

20MBA101	INTRODUCTION TO BUSINESS	CATEGORY	L	T	P	CREDIT
		CORE THEORY	3	0	0	3

Preamble: The course on Introduction to Business provides a holistic view of organizations and their related information systems. It enables students to cope with the globalization, virtualization, and volatile competitive environment in which firms are seeking to reconstruct their organizational structures and establish new management architectures to transform from single autonomous entities into more open enterprises

Prerequisite: NIL

Course Outcomes: After the completion of the course the student will be able to

CO 1	Evaluate the importance of Planning and Organising in an Enterprise
CO 2	Analyse the role of Staffing, formation of teams and performance
CO 3	Appraise the effectiveness of communication
CO 4	Inculcate the foundation of sound decision making
CO 5	Evaluate the means of control in an enterprise

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	3	3	3
CO 2	3	3	3	3	3
CO 3	2	2	1	3	1
CO 4	2	1	1	3	2
CO 5	2	3	2	3	3

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10

Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours



Continuous Internal Evaluation Pattern:

Attendance	: 4 marks
Continuous Assessment Test (2 numbers)	:16 marks
Assignment/Quiz/Course project	:10 marks
Seminar and Discussion	:10 marks

Syllabus

Syllabus	
Module 1	<p><i>Introduction to Business & Management: Concept of Enterprise, Nature and Purpose of Business, Business Structure, Business & the Environment</i></p> <p>Concept of Management, Evolution of Management Thought, Functions of Management, Levels of Management, Management Skills</p> <p><i>Planning:</i> Objectives of Planning, Planning Process, Types of Plans, Three Levels of Strategy, Strategic Planning Process.</p> <p><i>Organizing:</i> Purpose of Organizing, Organization Structure - Formal and Informal Groups, Line and Staff Authority, Departmentation - Span of Control, Centralization and Decentralization</p>
Module 2	<p><i>Staffing:</i> Human Resource Planning, Recruitment, <i>Selection, Orientation, Training & Development</i>, Performance Management, Compensation, Employee Welfare</p> <p><i>Teams:</i> Formation of teams, Measuring Team Performance, Outperforming other teams</p>
Module 3	<p>Communication, Significance of Communication, Communication Process, Communication Flows, Barriers to Communication</p> <p><i>Oral Communication:</i> Meaning, Principles of successful Oral Communication, Reflection and Empathy: two sides of effective oral communication, Modes of Oral Communication, Listening as a Communication Skill.</p> <p><i>Written Communication:</i> Purpose of writing, Principles of effective writing, The 3X3 writing process for Business Communication: Pre writing, Writing, Revising, Electronic writing process, Business Letters, Reports and proposals.</p> <p><i>Meetings:</i> Planning Meetings, Objectives, Participants, Timing, Venue of Meetings, Meeting Documentation: Notice, Agenda, and Resolution & Minutes.</p> <p><i>Leadership Communication:</i> Elements of Effective Leadership Communication</p>
Module 4	<p><i>Basics of Decision Making:</i> Critical thinking and Creativity, Managerial Creativity, Techniques to enhance Creativity, Barriers to creativity, Decision making process, Types of decision making, Decision making tools and techniques, Individual and Group decision making and Conflict and Negotiation</p>
Module 5	<p><i>Controlling:</i> Importance of Controlling, Levels of Control, Types of Control – Budgetary & Non Budgetary</p> <p>Major Control Systems - <i>Financial Control, Budgetary Control, Quality Control, Inventory Control</i>, Management Information Systems</p> <p><i>Strategic Management:</i> Purpose of Strategic Management, Strategic Analysis, Strategic Choice, Strategy Implementation</p>
Text Book	
<p>1. Robbins, S. P. , Mary Coulter, Agna Fernandez, Management, <i>Pearson Prentice Hall (2019)</i>. Chaturvedi, P. D., &Chaturvedi, M., <i>The art and science of business communication: skills, concepts, and applications</i>. Pearson India Education Services(2017).</p>	



References and Suggested Readings

1. Hill, C. W., & McShane, S. L., *Principles of management*, McGraw-Hill/Irwin(2017).
2. Koontz, H., & Weihrich, H., *Essentials of management: an international, innovation, and leadership perspective*. McGraw-Hill Education(2015).
3. Tripathi, P. C., & Reddy, P. N., . *Principles of Management*, Tata McGraw Hill, New Delhi (2017)

Course Contents and Lecture Schedule

No	Topic	No. of Lectures
1	INTRODUCTION TO BUSINESS	
1.1	Management – Concepts, Evolution, Functions, Levels, Skills	3 Hours
1.2	<i>Planning</i> : Objectives, Process, Types of Plans, Three Levels of Strategy, Strategic Planning Process.	2 Hours
1.3	<i>Organizing</i> : Purpose, Organization Structure, Line and Staff Authority, Departmentation	2 Hours
2	STAFFING AND LEADING	
2.1	Staffing: Human Resource Planning, Recruitment, <i>Selection, Orientation, Training & Development</i> ,	2 Hours
2.2	Performance Management, Compensation, Employee Welfare	2 Hours
2.3	Formation of Teams, Team Performance, Outperforming other teams	3 Hours
3	COMMUNICATION	
3.1	Oral Communication	2 Hours
3.2	Written Communication	2 Hours
3.3	Meetings	1 Hours
3.4	Elements of Effective Leadership Communication	2 Hours
4	BASICS TO DECISION MAKING	
4.1	Creativity	2 Hours
4.2	Decision Making Tools and Techniques	3 Hours
4.3	Negotiation and Conflict	3 Hours
5	CONTROLLING AND STRATEGIC MANAGEMENT	
5.1	Controlling – Importance, Levels, Types	2 Hours
5.2	Control Systems	3 Hours
5.3	Strategic Management and Strategic Analysis	2 Hours



20MBA103	QUANTITATIVE TECHNIQUES FOR MANAGERS	CATEGORY	L	T	P	CREDIT
		Core Theory	4	0	0	4

Preamble: This subject aims to familiarize the students with modern business & and apply statistical techniques for arriving at sound management decisions. On completion of this course, students would acquire an understanding of descriptive statistical tools like measures of central tendency & measures of variation and apply these tools to real life situations. Course also helps in identifying and establishing relationships between real life variables using tools like correlation, regression, time series analysis, probability distributions and fundamentals of hypothesis testing

Prerequisite: NIL

Course Outcomes: After the completion of the course the student will be able to

CO 1	Examine the basics of descriptive statistics for managers
CO 2	Identify the practical applications of probability theory
CO 3	Solve business problems with the help of fundamental statistical and theoretical backgrounds
CO 4	Formulate various testing methods using statistical backgrounds in business problems for managerial decision making
CO 5	Determine the suitability of using correlation and regression analysis in solving business problems

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	1	1	1
CO 2	3	3	1	2	1
CO 3	3	3	1	3	1
CO 4	3	3	2	2	1
CO 5	3	3	2	2	1

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10



Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Class Participation and Attendance	: 4 marks
Tests	: 16 marks
Seminar and Discussion	: 10 marks
Assignment/class work	: 10 marks

Syllabus

Module 1	<p>Introduction to Statistics: Meaning and Definition, functions, scope and limitations. Descriptive Statistics: Collection and presentation of data: Methods of data collection, Data presentation using tables & charts, Frequency distribution.</p> <p>Measures of central tendency - Mean, Median, Mode. Measures of dispersion - Range, Quartile Deviation, Mean Deviation, Standard Deviation. Absolute & relative measures, Measures of Variation :Range, Inter-quartile range, Mean Deviation, Standard deviation and variance</p>
Module 2	<p>Probability : Concept of probability and its uses in business decision-making; Random Variables: : Random experiment – outcomes - sample space and events - definitions of probability (classical, relative frequency, subjective, and axiomatic) - addition rule - conditional probability - multiplication theorem – Bayes' theorem</p>
Module 3	<p>Introduction to sampling distributions, Sampling distribution of mean and proportion, Sampling techniques, Sampling Errors, Sampling Distribution of mean and proportion</p> <p>Hypothesis Testing: Formulation of Hypotheses; Application of Z-test, t-test, F-test.</p>
Module 4	<p>Chi-Square test for several proportions, association of attributes – goodness of fit test</p> <p>One way & two way ANOVA for testing the difference of means of more than two samples.</p> <p>Time Series Analysis: Components of Time Series, Techniques of measuring seasonal variations – Simple Average Method, Moving Averages Method. Least Square Method of Trend Analysis, Applications of Time Series in Business Forecasting.</p>



Module 5	Correlation Analysis: Types of Correlation, Methods of Studying Correlation: Karl Pearson's correlation coefficient - Spearman's Rank correlation coefficient – Concurrent deviation method Regression analysis: Regression lines, Regression equations, Coefficient of Determination & Estimation (Theory Only). Multiple Regression (Theory Only)
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Text Books

1. Richard I. Levin, David S. Rubin, Statistics for Management, Pearson Education, New Delhi 7th Edition, 2011.
2. Aczel A.D. and Sounderpandian J., Complete Business Statistics, 6th edition, Tata McGraw – Hill Publishing Company Ltd., New Delhi, 2012

Reference Books

1. Ken Black, Applied Business Statistics, 7th Edition, Wiley India Edition, New Delhi, 2012.
2. Anderson D.R., Sweeney D.J. and Williams T.A., Statistics for Business and Economics, 11th edition, Thomson (South – Western) Asia, Singapore, 2012
3. J.K. Sharma, Business Statistics, Vikas Publishing House Pvt Ltd, Noida, 2019
4. C.R. Kothari, Quantitative Techniques, Vikas Publishing House Pvt. Ltd, 2013

Course Contents and Lecture Schedule

No	Topic	No. of Lectures 1lecture=1 hr
1	Statistics	
1.1	Introduction to Statistics	2
1.2	Measures of Central Tendency	4
1.3	Measures of Variation	4
2	Probability	
2.1	Introduction, Addition and Multiplication theorems	3
2.2	Bayes theorem	3
2.3	Binomial, Poisson and Normal distributions	4
3	Sampling	
3.1	Introduction	2
3.2	Sampling distribution of mean and proportion	4
3.3	Hypothesis testing- z test, t test and F test	4
4	Testing and Analysis	
4.1	Chi square test	3
4.2	One way and two way ANOVA	3
4.3	Time series Analysis	3
5	Statistical Analysis	
5.1	Correlation analysis	3
5.2	Regression analysis	3
5.3	Interpretation and Theory	3



20MBA105	ORGANIZATIONAL BEHAVIOUR	CATEGORY	L	T	P	CREDIT
		THEORY	3	0	0	3

Preamble

The objective of the course is to impart expert knowledge about basic theories, models and principles of Organizational Behavior and to equip students to apply the same in industry. On completion of the course, the students are expected to improve their team building, decision making and leadership skills for making meaningful contribution to industry, government and society.

Course Outcomes: After the completion of the course the student will be able to

CO 1	Understand nature, evolution and approaches to organizational behaviour
CO 2	Analyse individual differences and to change others behaviour through the process of perception, personality, learning and motivation
CO 3	Develop team building and leadership skills
CO 4	Apply conflict management techniques for improved problem solving and better interpersonal relations
CO 5	Enhance individual and organizational productivity through managing stress, culture and change

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	1	2	2	2
CO 2	3	3	3	2	3
CO 3	3	3	3	2	3
CO 4	3	3	2	2	3
CO 5	3	2	2	2	2

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	20	20	20
Understand	20	20	20
Apply	20	20	20
Analyse	20	20	20
Evaluate	10	10	10
Create	10	10	10



Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Attendance: 4 marks

Continuous Assessment Test (2 numbers):16 marks

Assignment/Quiz/Course project: 10 marks

Seminar and Discussion: 10 marks

Syllabus

Module 1	Organizational behaviour-nature, assumptions, history; Disciplines contributing to OB - Psychology, Sociology, Anthropology, Social Psychology, Economics & Political Science; Approaches to the study of OB - Human Resource Approach, Contingency Approach, Productivity Approach, and System Approach; Challenges and Opportunities of OB - Limitations of Organizational Behaviour
Module 2	Individual differences and work behaviour - Why individual differences are important; Personality - Sources of personality differences, Personality structure, Personality and Behaviour; The nature of Employee Attitudes, Effects of Employee Attitudes, Job satisfaction, Organizational citizenship behaviour, Changing Employee Attitudes. Perceptions, Attributions and Emotions - The perceptual process, Perceptual grouping, Impression management, Emotions, Emotional Intelligence Learning- operant conditioning, classical conditioning, social learning theory, Principles of Learning - Motivation - Concept of Motivation, Content approaches, Process approaches, Motivation and psychological contract
Module 3	Group-importance – group development- group structure - teams -Formal Organization and Informal Groups and their interaction; Developing high performance teams - turning individuals into team players developing interpersonal awareness - Johari Window- Transactional Analysis - leadership – theories,
Module 4	Power-concept, bases of power; Organizational politics, consequences of political behaviour - Conflict Management: Different views of conflict - conflict process - levels of conflict – Constructive and Destructive conflict - Conflict process - strategies for encouraging constructive conflict - Conflict resolution strategies
Module 5	Organizational Culture – Creating and sustaining culture – Impacts of globalization on organizational culture; Approaches to Managing organizational change –Creating a culture for change; Frustration, Work stress and its management - Stress model, Burnout Work stressors, Stress outcomes, Stress moderators, Stress prevention and management



Text Books

1. Stephan P. Robbins, Timothy A. Judge and Neharika Vohra, Organisational Behaviour, Pearson , 18th edition, 2018.

Reference Books

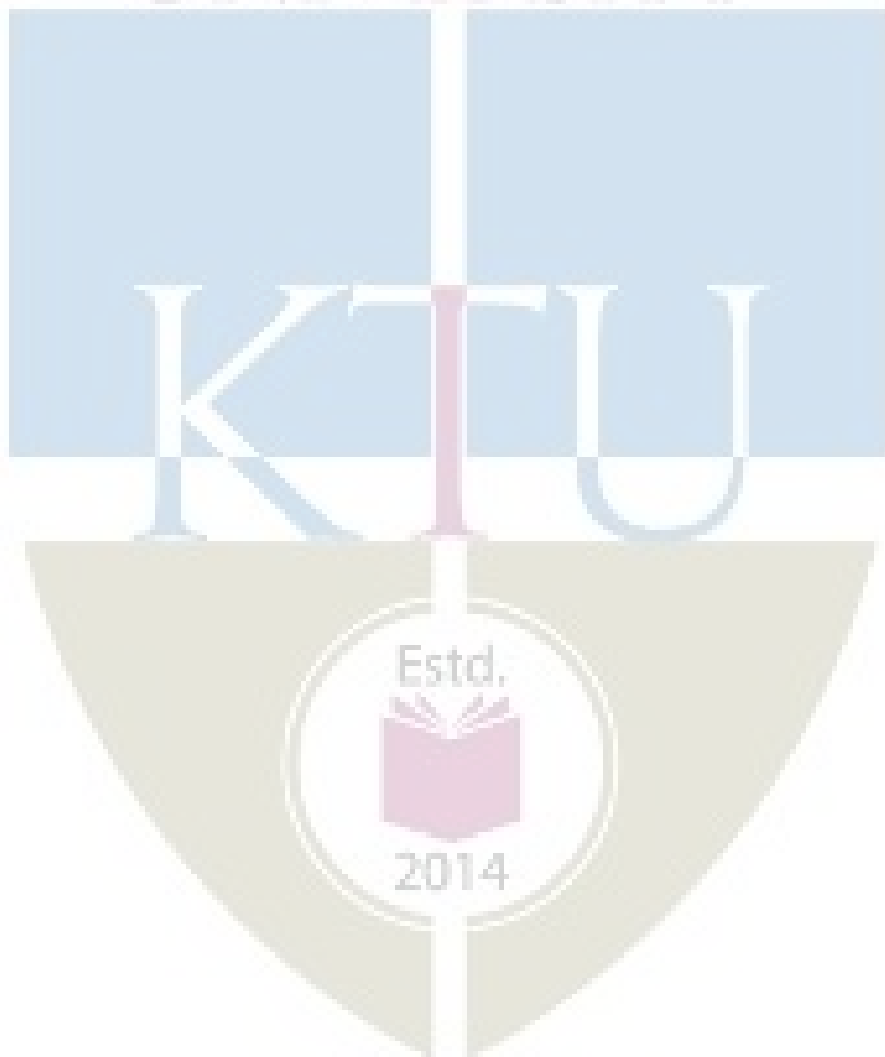
2. Jerald Greenberg, Behaviour in organizations, Tenth Edition, PHI
3. Udai Pareek, Understanding Organizational Behaviour, Oxford Higher Education
4. McShane, Steven Lattimore, Mara Olekalns and Tony Travaglioni. Organizational Behavior: Emerging Knowledge, Global Insights. McGraw Hill, 4th edition 2012.
5. John Ivancevich, Robert Konopaske, Michael Matteson, *Organizational Behavior & Management*, McGraw – Hill, 10th Edition, 2013

Course Contents and Lecture Schedule

No	Topic	No. of Lectures
Module-1		
1.1	Organizational behaviour-nature, assumptions, history	2
1.2	Disciplines contributing to OB	2
1.3	Approaches to the study of OB	2
1.4	Challenges, Opportunities and limitations of OB	1
Module-2		
2.1	Individual differences and work behaviour	2
2.2	Personality	2
2.3	Employee Attitudes	1
2.4	Perceptual process	1
2.5	Learning theories	2
2.6	Motivation- Content and process approaches,	2
Module-3		
3.1	Group-importance – group development- group structure	1
3.2	Developing high performance teams - turning individuals into team players	2
3.3	Developing interpersonal awareness - Johari Window- Transactional Analysis -	1
3.4	Leadership – theories	2
Module-4		
4.1	Power-concept, bases of power	2
4.2	Organizational politics, consequences of political behaviour - -	1
4.3	Conflict Management: Different views of conflict - conflict process - levels of conflict – Constructive and Destructive conflict	2
4.4	Conflict process - strategies for encouraging constructive conflict - Conflict resolution strategies	2



Module-5		
5.1	Organizational Culture – Creating and sustaining culture – Impacts of globalization on organizational culture	1
5.2	Approaches to Managing organizational change –Creating a culture for change	2
5.3	Frustration, ,Work stress and its management - Stress model, Burnout Work stressors, Stress outcomes	1
5.4	Stress moderators, Stress prevention and management	2



20MBA107	BUSINESS ECONOMICS	CATEGORY	L	T	P	CREDIT
		CORE THEORY	4	0	0	4

Preamble: The course on Business Economics helps the students to comprehend the Concepts of Economics to aid managerial decision making. The course equips students to apply Laws of Supply and Demand in various Market Conditions, delineate the Features of Production and Cost Curve in the Short Term and Long Term Perspective, appraise Market Structure, analyze the Impact of Monetary and Fiscal Policies on Business Decision Making and decipher Pricing strategies in Small and Large Organizations.

Prerequisite: NIL

Course Outcomes: After the completion of the course the student will be able to:

CO 1	Evaluate the importance of Economics in Business Decisions.
CO 2	Analyse the Demand and Demand Elasticity in varying market conditions.
CO 3	Appraise the Production and Cost Curve in the Short Run and Long Run.
CO 4	Explain Price and Output determination in different Market Structures
CO 5	Evaluate the impact of Monetary Policy Measures and Fiscal Policy Measures and Pricing Strategies of Small and Large Business Firms.

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	1	3	3
CO 2	3	3	1	3	2
CO 3	3	3	1	3	3
CO 4	3	3	1	3	2
CO 5	3	3	1	3	1

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10

Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours



Continuous Internal Evaluation Pattern:

Attendance	: 4 marks
Continuous Assessment Test (2 numbers)	:16 marks
Assignment/Quiz/Course project	:10 marks
Seminar and Discussion	:10 marks

APJ ABDUL KALAM TECHNOLOGICAL

Syllabus	
Module 1	INTRODUCTION TO ECONOMICS– Concept of Economics and Business Economics, Micro Economics and Macro Economics, Fundamental concepts in economics that aid decision making: Incremental Principle, Concept of Cost, Discounting Principle, Time Concept, Concept of Inflation –Types and impact of inflation. Equi-Marginal Principle (12 Hours)
Module 2	DEMAND ANALYSIS AND FORECASTING – EQUILIBRIUM OF CONSUMER - Demand Analysis – Types of Demand – Law of Demand & its Exceptions - Elasticity of Demand – Price Elasticity, Income Elasticity, Cross Elasticity, Advertisement Elasticity - Applications of the concept of Elasticity -- Demand Forecasting – An overview of Forecasting Techniques – Statistical & Non-Statistical Methods- Analysis of Consumer Equilibrium under Cardinal Utility Analysis –Law of equi-marginal utility – Consumer behaviour under Ordinal Utility analysis -Indifference Curve Analysis(12 Hours)
Module 3	SUPPLY & PRODUCTION- Law of Supply and Factors Influencing Supply - Theory of Production – Production function, Production function with one variable input – Law of Variable Proportions – Returns to Scale, Production function with two variable inputs – Isoquants – Isoclines, Collusive oligopoly (Cartels, Price leadership)-Producers’ Equilibrium, Economies of Scale – Types – Economies of Scope ,-Theory of Costs – Classification of Costs – Determinants of Cost - Short Run & Long Run Cost Curves – Graphical Presentation - Revenue Curves (12 Hours)
Module 4	MARKET STRUCTURE - Classification of Markets – Markets based on Competition - Theory of Firm – Profit Maximization Rules - Price & Output Determination under Perfect Competition -Price & Output Determination under Monopoly - Price & Output Determination under Monopolistic Competition - Price & Output Determination under Oligopoly – Kinked Demand curve model only (12 Hours)
Module 5	5A: MONETARY POLICY AND FISCAL POLICY – Business Cycle-Phase of Business Cycle-Concept of Inflation-Types and impact of inflation-Monetary Policy Measures and Challenges of Monetary Policy Measures – Fiscal Policy Measures and Challenges of Fiscal Policy Measures 5B: PRICING PRACTICES & STRATEGIES - Factors affecting Price Determination – Pricing Strategies – Cost Oriented Pricing and Competition Oriented Pricing - Pricing in large enterprises – Pricing in small business. ((12 Hours)



Text Book
1. Mote V.L., Paul Samuel, Gupta G.S. – Managerial Economics – TMH New Delhi 2. Keat, Yong, & Banarjee – Managerial Economics: Economic Tools for Today’s Decision Makers – Pearson. 3. Dwivedi D.N – Managerial Economics – Vikas Publications
References and Suggested Readings
1. Pearson & Lewis – Managerial Economics – Prentice Hall, New Delhi 2. P.L. Mehta – Managerial Economics Analysis, Problems and Cases – Sultan Chand & Sons (ISBN 81-7014-386-1) 3. Gregory Mankiw – Principles of Micro Economics – South Western Cengage Learning 4. Pindyck, Rubinfeld – Micro Economics – Pearson 5. Gupta G.S. – Managerial Economics – TMH New Delhi 6. Homas, Maurice – Managerial Economics – Tata McGraw Hill

Course Contents and Lecture Schedule

No	Topic	No. of Lectures
1	INTRODUCTION TO ECONOMICS	
1.1	Enumerate the nature of Business Economics	2 Hours
1.2	Interpret the fundamental concepts in Business Economics	3 Hours
1.3	Compare Micro Economics and Macro Economics	3 Hours
2	DEMAND ANALYSIS AND FORECASTING – EQUILIBRIUM OF CONSUMER	
2.1	State the Factors affecting Demand	3 Hours
2.2	Illustrate the Demand Forecasting Techniques	3 Hours
2.3	Compare and Contrast the Types of Demand Elasticity	3 Hours
3	SUPPLY & PRODUCTION	
3.1	Enumerate the factors influencing Supply	3 Hours
3.2	Describe the Production Function.	3 Hours
3.3	Demonstrate the Production Cost Curve in the Short Run and Long Run.	3 Hours
4	MARKET STRUCTURE	
4.1	Relate the Market Structures.	3 Hours
4.2	Application of Theory of the Firm and Profit Maximisation Rules.	4 Hours
4.3	Appraise the Price and Output Determination in different Market Structures	4 Hours
5	MONETARY POLICY, FISCAL POLICY AND PRICING STRATEGIES	
5.1	List down the various Monetary Policy Measures and Fiscal Policy Measures.	3 Hours
5.2	Describe the Pricing Strategies	4 Hours
5.3	Appraise the Pricing Strategies in Small Firms and Large Firms	4 Hours



20MBA109	Information Systems for Managers	CATEGORY	L	T	P	CREDIT
		Core Theory	3	0	0	3

Preamble:

The primary objective of this course is to familiarize the students with the concept of information systems in organizations. It provides the students an overview of the various business applications of IT. Enterprise IT systems such as ERP, SCM, CRM etc. are explored which gives the student an understanding of how a manager gets information in the core areas of Management with the help of Information Technology in an organization. The students will get familiar with related concepts of Management Information Systems such as IT Strategy, E-commerce, Business Process Integration with IT, Decision Support Systems, Managing IT Function and Ethical and security issues in the networked world.

Prerequisite: NIL

Course Outcomes: After the completion of the course the student will be able to

CO 1	Demonstrate familiarity with the basic concepts of information systems
CO 2	Identify database models and explain the concept of informed decision-making
CO 3	Appraise the integration of business processes with IT
CO 4	Apply data and information concepts in enterprise business processes
CO 5	Analyse the information security and ethical issues in modern IT environments and methods of tackling them

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	1	2	2
CO 2	3	3	1	3	2
CO 3	3	2	2	3	3
CO 4	2	3	3	3	3
CO 5	3	2	3	3	3

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10



Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Attendance	: 4 marks
Continuous Assessment Test (2 numbers)	:16 marks
Assignment/Quiz/Course project	:10 marks
Seminar and Discussion	:10 marks

Syllabus

Module 1	<p>Organizations and Information systems (8 hours) Information systems in modern organizations-Types of IS- roles of IS-Managerial Challenges of IT-Components of IS- Strategic use of IT-Value chain and strategic IS- using IT for creating strategic advantage for business-trends in MIS- e-business-e-commerce models, successful e-commerce companies-impact of IT on business-casestudy</p>
Module 2	<p>Data and Information (8 hours) Data and information – data management and security - database concepts-basicarchitecture-DataWarehouses-datamininguses-informationas a resource - information in organizational functions - types of informationsystems- management information systems - decision making with MIS - communication in organisations - types of communication - decision making with communication technology.</p>
Module 3	<p>Competing and Integrating with IT (9 hours) Competitive environment of business - IT strategy - information systems and competitive strategy - value chain -role of CIO - information system's plan - technology updates - Business processes - Business Process Integration - Business Process Re-engineering (BPR) – BPR versus continuous improvement - Motivation for Enterprise Systems - Enterprise wide systems - E-Business Applications and E-governance</p>
Module 4	<p>Enterprise Systems (12 hours) Supply Chain Management Systems - Customer Relationships Management Systems - Challenges of Enterprise Systems Implementation - Managing the implementation – ERP systems-benefits and challenges-International Information Systems - Outsourcing and off-shoring - Decision Support Systems - OLAP, Geographic Information and Data Visualization Systems, visualization techniques, dash boards, DSS software packages MIS and DSS - Decision making - types of decisions - Analytics and Business Intelligence. AI technologies in business,business applications of AI-Expert systems:components,benefits</p>
Module 5	<p>Module 5:Managing Security and ethical issues in IT (8 hours) Security and ethical challeges: IT security, ethics and society,ethical responsibility of business professionals,cyber crime:hacking and cracking,cyber theft,cyber terrorism, Unauthorized use, software piracy,theft of IP,computer virus,adware and spyware,privacy issues,health issues, societal issues-cyber security and cryptography:security management tools, cryptographic keys, encryption, firewalls-Denial of service attacks,e-mail monitoring,virus defenses,other security measures-system controls and audits: information system controls,auditing IT security-Block chain technology:how it works, features,business applications</p>



Text Book

1. Laudon and Laudon, Information Systems for Digital Economy, Pearson, 13th Edition
2. O'Brien, James and George Markas. *Management Information Systems(10/e)*. McGraw Hill (2010). Author, "Title", Publisher, edition, Year.
2. Pearson, K. E., Saunders, C. S., & Galletta, D. F. *Managing and using information systems: A strategic approach*. John Wiley & Sons(2019).

References and Suggested Readings

1. Patel, S., & Patt, Y. *Introduction to Computing Systems: from bits & gates to C & beyond*. McGraw-Hill Professional(2019).
2. Lemahieu, W., vandenBroucke, S., & Baesens, B. *Principles of Database Management: The Practical Guide to Storing, Managing and Analyzing Big and Small Data*. Cambridge University Press(2018).
3. Gray, H., Issa, T., Pye, G., & Troshani, I. *Management Information Systems, 1st Australasian Edition*. John Wiley & Sons(2016).
4. Beynon-Davies, P. *Information Systems Development: an introduction to information systems engineering*. Macmillan International (2016).
5. Ferreira, D. R. *Enterprise Systems Integration*. Springer-Verlag Berlin(2016)

Course Contents and Lecture Schedule

No	Topic	No. of Lectures
1	Organizations and Information systems	
1.1	Role and Types of IS in organizations	2
1.2	Challenges for managers	2
1.3	e-commerce models	3
2	Data and Information	
2.1	Data base concepts and models	3
2.2	Data warehouse and mining	2
2.3	Decision making with MIS	2
3	Competing and Integrating with IT	
3.1	Information system and competitive strategy	2
3.2	Business Process Integration	2
3.3	Enterprise wide systems	3
4	Enterprise Systems	
4.1	SCM, CRM	3
4.2	ERP	3
4.3	Business Analytics and DSS	2
5	Managing Security and ethical issues in IT	
5.1	Modern IT environment	3
5.2	Security issues and tools for managing	2
5.3	Ethical and societal issues in IT	2



20MBA111	ACCOUNTING FOR MANAGERS	CATEGORY	L	T	P	CREDIT
		CORE THEORY	4	0	0	4

Preamble: To familiarize the students with the accounting practices and to develop analytical and interpretative skills necessary to take decisions from a Managerial perspective.

Prerequisite: None

Course Outcomes: After the completion of the course the student will be able to

CO 1	Understand the financial transactions, Accounting concepts and principles.
CO 2	Examine and prepare the financial statements of a company.
CO 3	Analysis and comparison of financial statements.
CO 4	Assess performance of a company using various techniques of Management Accounting
CO 5	Analyze performance of a company using various techniques of cost Accounting

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	2	1	2
CO 2	3	3	2	3	2
CO 3	3	3	2	3	2
CO 4	3	3	3	3	2
CO 5	3	3	3	3	2

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10



Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Attendance/ class participation	: 4 marks
Continuous Assessment Test (2 numbers)	:16 marks
Assignment/Quiz/Course project	:10 marks
Seminar and Discussion	:10 marks

Syllabus

Module	Topic
1	Accounting-Types of accounting (Theory)- concepts and Conventions - GAAP- -accounting standards-IFRS.- Financial accounting process - Journal-ledger-Trial balance- trading, profit and loss account and balance sheet(Sole proprietorship).
2	Company accounts-features- legal significance -Auditing- Income statement and balance sheet (preparation) -EPS-DPS- profit prior to incorporation – depreciation –Fictitious assets.
3	Management Accounting: Need and Importance - Types of Financial Analysis- Techniques of financial Analysis - Inter and Intra firm – Analysis and Interpretation of Common Size Statement, Comparative Statements and Trend Analysis (Problems) Ratio Analysis:- Significance,-Types and Classification - Analysis and Interpretation of Profitability, Liquidity, Solvency, Leverage, Turnover and Stock Market Ratios (Problems)
4	<i>Funds Flow Statement:</i> Fund and flow of fund– Concept of Gross and Net Working Capital – Flow of Funds – Schedule of changes in Working Capital- funds from operation- Preparation of fund flow statement – analysis and interpretation. <i>Cash Flow Statement:-</i> cash and non-cash transactions - flow of cash – Cash from operation, Preparation of Cash Flow Statement and its analysis and interpretation.
5	<i>Cost Accounting:-</i> Cost –ClassificationandElementsofCost, costing- Objective –methods and Technique Costing, cost - PreparationofCost Sheet. Standard costing-variance analysis.-material,labour and overhead . <i>Marginal Costing-</i> Marginal Cost, Marginal Costing, Managerial Applications of Marginal Costing, CVP Analysis, Contribution, P/V Ratio, Break Even Analysis, Margin of Safety.



Text Books

1. Dearden J. and Bhattacharya S. K. *Accounting for Management – Text and cases 3rd edition*, Vikas Publishing House, New Delhi (2015)
2. Charles T. Horngren, Gary L. Sundem, William O. Stratton, Dave Burgstahler, Jeff Schatzberg, *Introduction to Management Accounting*, 14/e, Pearson Prentice Hall, 2008
3. Gupta R. L. and Radhaswamy M., *Advanced Accounting*, Sultan Chand Publishers, New Delhi
4. Maheshwari S. N., *Accounting for Management*, 3/e, Vikas Publishing House, New Delhi, 2012

Reference Books

1. Jain S. P. and Narang K. L., *Advanced Cost Accounting*, Kalyani Publishers, New Delhi
2. Shashi K. Gupta and R. K. Sharma, *Management Accounting*, Kalyani Publishers, New Delhi
3. R. Narayanaswamy, *Financial Accounting: A Managerial Perspective* (2014), PHI Learnings (P) Ltd.
4. Robert N. Anthony, David Hawkins, Kenneth Merchant, Robert Anthony, *Accounting: Texts and Cases* (11th Edition) Mc Graw Hill Education, (P) Ltd.
5. Anthony R. N. and Reece J. S.: *Accounting Principles*
6. Heitger L. E. & Matulich Serge: *Financial Accounting*
7. Gupta R. L. *Advanced Accounting*
8. Jain S. P. & Narang K. L. *Advanced Accountancy*
9. Nair N B. *Advanced Accountancy* ñ Volume I & II 6
10. Charles T. Horngren: *Principles of Financial and Management Accounting*
11. Bhattacharya S K and Dearden J. *Accounting for Management - Text and Cases*
12. Hingorani N. L. and Ramanathan A R. *Management Accounting*
13. B K Bhar. *Cost Accounting* ñ Methods and Problems
14. S P Gupta. *Management accounting*
15. Charles T Horngren and others. *Cost Accounting - A Managerial Emphasis*
Khan M Y & Jain P K. *Management Accounting*



Course Content and Lecture Schedule

No	Topic	No. of Lectures
1	Module 1	
1.1	Accounting-Types of accounting Financial accounting process, concepts and Conventions -GAAP	2
1.2	accounting standards-IFRS- Journal-ledger	2
1.3	Trial balance- trading, profit and loss account and balance sheet	2
2	Module 2	
2.1	Company accounts-features- legal significance -Auditing-	2
2.2	Income statement and balance sheet -	2
2.3	EPS-DPS- profit prior to incorporation –depreciation –Fictitious assets	3
3	Module 3	
3.1	Types of Financial Analysis- Techniques of financial Analysis - Inter and Intra firm – Analysis and Interpretation of Common Size Statement, Comparative Statements and Trend Analysis	2
3.2	Ratio Analysis:- Significance-,Types and Classification - Analysis and Interpretation of Profitability, Liquidity, Solvency,	3
3.3	Leverage, Turnover and Stock Market Ratios, Balance sheet from ratios	3
4	Module 4	
4.1	Fund and flow of fund– Concept of Gross and Net Working Capital – Flow of Funds – Schedule of changes in Working Capital.	2
4.2	Funds from operation- Preparation of fund flow statement – analysis and interpretation.	3
4.3	cash and non-cash transactions - flow of cash – Cash from operation, Preparation of Cash Flow Statement and its analysis and interpretation	3
5	Module 5	
5.1	Cost –ClassificationandElementsofCost, costing- Objective –methods and Technique Costing, cost - PreparationofCost Sheet.	2
5.2	Standard costing-variance analysis.-material,labour and overhead . <i>Marginal Costing</i> - Marginal Cost, Marginal Costing, Managerial Applications of Marginal Costing.	3
5.3	CVP Analysis, Contribution, P/V Ratio, Break Even Analysis, Margin of Safety.	2

2014



20MBA113	ETHICS, GOVERNANCE AND CORPORATE RESPONSIBILITY	CATEGORY	L	T	P	CREDIT
		CORE THEORY	3	0	0	3

Preamble: sensitize the student on the various ethical aspects concerning the functioning of business enterprises. The course aims to equip the students to be honest and be responsible to the society. The knowledge of the subject will improve ethical reasoning by correlating moral concepts to business practices. The course aims to create awareness among students on the importance of Corporate Governance and social responsibility.

Prerequisite: None

Course Outcomes: After the completion of the course the student will be able to

CO 1	Examine the importance of ethics in business
CO 2	Apply ethical decision making in business management
CO 3	Analyze the importance of corporate governance
CO 4	Assess the developments in Corporate governance
CO 5	Create the sense of corporate social responsibility within oneself

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	3	3	3
CO 2	3	3	3	3	3
CO 3	3	3	3	3	3
CO 4	3	3	3	3	3
CO 5	3	3	3	3	3

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10



Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Attendance	: 4 marks
Continuous Assessment Test (2 numbers)	:16 marks
Assignment/Quiz/Course project	:10 marks
Seminar and Discussion	:10 marks

Syllabus	
Module 1	<p><i>Introduction to Ethics:</i> Meaning & Nature of Business Ethics, Characteristics; Causes of unethical behaviour; Theories of Ethics; Indian Ethos and Values system- Indian Work Ethics; Law and Ethics</p> <p><i>Ethics Programme</i> – code of ethics – ethics training – ethics committee – ethics officer, Ethics Audit, Transparency International - Whistle Blowing – classification</p> <p>– legal support to Whistle-Blower – Tips to successful Whistle Blowing</p>
Module 2	<p><i>Ethics in functional areas of business:</i> Financial Management (Window dressing, misleading financial analysis, insider trading, churning) –Human Resource Management – (Discrimination– age, gender, race) sexual harassment, ethics at work place, issues affecting privacy of employees, fairness of employment contracts, occupational safety–Marketing Management – Pricing issues like Price discrimination, Price fixing, Price skimming, Ethics in advertising (surrogate, deceptive advertising), Distribution issues like tying arrangement, black market</p> <p>Production Management – Process issues like effluents, optimisation of resources like power & water, Product issues like additive & intrinsically hazardous products, genetically modified products, flawed products– Ethics in Information Technology</p> <p>– Ethics in customer and vendor relationship</p>
Module 3	<p><i>Corporate Governance:</i> - Definition - need for corporate governance –elements of good corporate governance - evidence of corporate governance from Arthashashtra -corporate governance theories -Agency Theory - Shareholder Theory - Stake Holder Theory -Stewardship Theory; Codes and guidelines for corporate governance</p>
Module 4	<p><i>Developments in corporate governance</i> –in UK, US and India – board effectiveness - issues and challenges - role and types of directors - corporate board committees – corporate disclosure - emerging trends in corporate governance – corporate board duties - responsibilities and liabilities. Legal framework for corporate governance Companies Act</p>
Module 5	<p><i>Corporate Social Responsibility:</i> Definition- Evolution- Need for CSR; Theoretical perspectives; Corporate citizenship; Business practices; Strategies for CSR; Challenges and implementation</p>



Text Book

1. Boatright, John, R, and Smith,Jefferey,D, *Ethics and Conduct of Business*, Pearson Publications, NewJersey 2016

References and Suggested Readings

1. Balachandran,V, and Chandrasekharan,V, *Corporate Governance, Ethics and Social Responsibility*,PHI Learning Pvt Ltd, New Delhi (2011)
2. Crane, Andrew, Matten, Dirk, Glozer, Sarah and Spenc, Laura, *Business Ethics*,Oxford University Press, Oxford (2019)
3. Gupta, Ananda, D, *Business Ethics: Texts and Cases form Indian Perspective*,Springer India, New Delhi ,(2013)
4. Rezaee, Zabihollah, *Business Sustainability, Corporate Governance, and Organizational Ethics*, John Wiley & Sons, New Jersey(2019)
5. Shaw ,William, H, *Business Ethics:Text Book with Cases*, Cengage Learning, Boston (2014) Spinallo,Richard,A, *Business Ethics: Contemporary Issues and Cases*,Sage Publicia, California (2019)

Course Content and Lecture Schedule

No	Topic	No. of Lectures
1	Business Ethics	
1.1	Introduction to ethics and its ancillary concepts	2
1.2	Theories of ethics	3
1.3	Ethical audit mechanisms-whistle-blowing	2
2	Ethics in Functional Areas	
2.1	Ethics in Finance	2
2.2	Ethics in HR and Marketing	3
2.3	Ethics in HR and Marketing, customer and vendor relationship	2
3	Corporate Governance	
3.1	Need and relevance of Corporate Governance	2
3.2	Corporate Governance Theories	3
3.3	Discussion on Arthashasthra	2
4	Corporate governance Trends	
4.1	Practices in the UK, the US and India	3
4.2	Discussion on Board of Directors	2
4.3	Legal frameworks	3
5	CSR	
5.1	History and Evolution of CSR	2
5.2	Corporate Citizenship	3
5.3	Limitations and Challenges	2



20MBA115	LEGAL SYSTEMS FOR BUSINESS	CATEGORY	L	T	P	CREDIT
		CORE THEORY	3	0	0	3

Preamble: The course provides the student with basic information about the Indian legal system and dispute resolution, and their impact on business. The understanding of legal system is a prerequisite for better decision making. The course gives exposure to students in the areas of legal principles of business contract, aspects in the formation, running and winding up of business, the scope and the issues associated with partnerships, negotiable instruments and cyber law, application of sale of goods act and consumer protection act and different labour regulations in India.

Prerequisite: NIL

Course Outcomes: After the completion of the course the student will be able to

CO1	Examine fundamental legal principles of business contracts
CO2	Analyse the legal aspects in the formation, running and winding up of business
CO3	Analyze the scope and the issues associated with partnerships, negotiable instruments and cyber law
CO4	Evaluate and analyse the scope and application of sale of goods act and consumer protection act.
CO5	Equip the students with insights on different labour regulations in India

Mapping of course outcomes with program outcomes

CO/PO	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	3
CO2	3	3	3	3	3
CO3	3	3	2	3	3
CO4	3	3	3	3	3
CO5	3	2	3	3	3

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10



Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Attendance: 4 marks

Continuous Assessment Test (2 numbers): 16 marks

Assignment/Quiz/Course project: 10 marks

Seminar and Discussion: 10 marks

Syllabus

Syllabus	
Module 1	<p>Sources of Law - Classification of Law, Natural Justice, History of Indian Judicial system, Indian Contract Act 1872: Definition (Sec 2); Essential elements of a contract - Offer, acceptance, Competency to enter in contracts (Sec 11 & 12); Consent- free consent, coercion, undue influence, fraud, misrepresentation, mistake (Sec 13-23); Legality of object & consideration; Types of contracts; Performance of contracts; Void agreement (Sec 24-30); Quasi contracts, Discharge of contracts; Consequences of breach of contract (Sec 73-75) Bailment (S.148 - S.171 & S.180. Salient features of E-contract, Formation of E-contract and Types.</p>
Module 2	<p>The Companies Act 2013 - Characteristics of a company ;Kinds of companies; Types of Companies, Formation-S.3, Promoter, Remuneration, Rights & Liabilities of a Promoter, Memorandum of Association (S.4, S.10, S.13), Form, Purpose, Clauses, Alteration. Articles of Association (S.5, S.10, S.14,) Provisions for Membership, Share & Share capital - Distinction between Memorandum & Articles, Incorporation (S.7, S.9, S.12), Prospectus - Public Offer S.25 - S.27, S.30 - S.40;& S.181) Pledge (S.173 - S.179) - Indemnity & Guarantee (S.124, 125 128 - 147) Distinguish Indemnity & Guarantee Laws of Agency Private Offer S.42- Meetings & proceedings; S.173 -S.195 Directors S. 149 - 152, 164, 165. Boards powers and restrictions; S. 179, 180. Lifting of Corporate Veil. Doctrine of Ultra Vires, Winding up of companies – Modes S.270, 271, 304,</p>
Module 3	<p>The Indian Partnership Act, 1932- Types of Partnerships and types of Partners, Test of Partnership, Partnership deed, and Property of the firm, Limited Liability Partnership. Negotiable instrument - Characteristics of Negotiable Instrument Presumption; Promissory Notes, Bills of Exchange & Cheques- Negotiation (Sec 46 to 60); Crossing of cheque & dishonour of cheque (Sec 138 to 142). Cyber Law - Overview of cyber law, Salient features of the IT Act, 2000, Cybercrime, Intellectual Property Rights.</p>
Module 4	<p>Sale of Goods Act (1930), (Sec 2 - 11) Conditions and warranties; (Sec 12 - 17, 59) Rights of an unpaid seller. (S.45 - S.58) Title to goods - (S.27 - 30)-Rights & Duties of Buyer & Seller; (S.31 - 44). Consumer Protection Act (1986): Consumer dispute, restrictive trade practices, unfair trade practices; Central Consumer Protection Council, State Consumer Protection Council; Consumer Redressal Forum.</p>
Module 5	<p>Industrial Disputes Act, 1947,- Award and settlement- industrial Dispute- Workman Strikes and Lock-out: Lay-off - Retrenchment- Closure - Unfair Labour Practices and Role of Government. The Minimum Wages Act, 1948- Fixation of minimum rates of wages- working hours and determination of wages and claims. Factories Act, 1948- essential features, Safety, Health and Welfare measures. The Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013- overview.</p>



Text Book

1. Kapoor, N.D. *Elements of Mercantile Law*, Sultan Chand & Sons, New Delhi (2019).

References and Suggested Readings

1. Gulshan, S.S. and Kapoor, G.K. *Business Law Including Company Law (12/e)*, New Age International, New Delhi (2020).

2. Majundar, A.K. and Kapoor, G.K. *Company Law & Practices*, Sultan Chand & Sons, New Delhi (2017).

3. Malik, P.L. *Industrial law*, Eastern Book Company, Lalbagh Lucknow (2017).

4. Ramaiya, and Ramaiya, A. *Guide to the Companies Act (18/e)*, Wadhwa Book Company, Vikaspuri New Delhi (2015).

5. Singh, Avatar. *Company Law*, Eastern Book Company, New Delhi (2018).

6. Singh, Avatar. *Labour and Industrial Laws*, Lexis Nexis, (2016).

7. Wild, Charles, Weinstein, Stuart Smith and Keenan, *Company Law*, Pearson Longman, United Kingdom (2019).

Course Contents and Lecture Schedule

No	Topic	No. of Lectures
1	INTRODUCTION TO LAW AND INDIAN CONTRACT ACT	
1.1	Introduction and Essential elements of a Contract	2 Hours
1.2	Types of Contract, Breach of Contract	2 Hours
1.3	Law of Indemnity and Guarantee, Bailment and Pledge, Law of Agency	3 Hours
2	COMPANIES ACT 2013	
2.1	Types of Companies, Formation of a Company	2 Hours
2.2	Memorandum of Association, Articles of Association	2 Hours
2.3	Prospectus, Meetings, Winding up of Companies	3 Hours
3	PARTNERSHIP ACT, NEGOTIABLE INSTRUMENTS and CYBER LAW	
3.1	Partnership Act	2 Hours
3.2	Negotiable Instruments	3 Hours
3.3	Cyber Law	2 Hours
4	SALE OF GOODS ACT and CONSUMER PROTECTION ACT	
4.1	Conditions and Warranties, Rights of an unpaid seller	2 Hours
4.2	Rights and Duties of buyer and seller	3 Hours
4.3	Consumer Protection Act, Consumer Protection Councils, Consumer Redressal Forums	2 Hours
5	INDUSTRIAL DISPUTES ACT, LAW OF MINIMUM WAGES and FACTORIES ACT	
5.1	Different kinds of Industrial disputes, Unfair labour practices	3 Hours
5.2	Kinds of Wages, Law of Minimum Wages	2 Hours
5.3	Factories act and the Sexual Harassment of Women at Workplace	3 Hours



20MBANC1	EMPLOYABILITY ENHANCEMENT PROGRAMME	CATEGORY	L	T	P	CREDIT
		THEORY	0	0	2	0

Preamble

Employability skills denote attributes, competencies and technical skills possessed by an individual which would facilitate practical decision making and success at the workplace. The objective of the course is to provide training to participants to groom their critical soft skills, general business skills and technical skills.

Course Outcomes: After the completion of the course the student will be able to

CO 1	Enhance the skills of communication and problem solving
CO 2	Develop job searching, CV writing, interview skills and enterprenurial skills
CO 3	Practicing Interpersonal skills, Negotiation and Self-Management
CO 4	Develop Team building & Leadership skills through practice
CO 5	Attain hands on experience in the areas of Creativity and Critical Thinking

Syllabus

Module 1	<p>Communication skills- verbal expression, body language, presentation skills, listening skills, writing skills Extempore, Just a minute exercises, prepared speech, practice exercises on voice accent, clarity, modulation and intonation, phone etiquettes, short presentations using power point, writing letters, news paper/magazine article preparation on business and economy</p> <p>Problem solving skills- coordination and analysis Short sessions on solving puzzles involving all in the team</p>
Module 2	<p>Job searching, Interview skills, additional skills outside curriculum Job search- registering in portals/placement unit, exploring other resources for job search, CV preparation, mock group discussion, mock interviews, feedback and confidence building exercises to face interviews, individual strength/weakness analysis, planning and executing activities for strengthening one's own resume</p> <p>Entrepreneurship skills Idea generation techniques through practice, Survey of different schemes facilitating entrepreneurship, Business plan preparation, Exercises on how to pitch a brilliant idea</p>
Module 3	<p>Self –management- self-awareness, adaptability, time management Personality assessment tests- MBTI, Big Five; in-basket exercises, goal setting games</p> <p>Interpersonal skills-relatedness, cooperativeness, empathy Role plays, presenting scenarios to give hands on feel of what stand to take</p> <p>Negotiation skills- persuasion, rapport building, consensus Role plays, bargaining, art of converting win-lose to win-win situations</p>



Module 4	<p>Team work skills: collaboration, respect, trust, tolerance Team based activities- planning, organizing and executing small events, team projects</p> <p>Multi-Cultural Environment- Managing and surviving in multi-cultural environment</p> <p>Leadership skills: motivation, influencing others, positivity Discussion on leadership styles of Indian Tycoons and their success</p>
Module 5	<p>Creative thinking skills: lateral thinking, creativity and innovation Brain storming exercise, six thinking hats exercise, group discussions</p> <p>Critical thinking skills: applying sound reasoning, criteria to explore specific concerns in the contemporary business arena Debates, article reviews, class room activities</p>

RECOMMENDED BOOKS (Latest Editions)

1. Kimberly Elsbach, How to pitch a brilliant idea?, Harvard Business Review, September 2003.
2. Philips R. Hunsaker, “Training in Interpersonal Skills”, Tata McGraw Hill
3. Butterfield, “Soft Skills for Everyone”, Cengage Learning
4. Career Development Centre, “Soft Skills”, Green Pearl Publications
5. Alex K, “Soft Skills – Know Yourself & Know the World”, S.Chand & Company Ltd
6. Matt, Symonds, 7 Tips For Pitching Your Entrepreneurial Idea, Whether To Angels Or Sharks, Forbes Website, 2013, <https://www.forbes.com/sites/mattsymonds/2013/10/24/7-tips-for-pitching-your-entrepreneurial-idea-whether-to-angels-or-sharks/#99c1a0c35a27>, Accessed on May 15, 2020.
7. Bill Murphy Jr, The Intelligent Entrepreneur, Educational Audio Book, 2010, Audible, Amazon Company

REFERENCE BOOKS (Latest Editions)

1. B N Ghosh, “Managing Soft Skills for Personality Development”, McGraw Hill Education
2. Raman/Upadhyay, “Soft Skills – Key to Success in Workplace and Life”, Cengage Learning
3. Monippally, Matthukutty. M, “Business Communication Strategies”, Tata McGraw-Hill
4. M Ashraf Rizvi, “Effective Technical Communication”, McGraw Hill Education
5. Peter W Cardon, Business Communication, McGraw Hill Education
6. Suzanne C. Janasz, Karen O. Dowd, Beth Z. Schneider, “Interpersonal Skills in Organisation”, Tata McGraw Hill Education
7. Gopalaswami Naresh, “The Ace of Soft Skills”, Pearson



20MBA102	MARKETING MANAGEMENT	CATEGORY	L	T	P	CREDIT
		CORE THEORY	4	0	0	4

Preamble: The course on Marketing Management helps the students to gain solid understanding of key marketing concepts and skills, Perform situation analysis to assess market opportunities and develop marketing strategies (Segmentation, targeting, and positioning) to achieve company's objectives. The course equips students to understand the 7 P's framework and make strategic recommendations and persuasively communicate the organization's recommendations and rationale.

Prerequisite: NIL

Course Outcomes: After the completion of the course the student will be able to

CO 1	Evaluate the importance of Marketing Concepts in an Enterprise
CO 2	Analyse the Buyer Behaviour in a marketing Ecosystem
CO 3	Appraise the Product and pricing Decisions
CO 4	Develop capability to make Distribution Decisions and Promotion Decisions.
CO 5	Evaluate the Marketing Control Techniques and Modern Trends in marketing.

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	1	3	3
CO 2	3	3	2	3	2
CO 3	3	3	1	3	3
CO 4	3	3	1	3	3
CO 5	3	3	1	3	3

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10

Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours



Continuous Internal Evaluation Pattern:

Attendance	: 4 marks
Continuous Assessment Test (2 numbers)	:16 marks
Assignment/Quiz/Course project	:10 marks
Seminar and Discussion	:10 marks

Syllabus	
Module 1	Concepts of Marketing: Meaning, Nature & Scope as the key business function in Organizations - Evolution of marketing-Holistic Marketing Concept – Extended Marketing Mix – Key Customer Markets: Consumer, Business, Global, Non-profit & Government – Market Space – Meta Markets. Concept of Value chain – Marketing Environment – Internal and External environment – Difference between Marketing & sales. Introduction to Marketing Research & Modern Marketing Information System – Concept of Big Data – Market Strategic Planning – Elements of Marketing Plan (12 Hours)
Module 2	Buyer Behaviour & Marketing Ecosystem: Types of Consumer Buying Behaviour – Factors affecting Buyer Behaviour -Buying Motives - Buyer Roles – Consumer Buying Decision Process: The 5 Stage Model. Organizational Buying Decisions – Buying Center – Tapping Global Markets. Segmentation, Targeting & Positioning – Strategies. Competitor Analysis – Competitive Market Strategies – Leaders, Challengers, Followers & Nichers Customer Relationship Management – Loyalty Programmes and Customer Lifetime Value - (12 Hours)
Module 3	Creating Value: The Product – Goods & Services Continuum – Classification & Levels of Product – Product Decisions: Product Mix and Product Lines – Concepts. Product Life Cycle Strategies – Brand Concepts – Marketing of Services – Extended Marketing Mix for services – Packaging & Labelling Decisions – Warranties & Guarantees – New Market Offering – Types of New Product – New Product Development: Stages – New Product Success & Failure – Diffusion of Innovation – Pricing Policies & Strategies – Factors affecting Price Determination – Steps in Setting the Price. (12 Hours)
Module 4	Distribution as a part of Value Delivery – Multi-channel marketing – Channel Functions & Flows – Channel Levels – Channel Design Decisions – Channel Management - Introduction to Retailing & Wholesaling – Franchising –Teleshopping – Shopping through Internet. Communicating Value – Marketing Communication Mix – An overview of Advertising, SalesPromotion, Personal Selling, Direct Marketing, Public Relations – Managing Integrated MarketingCommunications. (12 Hours)
Module 5	Concept, Process & Types of Marketing Control – Marketing Audit: Concepts, Components & Types – Marketing Challenges in Globalized Era – Marketing through Social Network & Digital platforms – Social Marketing – Elements of Social Marketing Plan – Green Marketing – Consumerism – Red Ocean Strategy – Blue Ocean Strategy - Introduction to Marketing Analytics. (12 Hours)



Text Book
<p>1. Kotler, Philip and Gary Armstrong, Principles of Marketing, 17th Edition. Pearson, 2019.</p> <p>2. Kotler, Philip, et al. Marketing Management: A South Asian Perspective, 15th Edition, Pearson, 2017.</p> <p>3. K S Chandrasekar, Marketing Management-Text, Cases and Applications (2/e), Vijay Nicole, McGraw Hill Education, 2019</p>
References and Suggested Readings
<p>3. RajanSaxena, Marketing Management, Tata McGraw Hill, 2009.</p> <p>4. Masterson, Rosalind and David Pickton. Marketing: An Introduction. Sage Publications, 2014.</p> <p>5. Neelamegham, S. Marketing in India: Text and Cases (4/e). Vikas Publishing House, 2012.</p> <p>6. Panda, Tapan K. Marketing Management: Text and Cases Indian Context. Excel Books India, 2009.</p> <p>7. Etzel, MJ, BJWalker and William J Stanton., Marketing (Fourteenth Edition). McGraw Hill, 2017.</p>

Course Contents and Lecture Schedule

No	Topic	No. of Lectures
1	CONCEPTS OF MARKETING	
1.1	Holistic Marketing	3 Hours
1.2	Marketing Environment	4 Hours
1.3	Strategic Planning	3 Hours
2	BUYER BEHAVIOUR AND MARKETING ECOSYSTEM	
2.1	Customer Relationship Management	4 Hours
2.2	Segmentation, Targeting and Positioning Strategies	3 Hours
2.3	Competitor Strategies	4 Hours
3	PRODUCT DECISIONS AND PRICING DECISIONS	
3.1	Product and Service Continuum	3 Hours
3.2	New Product Development and PLC Stages	4 Hours
3.3	Pricing Strategies	3 Hours
4	DISTRIBUTION DECISIONS AND PROMOTION DECISIONS	
4.1	Channel design and Channel Management	3 Hours
4.2	Promotion Mix	3 Hours
4.3	Integrated Marketing Communication	4 Hours
5	MARKETING CONTROL & MODERN TRENDS IN MARKETING	
5.1	Marketing Control	4 Hours
5.2	Marketing Audit	3 Hours



20MBA104	FINANCIAL MANAGEMENT	CATEGORY	L	T	P	CREDIT
		CORE THEORY	4	0	0	4

Preamble:The objectives of this course are to familiarise with fundamentals of financial management in an organization, Time value of money, risk Management, various sources of financing business investment, cost of capital, investment decisions, capital structure planning, working capital management and dividend policy

Prerequisite: None

Course Outcomes:After the completion of the course the student will be able to

CO 1	Understand the concept, functions and objectives of Financial Management.
CO 2	Examine the sources of business finance and their significance.
CO 3	Analyze projects on their risk and financial feasibility.
CO 4	Assess the impact of working capital.
CO 5	Analyze the dividend policy of a firm

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	2	2	1
CO 2	3	3	2	1	3
CO 3	3	3	2	3	3
CO 4	3	2	2	3	2
CO 5	3	3	1	3	2

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10



Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Attendance/ class participation	: 4 marks
Continuous Assessment Test (2 numbers)	:16 marks
Assignment/Quiz/Course project	:10 marks
Seminar and Discussion	:10 marks

Syllabus

Unit	Topic
Module 1	<i>Introduction to Finance and Financial management:</i> Finance, objective and functions- role of finance manager -sources of finance, capital market and money market - instruments. <i>Time Value of Money:</i> Compounding, compounding intervals and continuous compounding, discounting, future value of single cash flow, annuity and deferred annuity- present value of a single cash flow, annuity, deferred annuity and perpetuity. <i>Risk & Return:</i> Introduction to risk & return, relationship between risk & return-estimation of beta.
Module2	<i>Financing and Capital Structure Decision:</i> External and internal financing. Capitalization- types of capitalization- Capital structure decisions- ploughing back of profit-leverage-operating, financial and composite leverage, overview of capital structure theories (NI, NOI, Traditional and MM only) and value of a firm. Optimum capital structure. Cost of bankruptcy and financial distress.
Module3	<i>Investment Decisions:</i> -Capital budgeting – process of capital budgeting- selection of projects - estimation of cash flows - payback and discounted payback period – ARR, NPV, PI and IRR. Capital budgeting decisions under risk - capital rationing - project selection under rationing. Cost of capital, cost of equity, cost of debt and overall cost of capital, calculation of WACC
Module4	<i>Working Capital:</i> Management of Working capital-need and importance of working capital – sources of working capital. factors affecting composition of working capital – inter dependence among components of working capital – estimation of working capital – cash management, receivables management and inventory management.
Module5	<i>Dividend Decisions:</i> Dividend policy and factors affecting dividend policy – dividend and its forms – relevance and irrelevance. An overview of theories of dividend (Gordon Model, Walter Model, MM Model) - forms of dividend – cash dividend, bonus shares, share split and stock repurchase. <i>Other Sources of Finance:</i> Leasing, Hire Purchase and Venture capital funding-emerging areas in finance-merger –acquisition-takeover – financial engineering.



Text Books

1. Brealey, Richard A and Stewart C Myers. Principles of Corporate Finance. McGraw Hill India, 2012.
2. Brigham, Eugene F and Joel F Houston. Fundamentals of Financial Management (13/e). Cengage Learning, 2012.
3. Chandra, Prasanna Financial Management, Theory & Practice. Tata McGraw Hill, 2014.
4. Damodaran, Aswath. Corporate Finance: Theory and Practice (4/e). Wiley India, 2012.

References

1. Gitman, Lawrence J and Chad J Zutter. Principles of Managerial Finance (14/e). Pearson Education, 2007.
2. Kapil, Sheeba. Financial Management. Pearson Education India, 2010.
3. Khan, M Y and P K Jain. Financial Management: text, problems and cases. New Delhi: Tata Mc-Graw Hill, 2013
4. Kishore, Ravi M. Financial Management: Comprehensive Text Book with Case Studies (7/e). Taxmann Allied Services, 2009.
5. Kothari, Rajesh and Bobby Dutta. Contemporary Financial Management. Mcmillan Publishers, India, 2005.
6. Pandey, IM. Financial Management. Vikas Publishing House, 2009.
7. Reddy, G Sudarsana. Financial Management. Himalaya Publishing House, 2011.
8. Ross, Stephen, Randolph Westerfield and Bradford Jordan. Fundamentals of Corporate Finance, McGraw Hill, 2010.
9. Sharan, Vyuptakesh. Fundamentals of Financial Management. Pearson Education, 2012.
10. Srivastava, Rajiv and Anil Misra. Financial Management. Oxford University Press India, 2011.
11. Vanhome, James C. Financial Management and Policy (12/e). Pearson Education, 2002.
12. Vanhorne, James C and John M Wachowicz (Jr). Fundamentals of Financial Management, (13/e). Pearson Education, 2010.

Course Content and Lecture Schedule

No	Topic	No. of Lectures
1	Module 1 <i>Introduction to Finance and Financial management:</i>	
1.1	Finance, objective and functions- role of finance manager -sources of finance, capital market and money market - instruments	2
1.2	<i>Time Value of Money:</i> Compounding, compounding intervals and continuous compounding, discounting, future value of single cash flow, annuity and deferred annuity- present value of a single cash flow, annuity, deferred annuity and perpetuity	3
1.3	<i>Risk & Return:</i> Introduction to risk & return, relationship between risk & return-estimation of beta.	3
2	Module 2 <i>Financing and Capital Structure Decision</i>	
2.1	<i>External and internal financing.</i> Capitalization-types of capitalization- Capital structure decisions- ploughing back of profit-	2



2.2	leverage-operating, financial and composite leverage, overview of capital structure theories	4
2.3	capital structure theories (NI, NOI, Traditional and MM only) and value of a firm. Optimum capital structure. Cost of bankruptcy and financial distress.	2
3	Module 3 Investment Decisions:	
3.1	Capital budgeting – process of capital budgeting – selection of projects – estimation of cash flows – payback and discounted payback period –	3
3.2	ARR, NPV, PI and IRR. Capital budgeting decisions under risk – capital rationing – project selection under rationing.	4
3.3	Cost of capital, cost of equity, cost of debt and overall cost of capital, calculation of WACC	4
4	Module 4 Working Capital:	
4.1	Management of Working capital – need and importance of working capital – sources of working capital. factors affecting composition of working capital – inter dependence among components of working capital	4
4.2	Estimation of working capital –	4
4.3	Cash management, receivables management and inventory management.	3
5	Module 5 Dividend Decisions:	
5.1	Dividend policy and factors affecting dividend policy – dividend and its forms – relevance and irrelevance. An overview of theories of dividend (Gordon Model, Walter Model, MM Model)	4
5.2	Forms of dividend – cash dividend, bonus shares, share split and stock repurchase. <i>Other Sources of Finance</i>	3
5.3	Leasing, Hire Purchase and Venture capital funding – emerging areas in finance – merger – acquisition – takeover – financial engineering.	3



20MBA106	HUMAN RESOURCE MANAGEMENT	CATEGORY	L	T	P	CREDIT
		THEORY	3	0	0	3

Preamble: The primary objective of this course is to familiarize the students with the basic functions of Human Resource Management. This is a fundamental course which gives the students an overall idea about the major tasks and responsibilities of an HR Manager. The Course provides each student with an understanding of the role played by the function called Human Resource Management in the functioning of an Organization.

Prerequisite: NIL

Course Outcomes: After the completion of the course the student will be able to

CO 1	Understand the core concepts of HRM in an organization
CO 2	Acquire insights on the process of HR planning
CO 3	Familiarize the importance of T&D and Performance Management in an organisation
CO 4	Analyze the practice of Talent management and Compensation Management
CO 5	Apply HRM in maintaining good Employee relations

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	1	2	2
CO 2	3	3	3	3	3
CO 3	3	2	3	2	3
CO 4	3	3	3	3	3
CO 5	3	3	3	3	3

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10



Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Attendance: 4 marks

Continuous Assessment Test (2 numbers): 16 marks

Assignment/Quiz/Course project: 10 marks

Seminar and Discussion: 10 marks

Syllabus

Module 1	<p><i>Introduction to Human Resource Management (HRM):</i> The concept of Human Resource Management, Models of HRM, Objectives of HRM, Characteristics of HRM, Functions of HRM, Difference between HRM and Personnel Management, A Human Resource Manager's Duties & A Line Manager's Human Resource Duties, Impact of HRM on Organizational Performance</p> <p><i>Job Design:</i> Concept of Job Design, Job Characteristics Model, Significance of Job Design, Approaches to Job Design – Job Rotation, Job Enlargement, Job Enrichment</p> <p><i>Job Analysis:</i> Concept of Job Analysis, Process of Job Analysis, Purpose of Job Analysis</p>
Module 2	<p><i>Human Resource Planning (HRP):</i> Objectives of HRP, Importance of HRP, Factors affecting HRP, Process of HRP</p> <p><i>Recruitment:</i> Concept of Recruitment, Objectives of Recruitment, Factors influencing Recruitment, Process of Recruitment, Sources of Recruitment. <i>Application Form:</i> Purpose and Contents</p> <p><i>Selection:</i> Concept of Selection, Outcomes of a Selection Decision, Process of Selection: Preliminary Interview, <i>Selection Tests</i> – Types of Tests, Choosing a Test, <i>Employment Interview</i> – Types of Interviews, Merits & Demerits of Interviews, Interviewing Arrangements, Dos and Don'ts in a Selection Interview, Reference Check, Physical Examination, Selection Decision, Job Offer, Contract of Employment, Evaluation of Selection Process</p> <p><i>Induction / Orientation:</i> Purpose of Orientation, Types of Orientation, Process of Orientation, <i>Placement</i></p>
Module 3	<p><i>Training & Development:</i> Concept & Significance of Training, The Training Process, Methods of Training, Difference between Training & Development, Concept of Management Development, Methods of Development</p> <p><i>Performance Management (PM):</i> Concept & Objectives of PM, Process of PM, Performance Management Vs Performance Appraisal</p>
Module 4	<p><i>Talent Management (TM):</i> Concept & Significance of TM, TM Life Cycle, TM Initiatives</p> <p><i>Compensation Management (CM):</i> Concept & Significance of CM, Components of Compensation, Factors influencing Compensation</p>
Module 5	<p><i>Managing Employee Benefits & Services:</i> Concept of Employee Benefits, Types of Employee Benefits</p> <p><i>Employee Relations (ER):</i> Concept & Significance of ER, Role of Trade Unions, Process of Collective Bargaining</p> <p><i>Grievance Handling:</i> Sources of Grievance, Grievance Redressal Procedure</p> <p><i>Employee Discipline:</i> Acts of Indiscipline, Handling Employee Indiscipline</p> <p><i>Employee Safety & Health:</i> Managing Health & Safety at Workplace, Importance of Health & Safety at Workplace</p>



Text Books

1. Dessler and Varkkey, Human Resource Management, Pearson
2. Aswathappa, K. HRM Text and Cases, McGraw Hill Education, New Delhi (2017).

Reference Books

1. Armstrong, M. *A handbook of human resource management practice*. Kogan Page Publishers (2012).
2. DeCenzo, D. A., Robbins, S. P., & Verhulst, S. L. *Fundamentals of human resource management*. John Wiley & Sons.(2016)
3. Snell, Scott, George Bohlander and Veena Vohra. *Human Resource Management: A South Asian Perspective*. Cengage Learning India, 2012.
4. Subba. Rao. *Personnel and Human Resource Management*. Himalaya Publishing House (2015).
5. Sanghi, Seema. *Human Resource Management*. Vikas Publishing (2017).

Course Contents and Lecture Schedule

No	Topic	No. of Lectures
	Module-1	
1.1	Introduction to Human Resource Management	3
1.2	Job Design	4
1.3	Job Analysis	3
	Module-2	
2.1	Human Resource Planning	3
2.2	Recruitment & Selection	4
2.3	Induction	3
	Module-3	
3.1	Training & Development	4
3.2	Performance Management	3
	Module-4	
4.1	Talent Management	4
4.2	Compensation Management	4
	Module-5	
5.1	Managing Employee Benefits & Services	3
5.2	Employee Relations	3
5.3	Grievance Handling & Employee Discipline	4
5.4	Employee Safety & Health	3



20MBA108	OPERATIONS MANAGEMENT	CATEGORY	L	T	P	CREDIT
		CORE THEORY	3	0	0	3

Preamble:

The subject aims to impart to the students the ability to analyze the manufacturing and service operations of a firm. Students learn to understand and apply sales and operations planning, MRP and lean manufacturing concepts. They also gain a deeper understanding on quality management tools for process improvement and Supply Chain Management including application of newer technologies in digitizing supply chains.

Prerequisite: NIL

Course Outcomes: After the completion of the course the student will be able to

CO 1	Develop operations strategies for products and services
CO 2	Measure productivity, forecast, Layout decisions
CO 3	Analysis of capacity planning and utilization and application of Quality tools
CO 4	Application of supply chain Management techniques and measurement of performance
CO 5	Application of World Class Manufacturing and new technologies/trends in operations

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	3	3	3
CO 2	1	3	2	3	1
CO 3	2	3	3	3	3
CO 4	3	3	3	3	2
CO 5	3	3	3	3	3

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10



Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Assignment (2 numbers)	: 10 marks
Continuous Assessment Test (2 numbers)	: 16 marks
Seminar/Project	: 10 marks
Class Participation and Attendance	: 4 marks

Syllabus

Module 1	Introduction to Operations Management- -Systems Concept- Transformation Process- Evolution of Operations Management- Operations Management Functions-Goods and Service Operations - Mass, Craft & Lean Production- Advantages & Disadvantages Relevance of Operations Strategy-Formulating Operations Strategy--Product and Service Design- -Process Selection-Continuous-Repertive-Batch-Job Shop- Project-
Module 2	Concept of Productivity- Problems in Employee, Raw Material and Energy Productivity Forecasting-Forecasting Techniques-Qualitative Techniques-Quantitative Techniques Introduction to Facility Layout Planning-Product Layout-Process Layout- Fixed Location Layout- Hybrid Layouts-Cellular Layouts-Process Flow charting
Module 3	Capacity- capacity utilization. Work study- Method study-work measurement techniques.- Plant location, Managerial use of Break-even analysis and make or buy Decisions, location decisions - problems. Quality: Total Quality Management - Quality Specifications, Costs of Quality, Continuous Improvement, SPC Tools, Benchmarking, Fail-safing, ISO 9000, six sigma.
Module 4	Introduction to Supply Chain Techniques of Inventory Control-ABC, VED, FSN, MUSIC-3D analysis- Supply Chain Strategy-Role of Information Technology in SCM-Supply Chain Disruptions-Bullwhip Effect-SCOR metrics-Extended supply chains-reverse logistics- Production Planning & Control, Aggregate Planning, Master Production Scheduling (MPS), Materials Requirement Planning, Manufacturing Resource Planning, ERP.
Module 5	World Class Manufacturing -JIT and Lean Manufacturing-Continuous Process Improvement-Principles of Lean Management-Tools Used for Lean Production- Implementation of Lean Systems- Lean Services-Just-in-Time-Push and Pull Scheduling- Issues in JIT Implementation-Kanban System-Poka Yoke -Industry 4.0-Blockchain technology-AI in Operations Behavioural OM –people related insights for operations problems-more realistic prescription for practice-considering the people in customers-queues and other relevant areas

Text Books

1. Stevenson, William J. Operations Management, 13th ed., McGraw Hill,2018
2. Frazier, Greg and Gaither, Norman G. Operations Management- Concepts, Techniques & Applications. Cengage Learning,2015



Reference Books

1. E Adam, Everette E and Ebert, Ronald, J. Production and Operations Management: Concepts, Models, and Behaviour. PHI.,2010
2. Aswathappa, K and SridharaBhat. Production and Operations Management. Himalaya Publishing House,2010
3. Bedi K., Production and Operations Management. 2e. Oxford University Press,2007
4. Bozarth, Cecil. Introduction to Operations and Supply Chain Management (3/e). Pearson, 2010
5. Chase, Richard B. Operations Management for Competitive Advantage. Tata McGraw Hill,2004
6. Finch,ByronJ.OperationsNow:SupplyChainProfitabilityandPerformance.McGraw Hill,2007
7. Garg, Ajay K. Production and Operations Management. Tata McGraw Hill,2012
8. Hill, Terry. Operations Management. Palgrave Macmillan,2006
9. Mahadevan,B.OperationsManagement:TheoryandPractice.PearsonEducationIndia, 2010

Course Contents and Lecture Schedule

No	Topic	No. of Lectures
1	Operations Management and operations strategy	
1.1	OM introduction	1
1.2	Operations functions, systems concept	2
1.3	Production system classification	2
1.4	Production Strategy	2
2	Productivity, Forecasting and Plant Layout	
2.1	Productivity	2
2.2	Forecasting	3
2.3	Facility layout & Process Flow charts	3
3	Capacity Planning, Work Measurement, Quality	
3.1	Capacity planning and Utilization	1
3.2	Work Measurement	2
3.3	Plant Location	2
3.4	Quality Management	3
4	Production planning and control , Supply Chain	
4.1	Production planning and control	2
4.2	ERP	2
4.3	Supply Chain	2
5	World Class Manufacturing	
5.1	JIT and kanban	1
5.2	Lean Manufacturing concepts	3
5.3	Toyota Production System	2
5.4	Behavioural OM	1



20MBA110	OPERATIONS RESEARCH	CATEGORY	L	T	P	CREDIT
		CORE THEORY	4	0	0	4

Preamble: The objective of this course is to acquaint the students with the scope and applications of operations research in business and industry problems. This course exposes the students to the use of various scientific tools and models in OR for business analysis and better managerial decision making.

Prerequisite: NIL

Course Outcomes: After the completion of the course the student will be able to

CO 1	Examine the scope and applications of operations research in business and formulate linear programming models to solve industry problems.
CO 2	Practise mathematical models to allocation problems and analyse business scenarios
CO 3	Understand decision making models for analysing business scenarios
CO 4	Utilize various inventory models and scientific tools for business analysis
CO 5	Apply network analysis and game theory of business scenarios

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	2	3	1
CO 2	3	3	1	3	1
CO 3	3	3	1	3	1
CO 4	3	3	2	2	1
CO 5	3	3	1	3	1

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10

Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours



Continuous Internal Evaluation Pattern:

Class Participation and Attendance	: 4 marks
Tests	: 16 marks
Seminar and Discussion	: 10 marks
Assignment/class work	: 10 marks

Syllabus

Module 1	<p>Introduction to Operations Research: Origin and growth of OR, importance of OR in managerial decision making, scope & applications of OR, models and modelling in OR.</p> <p>Linear programming problems: Formulation of the problem, solution by graphical method & simplex algorithm, degeneracy in LPP. Special cases in OR, Duality in LPP, Sensitivity analysis of optimal LP solutions.</p>
Module 2	<p>Allocation Problem models: Transportation problems: formulation, methods of finding initial solution (North West Corner Rule, Least Cost Method and Vogel's Approximation Method), test for optimality (MODI Method), unbalanced transportation problems, maximization transportation problem.</p> <p>Assignment problems: formulation, methods of solution, Hungarian method, multiple optimal solutions, unbalanced problems, maximization problems.</p>
Module 3	<p>Decision theory: Concepts of decision making, decision making environments, Decision making under uncertainty – Decision making under risk, decision tree analysis.</p> <p>Queuing model structure, Kendall Lee notation - M/M/1 queues – standard problems.</p>
Module 4	<p>Meaning of Inventory – Basic concepts of Inventory Control – costs associated with inventory- Economic Order Quantity –Reorder Point – safety stock – P-System-Q-System- advantages and disadvantages-Back order-Fill rate, service level</p> <p>Replacement analysis: items that deteriorate over time- items that fail suddenly, optimum replacement policies for both cases.</p>
Module 5	<p>Concepts of network analysis, project network models, Critical Path Method, PERT, project time-cost trade off, resource scheduling</p> <p>Game Theory: Two-person zero-sum game, saddle point games, principle of dominance, graphical solution.</p>



Text Books

1. Ravindran, A and Don T Phillips. Operations Research: Principles and Practice. John Wiley & Sons, 1987.
2. Sharma, J K. Operations Research: Theory and Applications (5/e). New Delhi: Laxmi Publications, 2013.
3. Vohra, N D. Quantitative Techniques for Management. Tata McGraw Hill Education, 2015.

Reference Books

1. Hillier, F S, et al. Introduction to Operations Research (9/e). Tata McGraw Hill, 2011.
2. Taha, Hamdy A. Operations Research: An Introduction (9/e). Prentice Hall, 2010.
3. Mahajan M. Operations Research (2/e). Dhanpat Rai & Co. , 2009
4. Prem kumar Gupta, Hira D.S, Operations Research (7/e). S.Chand Publications, 2015
5. Pai, Pradeep P. Operations Research (4e). Oxford HE Publishers, 2017
6. S Kalavathy, Operations Research(4/e). Vikas Publishing House .,2014
7. Natrajan. A.M, et.al. Operations Research(2/e). Pearson, 2014.
8. Swarup K,et.al. Operations Research(14/e). Sulthan Chand & Sons, 2009

Course Contents and Lecture Schedule

No	Topic	No. of Lectures 1lecture=1 hr
1	Introduction to OR and LPP	
1.1	OR in managerial decision making, models and modelling in OR.	2
1.2	Linear programming problems- Graphical and Simplex Method	4
1.3	Duality in LPP, Sensitivity analysis of optimal LP solutions	4
2	Allocation and Assignment Problem models:	
2.1	Transportation problems	3
2.2	Unbalanced transportation, maximization transportation problems	4
2.3	Assignment problems	3
3	Decision theory and Queuing	
3.1	Concepts of decision making, Decision making under uncertainty	2
3.2	Decision making under risk, decision tree analysis.	4
3.3	Queuing model M/M/1 queues – standard problems.	3
4	Inventory and Replacement	
4.1	Inventory Introduction	2
4.2	Problems in EOQ	3
4.3	Replacement analysis:	3
5	Network Analysis and Game Theory	
5.1	Network analysis, Critical Path Method, PERT,	4
5.2	Project time-cost trade off, resource scheduling	4
5.3	Game Theory	3



20MBA112	RESEARCH FOR MANAGERIAL DECISIONS	CATEGORY	L	T	P	CREDIT
		CORE THEORY	3	0	0	3

Preamble: The course objective is to familiarize the research methods used in decision making by managers. The subject aims to meet the challenge of the fast pace decision making environment, to provide the knowledge and skills a manager needs to solve business problems. The course introduces the language of research, ethical principles, challenges, and the elements of the research process within quantitative, qualitative, and mixed methods approaches.

Prerequisite: NIL

Course Outcomes: After the completion of the course the student will be able to

CO 1	Application of different types of research in functional areas
CO 2	Develop a research design
CO 3	Design of proper measurement and scaling tools
CO 4	Applied data analysis and interpretation
CO 5	Generating project report with worthwhile conclusions and insights for action

Mapping of course outcomes with program outcomes

	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	3	1	2	1
CO 2	3	3	3	2	1
CO 3	3	3	2	2	3
CO 4	3	3	1	3	3
CO 5	3	3	3	3	3

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10



Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Attendance	: 4 marks
Continuous Assessment Test (2 numbers)	:16 marks
Assignment/Quiz/Course project	:10 marks
Seminar and Discussion	:10 marks

Syllabus

Module	Topics
Module 1	Introduction to business research – definition – research and managers – need for Business research – type of business research – exploratory and conclusive - basic and applied research – qualitative and quantitative research – business research applications in marketing - human resource management - financial and accounting decisions - production and operations management - cross-functional areas - knowledge about research and managerial effectiveness- case studies- business research in the 21st century.
Module 2	General research process- identifying and defining research problem - literature survey - identification of key research variables - theoretical framework - formulating research hypothesis Formulation of research design - sampling design – data collection and data editing - data analysis and interpretation - format of research report - research proposal framework. Measurement and scaling - concepts and operational definitions - nominal, ordinal, interval and ratio scales - comparative scales -non-comparative scales - criteria for good measurement - reliability - validity – sensitivity.
Module 3	Sampling design - probability and non-probability sampling methods - merits and demerits -Review of various sampling methods - determination of sample size – sampling errors. Data Collection: Secondary and primary methods of data collection-data collection and data editing - coding - categorization - handling unsatisfactory responses and missing values - questionnaire construction - type of questions - guidelines for questionnaire designing - questionnaire testing - other methods of data collection - observation - projective methods - goodness of fit of data -reliability and consistency - Cronbach's Alpha.



Module 4	Data analysis and interpretation: Descriptive analysis of uni-variate and bi-variate data – parametric tests for hypotheses testing - z test - t test – ANOVA (Theory only) - introduction to MANOVA and ANCOVA (Theory only); SEM (Theory only) - nonparametric tests for hypotheses testing - Chi-square - run test for randomness - one and two-sample sign tests - Mann-Whitney U test - Wilcoxon signed-rank test - Kruskal-Wallis test - Correlation and regression analysis. Only Theory for the following topics: Multivariate analysis - dependency techniques: multiple regression - discriminant analysis - conjoint analysis inter-dependency techniques: Factor Analysis - Cluster Analysis-
Module 5	Reporting and thesis writing – Structure and components of scientific reports - Types of report – Technical reports and thesis – Significance – Different steps in the preparation – Layout, structure and Language of typical reports – Illustrations and tables - Bibliography, referencing and footnotes- Reference Management Software - Oral presentation – Planning – Preparation – Practice – Making presentation – Use of visual aids - Importance of effective communication – Reproduction of published material – Plagiarism - Citation and acknowledgement - Reproducibility and accountability.

Text Books

1. Chawla, Deepak and Neena Sondhi. Research Methodology: Concepts and Cases. Vikas Publishing House, 2011.
2. Malhotra, Naresh K. Marketing Research: An Applied Orientation (6/e). Pearson Education, 2010.

References

3. Levin, Richard I, et al. Statistics for Management (7/e). Pearson Education, 2012.
4. Cooper, Donald R, Pamela S Schindler and J K Sharma. Business Research Methods (11/e). New Delhi: McGraw Hill Educaiton India, 2013.
5. Creswell, John W. & J. David Creswell. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5/e), SAGE Publications, Inc. (2018)



Course Contents and Lecture Schedule

No:	Topic	No. of hours
1	Introduction to business research	
1.1	Need for business research	2
1.2	Classification of research	2
1.3	Business research in functional areas	3
2	General research process	
2.1	Identifying and formulating research problem	2
2.2	Research design	3
2.3	Measurement scales	3
3	Sampling design	
3.1	Sampling methods	2
3.2	Data collection	3
3.3	Questionnaire design	2
4	Data analysis and interpretation	
4.1	Descriptive analysis of uni-variate and bi-variate data	3
4.2	Non-parametric tests	3
4.3	Multivariate data analysis	3
5	Reporting and thesis writing	
5.1	Guidelines for Structure and process of report writing	2
5.2	Presentation and visual aids	2
5.3	Citation	1



20MBA114	ENTREPRENEURSHIP DEVELOPMENT	CATEGORY	L	T	P	CREDIT
		CORE THEORY	3	0	0	3

Preamble: The course enables the student to have a thorough understanding on entrepreneurship. The course brings forth the different opportunities and resources which are available in the domain of entrepreneurship within the country. Special emphasis is given on the MSME sector

Prerequisite: NIL

Course Outcomes: After the completion of the course the student will be able to

CO1	Imbibe the spirit, roles, functions and fundamentals of entrepreneurship in a developing economy.
CO2	Develop Proficiency in business plan preparation and detailed project report (DPR) preparation and ensure all round development of them.
CO3	Familiarize with the ground realities of starting MSME units and opportunities available in the country.
CO4	Analyze the operation and management of MSME units and develop motivation and entrepreneurial competency to start and run an enterprise successfully.
CO5	Evaluate the scope of e-commerce and the challenges in entrepreneurship

Mapping of course outcomes with program outcomes

CO/PO	PO1	PO2	PO3	PO4	PO5
CO1	3	1	3	2	
CO2	3	3	2	2	2
CO3	3	1	2	2	3
CO4	3	3	3	3	3
CO5	3	3	2	3	3

Assessment Pattern

Bloom's Category	Continuous Assessment Tests (in %)		End Semester Examination (in %)
	1	2	
Remember	10	10	10
Understand	10	10	10
Apply	30	30	30
Analyse	30	30	30
Evaluate	10	10	10
Create	10	10	10



Mark distribution

Total Marks	CIE	ESE	ESE Duration
100	40	60	3 hours

Continuous Internal Evaluation Pattern:

Attendance: 4 marks

Continuous Assessment Test (2 numbers):16 marks

Assignment/Quiz/Course project: 10 marks

Seminar and Discussion: 10 marks

Syllabus

Syllabus	
Module 1	Introduction to Entrepreneurship-Types of entrepreneurs, Forms of business, Entrepreneurial Traits and competencies, Entrepreneur vs. Manager, Entrepreneur vs. Intrapreneur. Role of Entrepreneurship in Economic Development, Ethics and Social responsibility of Entrepreneurs. Opportunities for Entrepreneurs in India and abroad. Start-up India, Stand up India, National Skill Development Program, PMEGP, Mudra Yojana, and KVIC schemes.
Module 2	The Entrepreneurial ideation and decision process. Incubation procedures and processes, Business plan preparation, DPR preparation. Managing Finance and Growth- Sources of capital, Venture capitalists, Angel Investors, Crowd Funding, Institutional financial assistance- Role of Financial Institutions and Commercial Banks for loans and financial controls. Features and evaluation of joint ventures, acquisitions, mergers, franchising, public issues, rights issues, bonus issues and stock splits
Module 3	Micro, Small and Medium Enterprises - Importance, Evolution, Organisational Structure, Decision Making, Starting an MSME unit - phases, training requirements, Extension Training Institute, Legal frameworks, Registration procedures, concessions and reliefs by Government.
Module 4	Production in MSME , Optimum Size of plant, Factors affecting production process, Production planning, Marketing and channel selection, control, product mix, DIN,TIN,PAN, GST Monitoring and evaluation of enterprise, Reasons for failures, Sickness in Small Scale Industries. Rehabilitation of sick units, Effective management of the enterprise.
Module 5	E-commerce and Entrepreneurship.Rural entrepreneurship, Social entrepreneurship.Challenges in entrepreneurship.Successful Entrepreneurs from the contemporary Indian business world- Success stories of great Indian Tycoons who have contributed to build the nation
Text Book	
1. Khanka SS: <i>Entrepreneurial Development</i> : S. Chand & Company Pvt.Ltd, Revised edition, 2012 2. .Robert D.Hisrich, Mathew J Manimala, Michael P. Peters and Dean A.Shepherd: <i>Entrepreneurship</i> : McGraw Hill Education India (P) Ltd, Chennai, 9e (2014)	



3. Gita Piramal, Business Legends, Penguin Books
References and Suggested Readings
1. Bellon Whittington “Competing through Innovation” , Prentice Hall,2006
2. Bhide, Amar V., “The Origin and Evolution of New Business”, OxfordUniversity Press, 2000
3. Charanthimath, Entrepreneurship development small business enterprises,Pearson Education, 2008
4. Dollinger M J, Entrepreneurship strategies and resources, Pearson Education,New Delhi2006

Course Contents and Lecture Schedule

No	Topic	No. of Lectures
1	INTRODUCTION TO ENTREPRENEURSHIP	
1.1	Types of entrepreneurs, Entrepreneurial Traits and competencies	2 Hours
1.2	Ethics and Social responsibility of Entrepreneurs, Opportunities for Entrepreneurs in India and abroad.	3 Hours
1.3	Start-up India, Stand up India, National Skill Development Program, PMEGP, Mudra Yojana, and KVICschemes.	2 Hours
2	ENTREPRENEURSHIP IDEATION AND DECISION PROCESS	
2.1	Incubation procedures and processes, Business plan preparation, DPR preparation.	3 Hours
2.2	Managing Finance and Growth, Role of Financial Institutions and Commercial Banks for loans and financial controls.	2 Hours
2.3	Features and evaluation of joint ventures, acquisitions, mergers, franchising, public issues, rights issues, bonus issues and stock splits	3 Hours
3	MICRO SMALL AND MEDIUM ENTERPRISES	
3.1	Importance, Evolution, Organisational Structure	3 Hours
3.2	Decision Making, Starting an MSME unit - phases, trainingrequirements,ExtensionTrainingInstitute,	2 Hours
3.3	Legalframeworks,Registration procedures, concessions and reliefs by Government.	3 Hours
4	MSME PRODUCTION AND REHABILITATION OF SICK UNITS	
4.1	Production in MSME , Optimum Size of plant, Factors affecting production process, Production planning	3 Hours
4.2	Marketing and channel selection, control, product mix, DIN,TIN,PAN, GST Monitoring and evaluation of enterprise,	2 Hours
4.3	Reasons for failures, Sickness in Small Scale Industries. Rehabilitation of sick units, Effective management of the enterprise.	2 Hours
5	E-COMMERCE AND RURAL ENTREPRENEURSHIP	
5.1	E-commerce and Entrepreneurship.Rural entrepreneurship,	2 Hours
5.2	Social entrepreneurship.Challenges in entrepreneurship	2 Hours
5.3	Successful Entrepreneurs from the contemporary Indian business world	2 Hours



20MBANC2	INTEGRATED DISASTER MANAGEMENT	CATEGORY	L	T	P	CREDIT
		No Credit Course	1	0	1	0

Course Objectives

The Disaster Management Practice is intended to familiarize the learners with the significance, importance, causes and impacts of disasters. This course deals specifically with the essentials of disaster preparedness and focuses on techniques for effective community involvement, as well as highlighting ways of gathering relevant disaster-related information and its effective dissemination.

Expected Outcome

The course discusses various approaches and strategies to be used for effective and timely disaster preparedness and mitigation. This course also focuses on appropriate measures for proper management of health and casualty, and reconstruction and rehabilitation techniques.

COs

CO1	Understand foundations of disasters and associated natural and social phenomenon
CO2	Develop familiarity with disaster activities from incident response to recovery operations.
CO3	Integrated stakeholders role in disaster preparedness and mitigation plans
CO4	Deployment of community involvement as an essential part of disaster management and Business Continuity Planning after Disaster Recovery
CO5	Deployment of humanitarian assistance to mitigate the effects disaster in the aftermath

Course Plan

Module	Topics	Mode of Teaching
1	<p>Understanding Disasters: Disaster: Meaning, Factors and Significance; Understanding Disasters :Causes and Effects; Disasters: A Global View; Disaster Profile of India - Regional and Seasonal; Typology of Disasters – Geological Disasters- Hydro-Meteorological Disasters Biological Disasters ; Technological Disasters and Manmade Disasters ; Global Disaster Trends; Emerging Risks of Disasters; Climate Change and Urban Disasters.</p> <p>Demarcate disaster vulnerable zones of Kerala due to various disaster threats in varying colors/intensity and prepare a map</p>	Lecture/Practical



2	<p>Essentials of Disaster Preparedness- Planning Unit, Communication, Leadership and Coordination, Warehousing and Stockpiling; Disaster Management and Awareness- Human Behaviour and Response: Individual Community, Institutions, Community Participation and Awareness, Public Awareness Programme, Information Organisation and Dissemination; Disaster Management: Role of Various Agencies, District Administration, Military and Paramilitary Forces, Ministries and Departments at Centre and State Levels, Non-Governmental Agencies, International Agencies, Media.</p> <p>Arranging awareness programs to avoid panic in vulnerable areas. Preparing video clips on use of special equipment including tips for survival</p>	Lecture/Practical
3	<p>Preparedness and Mitigation- Disaster Mapping, Predictability, Forecasting and Warning, Disaster Preparedness Plan, Land-use Zoning for Disaster Management, Preparing Community Through IEC (Information, Education and Communication), Disaster Mitigation;</p> <p>Preparing survey instrument to assess difficulties faced in the past during various disasters and to prepare reports on ways to mitigate intensity of hardship</p>	Lecture/ Social Responsibility Project
4	<p>Relief Measures- Search, Rescue and Evacuation, Shelter for Victims, Livestock and Relief Measures, Clearance of Debris and Disposal of the Dead, Control of Fire, Damage Assessment; Community Health and Casualty Management- Community Health During Disasters, Emergency Health Operations, Drinking Water, Food and Nutrition, Hygiene and Sanitation. Disaster Recovery Planning and Business Continuity Planning.</p> <p>Project on improved preparedness in terms of emotional stability, handling psychological stress, supply chain distribution systems, medical assistance and spreading of diseases</p> <p>Projects on applying modern technologies for Disaster Recovery Planning and Management</p> <p>Projects on Business Continuity Planning</p>	Lecture/ Social Responsibility Project
5	<p>Reconstruction and Rehabilitation- Rehabilitation: Social and Economic Aspects, Reconstruction and Rehabilitation as Means of Development, Agriculture and Irrigation, Housing to Resist Disasters including Relocation, Retrofitting, Repairing and Strengthening of Houses;</p>	Lecture/ Social Responsibility Project



	<p>Projects on Cost estimation for cleaning debris, restoring water and electricity connections on a war-foot basis</p> <p>Projects on Innovative methods of rapid cleaning using mechanized systems</p>	
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Textbooks

1. Harsh K. Gupta, "Disaster Management", UniversitiesPress(India Pvt Ltd), 2003
2. R. Subramanian, "Disaster Management", Vikas Publishing, 2018
3. Kevin Roebuck, Business Continuity and Disaster Recovery, Emereo Pty. Ltd
4. Alex Fullick, Testing Disaster Recovery and Business Continuity Plans: How to Plan and Execute Successful Tests, 2015

References

5. Thomas D. Schneid, Larry Collins, "Disaster Management and Preparedness", CRC Press, 2000
6. Martin Mulligan and Yaso Nadarajah, "Rebuilding communities in the wake of disaster", Routledge, 2012
7. John C. Pine, "Technology in Emergency Management", Wiley, 2006
8. Anna K. Schwab, David J. Brower and Katherine Eschelbach "Hazard Mitigation and Preparedness", Wiley, 2007

