value of forward and future contract, Pricing Model- Cost of Carry Model, Short Selling, Stock Index, Index Arbitrage, Futures and Forwards on Currencies
- **Hedging with Forward and Futures -** Why Hedge, Hedging Concepts, Basis Risk, Hedging Strategies - Long hedge, short hedge and cross hedging, Determination of Optimal Hedge Ratio, Optimal Number of Contracts, Hedging using Index Futures.
- **Interest Rate Derivative -** Types of rates, Continuous Compounding, Zero Rate, Bond Pricing, Par Yield, Forward Rates, Forward Rates Agreement, Liquidity Preference Theory.Forward Rate Agreements, Interest Rate Futures, Markets for Interest Rate Derivatives, FRAs in Hedging, Application of Interest Rate Futures- Long Hedge, Short Hedge, Pricing a Treasury Bill Future
- **Currency Derivative -** Exchange rate Regime and Forex Market in India, Foreign Exchange Rate, Forex Risk, Rupee Forwards, Foreign Exchange Futures and Options, Hedging with Foreign Exchange Future and Option**.**
- **Swaps -** Meaning and Structure of Swap, Types of Swap, Market for Swap Contacts, The comparative advantage argument, Using Swap Rates to Bootstrap the LIBOR/Swap Zero Curve
- **Interest Rate & Currency Swap -** Structure of Interest Rate Swap, Pricing and Valuation of Interest Rate Swap, Interest Rate Swap Strategies. Structure of Currency Swap, Pricing and Valuation of Currency Swap, Currency Swap Strategies
- **Option Contracts -** Meaning of Option Contract, Development of Option Market, Types of Option Contracts- Call Option, Put Option, Concept of ITM, ATM and OTM. Exchange Traded Vs. Over-the-Counter Options Market, Mechanics of Option Trading, Option Price Quotations
- **Principle of Option Pricing -** Basic notations and terminologies, Put – Call Parity, Principle of Call Option Pricing and Principle of put Option Pricing. Pay-off of Option Contract. Trading Strategies Using Options **-** Principal Protected Notes, Spreads, Combinations.
- **Option Pricing Models - The Binomial Model –** Concept of Risk Neutral Arbitrage, One-Period Binomial Model, Two Period Binomial Model, The Black- Scholes-Merton Model - Assumption of BSM Model, Factors in The BSM Model, Estimating the Volatility- Concept of Implied Volatility, Valuation of Call and Put Option.
- **Credit Derivatives -** Credit Default Swap (CDS), CDS Structure, Types of CDS, ABS, CDO, Synthetic CDO
- **Corporate Risk Management with Derivative –** Structure of Risk Management in a Corporate, Impetus for Risk Management, Benefits of Risk Management, Managing Market Risk- Value at Risk (VaR).

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Options, Futures, and Other Derivatives	John C. Hull	Pearson	Latest
Reference Books				

| 1 | Financial Derivative | Kumar, S.S.S | Prentice-Hall | Latest |
| 2 | Option volatility and pricing strategies | Sheldon Natenberg | Wiley | Latest |

| Course Code | Name of the course | Credits | | | |
		L	T	P	Total
BM6210	**Business Analysis and Valuation**	1.5	0	0.5	2

1. Introduction:

The Power to estimate things at their true worth is very important. A good business is absolutely the best investment vehicle one can ever have, provided he/she understands the underlying value and does not overpay for it. Arriving at the value of a business or a group of business assets requires an analysis and weighting of all the drivers of value, both tangible and intangible, and those that are within the control of management, and those that are not. Hence the structure of this course is based on some of the most commonly discussed and applied issues in Business Valuation. The course will be dealt with popular real life cases on the different aspects of valuations. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended Learning outcomes:

- Identification of value drivers and inputs for valuation
- Business and equity valuation techniques
- Private company valuation
- Quantitative and qualitative aspects in valuation
- Valuation of specific companies, intangibles etc.

3. Course Content:

- **Introduction to valuation**- valuation purpose, analyzing financial statements and Identifying Value Drivers, Strategic analysis in business valuation, valuation input and output relationship, valuation principles, business and equity valuation process
- **Discounted Cash flow (DCF) valuation Approach**-Valuation inputs and process, cash flow, growth, terminal value, levered and un-levering of equity betas, discounting rate in DCF valuation, CCF Method of Valuation, APV Methods of Valuation, WACC & EVA. Latest real data of companies used to determine the business and equity value using DCF technique
- **Relative Valuation**- value multiples, comparable identification process, Private company valuation, Liquidation valuation, Sum-of-the parts valuation. Latest real data used for application of relative valuation of both equity and business valuation
- **Real Option valuation**- The Contingent Claim (Real Option) Approach to Valuation, black scholes option pricing model
- **Other Specific Valuation Cases**- Brand and Intangible Valuation, Cross Boarder Valuation, Valuing the control, subscription based firm valuation, social media company valuation

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Valuation	Damodaran, Aswath	Wiley Finance	Latest
Reference Books				
1	Investment Valuation: Tools and Techniques for Determining the Value of Any Asset	Damodaran, Aswath	Wiley Finance	Latest
2	Valuation: Measuring and Managing the Value of Companies	McKinsey & Company Inc	Wiley Finance	Latest
3	Business Analysis and Valuation: Using Financial Statements, Text and Cases	Healy and Palepu	Cengage publication	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6211	**Management Control System**	1.5	0	0.5	2

1. Introduction:

The course gives the students ample of opportunities to apply the knowledge acquired in the first year of their MBA programme. The focus of the course is strategy implementation. The knowledge of core functional courses can be applied in the course through cases related to multinational companies. This course has been designed to allow students to gain knowledge, insight, and analytical skills to design and implement the ongoing management system that is used by corporation's executives to plan and control the firm's performance. This course gives hands on experience of strategic planning; budgeting; resource allocation; performance measurement, evaluation, and reward; responsibility centre allocation etc. The knowledge of Management Accounting is a pre-requisite for this course. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended Learning Outcomes

- Student will get an insight of Strategy formulation and implementation in companies to achieve the business goal based on the vision of the company.
- It helps the students to understand the need of changes in organizational strategies in the changing business environment to achieve the strategic ambitions of the organization.
- Students will get to know the fundamentals of Management control systems and the necessity of fixing the accountability and measuring the performance of various responsibility centers so that it will align with the organizational goals.
- Students will understand the importance of strategic planning and accordingly allocation of resources through budget and keeping a control over the whole exercise through performance evaluation of responsibility centers.

3. Course Content:

- **Introduction to Management control system**-Boundaries of Management control, Strategy formulation, Management control and Task control

- **Understanding strategies**- Goals, Corporate-Level strategy, Business Unit level strategies (BCG Matrix, G E Model), Strategic Planning, strategic planning process
- **Organizations Goal congruence**- forms of systems, types of organizations, business segmentation and organization goal congruence
- **Responsibility centers**- types of responsibility centers- Revenue, Expense, Investment and Profit centers
- **Organization Performance Measurements**- ROI measure, EVA and other measures of 3. organization performance evaluation, management compensation
- **Transfer pricing**- Indian laws and issues pertaining to transfer pricing in different industries
- **Budgetary control system-** significance of budget as a measure of control system**,** behavioural aspects and quantitative techniques used in budget preparation, budgetary control
- **Financial performance report**- analysis of financial performance report as a control system

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
	Management Control Systems	Anthony Govindarajan	McGraw Hill	Latest
Reference Books				
1	Management Control Systems	Maciariello, Joseph A. Kirby, Calvin J.	PHI	Latest

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6217	**Financial Time Series & Analysis**	1.5	0	0.5	2

1. Introduction

The financial decision making process involves analyzing historical data to identify the trend and forecasting the next possible outcomes. This analysis is performed with application of numerous econometric models. Financial time series and analysis is the course designed to apply the econometric models with time series data obtained about the companies. The participants will gain practical knowledge in business analytics that helps in understanding the insights of corporate problems. As career in finance focus more towards financial modeling and financial analytics, this course will be immensely helpful to students in their career growth. The course will be dealt with the real data obtained from CMIE database, Stock market and analyzed with excel and other econometric packages.

2. Intended Learning outcomes

- Ability to understand financial modeling tools and techniques
- Analyze the various factors which will have impact on business decisions
- Practical training in different time series methods
- Understand the impact of various macroeconomic factors on the stock market
- How to analyse real data for business solution?

- How to apply time series data for business forecasting?

3. Course Content:

- Introduction to Financial Time Series. Distinction between Time series and Cross sectional data, Understanding the basic concept of a Time series, Application of linear regression model to time series data
- Financial Time Series and their characteristics. Asset returns, Distributional properties of returns, Multivariate returns
- Linear Time Series Analysis and Its Applications. Stationarity, White noise and Linear Time series, Correlation and Autocorrelation, Simple ARMA Models, Seasonal Models, Long memory models and Fractional differencing
- Conditional Heteroscedastic Models. Characteristics of Volatility, Model building and testing of ARCH effect, GARCH family models, Use of High frequency data, Forecasting through GARCH Models
- Nonlinear Models and their Applications. Neural Networks, Markov Switching model, Modelling and Forecasting evaluation
- High Frequency data analysis and their Applications. Non-synchronous trading, Empirical characteristics of Transactions data, Bivariate models for price change and duration
- Multivariate Time series. Vector Auto regressive models, Vector ARMA models, Impulse response function, Threshold co-integration and arbitrage
- Factor Models. Concept of Factor models, Macroeconomic factor models, Fundamental factor models
- Principal Component Analysis. Theory of PCA, Empirical PCA, Asymptotic Principal Component analysis
- Multivariate volatility models. Multivariate GARCH models, Cholesky Decomposition, Higher dimensional Volatility models
- State-space models and Kalman Filter. Local trend model, Linear state space models, Kalman filter and smoothing

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Analysis of Financial Time Series	RUEY S. TSAY	Wiley	3rd
Reference Books				
1	Applied Econometric Time Series	Walter Enders	Wiley	3rd
2	The Statistical Analysis Of Time Series	Anderson	Wiley	Latest
3	Multivariate Time Series Analysis: With R and Financial Applications	RUEY S. TSAY	Wiley	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6218	**Risk Management in Banks**	1.5	0	0.5	2

1. Introduction

Banks are the foundation on which the modern economy stands. Trust of the depositors is the most valuable asset of any bank and to safeguard the trust banks have to ensure that they are solvent at all times, under all situations. Modern risk management techniques are the tools available to banks to evaluate their risk exposure and they use their capital as a buffer to protect themselves from the risk of insolvency. Moreover, the Basel capital adequacy norms have also brought about a standardization in the approach the banks take to measure, mitigate and manage their risks with adequate capital to withstand any type of unexpected events. This course will introduce the students to the risk management process in a typical bank which consists of risk identification, its measurement, and mitigation. The students will learn the key risks faced by the banks and how those are measured. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended learning outcomes

- Identify the different types of risk exposures of a bank;
- Assess these risks, i.e. measure these risks and calculate the capital requirement on account of these risks
- Evaluate the risk based performance of banks
- Identify data requirements and use of alternate analytical models to quantify risks.
- Apply different types of risk management techniques such as use of financial derivatives and ALM to manage risk.
- Implement best of class risk management practices and processes in a banking organization.

3. Course content

- **Introduction to risk management in Banks**- Risk Management Concept and the importance of risk management. Definition of the various risks faced by a bank – Credit Risk, Market Risk, Operational Risk, Interest Rate Risk, Liquidity Risk, Asset Liability Management (ALM), and Concentration Risk; description of the risk management functions in a bank.
- **Risk management process in a bank and regulatory approach to risk management** – Identification of risks, risk quantification, risk policy formulation, risk management strategy formulation and risk monitoring. Basel I, II and III norms and its adoption by RBI.
- **Liquidity risk & Interest rate risk (banking book)** – What is liquidity and sources of liquidity, relationship of liquidity risk to other banking risks; liquidity risk and Asset Liability Management (ALM). Defining interest rate risk in banking book and its measurement – Gap analysis model; duration model; mitigation methods – price matching and maturity matching
- **Market Risk Management** – Market risk and its types; measurement of market risk; risk metrics; Daily Earnings at Risk (DEaR) and Value at Risk (VaR); different approaches to measurement – historical simulation approach, the Monte Carlo simulation approach and parametric VaR Method; Managing Market Risk – New Basel Capital Accord and application to Financial Derivatives
- **Credit Risk Management**- sources of credit risk information, asset classification, measures of credit risk, estimation of credit losses; tools of credit risk mitigation/management techniques/models; accounting treatment
- **Operational Risk Management**- Building block for Enterprise Risk Management (ERM), operational risk measurement and management techniques/models
- **Other topics** – 2008 Financial Crisis and its impact: **i**nnovations in financial markets; failure of risk assessment; interbank liquidity; regulatory changes post crisis, Economic capital, risk adjusted performance measurement; risk based pricing, use of financial derivatives to mitigate risk, credit derivatives

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Financial Institutions Management: A Risk Management Approach	Anthony Saunders Marcia Millon Cornett	McGraw Hill	8th
Reference Books				
1	Analyzing and Managing Banking Risk: A Framework for Assessing Corporate Governance and Financial Risk	Bratanovic Myilibrary Van Greuning Brajovic Bratanovic Greuning	Williamson Books	2nd
2	Risk management and financial Institutions	John C. Hull	Wiley	Latest
3	Managing Banking Risk	Sonja Brajovic Bratanovic, Hennie Van Greuning	Jaico	1st
4	Risk Management in Banking	Joel Bessis	Wiley	Latest
5	Theory and Practice of Treasury and Risk Management in Banks	IIBF Mumbai	Taxman	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6220	**Fixed Income and Alternative Investment**	1.5	0	0.5	2

1. Introduction

Fixed income securities are popular among investors for its assured return. Further, most of those instruments are presently traded in the market providing liquidity to the investors. Investment in Real estate, commodities, hedge funds and private equity is also gaining momentum as alternative avenues against stocks and bonds. Students should acquire knowledge in this emerging area to work effectively in the financial market. The course is designed to provide knowledge on these products and their valuation. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended learning outcomes

- Understanding the nature of fixed income securities.
- Gaining knowledge on different kinds of such securities.
- Developing awareness on alternative investment avenues in the market.

- Learning to value the fixed income and alternative investment instruments.

3. Course Contents:

- **Fixed Income Securities:** Nature and characteristics of fixed income securities, bond indenture, covenants in bond issue, different kinds of bonds, bonds with embedded options, cash flow structure of a bond, bonds with contingencies, global fixed income market, fixed income indices, investors in fixed income securities, primary and secondary bond market, sovereign bonds, corporate bonds, short term financial arrangements, credit rating mechanism, Agencies in Credit rating, Efficacy of Credit rating.
- **Valuation of Fixed Income Securities:** Bond Pricing, Yield to Maturity, Yield Curve, Computing forward rates, Relationship between Spot and Forward rates, Swap rates, Term structure of interest rates: The Cox-Ingersoll-Ross (CIR) Model, Arbitrage-Free Models, Yield curve factor model, Monte Carlo Method; Interest rate trees, Calculation of spot rate, forward rate and yield to maturity.
- **Hedge Funds, Private Equity and Commodities:** Derivative transactions, Risk and Reward in Derivatives, Derivative Strategies, Hedge Fund risks, Hedge fund strategies, hedge fund valuation, Private Equity: Leveraged Buyout, Venture Capital, strategies and consideration in private equity investment. Commodities: Commodities Derivatives, Prices of Commodities, Pricing of commodities future contracts.
- **Real Estate and Infrastructure:** Real Estate Investment: Characteristics, types, risk, benefits; Valuation of Real Estate: Income Approach, Capitalization method, DCF Method, Cost Approach, Infrastructure Investment; REIT.
- **Regulatory issues** and Due Diligence in Alternative Investments

Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	The Handbook of fixed income securities	Frank J. Fabozzi,	Tata McGraw Hill	7th
Reference Books				
1	Bond Markets: Analysis and Strategies	Frank J. Fabozzi,	Pearson, New Delhi	2010
2	Investment Analysis and Portfolio Management	Prasanna Chandra	Tata McGraw Hill	3rd
3	Private Equity Valuation	Yves Courtois	Tim Jenkinson	
4	Investing in Commodities	Ronald G. Layard-Liesching	CFA Institute	

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6221	**Financial Markets and Regulation**	1.5	0	0.5	2

1. Introduction

The course introduces the general concepts of financial markets and how these markets are regulated. This course will provide an understanding of the functions, and operations of the financial markets and institutions operating in India. It explains the role of financial system on economic development. Various conceptual issues related to risk and return, the role of regulatory bodies, mechanism of commercial banking, operations of insurance companies and mutual funds are discussed elaborately. It also describes the importance of small savings, provident funds, pension funds and credit rating agencies. The course provides a comprehensive overview and systematic evaluation of the mainstream markets of various financial instruments such as call money, bond, stock, derivatives and exchange rate. The subject will be discussed with the help of classic and latest cases available in HBS publishing.

2. Intended Learning Outcomes

- Understand the importance of the Financial Markets
- Gain knowledge about the key institutions and participants in these markets
- Appreciate the role of financial market regulators
- Learn institutional details about the operation of the different financial markets
- Understand the features and operational details of instruments traded in these markets

3. Course Contents

- **Introduction to Financial System and Economic Development:** Economic role of financial markets; Indicators of Financial Development; Regulatory institutions
- **Concepts Related to Financial Markets and Institutions:** Risk – return relationship; Asset Pricing Models; Valuation of Assets
- **Theories of Level and Structure of Interest Rate:** Factors affecting interest rates; Impact of Monetary Policy, Duration & Convexity; Zero Coupon Yield Curve
- **Financial Regulations and Regulatory Institutions in India:** Economics of regulation of financial markets; Role of RBI, SEBI, IRDA, and PFRDA; Operating Procedures of Monetary Policy; Corporate Governance and SEBI
- **Financial Market Participants:** Commercial Banks; Provident Funds, Pension Funds, Insurance Companies; Mutual Funds, Venture Capital Funds, Hedge Funds and other Collective Investment Schemes
- **Money Markets in India:** Call Money Market, Treasury Bill, Commercial Paper, Certificate of Deposit
- **Bond Market:** Bonds and Debentures; Bond Features, including embedded options; Bond Price Volatility; Government Security Market; Corporate Bond Market; Credit Rating and Price of Bonds
- **Classification of Stock Market and Securities**; Stock Exchanges; IPO and FPO; Stock Market Indices; Market Micro-Structure in Stock Market
- **Commodity Derivatives:** Contract types, Commodity Futures; Market micro-structure; Limitations of Indian commodity markets
- **Foreign Exchange Market:** Foreign Exchange Market Structure; Risk Management in Foreign Exchange Market; Exchange Rate Determination; Foreign Capital – FDI & FII; Central Bank Intervention in Foreign Exchange Market; Futures, Swaps and Options in Foreign Exchange

4. Textbook and Reference Books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Financial Markets and Institutions	Frederic Mishkin and Stanley Eakins	Pearson Education	8th
Reference Books				
1	Financial Institutions and Markets: Structure, Growth and Innovations	L.M. Bhole and J. Mahakud	McGraw Hill	6th
2	Financial Institutions & Markets	Jeff Madura	Cengage	10th
3	Bond Evaluation, Selection and Management	R. Stafford Johnson	John Wiley & Sons	2nd
4	Analysis of Investments and Management of Portfolios	Frank Reilly and Keith Brown	Cengage	10th

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6222	**Quantitative Finance Using R**	1.5	0	0.5	2

1. Introduction

The quantitative finance is a field of applied quantitative techniques concerning the financial market and corporate finance. The course includes numerous mathematical models and tools for financial analytics. In the age of automation and artificial intelligence, the financial data analysis is paramount with development of sophisticated packages like R and Python. In view of the recent demand and advancement of finance domain, this course focuses to cover the financial data analysis using R package. The course starts with the finance preliminaries and further includes the basic mathematical and excels applications in finance. The advance analytical tools in R package and the machine learning application in finance are the focal point of the course.

2. Intended learning outcomes

- Data structure in financial market and corporate finance
- Seminal works in finance and its application with real time data
- Excel application in investment decision
- Financial data analysis using R-package
- Application of machine learning techniques in financial decision making

3. Course content

- **Module 1:** Quantitative Finance Preliminaries- data analysis methods in investment finance and corporate finance, use of discounting and compounding methods, valuation methods, Pro-forma financial statement modeling, mean and variance (single & portfolio), variance & co-variance matrix, efficient portfolio, market models including single factor and three factor models, beta estimation, security market line; market and corporate finance forecasting; other preliminary model and concepts of quantitative finance.

- **Module 2:** Financial Modeling in Excel- - excel functions for data screening, macros, vlookup functions, statistical functions in excel, excel VBA and random number generator, data tables and other basic excel applications in finance. In addition to the basic mathematical functions, modern spreadsheets provide built-in functions for common financial and statistical operations; types of charts (e.g., scatter diagrams, forecast charts, error patterns, and downside risk curves).
- **Module 3:** Introduction to R application in finance- financial data structure and R functions in data loading, data screening and charting & plotting of financial data for analysis; excel and R integration in data transfer; forecasting tools in R- advanced tools like EGARCH & VGARCH etc., back testing, volatility forecasting; event study in finance; portfolio optimization, asset pricing models- capital asset pricing & arbitrage pricing models; risk management- Value at risk, parametric VaR, historical VaR, derivative pricing models- black scholes model, binomial models; econometrics and wavelet analysis and other advanced time series models.
- **Module 4:** Financial Machine Learning- application of machine learning methods using real life financial data- logistic regression and neural network, deep neural network, K means algorithm, K nearest neighborhood, support vector machine; decision tree, random forest. Back testing with cross validation, training and testing of data; and other applications of machine learning in financial data.
- **Module 5:** Dataset Analytics and Risk measurement-Data Exploration using Fundamentals.Technical analysis.Gauging the market sentiment.Simulating Trading Strategies.Pairs Trading.Markowitz Mean-variance optimization.

4. Textbook and Reference Books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Financial Modelling	Simon Benninga	MIT Press publication	Latest
Reference Books				
1	Applied Quantitative Finance: Theory and Computational Tools	**Härdle**, W., **Kleinow**, T., **Stahl**, G		
2	An introduction to Quantitative Finance	Stephen Blyth	Oxford University press	
3	Advances in Financial Machine Learning	Marcos Lopez de Prado	Wiley Publication	
4	Financial Analytics with R	Mark J. Bennett, Dirk L	Cambridge University Press	

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM 6208	**Corporate Tax Planning**	1.5	**0**	**0.5**	**2**

Introduction

Every commercial organization has to follow the tax regime of a country and pay the applicable tax in the course of its business activity. In India, a business house is liable to pay direct and indirect

taxes payable on profit and the sales figures respectively. The bottom-line of a business is affected by the incidence of such taxes and managers are often expected to plan the tax to enhance the performance of the organization. Management students are generally seeking employment in organized sector of the economy which constitute around 50% of the GDP. Hence, knowledge on corporate taxation helps the students in managing the day to day transactions in the organization and enhances the performance of the corporate house through tax planning. Hence, Corporate Taxation is an integral part of management education. The course aims to provide knowledge to the students about provisions of corporate taxation in practical terms and use of the tax planning methods to minimize tax liability. It familiarizes the students in filing GST and IT returns, account for expenses with proper compliance of tax laws, and understand the implication of tax in investment analysis.

Learning Outcome

After the course, students can learn the following:

- Basics of Direct Tax, incidence of tax, and discharge of tax liability.
- The importance of tax planning for better performance.
- Proper tax compliance to avoid penalty and corporate mis-governance
- Impact of tax on various financial performance parameters.

Course Content

- **Direct Tax Provisions**
  Development of Income Tax and Corporate Tax, Key definitions; meaning of assessee, previous year, assessment Incidence of tax for Public Limited, Private Limited and Foreing Companies, New provision of Income Tax suggested in Budget 2020, Accrual Vs cash transactions, ,Income exempt from tax, Incidence of tax on account of Profits & Gains and Capital Gain, ,Advance tax liability, Due Date for payment of Advance Tax, Applicability of TDS, TDS Rate, Income Tax Return forms for Corporate.Basic of DTA, Countries under DTA, Relief under section 90, 90A
- **Corporate Tax planning**

  Minimum Alternate Tax, Dividend Distribution Tax. Deferred tax liabilities, Carry Forward and Set off Business Loss, Choosing between new and old tax structures, Tax provisions for start up companies, Capital structure and tax planning

- **Depreciation**

  Rate and incidence of depreciation as per GAAP and IT Act, Treatment of Sale and Purchase of Asset, Block of Assets, Depreciation as a tax planning tool, Tax planning opportunities through new depreciation rules, Tax planning in new investment

- **Business Restructuring**

  Amalgamation, Transactions not treated as Amalgamation, Asset Transfer, Tax advantage/ disadvantage of a merger, demerger, discontinued business, spin-off, share buyback,

- **Indirect taxation**

  Constitution and GST, Key terms definition; Goods, Services, Supplier, Supply, Deemed Supply, Exempt Supply, Aggregate Turnover, Business, Place of Business, Capital Goods, Consideration, E-Commerce, Input Service Distributor, Reverse Charge, Person liable to registration, person not liable for registration, Compulsory registration in certain cases,

Procedure for registration, Cancellation or suspension of Registration, Scope of Supply, Tax liability on Composition and mixed supplies, levy and collection.

- **Contemporary developments in corporate taxation**

Text Books

SN	Title	Author	Publisher	Edition
1	Corporate tax planning and business tax procedures (**Main Text**)	Monica Singhania, Vinod K Singhania	Taxmann	Latest Edition
2	Goods and Service Tax	Dr. Jyoti Rattan and CA. AlokKrishan	Bharat Publication	Latest Edition
3	Students' Guide to Income Tax including GST	Vinod K. SinghaniaMonica Singhania	Taxmann	2020 University Edition

Reference Books

SN	Title	Author	Publisher	Edition
1	Direct Tax Law and Practice	Vinod K. Singhania	Taxmann	Latest
2	Income Tax Law	Chaturvedi&Pithisaria	LexisNexis	Latest

Area: Human Resource Management

Area: Human Resource Management						
Sl. No.	Course Code	Subject	L	T	P	Credit
Core Courses						
1	BM5103	Organizational Behavior	2	0	0	2
2	BM5104	Organization Theory	2	0	0	2
3	BM5102	Human Resource Management	2	0	0	2
Elective Courses						
1	BM6115	HR Planning and Selection	1.5	**0**	**0.5**	**2**
2	BM6116	Labor Laws and Industrial Relations	1.5	**0**	**0.5**	**2**
3	BM6111	Performance Management Systems	1.5	**0**	**0.5**	**2**

4	BM6834	HR Analytics*	1.5	0	0.5	2
5	BM6113	Compensation and Reward Management	1.5	0	0.5	2
6	BM6108	Managerial Effectiveness	Sessional			2
7	BM6117	HR Value Proposition and HR Scorecard	1.5	0	0.5	2
8	BM6107	Leadership for Corporate Excellence	1.5	0	0.5	2
9	BM6105	Organization Development and Change	1.5	0	0.5	2
10	BM6118	HR Accounting and HR Audit-New Course	1.5	0	0.5	2
11	BM6119	Human Resource Development (T&D)	1.5	0	0.5	2
12	BM6120	Strategic Human Resource Management	1.5	0	0.5	2
13	BM6121	Competency Mapping and Building the Talent Pipeline	1.5	0	0.5	2
14	BM6122	Managing Employee Engagement	1.5	0	0.5	2

Course Code	Name of the course	Credits			
		L	T	P	Total
BM5103	Organizational Behavior	2	0	0	2

1. Introduction

Understanding the dynamics of individual and interpersonal behavior in organizational setting; developing students' knowledge and competence to deal with human problems of management; developing students' awareness and insight for personal and professional growth and finally making students aware about group formation, dynamics, functions and its effective management.

2. Intended Learning Outcomes

- Students will be able to understand the fundamental concepts of individual, group and organizational behavior
- Students will be able to understand and relate to those micro aspects of individual behavior such as learning, conditioning, perception etc. that might impact upon the larger organizational context
- Students would be able to understand the various personality types, attitudes and utilize the knowledge for augmenting the performance in the organization.
- Students will understand and be aware about group formation, group dynamics, functions and the challenges of group management
- Students will be able to handle conflict resolution techniques in a more effective manner.

- Students will be able to understand various nuances involved in leadership and would utilize the same in order to adorn leadership positions.

3. Course Content

- Introduction to OB & Diversity in Organization: Management Functions: Management roles & skills, Importance of OB, challenges &opportunities of OB, Diversity, Biographical characteristics affecting employee performance & understanding
- Attitudes & Job Satisfaction: Types of Attitudes, Cognitive Dissonance Theory, Measuring Job Satisfaction, The effect of Job Satisfaction on Employee Performance, Employee Dissatisfaction, Global implications
- Emotions & Moods: Basic Emotions, Basic Moods, Emotional Labour, Emotional Intelligence, OB Application of Emotions & Moods, Global Issues
- Personality & Values: Personality, Myers-Briggs Type Indicator The Big Five Personality Model, Importance of values, Types of values, Values across cultures (Global Implications), Self-Assessment test on Personality
- Perception & Individual Decision Making: Factors Influencing Perception, Person Perception, Decision making in Organization, Ethics in Decision Making
- Motivation: Brief on theories of motivation & concepts and application: Early theories of motivation: Maslow's Hierarchy of Needs, Theory X and Theory Y, Two Factor Theory, McClelland's Theory of Needs, Contemporary theories: ERG theory, Self-efficacy theory, Equity theory, Cognitive Evaluation theory, Goal setting theory, Expectancy theory, Job characteristics model, Rewards to motivate employees
- Concepts of groups, individual & the group, Group cohesion, development, structure and influence: Concepts of group, The nature of group dynamics, The individual and the group, Group formation, Group cohesion and development, Group structure: role, norm, status, Group influence, Social loafing, Sources of influence
- Group Decision Making: Group vs. the Individual, Group Think & Group Shift & Group decision making techniques, Effective Groups, Self-Managing Teams, Advantages and Disadvantages of Groups,
- Understanding work teams: Difference between groups and teams, Types of Teams, Creating Effective Teams, Turning Individuals into team players.
- Communication: Basics of Communication, Process & Functions of Communication, Interpersonal Communication, Barriers to Communication, Organizational Communication, Gender differences in communication, Silence as Communication, Politically Correct Communication
- Leadership and issues in Leadership: Brief on theories, Charismatic and Transformational Leadership, Authentic Leadership, Trust and Servant Leadership, Leader as the mentor
- Power & Politics: Bases of Power, Dependency: The Key to Power; Power Tactics; Power in groups; Unequal power in the workplace; Politics: Power in Action; Causes and consequences of political behaviour
- Conflict & Negotiation: Roots of conflict; The conflict process; confrontation and escalation; Negotiation: process, issues, cultural differences in negotiation, conflict resolution, third party negotiation
- Stress Management: Stress, potential sources of stress, Consequences of stress, Managing stress.

4. Textbook and Reference Books

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
	Organization Behavior	Robbins, S., Judge, T.A. and Vohra, N.	Pearson	18th
Reference Books				
1	Organization Behavior	McShane S., and Von Glinow, M.	TMH	3rd
2	Organizational Behavior	Uma Sekharan	TMH	2nd
3	Organization Behavior	Fred Luthans	TMH	10th

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM5104	Organization Theory	2	**0**	**0**	**2**

Introduction

Understanding and designing organization structure and appreciating the impact of size, strategy, technology, environment, power and culture on organizational dynamics and its effective functioning.

Intended Learning Outcomes

- Understand the evolution of organizations and conditions of organizational effectiveness
- Understand the components of organization structure and design and the typologies of organization structures
- Understand the impact of organizational size, technology and environment on organizational structure.
- Understand the different organizational design options along with the strengths and weaknesses.
- Discuss organizational functioning in varied environments
- Understand the concepts of organizational change and organizational culture.

Course Content

- Organization Theory and Evolution
- Dimensions of Organization Structure
- Organization Effectiveness
- Strategy and Organization Structure
- Size and Organization Structure
- Technology and Organization Structure
- Power-Control
- Organizational Design Options

- Bureaucracy
- Adhocracy
- Managing Environment
- Organizational Change
- Managing Organizational Culture and Organizational Evolution

4. Textbook and Reference Books

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
	Organization Theory	Robbins, S. and Matthew, M.	Pearson	3rd
Reference Books				
1	Structure in Fives Designing Effective Organizations	Mintzberg, H.	PHI	3rd
2	Organizational Theory and Design	Daft, R.	Cengage	13th
3	Organizational Theory and Design	Jones, G.	Pearson	7th

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM5102	Human Resource Management	2	**0**	**0**	**2**

Introduction

Today, HR managers play a major role in strategic decision making and are evolving as business partners. At the same time, Human Resource Management is no more limited to only HR personnel. Rather, every manager needs to work on it along with the HR department. Managers who are good at HRM can use their workforce in a more efficient and effective manner to gain competitive advantage for their organizations. The course aims to equip students with the tools and practices of HRM and help them appreciate they change they can affect in an organization by managing people in the best possible manner. It also aims at providing an overview of the current people challenges that organizations/ managers are facing today.

Intended Learning Outcomes

- Acquainted with basic tools and techniques of HRM like job evaluation, assessment center, competency mapping etc.
- Relate to the basic HR functions and processes like Recruitment, training, performance management etc.

- Understand the role of HR in today's corporate world, challenges and how to address them while well-guarding employee sensitivities.
- Understand the legal framework of HRM.
- Understand the importance of harmonious Employee Relations.

Course Content

Module 1: HRM & Strategic HRM

- Introduction - Journey of HR from personnel management to strategic HRM, Environmental Influences on HRM, Functions of HR in organizations, Modern day challenges to HR
- Strategic HRM – Evolution of HR as a business partner, Need for Strategic HRM, HR Metrics, Using the VRIO Framework for competitive advantage

Module 2: HR Processes

- Job Analysis – What is Job Analysis? Sources of data collection & methods of conducting a job analysis, Outcomes of a job analysis: Job description and job specification.
- Job Evaluation - What is Job Evaluation? Outcomes of job evaluation: Job banding leading to pay bands, Different methods of JE : Ranking, classification, Factor comparison and point method
- Manpower Planning - Concept, Objectives & Methods
- Performance Management - Design principles of PMS, Stages of a PMS cycle - Goal setting, SMART goals, KPA and KPI, Balanced score card & Goal cascading, Mid-year review and feedback; Different rating scales – Graphic rating, Forced choice, Mixed standard scale, BARS, BOS; Methods of evaluation – rating, ranking, MBO; Rater errors – Halo effect, Horn effect, error of central tendency, leniency/ strictness error, recency error, attribution bias, similar-to-me error, stereotyping; Concept of Normalization – Need & process; Competency and assessment center
- Compensation & benefits' Administration – Types of Compensation, HR Metrics & Compensation, Legal Effects on Pay System, Base Pay System, Components of Pay Structures, Fixed & variable Pay, Types of benefits
- Recruitment and Selection – Concepts, process, methods & evaluation
- T&D and Career Development – Concept, Methods, calculating training effectiveness using Kirkpatrick's model, Career Planning, Types of Career Paths, Schein's Career anchors and its implications on jobs
- Employee engagement - Engagement drivers at work place, Role of HR in enhancing engagement, Challenges in engaging millennials

Module 3: Industrial Relations

- Introduction – IR scenario in India: Current issues and future challenges, Industrial disputes and preventive machinery and settlement
- Trade Union & Collective Bargaining – The Trade Union Act, 1926; Union recognition and problems, the process of bargaining, Conditions essential for effective bargaining
- Employee Grievance Management and Discipline

Textbook and Reference Books

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
	Human Resource Management	Dessler, G.	Pearson	15th
Reference Books				
1	Principles of HRM	Bohlander, G.	Cengage	16th
2	Human Resource Management	Sanghi, S.	Vikas	2nd

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6115	HR Planning and Selection	1.5	0	0.5	2

1. Introduction

Manpower Planning (MP) which is also called as Human Resource Planning consists of putting right number of people, right kind of people at the right place, right time, doing the right things for which they are suited for the achievement of goals of the organization. The course aims to teach students strategies for acquisition, utilization and development of human resources. Students will also learn replacement planning which analyses labour turnover, development and maintenance of employee programmes and assess the future needs of the organization so that sufficient number of persons may be procured well in time. With the talent war growing aggressive in present times, Selection has assumed strategic importance. Today, a skilled manpower is being considered the greatest competitive advantage for an organization. This course intends to familiarize students with the various aspects (process, methods and tools used) of selection.

2. Intended Learning Outcomes

- Students shall be able to understand the importance of manpower planning and the impact on other functions if this planning is not carried out with utmost care.
- Students shall be able to link the process with other HR functions including recruitment, staffing, training, performance management, etc.
- Students shall be able to analyze current manpower inventories and match profiles
- Students shall be able to design Job Description & Specification formats for various roles.
- Students shall be able to forecast manpower – both demand and supply using different techniques best suited to the role of the vacancy in hand
- Students shall be equipped with various selection procedures practiced in industries.
- Students shall be able to understand latest selection tools in the corporate sector.

Course Content

- Forecasting Process, Demand Forecasting, Supply Forecasting
- Career Planning & Development
- Succession Planning
- Downsizing & Restructuring

- Mergers & Acquisitions
- Outsourcing
- Job Analysis and Profile Matching
- Hiring Process & Hiring Decision
- Internal & External Hiring
- On-boarding and Induction

4. Textbook and Reference Books

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
	HR Selection	Gatewood, R. Hubert, S.I and Barrick, M.R.	Cengage	8th
Reference Books				
1	Strategic Human Resource Planning	Belcourt, M. McBey, K.J. and Yap, H.M.	Cengage	5th
2	Human Resource Planning	Bhattacharya, D.K.	Excel	3rd
3	Staffing Organization	Herbert G. Heneman III, Timothy A. Judge	McGraw Hill	5th

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6116	Labor Laws and Industrial Relations	1.5	0	0.5	2

1. Introduction

To familiarize the students with legal framework of relevant HR and Labour Laws affecting the Indian industries. Knowledge of legal aspects governing the labour administration and industrial relations is essential for all HR managers. Every HR manager must know the labour laws of that country where he is working, because most of the core HR functions are linked and according to the labour laws of concerned country. Maintaining proper labour relations between the employer & employee and between employees is imperative for organizational performance.

2. Intended Learning Outcomes

- Students should be able to articulate the major Industrial concepts and statutes learnt through the course.
- Students should be able to appreciate the importance of labour in Indian economy.

- Students should be able to appreciate and relate to the structure, compensation and trends in the labour laws in India.
- Students should be able to understand the role of labour administration in Industrial Relations.
- Students should be able to understand the key issues and the paradigm shifts in labour policy.

3. Course Content

- Introduction to Labor - Occupational Structures in India, size of labor force, Features of Industrial Labor.
- The Trade Union Act, 1926
- Industrial Disputes Act, 1947
- Shops & Commercial Establishment Act – major States' specific
- Industrial Employment (Standing Orders) Act, 1946
- The Factories Act, 1948
- Contract Labor (Regulation & Abolition) Act, 1970
- The Payment of Bonus Act, 1965
- The Employees' State Insurance Act, 1948
- The Workmen's Compensation Act, 1923
- The Payment of Gratuity Act, 1972
- The Employees' Provident Funds And Miscellaneous Provisions Act, 1952
- The Payment of Wages Act, 1936
- Minimum Wages Act, 1948
- Equal Remuneration Act, 1976
- Building & Other Construction Workers' Act, 1996
- New Wage Code
- Negotiation and Collective Bargaining
- Quasi Judicial function, Discipline
- Labour Turnover and Absenteeism

4. Textbook and Reference Books

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
1	Labor And Industrial Laws	P.K. Padhi	PHI	Second Edition
2	All Bare Acts			
3	Industrial Relations	C S Venkata Ratnam	Oxford	Second Edition
Reference Books				
1	Labour And Industrial Laws	K. M. Pillai	Allahabad Law Agency	18th Edition
2	Industrial Relations, Trade Unions & Labour Legislations	H.L. Kumar	Universal Law	4th Edition

3	Industrial Law	P. L. Malik	Eastern Book Company	25th Edition
4	Labour And Industrial Law	S. N. Mishra	Central Law Publications	27th Edition
5	HRD & Labour Law	Sinha, Sinha & Shekhar	Pearson Education	3rd Edition

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6111	Performance Management Systems	1.5	0	0.5	**2**

Introduction

To acquaint students with the concept, processes and mechanics of performance management system practiced in business organizations, and to enable them to learn the key concepts in measuring group and organization performance.

Intended Learning Outcomes

- Students will be aware of, understand and appreciate the importance of a robust performance management system in organizations
- Students will understand the entire cycle of the performance management process i.e. the framing of goals, key result areas, appraisal and its various methods, review, monitoring and renewal
- Students will be able to understand the measures of team and organizational level performance
- Students will be able to understand the process of potential appraisal and use of automation in PMS
- Students will be able to identify and understand the latest trends, issues and challenges in performance management and compensation systems in organizations today.

Course Content

- **Module 1: Introduction to Performance Management Systems.** Introduction to PMS, Performance Planning
- **Module 2: Process of Performance Appraisal and Performance Review.** Process of Performance Appraisal. Absolute and Relative Methods of Performance Appraisal. BARS, MBO and 360 degree. Performance Management Review: Process and Techniques
- **Module 3: Measuring Individual /Group/Organizational Performance.** Performance Based Compensation. Team Performance Management. Balanced and HR Scorecards
- **Module 4: Future of PMS.** Performance Management and Mentoring. Potential Management. Use of automation in PMS. Contemporary issues in PMS

Textbook and Reference Books

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
	Performance Management Systems	Bagchi, S.N.	Cengage	2nd
Reference Books				
1	Performance Management System	Rao, T.V.	Sage	2nd
2	Performance Management	Cardy, R.L.	Prentice Hall of India	2nd
3	Performance Management	Aguinis, H.	Pearson	3rd
4	Measure What Matters	Doerr, J.	Penguin	1st

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6113	Compensation and Reward Management	1.5	0	0.5	**2**

Introduction

To acquaint students with the concept, processes and mechanics of compensation management system practiced in business organizations, and to enable them to learn the key concepts in reward management and benefits administration.

Intended Learning Outcomes

- Gasp the basic components of designing a pay system keeping in mind the issues of external and internal equity in organizations
- Understand and develop an appreciation for the various incentive schemes –individual, team and organizational.
- Identify and understand the latest trends, issues and challenges in compensation systems in organizations today.

Course Content

- **Module 1: Introduction to Compensation Management.** The World of Pay and Compensation, Legal Issues in Compensation Management
- **Module 2: Internal and External Equity in Compensation.** Introduction to job evaluation, Hay method of job evaluation, Surveying market pay and compensation practices, Design of Pay Structure
- **Module 3: Benefits and Reward Management.** Measuring and paying for performance, Individual incentive plans, Gainsharing plans, Long term incentives, Benefits and services
- **Module 4: Future of C&RM.** Executive and International Compensation, Use of automation in compensation, Future of C&RM

4. Textbook and Reference Books

Sl No.	Title	Author(s)	Publisher	Edition

Textbook				
1	Compensation Management	Sharma, R.C. and Sharma, S.	Sage	1st
Reference Books				
1	Compensation Management in a knowledge-based world	Henderson, R.	Pearson	10th
2	Compensation	Milkovich, G. Gerhardt, B. and Newman, J.	McGraw Hill	12th

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6108	Managerial Effectiveness	Sessional			**2**

Introduction

This program aims to help students to understand

Their strengths to design a map of their life and objectives therein

Inner potential through psychometric tools

their relationship orientation, emotions and impact on their environment

how to take appropriate decisions using different tools

conflict resolution styles contextual to their life and organization

Intended Learning outcomes

- Identify their strengths in order to design an autobiographical map of their past, present and future.
- Understand their inner potential on undertaking certain psychometric profiling.
- Understand their relationship orientation and emotional intelligence
- Identify the process of making appropriate decisions conducive to their life and organizational environment

3. Course Content

- Understanding the context
- Managing People
- Managing Tasks
- Managing Self
- Managing Conflict

4. Textbook and Reference Books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Leadership by Choice: Increasing Influence and Effectiveness through Self-Management	Papp, Erich	John Wiley & Sons	4th
Reference Books				
1	Quiet Leadership	David rock	HarperCollins Publishers	Kindle Edition
2	7 habits of highly effective people	Stephen covey	Free Press	4th
3	Movie Mind directing your mental cinema	Michael hall	Neuro-Semantic Publications	3rd

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6117	HR Value Proposition and HR Scorecard	1.5	0	0.5	**2**

1. Introduction

One of the fundamental purpose of business is to create value for its stakeholders. For HR to deliver value, it needs to define its receivers and how to create value for them, or it won't survive. This is the fundamental premise on which HR Value propositions are based. To be able to deliver value, the HR professionals need to understand the business realities; recognize the stakeholders; focus on HR practices that deliver value; create a strategy and structure that will deliver value; develop right competencies to deliver value; and create appropriate metrics to measure how value is delivered.

2. Intended Learning Outcomes

- Understand the concepts concerning HR value proposition and the associated measurement metrics.
- Apply the learned concepts to access business realities, deliverables for stakeholders, appropriateness of existing HR practices, level of existing competencies and nature of strategy and structure.
- Analyze given contexts to determine drivers and barriers to creating value for stakeholders.
- From a given context both involving opportunities and challenges, create alternatives to deliver value, evaluate the alternatives and choose the most appropriate alternative to deliver value.
- Create HR scorecards capturing HR deliverables, measures of high performance work- process elements, HR system alignment and HR efficiency measures.

3. Course Content

- **Accessing the external business realities:** Recognise external business realities, adapt HR practices and allocate HR resources accordingly.
- **Serving external and internal stakeholders:** Create market value for investors by increasing intangibles; increase customer share by connecting with target customers: help line managers deliver strategy by building organisation capabilities; clarify and establish an employee value proposition and enhances individual abilities.
- **Creating HR practices:** Manage people processes and practices in ways that add value; manage performance management processes and practices in ways that add value; manage information processes and practices in ways that add value; and manage work- flow design and processes in ways that add value.
- **Building HR capabilities:** Align organisation to the strategy of the business and create a clear strategic planning process for aligning HR investments with business goals.
- **Ensuring HR professionalism:** Orient HR professionals to play clear and appropriate roles; build HR professionals who demonstrate HR competencies; and invests in learning and development of HR professionals.
- **Developing HR Scorecard:** Strategy maps- linking multiple perspectives that create value; and HR Scorecard- goals, objectives, measures, initiatives and required resources.

4. Textbook and Reference Books

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
1	HR Value Proposition	Ulrich, D. and Brockbank, W.	HBS Press	Kindle Edition
Reference Books				
1	The HR Scorecard: Linking People, Strategy and Performance	Ulrich, B.E. and Huselid, M.	HBS Press	Kindle Edition

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6107	Leadership for Corporate Excellence	1.5	0	0.5	**2**

Introduction

To enable the students to understand the basics of leadership attributes in general and the art of corporate leadership in particular. Understand how the leadership function contributes to the management of people and organizations. Develop insight into the practices associated with effective leadership. Pinpoint some of the knowledge and skills students' will need to become an effective leader and manager. Developing leadership skills that students' can apply outside the classroom.

Intended Learning Outcomes

- Enhance their Leadership Skills
- Develop emotional intelligence to become effective leaders

- Interpret the situational aspects of Leadership
- Communicate better in an organization
- Inculcate the nuances involved in becoming effective leaders.

Course Content

- The meaning and relevance of Leadership. The meaning of Leadership, The Impact of Leadership on Organizational Performance, Leadership Roles, The Satisfactions and Frustrations of Leadership, A Framework for Understanding Leadership
- Personal attributes of Leader. Personality Traits of Effective Leaders, Leadership Motives, The Influence of Heredity and Environment on Leadership, The Strengths and Limitations of the Trait Approach.
- Charismatic and Transformational Aspects of Leaders, The Meaning of Charisma, Types of Charismatic Leaders, Characteristics of Charismatic Leaders, The Vision Component of Charismatic Leadership, The communication Style of Charismatic Leaders, The Development of Charisma, Transformational Leadership, Concerns About Charismatic Leadership
- Leadership Actions, Attitudes, and Style, The Classic Dimensions of Initiating Structure and Consideration, Relationship- Oriented Attitudes and Behaviors, 360-Degree Feedback for Fine-Tuning a Leadership Approach, Leadership Approach
- How Leaders Respond to The Situation at Hand. Situational Influences on Effective Leadership Behavior, Fiedler's Contingency Theory of Leadership Effectiveness, The Path-Goal Theory of Leadership Effectiveness, The Hersey-Blanchard Situational Leadership Model, The Normative Decision Model, Cognitive Resource Theory : How Intelligence , Experience, and Stress Influence Leadership, Contingency Leadership in the Executive Studies, Leadership during a Crisis
- The Moral aspects of leadership. A sampling of Unethical Leadership behaviors, Leadership and Social Responsibility, Initiatives for Achieving Ethical and Social Responsible Organization, Ethical behavior and Organizational Performance.
- How leaders exert influence? A model of Power and Influence, Description and Explanation of Influence Tactics, Relative Effectiveness and Sequencing of Influence Tactics
- Enhancing teamwork within the group. Team Leadership Versus Solo Leadership, Advantages and Disadvantages of Group work and Teamwork, The Leader's Role in the Team-Base Organization, Leader Actions That Foster Teamwork, Outdoor Training and Team Development, The Leader-Member Exchange Model and Teamwork
- The Leader as a motivator and coach. Expectancy Theory and Motivational Skills, Goal Theory, Behavior Modification and Motivational Skills, Using Recognition to Motivate others, Coaching as a Leadership Philosophy, Coaching Skills and Techniques, Executive Coaching and Leadership Effectiveness
- Communicating with others and Resolving Conflict. Evidence About Communication and Leadership, Inspirational and Powerful Communication, Supportive Communication, Overcoming Cross-Cultural Communication Barriers, The Leader's Role in Resolving Conflict and Negotiating
- The Creative and Innovative aspects of a Leader. Steps in the Creative Process, Characteristics of Creative Leaders, Overcoming Traditional Thinking as a Creative Strategy, Organizational methods to Enhance Creativity, Self-Help Techniques to Enhance Creative Problem Solving, Establishing a Climate for Creative Thinking, Additional Leadership Practice That Enhance Innovation.

- Global and Cross-Cultural Leadership. The advantages of Managing for Diversity, Cultural Factors Influencing Leadership Practice, Cultural Sensitive and Global Leadership Skills, Leadership Initiatively for Achieving Cultural Diversity, Developing the Multicultural Organization
- Thinking Strategically and Managing Knowledge. The Nature of Strategic Leadership, Conducting a SWOT Analysis, A Sampling of Business Strategies formulated by Leader, Knowledge Management and the Learning Organization
- The development of Leaders and Succession planning and Followership. Development Through Self-Awareness and Self-Discipline, Development Through Education, Experience, and Mentoring, Leadership Development Programs, Evaluations of Leadership Development Efforts, Leadership Succession.
- How leaders Attain and Maintain power? Sources and Types of Power, Bases of Power and Transformational and Transactional Leadership, Tactics for Becoming an Empowering Leader, Factors That Contribute to Organizational Politics, Political Tactics and Strategies, Exercising Control over Dysfunctional Politics

4. Textbook and Reference Books

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
1	Principles of Leadership	DuBrin, A.J.	Cengage	8th
Reference Books				
1	The leadership experience	Daft, R.L.	Cengage	5th
2	Seven Habits of highly successful people	Covey, S.	Franklin Covey & Co	4th
3	Leadership: Myths and Realities	Allio, R.J.	Tata McGraw	
4	Leadership: Enhancing the lessons of Experience	Hughes, R.L., Ginnet, R.C., Curphy, G.J.	TMH	8th

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6105	Organization Development and Change	1.5	0	0.5	**2**

Introduction

Organizations world over have a continuous need for adapting to the ever-increasing environmental demands and reinventing themselves for their sustenance and growth. The course is designed to make students appreciate the dynamics of organization during fast paced change and facilitate the needed effectiveness improvement process using behavioral science knowledge and theories of planned change.

2. Intended Learning Outcome

- To appreciate the origin and development of OD as a discipline
- To understand the nature of planned change and the essential competencies of an effective OD practitioner
- To familiarize with the process of organization development
- To help diagnose organizations and select an appropriate intervention to ensure alignment
- To apply OD in non-industrial settings such as health care, school system, public sector undertakings and family owned businesses

3. Course Content

- Introduction and overview of change and development
- Organizational Change – Types, Levers & Theories, Organizational Change – Process, Change Agents, Models of Designing & implementing Change, Resistance to Change, Consequences of Change
- Steps in OD: Entering and contracting; diagnosing organizations; diagnosing groups and jobs; collecting and analyzing diagnostic information; feeding back diagnostic information; designing interventions; leading and managing change; evaluating and institutionalizing OD interventions: human process interventions; techno-structural interventions; human resource management interventions; strategic interventions
- Emerging trends in OD – OD for economic, ecological and social outcomes
- The future direction in Organization Development

4. Textbook and Reference Book

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
	Organization Development & Change	Thomas G. Cummings & Christopher G. Worley	CENGAGE Learning	10th
Reference Books				
1	Organization Development – Behavioral Science Interventions for Organization Improvement	Wendell L. French and Cecil H. Bell, Jr.	Prentice-Hall of India	6th

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6118	HR Accounting and HR Audit	1.5	0	0.5	**2**

1. Introduction

The course is designed to enable students to understand through Human Resource Accounting (HRA), in financial terms, the effectiveness of the HR activities and the use of people in an organization. The course also aims to make students understand the importance of Human Resource

Audit, which is an organized official process, conducted to ensure compliance and improve HR practices.

Intended Learning Outcomes

- Students will be able to understand that expenditures associated with human resources are reported as assets on the balance sheet in contrast to the conventional accounting approach which treats costs related to a company's human resources as expenses on the income statement that decrease profit.
- Students shall be able to relate people as the organizational resources.
- Students shall be able to analyze costs incurred by organizations to recruit, select, employ, train and develop employees and judge their economic value to the organization.
- Students shall be able to gauge the importance of HR Audit to ensure compliance, improve HR practices, train managers, prepare for potential audit or litigation, gain an understanding of department's environment and correct errors.

Course Content

- Human Resource Accounting – Meaning, Need and Objectives of HR Accounting
- Historical Development of Human Resource Accounting
- Cost of Human Resource – Acquisition Cost, Training and Development Cost and Additional Cost
- Benefits and Limitations of Human Resource Accounting
- Methods of Human Resource Accounting
- Statutory Provisions Governing HR Accounts
- Human Resource Accounting Practices in India
- Human Resource Audit – Meaning, Features, Objectives of HR Audit, Benefits and Limitations of HR Audit, Need and Significance of HR Audit
- Process of HR Audit
- Approaches of HR Audit
- Principles of Effective HR Auditing
- Role of HR Auditor
- Methods of Conducting HR Audit – Interview, Workshop, Observation, Questionnaire
- Components of HR Audit
- Areas Covered by HR Audit

4. Textbook and Reference Book

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
1	Human Resource Accounting in India	Suresh Kumar Pandey	Lambert Academy Publishing	First Edition
2	Compiled text material			
3	HRD Audit: Evaluating the	T V Rao	Sage	Second Edition

	Human Resource Function for Business Improvement				
Reference Books					
1	Human Resource Accounting	Kanaka Raju K	Scholars' Press	First Edition	

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6119	Human Resource Development (T&D)	1.5	0	0.5	**2**

1. Introduction

To enable students to understand the importance of employee training and development for attainment of business results and objectives, to develop in students the necessary competencies to research, design, develop, deliver and ultimately monitor training and developmental activities, processes and measure its impact on business results.

2. Intended Learning Outcomes:

- Students will be able to understand the importance of training and development in the management and growth of human resources in organizations
- Students will be able to understand and evaluate the differences between training and development, the application of concepts such as education and learning to organizations
- Students will be able to understand and demonstrate the learning on training need assessment and the design of generic and specific/customized training programmes.
- Students will be able to identify, understand and evaluate the different methods and techniques of training implementation
- Students will able to understand the importance of the post training process such as training evaluation, cost benefit assessments and the need for the continuous transfer of learning

3. Course Content

- **Module 1: Introduction to Training and Development:** Introduction to T&D, Learning and Training, Motivation and Training, : TA and Trainer Styles
- **Module 2: Training Need Analysis and Design of Training Programmes:** Training Need Analysis, Training Design
- **Module 3: Training Implementation/Delivery and Training Evaluation:** Development and Implementation of Training, Off the job training, On the job training, Use of technology in training, Training Evaluation
- **Module 4: Cost Benefit Analysis of Training Programmes:** CBA, Future of T&D

4. Textbook and Reference Book

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
1	Managing Performance through Training and Development	Saks, A.M & Haccoun, R.R.	Cengage	8th
Reference Books				
1	Employee Training and Development	Noe, Raymond	TMH	4th
2	Training for Organizational Transformation	Lynton, R.P. & Pareekh, U.	Sage	3rd
3	Effective Training: Systems, Strategies and Practices	Blanchard, P.N. & Thacker, J.W.	Pearson	4th

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6120	Strategic Human Resource Management	1.5	0	0.5	**2**

1. Introduction

This course presents a thorough and systematic coverage of issues related to strategic human resource management

2. Intended Learning Outcomes

- Students will be able to think strategically and integrate the activities of HR with the organization's goals.
- Understand Human resource management at the backdrop of uncertainties
- Understand Models of strategy, the process of Strategic management
- Understand Importance of strategic planning for business success
- Understand Market driven strategy, Resource driven strategy.
- Impact of Geopolitics on Business

Course Content

- Challenges in strategic Human Resource Management:
- Impact of Geopolitics on Business
- Impact of Technology
- Challenges related to technology, behaviour , demographic change and diversity
- Importance of strategic planning for business success, Business strategy-Market driven strategy, Resource driven strategy
- The Human resource environment of business, human resource system- its macro and micro dimensions, strategic management of HR, Strategic HR planning

- Strategic approach to manpower acquisition – recruitment and selection, Strategic development of human resources
- Strategic approach to management structure, job design and work system, strategic management of performance, strategic approach to compensation and benefits
- Strategic approach to Talent management system. Uses data to focus on key measures for evaluation of L&D
- Identifies the appropriateness of relevant social media to enhance branding ,learning effectiveness, Evaluate quality and utility of e-learning alternatives
- Strategic approach to Industrial relations, outsourcing and its HR implications, Mergers and acquisitions and HRM

4. Textbook and Reference Book

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
1	Strategic Human Resource management,	Das Pulak,	Cengage	1st
Reference Books				
1	Strategic Human resource management	Charles R. Greer	Pearson	2nd
2	Strategic HRM	Jaffrey A Mello	Cengage	4th

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6121	Competency Mapping and Building the Talent Pipeline	1.5	0	0.5	**2**

1. Introduction

The course will help students understand competency based Human Resource Management. This will equip them with techniques of identifying and defining competencies. This will equip them to validate generic and specific competency models, Designing and developing assessment centre.

2. Intended Learning Outcomes

- Develop Competency Model
- Conduct competency mapping exercise
- Design Assessment Centre

3. Course Content

- Definition and types of competency

- Identification of competency
- Documentation related to competency
- Competency requirement of roles at different levels
- Competency modelling
- Behavioural Indicators
- Assessment of competency during hiring and for growth
- Competency based processes (including career and succession planning)
- Measurements related to competency
- Competency based design and reliability validity checks
- Designing competency inventory and aid organization movement

4. Textbook and Reference Book

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
Reference Books				
1	The Handbook of Competency Mapping: Understanding, Designing and Implementing Competency Models in Organizations	Seema Sanghi	SAGE Publications	3rd
2	Talent Mapping - Competency Based Workforce Planning	Ganesh Shermon, Anavir Shermon	Lulu.com	1st

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6122	Managing Employee Engagement	1.5	0	0.5	**2**

1. Introduction

To familiarize the students about the relevance and significance of not only attracting but more importantly retaining talented people in organizations with a special focus on career management, benefits administration, managing workforce diversity, and administration. Employee Engagement involves individual and organizational development in response to a changing and complex operating environment. It is not just limited to attracting the best people from the industry but it is a continuous process that involves sourcing, hiring, developing, retaining and promoting them while meeting the organization's requirements simultaneously. This course will equip the participant with

the necessary skills and knowledge required for talent recognition, management, retention and development; a sure way to ensure continuity and success.

2. Intended Learning Outcomes: -

- It will help students to identify types of talent and understand life cycle of Employee Engagement
- Students will identify key Employee Engagement phases for implementing a talent management program.
- Students can state the importance and benefits of talent management.
- Students can compare with replacement planning and traditional processes.
- Identify methods to determine talent for a position.
- Build up questions that help them to recognize talent.
- It will be important for them to use measures to retain talent.

3. Course Content

- Introduction to Employee Engagement:
- Building Blocks for Employee Engagement:
- Life Cycle of Employee Engagement
- Employee Engagement System
- Approaches to Employee Engagement:
- Employee Engagement and Organizational Environment:
- Talent development budget, contingency plan for talent;
- Talent Acquisition
- Employee Engagement and Retention
- Role of Information Technology in effective Employee Engagement Systems
- Role of Information Technology in effective Employee Engagement Systems
- Role of HR in Employee Engagement:
- Measuring Performance, Assessment and Development Centre:
- Compensation and reward strategies for Effective Employee Engagement:
- Compensation and reward strategies for Effective Employee Engagement:
- Employee Engagement and Corporate Restructuring:
- Contemporary Employee Engagement Issues, Challenges, Best Practices
- Best Practices of Employee Engagement, Employee Engagement in India.

4. Textbook and Reference Book

Sl No.	Title	Author(s)	Publisher	Edition
Textbook				
1	Talent Management	by Gowri Joshi and Veena Vohra	Cengage.	2019
Reference Books				

1	Managing Talent	Marion Devine	The Economist	2019
2	The Talent Management Handbook, Making Culture a Competitive Advantage by Acquiring, Identifying, Developing, and Promoting the Best People	Dorothy R. Berger, Lance A. Berger	MC Graw hill	2018

Area: Operations Management

Sl. No.	Course Code	Subject	L	T	P	Credit
Core Courses						
1	BM5803	Production & Operations Management – I	**2**	**0**	**0**	**2**
2	BM5804	Production and Operations Management – II	**2**	**0**	**0**	**2**
Elective Courses						
1	BM6808	Supply Chain Management	1.5	0	.5	**2**
2	BM6807	Total Quality Management	1.5	0	.5	**2**
3	BM6611	IT Project Management*	1.5	0	.5	**2**
4	BM6814	Machine Learning & Artificial Intelligence*	1.5	0	.5	**2**
5	BM6610	E-Business*	1.5	0	.5	**2**
6	BM6612	Internet of Things*	1.5	0	.5	**2**
7	BM6607	Enterprise Resource Planning Systems*	1.5	0	.5	**2**
8	BM6601	Data Mining and Business Intelligence*	1.5	0	.5	**2**
9	BM6815	Managing Service Operations	1.5	0	.5	**2**
10	BM6809	Project Management	1.5	0	.5	**2**

* Courses are also offered in Information Technology Management (ITM) area. Course details are given under ITM area.

CourseCode	Name of the course	Credits			
		L	T	P	Total
BM5803	Production & Operations Management – I	2	0	0	2

1. Introduction

Production and operations management (POM) deals with the design and operation of the system producing goods and services. It explores the ways operations managers approach and analyze strategic decisions in operations with a focus on designing products and processes, allocating scarce

resources to strategic alternatives, and long-range capacity and facility planning. These operations functions help in achieving the long-range broader organizational objectives.

Subsequent focus will be on medium and short-term planning and control activities. The pedagogy will strive to strike a balance between theoretical and practical perspectives in manufacturing and service organizations.

2. Intended learning outcomes

- Identify the elements of operations and supply chain management (OSCM).
- Identify the various transformation processes in supply chains of their choice.
- Apply operations management concepts for enhancing competitiveness along the dimensions of cost, quality, flexibility and delivery.
- Prepare for the various career opportunities in operations and supply chain management.
- Know the issues related to the design of products and services with reference to design-for-x (DFX) methodologies governed by design thinking.
- Understand the concept of product lifecycle management (PLM) and supply chain management (SCM) governed by design thinking.
- Analyze projects using network-planning models.
- Evaluate capacity alternatives in supply chains using decision tress.
- Understand, explain and analyze simple manufacturing and service processes.
- Analyze logistics-driven location decisions.
- Analyze common types of manufacturing layouts and illustrate layouts in non-manufacturing setups.
- Demonstrate the application of layout concepts in a digital manufacturing environment.
- Explain how jobs are designed and analyze manufacturing, service and logistics processes to ensure competitiveness of a firm.

3. Course content

- Operations Management for Competitive Advantage. Operations strategy and Competitiveness, Operations & the Value Chain – Introducing the Supply Chain Framework, Project Management, Product & Service Design – Importance of Design for Environment & Sustainability.
- Process Selection & Supply Chain Design. Forecasting in Operations & Supply Chain Management, Capacity Management– Site Selection & Location Analysis, Processes and Technologies – Process Selection & Design, Facilities Management – Facility Layout, Process Analysis – Job Design & Work Measurement.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Operations and Supply Chain Management	Chase, Shankar, Jacobs	TMH	15e
Reference Books				
1	Operations Management	Roger G. Schroeder	Irwin McGraw-	

			Hill	
2	Operations Management : Theory & Practice	B.Mahadevan	Pearson Education	
3	Advanced Operations	RP Mohanty & SG	Pearson	

CourseCode	Name of the course	Credits			
		L	T	P	Total
BM5804	Production and Operations Management – II	2	0	0	2

1. Introduction

Production and operations management (POM) deals with the design and operation of the system producing goods and services. It explores the ways operations managers approach and analyze strategic decisions in operations with a focus on designing products and processes, allocating scarce resources to strategic alternatives, and long-range capacity and facility planning. These operations functions help in achieving the long-range broader organizational objectives. Subsequent focus will be on medium and short-term planning and control activities. The pedagogy will strive to strike a balance between theoretical and practical perspectives in manufacturing and service organizations.

2. Intended learning outcomes

- Understand how forecasting is essential to supply chain planning.
- Evaluate demand using quantitative forecasting models.
- Apply qualitative and collaborative techniques to forecast demand.
- Understand sales and operations planning.
- Construct and evaluate aggregate plans that employ different strategies for meeting demand.
- Understand inventory costs and analyze how different inventory control systems work.
- Understand how the material requirement planning (MRP) system is structured.
- Analyze an MRP problem.
- Illustrate how supply chain planning is related to ERP.
- Explain work-center scheduling and apply scheduling techniques to the manufacturing shop floor.
- Analyze employee schedules in the service sector.
- Understand the six sigma approach to improving quality and productivity.
- Illustrate process variations and analyze process quality using statistics.
- Illustrate how lean concepts can be applied to supply chain processes.
- Analyze supply chain processes using value stream mapping.
- Understand and analyze waiting line problems.
- Understand the concepts of synchronous manufacturing & theory of constraints (TOC)

3. Course content

- Planning and Controlling the Supply Chain (Part-1). Aggregate Sales and Operations Planning, Disaggregation & Master production schedule (MPS)
- Planning and Controlling the Supply Chain (Part-2). Inventory Management, Material requirements planning & Introduction to Enterprise Resource Planning (from MRP to ERP), Operations Scheduling
- Quality Management & Lean Supply Chains. Just-in-Time and Lean Production, Quality Management – SPC & SQC (focus on Six Sigma), Service Process & Waiting Line Management for Service Improvement, Synchronous Manufacturing and Theory of Constraints (TOC)

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Operations and Supply Chain Management — TMH,	Chase, Shankar, Jacobs	TMH	15e
Reference Books				
1	Operations Management	Roger G. Schroeder	Irwin McGraw-Hill	
2	Operations Management : Theory & Practice	B.Mahadevan	Pearson Education	
3	Advanced Operations Management	RP Mohanty & SG Deshmukh;	Pearson	

CourseCode	Name of the course	Credits			
		L	T	P	Total
BM6808	Supply Chain Management	1.5	0	.5	2

1. Introduction

Supply Chain Management involves the flows of materials and information among all the firms that contribute value to a product, from the source of raw materials to end customers. Elements of supply chain management have been studied and practiced for some time in marketing, logistics, and operations management. This course integrates the different perspectives to develop an appreciation for the challenges in managing a supply chain. The focus is on broad understanding of how to manage a supply chain through use of various analytical tools and conceptual frameworks developed through practice.

2. Intended learning outcomes

- Identify the supply chain agents at different levels and for various sectors
- Find and evaluate the Supply Chain network design of a company.

- Understand the importance of lean concepts, inventory cost and control through simulation.
- Get the idea to implement the strategies for reducing bullwhip effect across the supply chain.
- Understand the supply chain planning and its relation to ERP.
- Understand and analyze various supply chain elements through project work.

3. Course content

Introduction;

- Supply Chain Performance;
- Supply Chain Drivers and Obstacles;
- Supply Chain Network Configuration;
- Planning & Managing Inventories in a Supply Chain;
- Managing Uncertainty in the Supply Chain;
- Sourcing Decision in a Supply Chain;
- Transportation: Role, Factors, Modes & Design Options;
- Coordination in the Supply Chain;
- Strategic Partnership and Trust in Supply Chain;
- Information technology & Supply chain.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Managing Supply Chains – A Logistics Approach	John J. Coyle, C. John Langley Jr., Robert A. Novack, Brian J. Gibson	CengageLearning	Latest Edition
Reference Books				
1	Principles of Supply Chain Management - A Balanced Approach	JoelD. Wisner, G. Keong Leong, Keah – Choon Tan	CengageLearning	Latest Edition
2	Supply Chain Management – Process, Systems & Practices	N.Chandrasekaran	OUP	Latest Edition
3	Designing & Managing the Supply Chain	David Simchi-Levi, PhilipKaminsky, Edith Simchi-Levi	McGraw Hill Publications	Latest

CourseCode	Name of the course	Credits			
		L	T	P	Total

BM6807	Total Quality Management	1.5	0	.5	2

1. Introduction

Total Quality Management (TQM) is not just quality control or quality assurance. Nor is it limited to the boundaries of a Total Quality Control System. It is a dynamic process with a strong philosophical base, which incorporates many of the concepts upon which Total Quality Control Systems are based. The emphasis is on involving everyone in the organization in activities, which provide for continuous never-ending improvements. Quality activities are planned and managed into the system and are oriented towards the achievement of complete customer satisfaction. This course aims to give a broad understanding of the various concepts and techniques used in TQM.

2. Intended Learning Outcomes

- Develop an increased understanding of the TQM concepts
- Relate the importance of design thinking with the teachings of quality gurus
- Relate TQM with the foundational components of operations management – namely, product development, process design & management and supply chain management
- Relate TQM with product lifecycle management (PLM)
- Recall and relate the quality concepts as applied to projects of their choice
- Use the material learned in new situations
- Recognize quality as a never ending journey

3. Course Contents

- TQM & Design Thinking - An Overview
- Company Wide Quality Management
- Measurement of Quality (includes COQ; CSF approach)
- Tools for Quality Improvement (includes seven QC tools)
- Problem Solving and Systems Failure Analysis
- Employee Involvement and Empowerment
- Statistical Process Control
- Quality Function Deployment (voice of the customer)
- Taguchi Techniques
- KAIZEN: Concepts
- Quality Assurance Systems: A basic understanding.
- Total productive maintenance (TPM)

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				

Reference Books				
1	Quality Planning and Analysis	Juran & Gryna	Juran & Gryna	Recent
2	Taguchi Techniques for Quality Engineering	P.J.Ross	McGraw Hill	Recent
3	ISO 9000-1, 9001, 9002, 9004-1 [1994 BIS Standards]			
4	Introduction to Quality Control	Kaoru Ishikawa	3A Corporation	
5	Total Quality Control	A.V.Feigenbaum	McGraw Hill	Recent
6	Quality Measuring and Monitoring	T.Bendell, J.Kelly, T.Merry and F.Sims.		
7	KAIZEN	M.Imai		

CourseCode	Name of the course	Credits			
		L	T	P	Total
BM6815	Managing Service Operations	1.5	0	.5	2

1. Introduction

This course explores the dimensions of successful service firms. It prepares students for roles in managing service operations and suggests creative entrepreneurial opportunities. Through case studies from a variety of industries (retail, banking, medical devices, hi-tech), and the sharing of professional experiences, students gain practical insights that can be readily applied in the workplace. In the first part of the course, we discuss service model, the customer and management systems. Later on the concepts of service journey, capacity, and demand management is discussed with emphasis on real-life applications. Also the course covers design thinking, specifically the service design toolset, including human-centred approaches such as blueprinting, customer journeys. The course material will integrate operations, marketing, strategy, information technology and organizational issues.

2. Intended learning outcomes

- Understand the unique challenges in managing excellent service operations.
- Gain exposure to and mastery of analytical tools specific to service industries.
- Understand Service design methods and management processes
- Develop the ability to achieve competitive advantage in services
- Design and develop a new service using concepts taught in class.
- Make presentations in front of an audience

3. Contents

- Module 1: Understanding Service Operations and Strategy, Distinctive characteristics of service Operations, Competitive service strategies and triple bottom line
- Module 2: New Service Development, Service design elements, service blueprinting, Service benchmark, Creating customer service orientation, Managing Services in B2B context
- Module 3: Design thinking for Service Design, Design Thinking Workshop for service design
- Module 4: Service Quality, SERVQUAL, Quality service by design, Cost of Quality, Quality tools for analysis and problem solving
- Module 5: Service Facility Location, Facility Location techniques, Supporting Facility and Process Flows
- Module 6: Managing Service Capacity and demand, Forecasting demand for services, Analytical queuing models, Yield Management

4. Textbook

Title	Author(s)	Publisher	Edition
Service management: Operations, strategy, information technology	Fitzsimmons, James A	McGraw Hill	8th Edition

5. Reference books

Title	Author(s)	Publisher	Edition
Services: Marketing, Operations, and Management:	Jauhari Vinnie, Kirti Dutta	Oxfords India	1stEdition
Service operations management: Improving service delivery	Johnston, Robert & Clark Graham	Pearson	4th Edition

CourseCode	Name of the course	Credits			
		L	T	P	Total
BM6809	Project Management	1.5	0	.5	2

1. Introduction

This course guides students through the fundamental project management tools and behavioral skills necessary to successfully launch, lead, and realize benefits from projects in profit and non-profit organizations. Students explore project management with a practical, hands-on approach through case studies and class exercises. Students are exposed to the various development stages of a project, such as, project initiation, project planning and design, project execution or production, project

monitoring and controlling, and project completion. There will be a brief exposure to some modern approaches to project management, such as, critical chain project management (CCPM) based on the theory of constraints (TOC), agile project management. Students will understand the importance of Project Management across all avenues of work, from producing a Hollywood movie to constructing a skyscraper to upgrading IT systems. They will understand that PM skills are critical to most careers and that they can be applied at most businesses and professions.

2. Intended learning outcomes

- Understand project management knowledge areas and process groups
- Employ work breakdown structures (WBS) in a project application.
- Demonstrate the use of appropriate network scheduling techniques.
- Identify and use key performance metrics for project success
- Understand how to manage project cost, quality, and delivery
- Produce a project proposal and discuss the implementation of a proposed plan

3. Contents

- Module 1: Introduction to Project Management, Project Lifecycle, Project Selection and Portfolio Management, MRD, PRD, QFD
- Module 2: Project Planning, Project Scope Document, Work Breakdown Structure
- Module 3: Project Scheduling, Network scheduling (precedence diagramming), PERT, CPM, Resource allocation, Project Crashing, Theory of Constraints (ToC), Critical Chain Project Management
- Module 4: Project Management tool/software demonstration, Demonstration of various project management software (Trello, Asana, Wrikeetc)
- Module 5: Project Cost Management, Cost Estimating techniques, Project Budgeting
- Module 6: Project Quality Management, Quality Planning, Quality Assurance, Quality Control
- Module 7: Project Risk Management, Risk breakdown Structure and Risk Management Plan, Risk Register, Qualitative and Quantitative Risk Analysis
- Module 8: Project Control and Monitoring, Earned Value Management
- Module 9: Modern approaches to project management, Agile methods, Lean Project Management

4. Textbook

Title	Author(s)	Publisher	Edition
Project Management for Engineering, Business and Technology	Nicholas, John M. & Steyn, Herman	Routledge	5th Edition

5. Reference books

Title	Author(s)	Publisher	Edition
Agile Project Management For Dummies	Mark C. Layton, Steven J. Ostermiller	For Dummies	2nd Edition
Projects: Planning, Analysis, Selection, Financing,	Prasanna Chandra	Tata McGraw Hill	9th Edition

Implementation and Review			
A guide to the Project Management Body of Knowledge	Project Management Institute	Project Management Institute	6th Edition

Area: Information Technology Management

Area: Information Technology Management						
Sl. No.	Course Code	Subject	L	T	P	Credit
Core Courses						
1	BM5601	Information Technology for Managers	2	0	0	2
Elective courses						
1	BM6611	IT Project Management	1.5	0	.5	2
2	BM6814	Machine Learning & Artificial Intelligence	1.5	0	.5	2
3	BM6610	E-Business	1.5	0	.5	2
4	BM6612	Internet of Things	1.5	0	.5	2
5	BM6607	Enterprise Resource Planning Systems	1.5	0	.5	2
6	BM6601	Data Mining and Business Intelligence	1.5	0	.5	2

Cours Code	Name of the course	Credits			
		L	T	P	Total
BM5601	Information Technology for Managers	2	0	0	2

1. Introduction

The course is supposed to cover five primary aspects, such as, Basics of computer hardware, software and number systems; Basics of Data storage and communication technologies; Business use of Information Technology: Primarily TPS, MIS and DSS; Emerging Technologies; and IT Privacy and Security

2. Intended learning outcomes

- Convert numbers between various number systems and perform basic arithmetic operations
- Explain the key parts of a computer and how they work together
- Explain the key concepts of data transmission
- Articulate the difference between various IT systems such as MIS, DSS and TPS and

explainthe basics of Enterprise Systems
- Show a clear understanding of Internet of Things(IoT) and Cloud Computing, and how theyare transforming business applications
- Understand the basics of IT Security and Privacy issues including attacks and frauds andtheir mitigation.

3. Course Content

- **Number Systems:** Numbers systems conversions, binary and hexadecimal numbers, Basicarithmetic operations
- **Computing Environment and Data Storage:** History of computing, early computers, vacuum tubes, various computer generations, Parts of computer and memory including CPU, bus, peripherals, Basics of digital data storage, various primary and secondary memories, Role of operating systems, Various generations and types of computer software
- **Data Transmission:** Basics of digital transmission, networking technologies and physical transmission media, LAN, WAN and Internet Network topologies, and devices
- **Business use of IT:** Types of IT systems: TPS, MIS and DSS, and key features of each,Overview of Enterprise Systems such as ERP, CRM and SCM
- **New and Emerging Technologies:** Basics of Internet of things, wireless transmission technologies, and architecture, Opportunities and challenges in implementation, Cloudcomputing overview, and types of cloud services such as IaaS, PaaS and SaaS
- **IT Privacy and Security:** Information security challenges including viruses and worms, Trojans, hacking, denial of service, frauds, attacks, social engineering and phishing, Mitigations such as Firewall, Antivirus, VPN, Proxy and InfoSec policies, Evolving threatsand opportunities

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Information Technology for Management	Behl, Ramesh	McGraw Hill	Latest
Reference Books				
1	Computer Fundamentals	Anita Goel	Pearson Education India	Latest
2	Management InformationSystems	O'Brien, Marakas and Behl	McGraw Hill	Latest
3	Cloud Computing: A PracticalApproach	Velte, Velte and	McGraw Hill	Latest

		Elsenpeter		
4	MS Access: Plain and Simple	Frye, Curtis	Microsoft Press	Latest
5	Management Information Systems	Jawadekar, Waman S.	McGraw Hill	Latest

Cours eCode	Name of the course	Credits			
		L	T	P	Total
BM6611	IT Project Management	1.5	0	.5	**2**

1. Introduction

ITPM provides an overview of the roles, responsibilities, and management methods of the technology project manager. The course assumes no prior knowledge in management techniques and is intended to teach students how to develop approaches and styles of management for software projects and IT infrastructure projects. The course assumes a basic understanding of analysis techniques.

2. Intended learning outcomes

The objective of this course is to demonstrate how IT PROJECTS are developed and are managed effectively in digital firms and software research and development organizations. Students taking this course will have better capability in managing various processes of IT infrastructure Project management skills including PMP certification in future.

3. Course content

- Introduction to PM, SPM, ITPM
- Project Management and IT Context
- Project Management Process Groups
- Project Integration Management
- Project Scope Management
- Project Time Management
- Project Cost Management
- Project Quality Management
- Human Resource Management in Projects
- Communication Management
- Project Risk Management
- Procurement Management

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
1	Information Technology Project Management	Kathy Schwalbe	Cengage Publications	Recent

5. Reference Books				
1	Software Project Management	Hughes and Cotterell	Tata McGraw Hill	Recent

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6814	Machine Learning and Artificial Intelligence	1.5	0	.5	**2**

1. Introduction

The objective of this course is to help students understand the concepts, methods and application of machine learning and AI in ever changing business environment. Students will learn supervised learning applications using decision tree, Random forest and artificial neural networks. Subsequently, they will learn unsupervised learning techniques like clustering, dimensionality reduction and deep learning.

2. Intended learning outcomes

- Develop an interest among students to learn from data and understand various learningalgorithms
- To familiarize students on application of Python in machine learning
- Differentiate and relate unsupervised ,unsupervised and deep learning techniques
- Understand, formulate and interpret various machine learning problems to real worldbusiness applications
- Understand the use of AI in business decision making process

3. Course content

- **Introduction to Machine Learning:** Basic concepts of AI, machine learning and deep learning, Categories of machine learning algorithms , Justification of machine learning applications in real world business problems, Understanding the framework of machine learning model, Justification of using Python as a language of machine learning using open source package like Anaconda and google colab as a free jupyter notebook environment. Understanding bias and variance trade off.
- **Descriptive Analytics using Python:** Understanding descriptive analytics, loading of dataset to perform exploratory data analysis, dataset filtering, grouping, joining, ordering, slicing, indexing, cross tabulation , missing data analysis ,preparation of various plots and comparing distributions using python.

- **Simple and Multiple Linear Regression Models** ☐Understanding concept of simple and multiple linear regression in predictive analytics , regression model diagnostics (Residual vs fitted Plot, Normal Q-Q plot, Scale Location Plot, Residuals vs Leverage Plot), understanding splitting of dataset into training and test datasets, accuracy measures like R square, adjusted R square, RMSE and model summary using python.

- **Classification Models :** Introduction to binary logistic regression, odd ratio, logistics function, logit,model building, understanding model summaries, accuracy measurement, interpreting confusion matrix and ROC Curve, treatment of categorical features ,Application of Multinomial logistic regression using python, building decision tree using entropy and Gini criteria , accuracy measurement, over fitting, pruning and introduction to ensemble learning like bagging(ex: Random Forest) and boosting(AdaBoost).
- **Clustering:** Importance of clustering as an unsupervised learning algorithms, understanding clustering techniques, application and interpretation of k means clustering using Python datasets, features normalization, Interpretation of clusters. Application of PAM algorithm and Hierarchical clustering in Python using various datasets.
- **Association Rule Mining Applications:** Introduction to Associate Rule Mining/Market Basket analysis, understanding concept of measures like support, confidence and lift, loading datasets to apply a priori algorithm, interpreting interesting association rules. Introduction to ECLAT algorithm and FP Growth algorithmic to deal with huge datasets using Python.
- **Introduction to Neural Network and Deep Learning:** Understanding neural networks, perceptron algorithm for binary classifiers using Python, elementary introduction to ANN, CNN and RNN. Basic understanding of Restricted Boltzmann Machine and Auto encoders.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Machine Learning using Python	Manoranjan Pradhan and U Dinesh Kumar	Wiley	Recent

	Reference Books			
1	Artificial Intelligence andMachine Learning for Business: A No-NonsenseGuide to Data Driven Technologies	Steven Finlay	Atlantic Publishers and Distributors	Recent
2	Machine Learning	Tom M. Mitchell	Tata McGraw-Hill	Recent
3	Understanding Machine Learning: From Theory ToAlgorithms	Shai Shalev-Shwartz	JBC Publisher and Distributor	Recent

4	Artificial Intelligence 3e: A Modern Approach	Russels	Pearson	Recent
5	R Deep Learning Cookbook	Dr. PKS Prakash and Achyutuni Sri Krishna Rao	Atlantic Publishers and Distributors	Recent
6	Artificial Intelligence and	Chandra SSV	PHI	Recent

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6610	E-Business	1.5	0	.5	**2**

1. Introduction

Information Technology is profoundly changing how business is conducted. It has not only brought revolutionary changes in the business processes, but also spawned completely new and innovative business models that couldn't be imagined without the use of IT. E-commerce, the most visible aspect of E-business, has completely changed the face of retail, at least in the larger cities, and has been making fast inroads into rural areas, riding on the wave low-cost, high-speed internet and online payment channels. Given the speed of business in the global competitive climate, an organization's strategy is only as good as its pace of implementation. This is where understanding the capabilities of IT and knowing how to use it optimally for competitiveadvantage is crucial for students of management.

2. Intended learning outcomes

- Appreciate the global interconnected world of business and how internet and web is shapingthem
- Link an organization's strategy to likely technology initiatives / imperatives
- Demonstrate clear understanding of the evolution of web, with a basic knowledge of varioustools and technologies that has made the web evolve
- Describe a standard web-infrastructure including hosting mechanism and the 2-tier, 3-tiermodels
- Understand the entire E-business / E-commerce value chain including the role played by allthe stakeholders in the online world.
- Enumerate the various commercial and business models of businesses and how it dictatestheir IT initiatives
- Explain the various generic strategies and how they affect the investment in IT or dictate theIT strategy of the organization.
- Enlist and explain the various digital marketing channels and under what conditions they areused by an organization
- Show clear appreciation of the key challenges in Marketing, Supply Chain Management, Procurement and CRM, and be able to explain how IT is used to mitigate those and createdifferentiation in all of the above areas.

- Explain the basic mechanism behind electronic payments and how it has affected businessesand created new models.
- Understand the basic concepts of change management and show an appreciation for how IT upsets the organization's processes and what needs to be taken care of for a smoother implementation
- Appreciate the various IT security risks to an E-business establishment and what genericsteps needs to be taken to mitigate the risks.

3. Course Content

- **Introduction:** Context setting: Globalization and Information Economy, Data driven business, E-business and E-commerce basics
- **Technological Background.** Web evolution, Web technologies, Content Management Systems for Web-content hosting and E-commerce applications, Typical E-commerce architecture, 2 and 3-tier models, Use of Application Programming Interfaces (API), E-business Infra components
- **E-business Models.** E-business maturity model, intermediation and disintermediation, Revenue and Commercial Models, Online presence and value proposition, Intermediaries
- **E-business Strategy.** Generic Organization Strategies, IT as a driver of strategy: How does itget impacted? Investment, development, outsourcing decisions
- **Supply Chain Management and Procurement Systems.** SCM and Procurement Processes and Models, Value Chain Analysis of IT-enabled SCM processes, IT-enabled SCM strategy, Key adoption barriers and the role of IT
- **Technology-driven Marketing.** Online Promotion and Branding: Channels and Models, E- marketing strategies including Campaign Management, Tools and Technology platforms for E-marketing, Integration of Social Media
- **CRM Systems.** Customer Acquisition and Retention Management using integrated IT services, Strategy for social and crowd-sourced CRM
- **Online Payments and Security.** Online Payment Infrastructure and processes, Securing E- commerce transactions, Risks, frauds and attacks: Detection and prevention

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
1	E-business and E-commerce Management - Strategy, Implementation and Practice	Dave Chaffey	Pearson	5th Edition

5. Reference Books				
1	Click!: The Amazing Story of India's E-commerce Boom and Where it's Headed	Jagmohan Bhanver, Komal Bhanver	Hachette	28 March 2017

2	The Everything Store: Jeff Bezos and the Age of Amazon	Brad Stone	Corgi	31 Jul 2014
3	Alibaba's World: How a Remarkable Chinese Company is Changing the face of GlobalBusiness	Porter Erisman	Pan Macmillan India	14 May 2015

Cours eCode	Name of the course	Credits			
		L	T	P	Total
BM6612	Internet of Things	1.5	0	.5	**2**

1. Introduction

The purpose of this course is to impart knowledge on Internet of Things (IoT), which relates to the study of sensors, actuators, and controllers, among other Things, IoT applications and examples overview (building automation, transportation, healthcare, industry, etc.) with a focus on wearable electronics. This course will impart knowledge on IoT challenges, security aspects.

2. Intended learning outcomes

Student should learn and can able to understand the applications of Internet of things in different sectors including all modern equipment to living beings and used in day today life. This course will lead them to understand how easily Operational Technology (OT) can communicate with Information Technology (IT) which is going to be future of Technology convergence.

3. Course content

- **Introduction.** The Internet of Things, Importance of IOT, Towards the IOT Universe IOT Strategic Research and Innovation Directions, IOT Applications, Future Internet Technologies, Infrastructure, Networks and Communication, Processes, Data Management, Security, Privacy & Trust, Device Level Energy Issues, IOT Related Standardization, Typical IOT Application, Trends & Implications
- **IOT Architecture.** Introduction, State of the art, Architecture Reference Model-Introduction, Reference Model and architecture, IOT reference Model, IOT Reference Architecture- Introduction, Functional View, Information View, Deployment and Operational View, Other Relevant architectural views.
- **IOT Applications.** Introduction, IOT applications for industry: Future Factory Concepts, Brownfield IOT, Smart Objects, Smart Applications, Four Aspects in your Business to Master IOT, Value Creation from Big Data and Serialization, IOT for Retailing Industry, IOT For Oil and Gas Industry, Opinions on IOT Application and Value for Industry, Home Management, eHealth.
- **Internet of Things Privacy, Security and Governance.** Introduction, Overview of Governance, Privacy and Security Issues, Contribution from FP7 Projects, Security,

Privacy and Trust in IOT-Data-Platforms for Smart Cities, First Steps Towards a Secure Platform, Smartie Approach. Data Aggregation for the IOT in Smart Cities, Security.

- **Internet of Things Strategic Research & Innovation Agenda.** Internet of things of vision,IOT Strategic Research & Innovation Direction: IOT Application & Use case Scenario, IOT Functional View, Application Area,
- IOT Smart X Application: Smart Cities, Smart Energy & Smart Grid, Smart Mobility & transport, Smart Home, Smart Building & Infrastructure, Smart Factory & Manufacturing, Smart Health, Smart Logistics & Retails

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Internet of Things Applications - From Research andInnovation to MarketDeployment	Ovidiu Vermesan &Peter Friess	River Publishers	Recent
Reference Books				
1	Internet of Things: Converging Technologies for Smart Environments and Integrated Ecosystems	Dr. Ovidiu Vermesan and Dr. Peter Friess	River Publishers	Recent
2	Internet of Things (A Hands-on-Approach)	Vijay Madisetti and Arshdeep Bahga	USBPD	Recent
3	6LoWPAN: The Wireless Embedded Internet	Zach Shelby and Carsten Bormann	Wiley	Recent
4	Interconnecting Smart Objects with IP: The Next Internet	Jean-Philippe Vasseur, Adam Dunkels and Morgan Kuffmann	First Media 2	Recent

Cours eCode	Name of the course	Credits			
		L	T	P	Total
BM6607	Enterprise Resource Planning Systems	1.5	0	.5	**2**

1. Introduction

Enterprise resource planning systems (ERPS) is the integrated management of core business processes, often in real-time and mediated by software and technology.ERP provides an integrated and continuously updated view of core business processes using common databases maintained by a centralized database management system. The applications that make up the system share data across various departments (manufacturing, purchasing, sales, accounting,etc.) that provide the data.ERP facilitates information flow between all business functions and manages connections to outside stakeholders.

2. Intended learning outcomes

To make students understand and realize how an ERP (SAP) system is implemented throughvarious stages in an organization. The sessions will be conducted with the help of class roomlectures, SAP Lab classes, team exercises and presentations in workshop mode. Most of the sessions will have hands-on lab activities in SAP ECC 6.0 environment.

3. Course content

- ERP – Overview and general processes and architecture
- ERP – Implementation strategy and phases overview
- ERP – Implementation methodology
- ERP-SAP Overview and navigations through SAP ECC 6.0
- SAP Data - Organization data, Master Data and Transaction Data
- SAP - Material Management and Quality Assurance
- SAP - Plant Management
- SAP – Sales and Distribution, Billing, Shipping and Logistics
- SAP Lab – MM, SD, HR and FICO
- AS-IS and TO-BE, realization (Dev client and Test client)
- Preparation for GO-Live
- GoLive
- Post GoLive support.

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
No textbook is prescribed. SAP resources from SAP University Alliance will be provided				
5. Reference Books				
1	Implementing SAP ERP Sales & Distribution	Williams, Glynn	Mcgraw-Hill	Latest
2	SAP Materials Management	Shukla, Mukesh	Mcgraw-Hill	Latest

3	Enterprise Resource Planning	Monk, Ellen F. Wagner, Bret J.	Cengage Learning	Latest
4	ERP Demystified	Leon, Alexis	McGraw-Hill	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6601	Data Mining and Business Intelligence*	1.5	0	.5	2

1. Introduction

The objectives of this course are to impact knowledge about the emerging trends of Data Mining and Business Intelligence and to help students understand and appreciate the importance of making meaningful use of large volume of data for the purpose of decision-making in the complex and ever changing business environment. The students will be exposed to real life business applications as BI student projects.

2. Intended learning outcomes

- Differentiate decisional systems from operational systems
- Understand and apply data mining tools and techniques
- Understand the role of BI systems in supporting decision making in Business World
- Visualize and able to prepare multi dimensional models and Dashboards
- Understand best practices and Trends of Business Intelligence

3. Course content

- **Introduction to Data warehouse :** Introduction to Data Warehouse, Operational vis-a-vis decisional Systems, Necessity and commercial importance of a Data Warehouse , Enterprise Data warehouse and Data Mart, 2 tier and 3 tier Architecture, ETL Process, Multi-dimensional modeling :Multi-dimensional representation of data, Normalization vis-a-vis Dimensional Modeling, Star Schema ,Snow Flake Schema and Fact Constellation.
- **Introduction to Data Mining :** Evolution of Data Mining, applications in business , concepts, overall functionalities and challenges, KDD vis-a-vis Data Mining, DBMS vis-a-vis Data Mining

- **Frequent Pattern Mining:** Association rule mining introduction, Concept of support, confidence and lift with an example, Sense of rule quantity, rule quality and importance of FIM Algorithm. Application of A Priori algorithm as FIM algorithm to find out interesting rules using R. Application with large dataset using ECLAT and FP Growth algorithm using R.
- **Classification Techniques and it's Applications :** overview , Hold out and Cross validation approaches, concept of confusion matrix , issues of pre processing like data cleaning, data transformation and feature selection, Bias variance trade off , approaches to

missing data analysis and combining classifiers for better model performance(Bagging and Boosting), Concept, decision tree construction, Information gain, Entropy and gini value significance for ID3.

- **Clustering Techniques:** Introduction, distance function, applications, measurement of similarity , concept of squared error and absolute error criterion , Explanation of K means Clustering with an example of R dataset, Understanding PAM Algorithm with example with R dataset. Application of DBSCAN and BIRCH Algorithm using very large Datasets using R

- **Introduction to BI, Query and Reporting:** Understanding Business Intelligence technology. Market for business Intelligence: Operational and tactical business Intelligence and driving forces of BI Market, Component of Business Intelligence Architecture, Business Query and Reporting, concepts of 3 dimensional reporting using data cubes, Slicing, dicing and pivoting, Multidimensional BI Reporting.

- **Power BI Applications :** Introduction, understanding architecture of power BI, Comparison with Tableau, Data transformation with power BI Desktop, Introduction to Power BI Data Modeling, Data visualization with Power BI Desktop, sharing and Working with DAX,

5. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Data Mining	Pudi, Vikram Radhakrishna, P.	Oxford Publishing Press	Latest
Reference Books				
1	Decision Support And Business Intelligence Systems	Efraim, Turban (et al)	Pearson	Latest
2	Business Intelligence: Data Mining And Optimization For Decision Making	Vercellis, Carlo	John Wiley	Latest
3	Data Mining For Business Intelligence: Concepts, Techniques And Applications In Microsoft Office Excel With XL Miner	Galit, Shmueli (et al)	Wiley India	Latest
4	Data Mining Explained: A Manager's Guide To Customer- Centric Business Intelligence	Delmater, Rhonda Hancock, M	Digital Press	Latest

5	Business Intelligence In The Digital Economy: Opportunities, Limitations And Risks	Raisinghani, Mahesh	IGI Press	Latest
6	Making Better Business Intelligence Decisions Faster	Vitt, ElizabethLuckevic,MichaelMisner, Stacia	Microsoft Press	Latest

Area: Business Analytics

Sl. No.	Course Code	Subject	L	T	P	Credit
Core Course						
1	BM5503	Quantitative Techniques – I	**2**	**0**	**0**	**2**
2	BM5504	Quantitative Techniques – II	**2**	**0**	**0**	**2**
3	BM6829	Business Analytics	**2**	**0**	**0**	**2**
4	BM5502	Business Research Methods	**2**	**0**	**0**	**2**
Elective Courses						
1	BM6837	Data Analytics Using R	1.5	**0**	0.5	**2**
2	BM6830	Advanced Business Analytics	1.5	**0**	0.5	**2**
3	BM6831	Introduction to marketing analytics	1.5	**0**	0.5	**2**
4	BM6832	Supply Chain Analytics	1.5	**0**	0.5	**2**
5	BM6833	Analytics Toolbox	1.5	**0**	0.5	**2**
6	BM6834	HR Analytics	1.5	**0**	0.5	**2**
7	BM6835	Credit Risk Analytics	1.5	**0**	0.5	**2**
8	BM6836	Advanced Statistics and Probability for Data Science	1.5	**0**	0.5	**2**
9	BM6814	Machine Learning & Artificial Intelligence using Python	1.5	**0**	0.5	**2**
10	BM6601	Data Mining and Business Intelligence	1.5	**0**	0.5	**2**
11	BM6838	Multivariate Data Analysis	1.5	**0**	0.5	**2**
12	BM6839	Predictive Analytics using SAS	1.5	**0**	0.5	**2**
13	BM6840	Text Mining and Analytics	1.5	**0**	0.5	**2**

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM5503	Quantitative Techniques – I	2	0	0	**2**

1. Introduction

Businesses are now increasingly using statistical techniques to convert data into information, which helps in appropriate decision making. This paper, in Decision Sciences area, prepares the students understanding and appreciating the essential concepts and applications, with focus on relevant tools and techniques.

2. Intended learning outcomes

To help management students appreciate the relevance and importance of the use of quantified/ statistical facts, in the process of decision-making in the ever changing business environment. To discuss and apply basic statistical tools and techniques, which are useful in every area of business.

3. Course content

- Role of Statistical Data, Summary & Descriptive Statistics
- Measures of Central Tendency
- Measures of Dispersion, Coff. of variation
- Probability & Probability Distributions
- Discrete Probability distributions: Binomial & Poisson distributions
- Continuous Probability Distribution: Normal Distribution, Using Standard Normal Probability Distribution table
- Sampling Concepts (What, why and how sampling made; Prob & non-prob. Sampling)
- Estimation:
- Introduction, Point Estimates, Interval Estimates, Confidence Intervals (applications & concepts only);
- Testing Hypotheses:
- One-Sample Tests
- Two-Sample Tests
- Chi-Square as a Test for independence
- Analysis of Variance (ANOVA)

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Statistics for Management	Levin, Rubin et al	Pearson	2017 or Latest
Reference Books				
1	Quantitative Methods for Bus	Anderson, Sweeny et al	Cengage	Latest
2	Intro. Mgmt Science	Anderson, Sweeny et al	Cengage	Latest
3	Managerial Statistics	Gerald Keller	Cengage	9th Ed. 2012/ latest

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM5504	Quantitative Techniques – II	2	0	0	**2**

1. Introduction

Businesses are now increasingly using statistical techniques to convert data into information, which helps in appropriate decision making. This paper, in Decision Sciences area, prepares the students understanding and appreciating the essential concepts and applications, with focus on relevant tools and techniques.

2. Intended learning outcomes

To help management students appreciate the relevance and importance of the use of quantified/ statistical facts, in the process of decision-making in the ever changing business environment. To discuss and apply basic statistical tools and techniques, which are useful in every area of business.

3. Course content

- Bi-Variate Study (Correlation & Regression)
  - Simple Regression Analysis
  - Inferences about Regression as a whole (using F test)
  - Multi-collinearity in Multiple Regression
  - Estimation using the Regression Line using Method of Least Squares; Standard Error of Estimate & its interpretation
  - Correlation Analysis: Multiple Regression, Coefficient of Determination,
  - Concept & applications of Multiple Regression (limited to interpretation of output/ results only; rigorous calculations to be excluded); computer (software, like SPSS) output analysis
- Nonparametric Tests; (Sign Test, Run Test, Rank-sum U test)
- Introduction to Operations Research (OR):
- Formulation of Problems (LPP); Solving LP problems by Graphical Method & problems

using Excel Solver.
- Simplex method (maximization LPP solutions)

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Statistics for Management	Levin, Rubin et al	Pearson	2017 or Latest
Reference Books				
1	Quantitative Methods for Bus	Anderson, Sweeny et al	Cengage	Latest
2	Intro. Mgmt Science	Anderson, Sweeny et al	Cengage	Latest
3	Intro. Mgmt Science.	Hillier & Hillier	Tata McGraw Hill	Latest

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM5502	Business Research Methods	2	0	0	**2**

1. Introduction

The course is intended to help the management students appreciate and use the basic tools and techniques of Business Research, in decision making. Emphasis will be given on conceptual understanding of the basic, useful tools and techniques and its meaningful applications

2. Intended learning outcomes

- *Understand* the meaning and concept of Business research and how it is different for different pure science research
- *Apply* the concepts of measurement in practical research projects through Questionnaire design and attitude management
- *Analyse and apply* sampling techniques in field research works
- *Use* Qualitative Research techniques in research work
- *Transform data into information*, and calculate and interpret basic descriptive statistics.
- *Apply and interpret* different types of quantitative methods of analysis.
- *Effectively communicate* research in a written report and presentation

3. Contents

- Module 1 (Introduction to BRM): What is Research Methodology- Different types of research: problem solving research, Applied and basic research, Scientific research, Research and the Scientific Method, Business Research, Good Research, Scientific Method in Good Research.
- Module 2 (Measurement Concepts): Measurement and scaling concepts; Levels of scale measurement. Attitude Measurement- Attitude as hypothetical construct, Attitude rating scales, Measuring Behavioural intension, Ranking, Other methods of attitude measurement, Selecting a measurement scale. Questionnaire Design- Questionnaire quality and design, Guidelines for constructing questions, Interactive and adaptive questions Layout and sequence of the questions, Administering the questionnaire.
- Module 3 (Sampling and Fieldwork): Sampling designs and sampling procedures – Reason for sampling, Sampling concepts, Sampling error, Types of sampling, Concepts of accuracy and Diversity in sampling. Determination of sample size – A review of Statistical Theory: The normal distribution, Population distribution, sample distribution and sampling distribution Central limit theorem, Sample size. Fieldwork – Nature of fieldwork, Good interviewing techniques and fieldwork management
- Module 4: (Qualitative Research): Focus Group Discussion, In Depth Interview techniques, Projective Techniques, Ethnography, New trends in Qualitative Research.
- Module 5: (Working with Data): Editing and coding data, Descriptive statistics
- Module 6: (Quantitative Statistical Analysis with SPSS and MS Excel), Hypothesis testing (one-tailed test, two-tailed test), t-test and Z-test, Cross-tabulation, ANOVA, Correlation and Regression.
- Module 7: (Writing a Research Report), Structure of research report, Presentation of report

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Business Research Methods	Zikmund , Carr , Griffin	Cengage	8e
Reference Books				
1	Marketing Research	Malhotra, Naresh K. & Dash, Satyabhusan	Pearson	-
2	Business Research Method	Cooper & Schindler	Mc Graw Hill	-
3	Essentials of Marketing Research	W Zikmund	Cengage	-

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6829	Business Analytics	2	0	0	**2**

1. Introduction:

Recently corporates from diversified sectors have been active in using data. The motivation for using data comes from a significant reduction in cost in storing and fetching data. Companies can generate and store huge volume of data through ERP implementation, Internet of things, social media and different audio/video encodings. The challenge is to browse through the huge volume of data and to create stories out of them, which would further be useful for increasing top-line of companies or mitigating risk. How much information can be extracted from a set of data is the major objective or challenge.

To assist corporates in taking data driven decisions it needs a knowledge base to explore and visualize data, to be able to create dashboards and make stories, and most importantly to present the technicalities in the embedded data to a non-technical audience. This course introduces to the various facets of data and its distributions. It opens the student to the applications of discrete mathematics, probability, and statistics in the area of data science. It introduces various plots to visualise and interpret data, which are the crux of decision science. Further it adds to the area of predictive analysis using basic models which could be steppingstone for further learnings and applications in analytics. The course will also introduce to the programming language R which is available as an open source.

1. **Intended Learning outcome:**

- Know the importance of big data in management and its properties
- Develop awareness to make business communication through data-driven information
- Should be able to explain natural processes by relating them to a certain distribution of data
- Able to understand and create statistical charts and tables for further use in dashboards
- Get exposure and have hands on experience in using the globally used statistical software- R
- Can explain the differences between descriptive and predictive analytics with use case scenarios

2. **Course Contents:**

- Introduction, Role of Data in Organization
- Data lifecycle. (Data source, data changes, processes, usage)
- Data representation forms (linear, exponentials, logarithmic)
- Various data types (numeric, categorical)
- Discrete mathematics
- Understanding distributions in Data
- Fundamentals of probability (Basic Idea, expectation, probability calculus, conditional probability)
- Probability distribution function (uniform, normal, binomial, chi-square, student's t distribution)
- Central limit theorem, central tendency of data concepts
- Data visualization concepts; (scatter plot, pie chart, histogram, bar chart, boxplot, density plot, area plot etc)
- Data visualization using R/ Excel
- Concepts of data cleaning; importance in analytics
- Time series Data and Regression Models
- Forecasting Technique

- Introduction to predictive analytics
- Supervised vs. unsupervised learning (concepts only)

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
Course material will be provided including online contents as and when the class continues.				
5. Reference Books				
1	Business Analytics: Data Analysis and Decision making	S Christian Albright & Wayne L.Winston	Cengage	5th
2	Storytelling with Data: A Data Visualization Guide for Business Professionals	Cole Nussbaumer Knaflic	John Wiley & Sons	Latest
3	Business Analytics	James E Evans	Pearson	3rd
4	Data Science & Big Data Analytics, Discovering, visualizing and presenting Data	David Dietrich, Barry Heller, & Beibei Yang	Wiley	Latest
5	R for Everyone, Advanced Analytics and Graphics	Jared P. Lander	Addison Wesley	1st
6	R for Data Science, Import, Tidy, Transform, Visualize, and Model Data	Hadley Wickham & Garrett Grolemund	O'REILLY	1st
7	Ggplot2, Elegant graphics for data analysis	Hadley Wickham	Springer	Latest
8	Let Us Python	Yashavant Kanetkar	BPB Publication	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6837	Data Analytics using R	1.5	0	0.5	2

1. Introduction

With increase in computing power and data storage capacity, present day businesses are gearing up to access its benefit. Companies are able to generate and store huge volume of data through ERP implementation, Internet of things, and audio/ video encoder technologies. Every minute details related to customer engagement with businesses are tracked and are stored in machines. How much information can be extracted from a set of data is the challenge. Business Analytics use the power of probability and advanced statistical concepts to analyse data more intelligently. This includes quantitative, statistics, and predictive modelling for generating/ finding data-driven insights which takes the decision-making process in businesses one step further. Thus the results from the analytics may be used for developing competitive strategies for a business scenario. This can be used in the field of finance, marketing, operations, and HR for identifying ROI drivers, developing target market for a product, fine-tuning the supply chain, churn management etc. The course will target to achieve introductory knowledge on Analytics to enhance the decision-making process from diverse field of applications. The course will also introduce to the programming language R which is available as an open source.

2. Intended Learning Outcomes

- Generate confidence in dealing with data
- Able to perform data visualization using R ggplot2 package
- Learn to handle missing data using MICE algorithm
- Use R software to run machine learning models

3. Course Contents

- Introduction, Role of Business analytics in Organization
- Analytics project life cycle and stages
- Business Statistics (Descriptive and Inferential)
- Data distribution; probability density functions
- Introduction to predictive analytics
- Working with Data – Introduction to R
- Data Visualization – Using R
- Data Wrangling
- Data imputation
- Linear Regression & Prediction modelling– (Theory and modelling using R)
- Logistic Regression & Prediction modelling – (experience with using R)
- Supervised vs. unsupervised learning
- Data segmentation and classification technique- Decision science – Trees & clustering
- Business Analytics – Case studies using R

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
No textbook is prescribed. Course handout will be provided				
Reference Books				
1	R in Action, Data Analysis and Graphics with R	Robert I. Kabacoff	Manning	2nd
2	Data Mining and Business Analytics with R	Johannes Ledolter	Wiley	Latest
3	R for Everyone, Advanced Analytics and Graphics	Jared P. Lander	Addison Wesley	1st
4	R for Data Science, Import, Tidy, Transform, Visualize, and Model Data	Hadley Wickham & Garrett Grolemund	O'REILLY	1st
5	Ggplot2, Elegant graphics for data analysis	Hadley Wickham	Springer	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6830	Advanced Business Analytics	1.5	0	0.5	2

1. Introduction

Business Analytics use the power of probability and advanced statistical concepts to analyse data more intelligently. This includes quantitative, statistics, and predictive modelling for generating/ finding data-driven insights which takes the decision-making process in businesses one step further. Thus the results from the analytics may be used for developing competitive strategies for a business scenario. This can be used in the field of finance, marketing, operations, and HR for identifying ROI drivers, developing target market for a product, fine-tuning the supply chain, churn management etc. The course will target to achieve introductory knowledge on Analytics to enhance the decision-making process from diverse field of applications. The course will also introduce to the programming language R which is available as an open source. Intended learning outcomes

2. Intended Learning Outcomes

- Able to wrangle data and perform data imputation
- Perform data visualization with confidence
- Able to generate tidy data format using <tidyverse> package of R
- Understand the predictive analytics of Logistic regression
- Apply Logistic Regression concept to find out customer churn, marketing spends with data backed insights
- Use and understand the concepts of decision tree to understand machine learning

3. Course Contents:

- Introduction, Role of Business analytics in Organization
- Data Visualization (Using R)
- Advanced descriptive analytics, more use of ggplots library and interpretations
- Data cleaning operations, Data preparations for analytics (use dplyr, tidyverse and stringr library for slicing and dicing data)
- Missing data types and operations (Multivariate Imputation by Chained Equations in R)
- Predictive analytics fundamentals
- Analysing the residuals (OLS regression)
- Linear Regression (Multiple regression) & Prediction modelling–(R & other software)
- Categorical data analysis
- Logistic Regression & Prediction modelling (parameters estimation)– (experience with using R and other software)
- Logistic model diagnostics, classification table, optimal cut off probability
- Supervised vs. unsupervised learning - Introduction to machine learning
- Data segmentation and classification technique- Decision science – Trees & clustering
- Decision strategies without outcome probabilities & with outcome probabilities
- Utilities in decision making
- Text analytics (Introduction to document term matrix and random forest models)
- Boosting and Bagging, Support vector machines
- Introduction to deep learning
- Prescriptive analytics – Linear & Integer Optimization
- Advanced analytics Case studies and real-world applications using R

4. Text and reference books

l. No.	Title	Author(s)	Publisher	Edition
Text Book				
No textbook is prescribed. Course handout will be provided				
Reference Books				
1	Business Analytics	James Evans	Pearson,	2nd Edition,
2	Business Analytics	U Dinesh Kumar	WILEY	Ist Edition
3	Data Mining and Business Analytics with R	Johannes Ledolter	WILEY	1st Edition
4	R for Data Science	Hadley Wickham & Garett Grolemund	O'REILLY	1st Edition

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6831	Introduction to Marketing Analytics	1.5	0	0.5	2

1. Introduction

The goal of this course is to develop a disciplined process for addressing marketing issues and problems in a variety of settings, and to give students the tools and background necessary to think through marketing and business problems. The course helps in developing these skills in a deep-rooted manner so that students retain the marketing skills learnt through the course. Live projects would encourage students to apply the concepts and generalizations to a real-life product or service. The general route to be followed in the course is concept learning followed by illustration and finally application of the concepts in as real a setting as possible within the boundaries of the course and the institutional educational setup.

2. Intended learning outcomes

- A*rticulate* the major marketing concepts and models learnt through the course through the analysis in various software
- A*nalyse* the importance of marketing as a function in a business organization using data backed decisions making process
- A*pply and evaluate* to the linkages of marketing as a function to other functions within a business organization

3. Contents

Module 1

- Introduction to Analytics: Importance of analytics in business world, data driven decision making, and uses of analytics in various fields of E-commerce, FMCG, Media industry etc.
- Summarizing the Marketing Data: Analysing the sales data with various angles. Use of Pivot Table to understand and analyse the data. Use of real-world data to explain the example.
- Pricing Strategy for optimization: Understanding the pricing concept and how analytics can be used optimize it. Use of Excel Solver to Optimize the Power Demand Curves
- Price Bundling: Understanding the meaning and use of price bundling

Module 2

- Market Forecasting using simple Linear Regression and Correlation: Understanding the importance of forecasting in Marketing and thus using Simple Linear Regression to summarize various relationships
- What do customers want – Conjoint Analysis: Understanding the basic principles of consumer behaviour and interpreting the results through Conjoint analysis

Module 3

- Calculating Lifetime Customer Value: Understanding the basic customer lifetime value template. Assessing its importance and value through simple case study
- Retail analytics: Understanding the market lift analysis and calculation of lift for two products. How to allocate retail space and resources

- Advertising analytics: Measuring the Effectiveness of adverting spend and understanding the various media selection models

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
No textbook is prescribed. Course handout will be provided				
5. Reference Books				
1	Marketing Analytics	Wayne L Winston	Wiley Publication	1e
2	Cutting-Edge Marketing Analytics-Real World Cases and Data Sets for Hands	Rajkumar Venkatesan Paul Farris Ronald T. Wilcox	Wiley Publication	2e

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6832	Supply Chain Analytics	1.5	0	0.5	2

1. Introduction

This course is designed primarily for students seeking an Analytics career in different organizations. The course should be of special importance to individuals who are seeking careers in consulting in operations and supply chain domain. This course is designed to help students master the analytical tools and techniques like optimization and simulation that are useful in designing and managing supply chains. The emphasis will be on how different analytics models can be used in some fundamental supply chain applications such as transportation, capacity allocation, production planning, network flow, aggregate planning, sales & operations planning, and network design.

2. Intended learning outcomes

- To understand different decision domains in supply chain analytics
- Understand the key metrics and parameters in Supply Chain Analytics
- Understand the purpose of various analytical models
- Apply Descriptive, predictive and prescriptive analytics in Supply Chain
- Apply modelling and optimization techniques to analyse supply chain
- Create simulation models for different supply chain scenarios and problems

3. Contents

Module 1: Introduction to Supply Chain Analytics

- Source Analytics (Strategic Sourcing, Supplier Management, Order Management)
- Make (Production) Analytics (Production Planning, Workforce Management, Inventory Management)

- Move Analytics (Fulfilment Diagnostics, Distribution and Logistics Planning, Transportation Management)
- Sell Analytics (Demand Planning, Product Selection, Pricing and Promotion)

Module 2: Supply Chain Analytics – Descriptive Analytics
- Visualization and Dashboard

Module 3: Supply Chain Analytics – Predictive Analytics
- Demand Forecasting
- Inventory Analytics

Module 4: Supply Chain Analytics – Prescriptive Analytics
- Green Field and Brown Field Analysis
- Network Optimization
- Transport Optimization

Module 5: Supply Chain Simulation
- Descriptive Modelling with Simulation
- Running Simulation experiments
- Integrating bullwhip effect and ripple effect into simulation models

Suggested projects:

The objective of the analytics project is to provide students with chance to apply the concepts and methods learned in class to a real world problem. The project is to be done in groups of four or five students. The project proposal must be discussed and approved by the instructor in its early stage.

A sample project:

1. Creating simulation model for responsive supply chains of different sectors (Healthcare, FMCG, Manufacturing etc) to mitigate ripple effect of events like COVID-19 epidemic

Software Tools

- **MS® Excel**
- **SAS® Forecast Studio (Academic Version)**
- **AnyLogic® Simulation (Academic Version)**

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
No textbook is prescribed. Course handout will be provided				
Reference Books				
1	Managing Supply chains- A logistics approach	John J Coyle, C John Langley Jr, Robert A Novack , Brian J Gibson	Cengage Learning	9th Edition

2	Big Data Driven Supply Chain Management: A Framework for Implementing Analytics and Turning Information into Intelligence	Nada R. Sanders	FT Press Anal ytics	1st
3	Analytics in Operations/Supply Chain Management	Muthu Mathirajan , Chandrasekharan Rajendran , Sowmyanarayanan Sadagopan, Arunachalam Ravindran , Parasuram Balasubramanian	I K International Publishing House Pvt. Ltd	
4	Modelling the Supply Chain. Duxbury Thomson Learning	Jeremy F. Shapiro	Duxb ury Tho mson	
5	Designing and Managing the Supply Chain concepts, Strategies and Case studies	D. Simchi-Levi, P. Kaminsky, E. Simchi-Levi, and Ravi Shankar	Tata McGraw Hill	3rd
6	Quantitative Models for Supply Chain Management	Sridhar Tayur, Ram Ganeshan, Michael Magazine	Kluwer Academic Publishers	1999

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6833	Analytics Toolbox	1.5	0	0.5	2

1. Introduction

Major data exercises at industry level find excel applications extremely useful. Thus, the paper includes the use of excel functionalities directed for analytics works. R and Python programming language are rapidly finding their usage in industries for data science applications. Python programming Lab will be a part of learning in this course. Extensive use of Python libraries for data science fundamentals and statistical applications are major learning objectives.

Data visualization and reporting are the crux of data science applications. Tableau provides powerful and easier drag and drop GUI applications for better plotting and reporting methods. The course will provide the above application related knowledge to make the students conversant for usage of the same in data science projects.

2. Intended Learning outcome
- Understand features of Python, Excel, Tableau, and PowerBI software packages.
- Analyze data using Python, Excel, Tableau, and PowerBI software packages.

3. Course Contents:

Module 1: Data Visualization with Tableau and PowerBI

- Best Practices in Data Visualization
- Visualization with Tableau (Plots, dashboarding, and reporting using Tableau)
- Visualization with PowerBI (Dashboarding, Interactive reports)

Module 2: Data Analytics using Excel

- Excel fundamentals
- Advanced excel methods for simulations and analytics
- What-if analysis, regression analysis, hypothesis tests.

Module 3: How to Analyze (Conceptual tools)
- How to Analyze? A structural approach to the data problems and solutions
- Minto Pyramid etc.

Module 4: Data Analytics using Python

- Programming in Python
- Introduction to functions in Python
- Descriptive statistics using Python

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
No textbook is prescribed. Course handout will be provided				
Reference Books				
1	The Big Book of Dashboards: Visualizing Your Data Using Real–World Business Scenarios	Steve Wexler, Jeffrey Shaffer, and Andy Cotgreave	John Wiley & Sons	Latest
2	Visualize This: The FlowingData Guide to Design, Visualization, and Statistics	Nathan Yau	John Wiley & Sons	Latest
3	Storytelling with Data: A Data Visualization Guide for Business Professionals	Cole Nussbaumer Knaflic	John Wiley & Sons	Latest
4	Business Analytics	James E Evans	Pearson	3rd
5	Machine Learning with Python Language	Abhishek Vijayvargia	BPB Publication	Latest
6	Let Us Python	Yashavant Kanetkar	BPB Publication	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total

BM6834	HR Analytics	1.5	0	0.5	2

1. Introduction

This course is designed with specific intent to enable students understand the application of system design and importance of data related to all the verticals of human resources. The course also intends to introduce students to the scope, techniques, benefits and challenges of analytics in HRM. Analytics has played a critical role in this journey of HR transformation. This course will specifically focus on the applied methods and techniques with an output orientation for improving the human resource functions in large scale organizations. The frameworks, models, and hands-on analytical approaches will equip the participants with developing the SMART (specific, measurable, attainable, reliable, and time bound) targets and identifying business contributions of the HR function in their respective organizations.

2. Intended Learning Outcomes
- Understand the overview of HR system design and models
- Understand the basics of technology and its application in HR Processes
- Understand the challenges and future of analytics in managing human resources.

3. Course Content

- Introduction on Systems Design. Systems Design, Living Systems Design, HR Systems Design, Documentation of Policies, Flow Diagrams and Work Instructions Automation and Analytics. Basic Automation, Increase in productivity through analytics, Synchronizing process change with automation, HR Analytics in perspective, Challenges and Issues
- Agile HR Analytics. Explain the people analytics cycle, Understand the agile framework , Connect agile principles with HR challenges
- Proving Analytics value by using the HR Value Chain. Understand how the HR Value Chain works, Describe how the HR Value Chain can be used to achieve business outcomes from HR, Explain how HR processes work in conjunction with HR outcomes and organizational outcomes,
- Treatment of HR Data. Understand how to manage data and automate it, Visualizing data and analytics, Describe the importance of a pilot analysis, Explain capability & compliance building of HR analytics, Describe what HRIS is not, Explain the different tools HR analytics can use
- Data Cleaning and HR Metrics. Explain the purpose of HR metrics/data, Understand the three categories of performance, Describe the performance of several HR operations, Create several descriptive statistics in R, Understand how to clean HR data in R, Transform HR data into plots and graphs in R, Describe how to transform strategic goals to HR metrics.
- Statistics in HR. Correlation Analysis, Regression Analysis, HR Analytics maturity
- Data Reporting Insights. Understand how predictive analytics work, Describe the use of machine learning in HR analytics, Explain the difference between predictive & regression analyses, Describe the 4 rules of reporting HR analytics, Understand the mindset in reporting HR analytics, Explain the importance of data visualization

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Textbook				
1	Human Resource Analytics: Theory and Application	Swati Dhir and Suparna Pal	Cengage	1ST, 2021

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6835	Credit Risk Analytics	1.5	0	0.5	2

1. Introduction:

Credit is essential in the modern world and creates wealth, provided it is used wisely. Credit risk is the largest risk in any bank's asset portfolio – on balance-sheet as well as off balance-sheet. Banks hold a wide variety of assets with varying characteristic of credit risk. This course will provide approaches to measure credit risk that is fully aligned with the regulatory approach under the Basel Accords. The methodology for measuring credit risk of different types of credit portfolios will be discussed – segmentation based methods for retail portfolios as well as a rating based approach for corporate credits. The course also covers the analytical methods of model validation.

2. Intended Learning Outcomes:

- An understanding of different measures of credit risk
- Learning of traditional credit models – credit rating & credit scoring – strengths n weaknesses
- A knowledge of different regulatory approaches to measuring credit risk
- A practical hands on knowledge of estimation of different components of credit risk – PD, LGD and EAD

3. Course Content
- Introduction: Market vs. credit risk; Statistical Basis for Modeling Credit; Advantages and Limitations of Credit Appraisal and Default
- Prediction Methods: The elements of credit risk: Default; Exposure; Loss given default or recovery; Expected, unexpected loss, and VaR
- Models of Single Counterparty Default Risk:
- Overview: From traditional to modern credit risk models
- Scoring, logit and probit; Applying Scoring Models to Firms & Consumer Credit Scoring; Behavioural Scoring Models
- Rating-based models: CreditMetrics, CreditPortfolioView
- Asset-based (structural) models: Merton's model and its implemention by KMV, first passage models, Leland and Toft's endogenous bankruptcy model
- Intensity-based (reduced-form) models
- Actuarial Approach: Mortality tables, CreditRisk+
- Portfolio Models of Default and Recovery: CreditMetrics; Correlated defaults; Copula

distributions; KMV for portfolios

- Regulatory issues under Basel II and Basel III; standard approach versus IRB approaches for credit risk; Modelling PD, LGD and EAD; Calculation of capital charges
- Credit risk management: Economic capital; Exposure mitigation -- Netting, collateral, limits, guarantees
- Credit derivatives: Credit default swaps, Total return swaps, collateralized debt obligations

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Reference books				
1	Frontiers in Credit Risk: Concepts and Techniques for Applied Credit Risk Measurement	Gordian Gaeta and Shamez Alibhai,	Wiley	
2	Credit Risk Models & Management	David Shimko	Risk Books	2nd
3	Credit Risk Measurement: New Approaches to Value–at–Risk and Other Paradigms	Anthony Saunders	Wiley	

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6836	Advanced Statistics and Probability for Data Science	1.5	0	0.5	2

1. **Introduction:**

The demand for insight from data has gained importance over the years. The availability of data has spurred such a demand. The traditional and conventional level of insight has been questioned and lacked competitive advantage. Organizations want to have a comprehensive analysis rather than isolating individual data and analysing it. Complexity and data volume has created a premium for accuracy in decision making. This course will enable students to appreciate such factors, question existing analysis process, learn new methodologies and techniques. This course cuts across disciplines and can be used in all areas of investigation.

2. Intended Learning Outcomes

This course will target to achieve intermediate to expert level of learning in statistics and probability theories aimed at business decision making.

3. Course Contents:

- Basic Probability Theory (Probability spaces, Conditional probability, Independence)
- Random Variables (Definition, Discrete & Continuous random variables, Conditioning on an event, Functions of random variables, Generating random variables)
- Multivariate Random Variables (Discrete & Continuous random variables, Joint

distributions of discrete and continuous variables, Independence, Functions of several random variables, Generating multivariate random variables, Rejection sampling,

- Expectation (Expectation operator, Mean and variance, Covariance, Conditional expectation,
- Random Processes (Definition, Mean and autocovariance functions, Independent identically-distributed sequences, Gaussian process, Poisson process, Random walk
- Convergence of Random Processes (Types of convergence, Law of large numbers, Central limit theorem, Monte Carlo simulation)
- Markov Chains (Time-homogeneous discrete-time Markov chains, Recurrence, Periodicity, Convergence, Markov-chain Monte Carlo)
- Frequentist Statistics (IID sampling, Mean square error, Consistency, Confidence intervals, Nonparametric model estimation, Parametric model estimation)
- Bayesian Statistics (Bayesian parametric models, Conjugate prior, Bayesian estimators,)
- Hypothesis testing (Parametric testing, Nonparametric testing)
- Linear Algebra (Vector spaces, Inner product and norm, Orthogonality, Projections, Matrices, Eigen decomposition, Eigen decomposition of symmetric matrices)

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
1	Mathematical Statistics and Data Analysis	John A. Rice	Thompson	
5. Reference Books				
1	Miller & Freund's Probability and statistics for engineers	Richard A. Johnson	PHI	
2	Statistics	David Freedman, Robert Pisani, Roger Purves		

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6814	Machine Learning & Artificial Intelligence using Python	1.5	0	.5	**2**

1. Introduction

The objective of this course is to help students understand the concepts, methods and application of machine learning and AI in ever changing business environment. Students will learn supervised learning applications using decision tree, Random forest and Artificial neural networks. Subsequently, they will learn unsupervised learning techniques like clustering, dimensionality reduction and deep learning.

2. Intended learning outcomes

- Develop an interest among students to learn from data and understand various learning algorithms
- To familiarize students on application of Python in machine learning
- Differentiate and relate unsupervised ,unsupervised and deep learning techniques
- Understand, formulate and interpret various machine learning problems to real world business applications
- Understand the use of AI in business decision making process

3. Course content

- **Introduction to Machine Learning:** Basic concepts of AI, machine learning and deep learning, Categories of machine learning algorithms, Justification of machine learning applications in real world business problems, Understanding the framework of machine learning model, Justification of using Python as a language of machine learning using open source package like Anaconda and google colab as a free jupyter notebook environment. Understanding bias and variance trade off.

- **Descriptive Analytics using Python:** Understanding descriptive analytics, loading of dataset to perform exploratory data analysis, dataset filtering, grouping, joining, ordering, slicing, indexing, cross tabulation , missing data analysis ,preparation of various plots and comparing distributions using python.

- **Simple and Multiple Linear Regression Models** Understanding concept of simple and multiple linear regression in predictive analytics , regression model diagnostics (Residual vs fitted Plot, Normal Q-Q plot, Scale Location Plot, Residuals vs Leverage Plot), understanding splitting of dataset into training and test datasets, accuracy measures like R square, adjusted R square, RMSE and model summary using python.

- **Classification Models :** Introduction to binary logistic regression, odd ratio, logistics function, logit,model building, understanding model summaries, accuracy measurement, interpreting confusion matrix and ROC Curve, treatment of categorical features ,Application of Multinomial logistic regression using python, building decision tree using entropy and Gini criteria , accuracy measurement, over fitting, pruning and introduction to ensemble learning like bagging(ex: Random Forest) and boosting(AdaBoost).

- **Clustering:** Importance of clustering as an unsupervised learning algorithms, understanding clustering techniques, application and interpretation of k means clustering using Python datasets, features normalization, Interpretation of clusters. Application of PAM algorithm and Hierarchical clustering in Python using various datasets.

- **Association Rule Mining Applications:** Introduction to Associate Rule Mining/Market Basket analysis, understanding concept of measures like support, confidence and lift, loading datasets to apply a priori algorithm, interpreting interesting association rules. Introduction to ECLAT algorithm and FP Growth algorithmic to deal with huge datasets using Python.

- **Introduction to Neural Network and Deep Learning:** Understanding neural networks, perceptron algorithm for binary classifiers using Python, elementary introduction to ANN, CNN and RNN. Basic understanding of Restricted Boltzmann Machine and Auto encoders

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Artificial Intelligence and Machine Learning	Chandra SSV	PHI	Recent
Reference Books				
1	Artificial Intelligence and Machine Learning for Business: A No-Nonsense Guide to Data Driven Technologies	Steven Finlay	Atlantic Publishers and Distributors	Recent
2	Machine Learning	Tom M. Mitchell	Tata McGraw-Hill	Recent
3	Understanding Machine Learning: From Theory To Algorithms	Shai Shalev-Shwartz	JBC Publisher and Distributor	Recent
4	Artificial Intelligence 3e: A Modern Approach	Russels	Pearson	Recent
5	R Deep Learning Cookbook	Dr. PKS Prakash and Achyutuni Sri Krishna Rao	Atlantic Publishers and Distributors	Recent

Course Code	Name of the course	Credits			
		L	**T**	**P**	**Total**
BM6601	Data Mining and Business Intelligence	1.5	0	.5	**2**

1. Introduction

The objectives of this course are to impact knowledge about the emerging trends of Data Mining and Business Intelligence and to help students understand and appreciate the importance of making meaningful use of large volume of data for the purpose of decision-making in the complex and ever changing business environment. The students will be exposed to real life business applications as BI student projects.

2. Intended learning outcomes

- Differentiate decisional systems from operational systems
- Understand and apply data mining tools and techniques
- Understand the role of BI systems in supporting decision making in Business World
- Visualize and able to prepare multi dimensional models and Dashboards
- Understand best practices and Trends of Business Intelligence

3. Course content

- **Introduction to Data warehouse :** Introduction to Data Warehouse, Operational vis-a-vis decisional Systems, Necessity and commercial importance of a Data Warehouse , Enterprise Data warehouse and Data Mart, 2 tier and 3 tier Architecture, ETL Process, Multi-dimensional modeling :Multi-dimensional representation of data, Normalization vis-a-vis Dimensional Modeling, Star Schema ,Snow Flake Schema and Fact Constellation.

- **Introduction to Data Mining :** Evolution of Data Mining, applications in business , concepts, overall functionalities and challenges, KDD vis-a-vis Data Mining, DBMS vis-a-vis Data Mining

- **Frequent Pattern Mining:** Association rule mining introduction, Concept of support, confidence and lift with an example, Sense of rule quantity, rule quality and importance of FIM Algorithm. Application of A Priori algorithm as FIM algorithm to find out interesting rules using R. Application with large dataset using ECLAT and FP Growth algorithm using R.

- **Classification Techniques and it's Applications :** overview , Hold out and Cross validation approaches, concept of confusion matrix , issues of pre processing like data cleaning, data transformation and feature selection, Bias variance trade off , approaches to missing data analysis and combining classifiers for better model performance(Bagging and Boosting), Concept, decision tree construction, Information

gain, Entropy and gini value significance for ID3.

- **Clustering Techniques:** Introduction, distance function, applications, measurement of similarity , concept of squared error and absolute error criterion , Explanation of K means Clustering with an example of R dataset, Understanding PAM Algorithm with example with R dataset. Application of DBSCAN and BIRCH Algorithm using very large Datasets using R

- **Introduction to BI, Query and Reporting:** Understanding Business Intelligence technology. Market for business Intelligence: Operational and tactical business Intelligence and driving forces of BI Market, Component of Business Intelligence Architecture, Business Query and Reporting, concepts of 3 dimensional reporting using data cubes, Slicing, dicing and pivoting, Multidimensional BI Reporting.

- **Power BI Applications :** Introduction, understanding architecture of power BI, Comparison with Tableau, Data transformation with power BI Desktop, Introduction to Power BI Data Modeling, Data visualization with Power BI Desktop, sharing and Working with DAX,

5. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Data Mining	Pudi, Vikram Radhakrishna, P.	Oxford Publishing Press	Latest
2	Successful Business Intelligence	Howson, Cindi	McGraw Hills	Latest
Reference Books				
1	Decision Support And Business Intelligence Systems	Efraim, Turban (et al	Pearson	Latest
2	Business Intelligence: Data Mining And Optimization For Decision Making	Vercellis, Carlo	John Wiley	Latest
3	Data Mining For Business Intelligence: Concepts, Techniques And Applications In Microsoft Office Excel With XL Miner	Galit, Shmueli (et al)	Wiley India	Latest
4	Data Mining Explained: A Manager's Guide To Customer-Centric Business Intelligence	Delmater, Rhonda Hancock, M	Digital Press	Latest
5	Business Intelligence In The Digital Economy: Opportunities, Limitations And Risks	Raisinghani, Mahesh	IGI Press	Latest

6	Making Better Business Intelligence Decisions Faster	Vitt, ElizabethLuckevic, MichaelMisner, Stacia	Microsoft Press	Latest

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6838	Multivariate Data Analysis	1.5	0	0.5	2

1. Introduction

This course is designed to broaden and enrich a student's knowledge and understanding of statistical concepts. Multivariate statistical techniques can be used to analyze data in various fields: Finance, Production and Operations, Accounting, Marketing, and Personnel Management, etc. Through examining actual applications in various fields, and in-class exercises involving real-world data, students can apply the techniques to topics such as consumer and market research, supply chain analytics, credit worthiness and risk assessment etc and learn how to make better business decisions.

2. Intended Learning Outcomes

- Acquire comprehensive knowledge of Multivariate statistical methods, Select appropriate methods of multivariate data analysis, given multivariate data and study objectives.
- Use SPSS and/or open source programs to carry out multivariate data analyses. Interpret results of multivariate data analyses.
- Be able to view the topics of this course in a larger business/economic perspective. Be able to update knowledge of presentation and reporting techniques

3. Course Content

- **Module 1** (Overview of Multivariate Methods): Types of Multivariate techniques, Structured approach to multivariate model building
- **Module 2** (Data Preparation for Multivariate Analysis). Assumptions underlying Multivariate Analysis, Missing Data, Outliers, Data transformation
- **Module 3** (Interdependence Techniques). Exploratory Factor Analysis, Cluster Analysis
- **Module 4** (Dependence Techniques). Multiple Regression Analysis, MANOVA – Extending ANOVA, Multiple Discriminant Analysis, Logistics Regression

- **Module 5** (Multiple-criteria decision-making (*MCDM*) Techniques): Conjoint Analysis, Analytic Hierarchy Process (AHP), Goal Programming

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1	Multivariate Data Analysis	Joseph F Hair/ Barry J. Babin/ Rolph E. Anderson/William C. Black	Cengage Publication	**8th**
Reference Books				
1	Discovering Statistics Using IBM SPSS Statistics	Andy Field	SAGE Publication	4th
2	Applied Multivariate Statistical Analysis	Johnson R.A. and Wichern D.W	Pearson Publication	6th
5	Using Multivariate Statistics	Barbara G. Tabachnick, Linda S. Fidell	Pearson	6th

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6839	Predictive Analytics using SAS	1.5	0	0.5	2

1. Introduction

SAS is still one of the most commonly used tools in the business analytics industry. This course is intended to introduce students to **SAS®** (Enterprise Guide and Enterprise Miner) and to have hands-on exercise using **SAS®** for Predictive Analytics. Through examining actual applications in various fields, and in-class exercises involving real-world data, students can apply the techniques to topics such as customer segmentation, consumer and market research, credit worthiness and risk assessment etc and learn how to make better business decisions. The course includes topics dealing with ANOVA, Linear and Logistic Regression, Decision trees, Clustering and Segmentation using **SAS®** (Enterprise Guide and Enterprise Miner)

2. Intended Learning Outcomes

Learning Outcome - Knowledge

   - Acquire comprehensive knowledge of Predictive Analytics and Pattern Discovery

- Select appropriate methods of predictive analytics, given data and study objectives.

   Learning Outcome – Software Skills

   - Use SAS® (SAS Studio and SAS Enterprise Miner) to carry out data analyses.

   - Assess model fit and implementation

   Learning Outcome - General Competence

   - Be able to view the topics of this course in a larger business/economic perspective

   - To have updated knowledge of presentation and reporting techniques

3. Course Content

Module 1: Introduction to Predictive Analytics

- Predictive Analytics in various industries
- Predictive Analytics Approach

Module 2: Introduction to SAS Studio and SAS Enterprise Miner

- SAS Studio Interface (Library, Folders)
- SAS Enterprise Miner Interface (SEMMA)

Module 3: Predictive Analytics using SAS Studio

- Multiple Linear Regression
- Predictive Regression Models
- GLM and Logistics Regression
- Rapid Predictive Modeler

Module 4: Predictive Analytics using SAS Enterprise Miner

- Cluster Analysis
- Market Basket Analysis
- Regression Models
- Decision Trees
- Neural Networks
- Comparing various Models and choosing the best model for a business problem

Suggested projects:

The objective of the analytics project is to provide students with chance to apply the concepts and methods learned in class to a real world problem. The project is to be done in groups of four or five students. The project proposal must be discussed and approved by the instructor in its early stage.

1. Developing Credit Score Cards by using Credit Scoring in SAS Enterprise Miner
2. Create a product recommendation system using Market Basket Analysis in SAS Enterprise Miner

Software Tools

- **SAS® STUDIO & SAS® ENTERPRISE MINER (Academic Version)**

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
4. Text Book				
	No textbook.			
5. Reference Books				
1	Business Analytics Using SAS Enterprise Guide and SAS Enterprise Miner: A Beginner's Guide, ,	Olivia Parr-Rud	SAS Institute	1st
2	SAS Essentials - MASTERING SAS FOR DATA ANALYTICS|	Alan C. Elliott, Wayne A. Woodward	Wiley Publication	2nd
3	Business Analytics: The Science of Data - Driven Decision Making	U Dinesh Kumar	Wiley India	1st
4	Predictive Modeling with SAS Enterprise Min Practical Solutions for Business Applications:,	Kattamuri S. Sarma	SAS Institute	3rd

Course Code	Name of the course	Credits			
		L	T	P	Total
BM6840	Text Mining and Analytics	1.5	0	0.5	2

1. **Introduction:**

Text is one of the major forms of data. It is overwhelmingly present in books, internet, reports and other documents with potentially host of information and knowledge hidden among them. These analyses can create potentially actionable knowledge.

2. Intended Learning Outcomes

- To study and understand the nature and pattern of text as a data source for knowledge discovery.

- To study a few techniques and tools which automatically process text and various levels of analysis.
- To demonstrate and apply the outcomes of text analysis.
- Supplement or corroborate text analysis data with other data analysis.
- Exposure on dealing with multimedia data mining

3. Course Contents:

- Introduction to text analytics
- How to extract text data
- Basic natural language processing
- Text categorization and clustering,
- Document summary
- Sentiment analysis
- Social network and Social media analysis
- Text visualization.
- Audio visual data mining
- Open source tools and capabilities

4. Text and reference books

Sl. No.	Title	Author(s)	Publisher	Edition
Text Book				
1				
2. Reference Books				
1	Text Mining with R – A tidy approach	Julia Silge & David Robinson	O'Reilly	First
2	Text Analytics with Python	Dipanjan Sarkar	Apress	Second