



**मुंबई विद्यापीठ**  
**University of Mumbai**  
Re-accredited with A++ Grade  
(CGPA 3.65) by NAAC (3rd Cycle 2021)

**Restructured & Revised Syllabus**  
**Credit based Semester and Grading System**  
**for**  
**Master of Management Studies (MMS)**  
**Semester I & II**

**2 Years full-time Masters Degree**  
**Program in Management**

**(Effective from the academic year 2024-25)**

**Name of the Program:** MASTER OF MANAGEMENT STUDIES (MMS)

**Nature of the Program:** MMS (Master of Management Studies) is a 2 year Full-time Master's Degree course of University of Mumbai.

**Eligibility Criteria:** As per the directives of the Directorate of Technical Education, Government of Maharashtra

### **Preamble**

Technological advancements, innovations, and socioeconomic shifts all become influencing factors in management education. In order to ensure that management students are able to attain necessary levels of industry relevant knowledge, skills and practical outlook, it is necessary to incorporate emerging industry practices in instructional process. The management students are also expected to benefit from short-term live projects, field projects, On-the-job training opportunities, industry internships and research projects as these can provide students an understanding of the industry environment and working methods. It is also increasingly expected to that management studies should be able to equip the management students to launch their own start-ups and to become entrepreneurs. Hence, in view of above, revision in curriculum of Masters in Management Studies becomes pertinent.

The AICTE Model Curriculum standards have been taken into account by integrating pertinent new topics into all of the program's specializations. Additionally, adherence to the National Higher Education Qualification Framework 2023 (NHEQF 2023) and National Education Policy 2020 (NEP 2020) principles, which place a strong emphasis on developing skills through projects and practical work that outlines the goals and learning outcomes for each topic also have been taken into consideration. The revised curriculum has incorporated the opportunity for multiple entry and exit based on NHEQF guidelines.

Revised curriculum places a high focus on quantitative and analytics techniques for aiding the students in comprehending corporate practical knowledge as well as the patterns and interpretation of massive amounts of data through business analytical tools.

## **Need for Revision and Restructuring of the MMS Curriculum:**

Post Covid-19, human resource favour hybrid or remote work arrangements. A few traditional theories of organizational behaviour, HR, and recruitment are still clinging hard to the past. The new wave of fin-tech companies has been fiercely competing with banks. Automated and custom-made manufacturing is replacing the traditional manufacturing practices. Marketing has changes with strengthening of social media, influences and digital content creators, integration of AI and ML in marketing practices.

In addition, the transdisciplinary, pragmatic, and ethical concerns and issues that business leaders encounter today need to be woven as part of curriculum design and learning in the MMS program. The MMS program requires rebalancing to connect the hard and soft abilities that have become very pertinent for managers. The curriculum needs to capture following:

- Shifting aspects of enterprises and economies globally
- Technological advancement and market dynamics
- The emergence of new companies and business models
- Emphasis on experiential and application-oriented learning
- Matching stakeholders' expectations, including those under NEP 2020 and NHEQF

## **Program Outcomes - MMS Program:**

- PO1: Apply knowledge of management theories and practices to solve business problems
- PO2: Foster analytical and critical thinking abilities for data-based decision-making
- PO3: Ability to develop value based leadership ability
- PO4: Ability to analyse and communicate global, economic, legal, and ethical aspects of business
- PO5: Ability to lead themselves and others in the attainment of organizational goals contributing effectively to team environment

## **Structure of the Revised MMS Curriculum**

The courses under the revised structure and curriculum fall under two categories **Mandatory** and **Electives** (choice for students within specializations) leading towards specialization. The electives component provide flexibility for adoption of new courses that nurture professional competencies. In addition to the above, the curriculum also provides hands on learning opportunities through OJT, Field Projects, internships and industry and society relevant research projects.

The Learning levels expected to be attained as per Bloom's Taxonomy: under curriculum are: L1: Remembering; L2: Understanding; L3: Applying; L4: Analyzing; L5: Evaluating, and; L6: Creating.

Teachers are expected to impart knowledge along-with traditional teaching through new and innovative pedagogical approaches like Field Work, Workshops, Mentoring Sessions, Assignments, Quizzes, Live Projects, Case Studies, Presentations, Simulations, Industrial Visits, Use of statistical software and other data analysis and application tools, Inculcation of industry specific skills and training & development sessions through co-curricular activities.

The Formative Assessment and Summative Assessment to be in Ratio – 40:60. The suggested Formative Assessment pattern: Class Participation 10 Marks and remaining 30 marks based on minimum of 3 other assessment formats (Mid-term Test; Individual / Group presentations; Role-plays; Assignments; Projects; Case Study analysis; Quiz; any other innovative evaluation methodology). It must be ensured that all Course Outcomes across courses should be covered in the Formative and Summative Assessment process.

The MMS program structure is as follows:

### MMS Program Structure

| Year                                                     | Level | Semester        | Major                           |                            | R<br>M | OJT/F<br>P | R<br>P | Cu<br>m.<br>Cre. | Degree /<br>Diploma                                                   |
|----------------------------------------------------------|-------|-----------------|---------------------------------|----------------------------|--------|------------|--------|------------------|-----------------------------------------------------------------------|
|                                                          |       |                 | Mandatory<br>(Sub.*Cr.)         | Elective<br>(Sub.*C<br>r.) |        |            |        |                  |                                                                       |
|                                                          |       | Semester<br>I   | 22<br>(3*4+5*2)                 | 4<br>(2*2)                 | -      | -          | -      | 26               | PG<br>Diploma<br>in<br>Manage<br>ment<br>after 3<br>year UG<br>Degree |
|                                                          |       | Semester<br>II  | 14<br>(2*4+3*2)                 | 4<br>(2*2)                 | 4      | 4          | -      | 26               |                                                                       |
| Cumulative Credits FY                                    |       |                 | 36                              | 8                          | 4      | 4          | -      | 52               |                                                                       |
| Exit Option: PG Diploma with additional 4 credits of OJT |       |                 |                                 |                            |        |            |        |                  |                                                                       |
|                                                          |       | Semester<br>III | 6<br>(1*4+1*2)                  | 12<br>(6*2)                | -      | 8          | -      | 26               | PG<br>Degree<br>after 3<br>year UG<br>Degree                          |
|                                                          |       | Semester<br>IV  | 6<br>(1*4 + 1<br>Seminar<br>*2) | 12<br>(3*4)                |        |            | 8      | 26               |                                                                       |
| Cumulative Credits SY                                    |       |                 | 12                              | 24                         | -      | 8          | 8      | 52               |                                                                       |

|                          |    |    |   |    |   |     |  |
|--------------------------|----|----|---|----|---|-----|--|
| Cumulative Credits FY+SY | 48 | 32 | 4 | 12 | 8 | 104 |  |
|--------------------------|----|----|---|----|---|-----|--|

## FYMMS Syllabus Outline Outline of Semester I

| Semester I        |                                     |                                                |                   |                               |           |
|-------------------|-------------------------------------|------------------------------------------------|-------------------|-------------------------------|-----------|
| Mandatory Courses |                                     |                                                |                   |                               |           |
| Sr. No.           | Course Type                         | Course                                         | Number of Credits | Number of 90 minutes sessions | IA / UA*  |
| 1                 | Mandatory - General Management      | Fundamentals of Management Theory and Practice | 2                 | 20                            | <b>IA</b> |
| 2                 | Mandatory - Quantitative Techniques | Business Statistics                            | 2                 | 20                            | <b>IA</b> |
| 3                 | Mandatory - Economics               | Managerial Economics                           | 2                 | 20                            | <b>IA</b> |
| 4                 | Mandatory - Finance                 | Financial Accounting for Business              | 2                 | 20                            | <b>IA</b> |
| 5                 | Mandatory - Human Resource          | Organizational Behaviour                       | 2                 | 20                            | <b>IA</b> |
| 6                 | Mandatory - Marketing               | Fundamentals of Marketing                      | 4                 | 40                            | <b>IA</b> |
| 7                 | Mandatory - Operations              | Operations Management                          | 4                 | 40                            | <b>IA</b> |

|                                   |                        |                                           |   |    |           |
|-----------------------------------|------------------------|-------------------------------------------|---|----|-----------|
| 8                                 | Mandatory -<br>Systems | Information<br>Technology for<br>Business | 4 | 40 | <b>IA</b> |
| <b>Elective Courses (Any Two)</b> |                        |                                           |   |    |           |
| 1                                 | Elective               | Managerial<br>Communication               | 2 | 20 | <b>IA</b> |
| 2                                 | Elective               | Creativity and<br>Design Thinking         | 2 | 20 | <b>IA</b> |
| 3                                 | Elective               | Legal and Tax<br>Aspects of Business      | 2 | 20 | <b>IA</b> |
| 4                                 | Elective               | Bhartiya<br>Management                    | 2 | 20 | <b>IA</b> |

**\*IA – Internal Assessment; UA – University Assessment**

### **Outline of Semester II**

| <b>Semester II</b>        |                                      |                              |                      |                                     |                 |
|---------------------------|--------------------------------------|------------------------------|----------------------|-------------------------------------|-----------------|
| <b>Mandatory Subjects</b> |                                      |                              |                      |                                     |                 |
| Sr.<br>No.                | Course Type                          | Course                       | Number of<br>Credits | Number of<br>90 minutes<br>sessions | <b>IA / UA*</b> |
| 1                         | Mandatory -<br>General<br>Management | Business Research<br>Methods | 4                    | 40                                  | <b>IA</b>       |
| 2                         | Mandatory -<br>Finance               | Corporate Finance            | 4                    | 40                                  | <b>IA</b>       |
| 3                         | Mandatory -<br>Human<br>Resource     | Human Resource<br>Management | 4                    | 40                                  | <b>IA</b>       |

|                            |                        |                                                |   |    |    |
|----------------------------|------------------------|------------------------------------------------|---|----|----|
| 4                          | Mandatory - Marketing  | Application of Marketing Theory and Practise   | 2 | 20 | IA |
| 5                          | Mandatory - Operations | Decision Models in Management                  | 2 | 20 | IA |
| 6                          | Mandatory - Systems    | Information Systems and Digital Transformation | 2 | 20 | IA |
| 7                          | OJT / Field Project    | OJT / Field Project                            | 4 | -  | IA |
| <b>Electives – Any Two</b> |                        |                                                |   |    |    |
| 1                          | Elective               | Entrepreneurship Management                    | 2 | 20 | IA |
| 2                          | Elective               | Economic Environment and Policy                | 2 | 20 | IA |
| 3                          | Elective               | Business Analytics                             | 2 | 20 | IA |
| 4                          | Elective               | Cost and Management Accounting                 | 2 | 20 | IA |
| 5                          | Elective               | Foundations of Strategy                        | 2 | 20 | IA |

**\*IA – Internal Assessment; UA – University Assessment**

### **Suggested Workshops**

**Semester I:**

1. Basic Software Tools: MS Excel & Advance Excel

2. Personality Development, Grooming & Presentation Skills Training

**Semester II:**

1. Advanced Software Tools: Power Bi, Tableau, R Programming, SPSS
2. Social Media Marketing

**Curriculum Content (Semester I & Semester II)**

|                                                                                 |    |
|---------------------------------------------------------------------------------|----|
| <b>SEMESTER - I</b> .....                                                       | 10 |
| <b>Mandatory Course 1: Fundamentals of Management Theory and Practice</b> ..... | 11 |
| <b>Mandatory Course 2: Business Statistics</b> .....                            | 14 |
| <b>Mandatory Course 3: Managerial Economics</b> .....                           | 17 |
| <b>Mandatory Course 4: Financial Accounting for Business</b> .....              | 21 |
| <b>Mandatory Course 5: Organizational Behavior</b> .....                        | 24 |
| <b>Mandatory Course 6: Fundamentals of Marketing</b> .....                      | 28 |
| <b>Mandatory Course 7: Operations Management</b> .....                          | 31 |
| <b>Elective Course 1: Managerial Communication</b> .....                        | 39 |
| <b>Elective Course 2: Creativity &amp; Design Thinking</b> .....                | 44 |
| <b>Elective Course 3: Legal and Tax Aspects of Business</b> .....               | 47 |
| <b>Elective Course 4: Bhartiya Management</b> .....                             | 49 |
| <b>SEMESTER - II</b> .....                                                      | 52 |
| <b>Mandatory Course 1: Business Research Methods</b> .....                      | 53 |
| <b>Mandatory Course 2: Corporate Finance</b> .....                              | 58 |
| <b>Mandatory Course 3: Human Resource Management</b> .....                      | 61 |
| <b>Mandatory Course 4: Application of Marketing: Theory and Practice</b> .....  | 64 |
| <b>Mandatory Course 5: Decision Models in Management</b> .....                  | 67 |
| <b>Mandatory Course 6: Information Systems and Digital Transformation</b> ..... | 70 |
| <b>Mandatory Course 7: OJT / Field Project</b> .....                            | 73 |
| <b>Elective Course 1: Entrepreneurship Management</b> .....                     | 75 |
| <b>Elective Course 2: Economic Environment and Policy</b> .....                 | 78 |
| <b>Elective Course 3: Business Analytics</b> .....                              | 82 |
| <b>Elective Course 4: Cost and Management Accounting</b> .....                  | 85 |
| <b>Elective Course 5: Foundations of Strategy</b> .....                         | 87 |
| <b>MMS Program - Guidelines under 10-point grading system</b> .....             | 93 |
| <b>Examination / Assessment and Grading:</b> .....                              | 93 |
| <b>(I) Mode of Assessment of Theory courses:</b> .....                          | 93 |
| <b>(II) Mode of Evaluation of Projects</b> .....                                | 94 |
| <b>(III) Mode of Evaluation of OJT</b> .....                                    | 94 |

|                                        |     |
|----------------------------------------|-----|
| (IV) Grading of Performance .....      | 95  |
| (VI) Standard of Passing & ATKT: ..... | 100 |
| Suggested Question Paper Format.....   | 107 |

## **SEMESTER - I**

## Mandatory Course 1: Fundamentals of Management Theory and Practice

**Course Credits: 2**

**Course Outcomes:**

- CO1: Understand the relationship between organization vision, mission, values and Objectives
- CO2: Apply the concepts and frameworks to business contexts
- CO3: Analyze the impacts of internal and external environment of a firm on its responses
- CO4: Evaluate issues in planning, organizing, leading and controlling functions of management
- CO5: Create a plan to address contemporary organizational issues based on the frameworks and theories covered.

| Unit / Module | Content                                                                                                                                                                                                                               | CO Mapping | Hours Assigned |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|
| 1             | Personal aspirations: vision, mission, values; Personal aspirations: vision, mission, values; Differences in Vision, mission amongst different kinds of organisation and types of environments they operate in; Models of motivation; | CO1        | 3              |
| 2             | Framework of analysing aspirations - Campbell & Yeung model; Coherence and alignment of organisation aspirations; Link between aspiration and business performance                                                                    | CO1, CO2   | 3              |
| 3             | Business environment: Operating in a Pluralistic Society, Technological and Innovative Environments                                                                                                                                   | CO2, CO3   | 3              |

|    |                                                                                                                                                                                                                                    |               |   |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---|
| 4  | Social responsibility and Ethics: Ecological Environment, Social Responsibility of Managers, Ethics in Managing - An Integrative Approach                                                                                          | CO2, CO3      | 3 |
| 5  | Planning, decision making & their impact: Types of Plans, Steps in Planning Objectives, Evolving Concepts in Management                                                                                                            | CO1, CO2, CO3 | 3 |
| 6  | Elements of organising: The Nature of Organizing, Entrepreneurship and Reengineering, Formal and Informal Organizations, Organizational Division: The Department, Organizational Levels and the Span of Management                 | CO2, CO3, CO4 | 3 |
| 7  | Managing change: Managing Change, Organizational Conflict, Organization Development, The Learning Organization                                                                                                                     | CO2, CO3, CO4 | 3 |
| 8  | Leadership: Ingredients of Leadership, Trait Approaches to Leadership, Charismatic Leadership Approach, Leadership Behaviour and Styles, Situational, or Contingency, Approaches to Leadership                                     | CO2, CO3, CO4 | 3 |
| 9  | Organization controls: The System and Process of Controlling, The Basic Control Process, Business Analytics, Critical Control Points, Standards, and Benchmarking, Control as a Feedback System, Real-Time Information and Control | CO2, CO3, CO4 | 3 |
| 10 | Contemporary issues in management practice                                                                                                                                                                                         | CO3, CO4, CO5 | 3 |

**Textbooks:**

1. Essentials of Management, by Harold Koontz and Heinz Weihrich. 10th ed

**Reference Books:**

1. In Search of Excellence, Tom Peters
2. Made in Japan, Akio Morita
3. The Asian Miracle, Michael Schuman
4. Get Better or Get Beaten, Jack Welch
5. Principles of Management, Peter Drucker
6. People and Performance, Peter Drucker

**Suggested Pedagogy -**

1. Lectures and discussions
2. Case studies
3. Book presentations of recommended readings

## Mandatory Course 2: Business Statistics

**Course Credits: 2**

**Course Outcomes:**

- CO1. RECALL the basic terminologies related to the concepts of Business Statistics
- CO2. UNDERSTAND statistics as a crucial tool for data analysis and making justifiable business decisions
- CO3. MAKE USE OF appropriate data to calculate statistical measures for solving business problem
- CO4. ANALYZE the data and draw inferences from statistical findings for various business solutions
- CO5. COMPARE the results of statistical tests for taking informed business decisions
- CO6. DEVELOP a statistical report for a given business situation

| Unit / Module | Content                                                                                                                                                                                                | CO Mapping  | Hours Assigned |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------|
| 1             | Introduction to Statistics<br>Types of variables (dependent, independent, mediating, moderating, extraneous, discrete, continuous), charts and graphs                                                  | CO1         | 3              |
| 2             | Descriptive Statistics<br>Measure of Central Tendency, Measure of variability, Interquartile Range, and Dispersion, Measure of shapes (Kurtosis and Skewness)                                          | CO1,<br>CO2 | 3              |
| 3             | Probability & Permutations & Combinations<br>Introduction to the concept of probability and permutations and combinations, Axioms, Addition and Multiplication rule, Theories of Probability, Types of | CO2         | 3              |

|   |                                                                                                                                                                                                                                                                                          |             |   |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---|
|   | probability, Independence of events, probability tree, Bayes' Theorem                                                                                                                                                                                                                    |             |   |
| 4 | Probability Distribution<br>Concept of Random variable, Probability distribution, Expected value and variance of random variable, conditional expectation, Binomial distribution and its business application, Poisson and its business application, Normal and its business application | CO2,<br>CO3 | 3 |
| 5 | Sampling and Estimation<br>Sampling Distribution, Types of sampling, Central Limit Theorem, Estimation- Point estimation , Interval estimation                                                                                                                                           | CO3,<br>CO4 | 3 |
| 6 | Hypothesis Testing<br>Introduction to Hypothesis testing, Importance of significance level (confidence level), margin of error, type I error and type II error, criteria for selection of right test                                                                                     | CO3,<br>CO4 | 3 |
| 7 | Parametric Test<br>Univariate -Z test, one sample t-test significance<br>Bivariate - T-test (paired and independent), Pearson's correlation, simple linear regression, one way-ANOVA                                                                                                     | CO4,<br>CO5 | 3 |
| 8 | Non-parametric Test<br>Univariate - Chi-square goodness for fit for uniform distribution<br>Bivariate - Spearman's rank correlation, mann-whitney U test, Wilcoxon sign paired rank test, Chi-square test of independence                                                                | CO4,<br>CO5 | 3 |
| 9 | Multivariate Analysis<br>Overview of multiple Regression, Factor analysis, Multi- dimensional scaling and Discriminant Analysis (Theoretical Concepts only)                                                                                                                              | CO2         | 3 |

|    |                                                                                                                                  |                     |   |
|----|----------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
| 10 | Practical<br>Students should apply the statistical hypothesis testing on assumed/ hypothesized data using statistical software's | CO4,<br>CO5,<br>CO6 | 3 |
|----|----------------------------------------------------------------------------------------------------------------------------------|---------------------|---|

**Text Books:**

1. Ken Black, Business Statistics for Contemporary Decision making, Wiley, Latest Edition
2. Sanjiv Jaggia, Alison Kelly Business Statistics, McGraw Hill, Latest Edition
3. Richard I. Levin and David S., Rubin Statistics for Management, Pearson, Latest Edition
4. D. P. Apte, Statistics for Managers, Excel, Latest Edition
5. Gerald Keller & Hitesh Arora, Business Statistics, Cengage, Latest Edition

**Reference Books:**

1. Joseph Francis, Business Statistics, Cengage, Latest Edition
2. T N Srivastava and Shailaja Rego, Statistics for Management, TMH, Latest Edition
3. K. B. Akhilesh & S. B. Balasubrahmanyam, Mathematics and Statistics for Management Vikas
4. Naval Bajpai, Business Statistics, Pearson, Latest Edition
5. D. P. Apte M. S., Excel: Statistical Tools for Managers, Excel, Latest Edition
6. Qazi Zameerudin, Vijay K. Khara, S. K. Bhamri, Business Mathematics, Vikas, Latest Edition

## Mandatory Course 3: Managerial Economics

**Course Credits: 2**

**Course Outcomes:**

- CO1: Remember and explain the basic concepts of Managerial Economics (L1, L2)
- CO2: Explain different concepts like consumer behaviour, Utility analysis demand, supply, production, cost and revenue, etc. (L1, L2)
- CO3: Apply the principles of Managerial Economics in business decisions for attaining objectives of the firms. (L4, L5)
- CO4: Analyze and Evaluate the competitiveness in the different market and decide on pricing and other policies. (L4, L5)

| Unit / Module | Content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CO Mapping | Hours Assigned |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|
| 1             | <p><b>Introduction:</b><br/>           Concept of Economy, Economics, Microeconomics, Macroeconomics. Nature and Scope of Managerial Economics, Managerial Economics and decision-making - The basic process of decision making; Concept of Firm, Market;</p> <p><b>Objectives of Firm:</b><br/>           Profit Maximization Model, Economist Theory of the Firm, Cyert and March's Behavior Theory, Marris' Growth Maximisation Model, Baumol's Static and Dynamic Models, Williamson's Managerial Discretionary Theory</p> | CO1        | 3              |
| 2             | <p><b>Consumer Behaviour &amp; Utility Analysis:</b> Cardinal utility approach, equi- marginal utility principle, ordinal utility analysis,</p>                                                                                                                                                                                                                                                                                                                                                                                | CO2        | 3              |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     |   |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
| 3 | <p><b>The Basics of Demand and Supply:</b> Determinants of Demand / Supply, Law of Demand and Supply, Individual Demand / Supply and Market Demand /Supply, Exception to Law of Demand;</p> <p>Determinants of Supply, Change in Demand / Supply, market mechanism and price determination, Impact of Price Ceiling &amp; Price Floor</p> <p><b>Demand forecasting:</b></p> <p>Significance of demand forecasting, Various approaches to demand forecasting,</p> | CO2,<br>CO3,<br>CO4 | 3 |
| 4 | <p><b>Elasticity of Demand and Supply:</b></p> <p>The concept of elasticity of demand, Types of elasticity of demand, types of price and income elasticity of demand, factors affecting elasticity of demand. Elasticity of supply, factors determining elasticity of supply.</p>                                                                                                                                                                                | CO3,<br>CO4         | 3 |
| 5 | <p><b>Production Function:</b></p> <p>Production function, Law of Diminishing Marginal Return (short run), Laws of Returns to scale (long run), Isoquant, Optimization analysis.</p>                                                                                                                                                                                                                                                                             | CO2,<br>CO3,<br>CO4 | 3 |
| 6 | <p><b>Cost Analysis:</b></p> <p>Types of cost, Estimation of cost function, Cost-output analysis - Short run cost curves &amp; Long run Cost curves, traditional theory of cost, modern theory of costs, Learning Curve, Economies of Scale; Break-Even Analysis; Determination of Break-even level, Breakeven chart</p>                                                                                                                                         | CO2,<br>CO3,<br>CO4 | 3 |
| 7 | <p><b>Revenue Analysis:</b></p> <p>Revenue concept, Relation between price and revenue under perfect competition and imperfect competition.</p>                                                                                                                                                                                                                                                                                                                  | CO2,<br>CO3,<br>CO4 | 3 |

|    |                                                                                                                                                                                                                                                                                                                                                        |         |   |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---|
| 8  | <p><b>Market Structure 1 - Perfect and monopoly competition:</b></p> <p>Short run equilibrium of the competitive firm, long run equilibrium of the firm and industry.</p> <p><b>Monopoly:</b></p> <p>Types &amp; Sources of monopoly, Monopoly Power, monopoly equilibrium in short run, Long run monopoly equilibrium, Monopoly wisdom.</p>           | CO4,CO5 | 3 |
| 9  | <p><b>Markets Structure 2 – Oligopoly Monopolistic Competition:</b></p> <p>Oligopoly - Kinked demand curve, Cournot's Oligopoly model, Game Theory application in Oligopoly, Cartels</p> <p>Monopolistic Competition - Product differentiation, Selling cost &amp; advertising outlay, equilibrium output and price under monopolistic competition</p> | CO4,CO5 | 3 |
| 10 | <p><b>Price Discrimination:</b></p> <p>Forms of price discrimination, degree of discrimination, Dumping, economic effects of price discrimination.</p>                                                                                                                                                                                                 | CO4,CO5 | 3 |

**Text Books:**

1. Managerial Economics: Theory and applications: D.M.Mithani-Himalaya Publishing House.
2. Managerial Economics- Prof.A.K.Seth and Dr.Shalini Devi-International book house pvt.ltd
3. Managerial Economics- Suma damodaran-Oxford university press.
4. Managerial Economics- principles and worldwide applications- Dominick Salvatore- Oxford university press
5. Managerial Economics- Dr.S.L.Gupta-International book house pvt.ltd

**Reference Books:**

1. Wilkinson, N. and Klaes M. 2018. An Introduction to Behavioral Economics (3 rd ed.)
2. Managerial Economics, Mote, Paul and Gupta, T M H, New Delhi.
3. Managerial Economics - Analysis, Problems and Cases, P.L. Mehta, Sultan Chand Sons, New Delhi.

## Mandatory Course 4: Financial Accounting for Business

Course Credits: 2

Course Outcomes:

- CO1: Acquire the basic knowledge on accounting concepts and conventions, Accounting Standards, components of the financial statements and notes to accounts.
- CO2: Understand and explain the components of corporate financial statements and corporate annual reports.
- CO3: Analyze the movement of Assets, Liabilities, Income and Expenses in the financial statements across the previous year and current year.
- CO4: Apply Accounting Standards, GAAP, IFRS and Concepts to the Financial Statements.
- CO5: Create Financial Statements with basic adjustments and analyse the impact of transactions and adjustments on the Income Statement, Balance Sheet and Cash Flow Statement.

| Unit / Module | Content                                                                                                                                                                                                                                                                                                                                                                                | CO Mapping | Hours Assigned |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|
| 1             | Introduction to Financial Accounting- Meaning and concept of accounting, Need for accounting, Users of financial statements, Forms of business organization, Accounting and the form of business organization, Branches of accounting and interrelationship – Financial Accounting, Cost and Management Accounting, and Corporate Finance, Indian Accounting Standards, GAAP and IFRS. | CO1        | 1              |
| 2             | Accounting Cycle-The Recording Stage, The classification stage, Verification of the correctness of the ledger accounts, The summarizing stage, Restarting the cycle                                                                                                                                                                                                                    | CO1        | 1              |

|   |                                                                                                                                                                                                                                                                                                                                     |           |    |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----|
| 3 | Accounting concepts and conventions – with Emphasis on Dual Aspect Concept- Accounting Equation.                                                                                                                                                                                                                                    | CO2 & CO3 | 1  |
| 4 | Accounting process - the recording stage,<br><br>Two aspects of accounting transactions,<br><br>Debit and credit of a transaction<br><br>Specimen / format of journal                                                                                                                                                               | CO4       | 1  |
| 5 | Accounting process - the classification stage<br><br>Meaning and need for classification, Specimen / format of ledger, Posting, Balancing an account, Trial Balance.                                                                                                                                                                | CO4       | 1  |
| 6 | Accounting process - Financial Statements- Vertical Statements.<br><br><ul style="list-style-type: none"> <li>· Part I – Balance Sheet</li> <li>· Part II – Statement of Profit and Loss</li> <li>· Notes to Accounts</li> <li>· Part iii- general instructions for the preparation of consolidated</li> </ul> Financial statements | CO5       | 10 |
| 7 | Adjustments on Inventory, Outstanding and Prepaid Income and Expenses, Depreciation and Fixed Assets schedule                                                                                                                                                                                                                       | CO4       | 3  |
| 8 | Income measurement- Revenue recognition and measurement, Capital and revenue items, Deferred revenue expenditure.                                                                                                                                                                                                                   | CO3       | 2  |

|    |                                                                                                                                                                                          |     |   |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---|
| 9  | Banking Financial Statements and Insurance Company Financial Statements                                                                                                                  | CO2 | 2 |
| 10 | Cash Flow Statement                                                                                                                                                                      | CO5 | 3 |
| 11 | Corporate Financial Reporting – Reading of Annual Report, Governance Report, Presentation and analysis of audit reports and directors report and Analyst Presentations and Podcasts[ST1] | CO2 | 2 |
| 12 | Presentations /Vivas/ Internal Assessments of students                                                                                                                                   | CO5 | 3 |

### **Text Books**

1. Financial Accounting: Text & Cases by Dearden and Bhattacharya Accounting: Text and Cases by Robert Anthony
2. Financial Accounting for Management by Dinesh D Harsolekar
3. Financial Accounting by R. Narayanaswamy
4. Financial Accounting by S.N Maheshwari, Suneel K Maheshwari, Sharad.K. Maheshwari
5. Introduction to Financial Accounting, 11e by by T. Horngren Charles , L. Sundern Gary, A. Elliott John , R. Philbrick Danna.

### **Reference Books**

1. Financial Accounting –Text and Cases – Dearden and Bhattacharyya
2. Accounting & Finance for Managers – T P Ghosh
3. Financial Accounting - Reporting & Analysis – Stice and Diamond
4. Financial Accounting and Analysis by Narendra L Ahuja and Varun Dawar

## Mandatory Course 5: Organizational Behavior

Course Credits: 2

Course Outcomes:

- CO1: Students shall be able to relate to others effectively and demonstrate the importance of interpersonal skills in the success of their professional and personal life. (Level 1 & 2)
- CO2: Students shall analyze and interpret how and why people behave in a certain manner and predict the impact of such behavior as individuals or teams on their individual performance, performance of their team and performance of the organization as a whole. (Level 4, 5, 6)
- CO3: Students shall be equipped to predict and manage the patterns of interpersonal relations in the organization and adapt their behavior as per the demands of the organization for the healthy work environment. (Level 6)

| Unit / Module | Content                                                                                                                                                                                                                                                                         | CO Mapping  | Hours Assigned |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------|
| 1             | <p><b><u>Introduction to OB</u></b></p> <ul style="list-style-type: none"> <li>• Origin, Nature and Scope of Organizational Behavior</li> <li>• Relevance to Organizational Effectiveness and Contemporary Issues.</li> </ul>                                                   | CO1         | 2              |
| 2             | <p><b><u>Personality</u></b></p> <ul style="list-style-type: none"> <li>• Meaning and Determinants of Personality</li> <li>• Process of Personality Formation</li> <li>• Personality Types</li> <li>• Assessment of Personality Traits for Increasing Self Awareness</li> </ul> | CO1         | 4              |
| 3             | <p><b><u>Perception, Attitude and Value</u></b></p> <ul style="list-style-type: none"> <li>• Perceptual Processes, Effect of Perception on Individual Decision-Making, Attitude and Behavior.</li> <li>• Sources of Value</li> </ul>                                            | CO2,<br>CO3 | 4              |

|   |                                                                                                                                                                                                                                                                                                                                                                              |                     |   |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
|   | <ul style="list-style-type: none"> <li>● Effect of Values on Attitudes and Behavior.</li> <li>● Effects of Perception, Attitude and Values on Work Performance.</li> </ul>                                                                                                                                                                                                   |                     |   |
| 4 | <p><b><u>Motivation Concepts</u></b></p> <ul style="list-style-type: none"> <li>● Motives</li> <li>● Theories of Motivation</li> <li>● Their Applications for Behavioral Change.</li> </ul>                                                                                                                                                                                  | CO1,<br>CO2,<br>CO3 | 3 |
| 5 | <p><b><u>Group Dynamics &amp; Teamwork</u></b></p> <ul style="list-style-type: none"> <li>● Work Groups, Formal and Informal Groups and Stages of Group Development.</li> <li>● Concepts of Group Dynamics, Group Conflicts and Group Decision Making.</li> <li>● Team Effectiveness: High Performing Teams, Team Roles, Cross Functional and Self-Directed Teams</li> </ul> | CO2,<br>CO3         | 4 |
| 6 | <p><b><u>Organizational Design</u></b></p> <ul style="list-style-type: none"> <li>● Structure, Size, Technology</li> <li>● Hybrid Work Structures</li> <li>● Environment of Organization;</li> <li>● Organizational Roles: -Concept of Roles; Role Dynamics; Role Conflicts and Stress.</li> <li>● Organizational Conflicts</li> </ul>                                       | CO3                 | 4 |
| 7 | <p><b><u>Leadership</u></b></p> <ul style="list-style-type: none"> <li>● Concepts and Skills of Leadership</li> <li>● Leadership and Managerial Roles</li> <li>● Leadership Styles and Effectiveness</li> <li>● Contemporary Issues in Leadership.</li> <li>● Power and Politics: Sources and Uses of Power;</li> </ul>                                                      | CO1,<br>CO2,<br>CO3 | 3 |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                     |   |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
|    | <ul style="list-style-type: none"> <li>● Politics at Workplace</li> <li>● Tactics and Strategies.</li> <li>● Defense Mechanism Sources, types and Strategies to cope-up</li> </ul>                                                                                                                                                                                                                                                              |                     |   |
| 8  | <p><b><u>Self &amp; Stress Management</u></b></p> <ul style="list-style-type: none"> <li>● What is stress?</li> <li>● Eustress &amp; Distress</li> <li>● General Adaptation Syndrome</li> <li>● A Stress Model- Stressors &amp; stress outcomes</li> <li>● Potential sources of stress- Environmental factors, Organizational factors, Personal factors</li> <li>● Consequences of stress- Psychological, Physiological, Behavioral.</li> </ul> | CO1,<br>CO2         | 2 |
| 9  | <p><b><u>Organizational Culture</u></b></p> <ul style="list-style-type: none"> <li>● Definition, Characteristics of Organizational Culture</li> <li>● Strong Versus Weak Culture</li> <li>● Functions of Organizational Culture</li> </ul>                                                                                                                                                                                                      | CO1,<br>CO2,<br>CO3 | 2 |
| 10 | <p><b><u>Organization Development</u></b></p> <ul style="list-style-type: none"> <li>● Organizational Change and Culture Environment</li> <li>● Organizational Culture and Climate</li> <li>● Contemporary Issues relating to Business Situations</li> <li>● Process of Change and Organizational Development</li> </ul>                                                                                                                        | CO1,<br>CO2,<br>CO3 | 2 |

**Text Books:**

1. Understanding Organizational Behavior – Udai Pareek
2. Organizational Behavior – Stephen Robbins
3. Organizational Behavior – Fred Luthans
4. Uday Kumar Haldar, Leadership and Team Building, Oxford University Press, New Delhi, 2010.

**Reference Books:**

1. Organizational Behavior by Steven L McShane, Mary Ann Von Glinow & Radha Sharma
2. Organizational Behavior – L. M. Prasad (Sultan Chand)
3. Organizational Behavior – Meera Shankar – International Book House Ltd
4. Management & Organizational Behavior – Laurie Mullins – Pearson Publications

## Mandatory Course 6: Fundamentals of Marketing

Course Credits: 4

Course Outcomes:

- CO1: Understand fundamental concepts of marketing management.
- CO2: Apply the frameworks and models to marketing situations.
- CO3: Analyze the marketing environment and its impact on business
- CO4: Evaluate marketing decisions and choose appropriate solutions keeping in mind organizational opportunities, competition, resources and constraints
- CO5: Create a marketing strategy applying the theories and frameworks

| Unit / Module | Content                                                                                                                                                                                             | CO Mapping    | Hours Assigned |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|
| 1             | <b>Introduction to Marketing:</b><br>Concept, Understanding the Basics: Transfer Vs Transactions, Concept of Need, Want and Demand, Concept of Product and Brand, Scope of Marketing                | CO1           | 3              |
| 2             | 4C framework, DMU, Product – Company Fit, Capabilities in R&D, Finance, Manufacturing; Collaborators, and Competitors; Context.                                                                     | CO1, CO2      | 3              |
| 3             | <b>New 4 Cs' Framework:</b><br>Co-creation, Currency, Communal Activation, Customer Conversation,                                                                                                   | CO1, CO2      | 3              |
| 4             | <b>Evolution of Marketing:</b><br>Evolution of Marketing from Production to Sustainability & Customer Orientation,                                                                                  | CO1, CO2      | 6              |
| 5             | <b>Experience Economy:</b><br>Time as currency, theme from history, religion, politics, psychology, art and pop culture;<br>Types of experiences – educational, entertainment, aesthetic, escapist. | CO1, CO2, CO3 | 3              |
| 6             | <b>Marketing Environment:</b> External Environment & Internal Environment – Components and Characteristics, Need for Analyzing the Marketing Environment.                                           | CO2, CO3, CO4 | 6              |

|    |                                                                                                                                                                                                                                                                                                                              |               |   |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---|
|    | Analyzing the Demographic, Economic, Sociocultural, Natural, Technological, and Political-Legal Environment (PESTLE, SWOT)                                                                                                                                                                                                   |               |   |
| 7  | <b>Managing Marketing Information to gain customer insights:</b><br>Market Research, Analysing and Using Marketing Information, Demand Forecasting and Market Potential Analysis                                                                                                                                             | CO2, CO3, CO4 | 6 |
| 8  | <b>Marketing Mix – 4P’s:</b><br><b>Product:</b> Definition, classification based on consumer buying behaviour, levels of involvement in the buying process, types of benefits; Product Mix-Definition, Product Line and Dimensions, Line Stretching Decisions                                                                | CO3, CO4      | 6 |
| 9  | <b>Product Life Cycle –</b> Market Potential and Marketing Strategy – Resources commitment as drivers of PLC; Stages in the PLC; Diffusion of Innovation, Entry strategies at different stages of the PLC – Pioneers, follow the leader, segmenters, Me-too; New Product Development Process                                 | CO3, CO4      | 6 |
| 10 | <b>Market Segmentation –</b> Objectives, Need for Segmentation, Assumptions underline Segmentations, Criteria for Segmentation; Segmentation variables – Geographic, Psychographic, Demographic, Benefits; Segmentation Analysis – Data Collection, Profiling the segment, evaluating the segment, selecting target segment. | CO3, CO4      | 3 |
| 11 | <b>Targeting:</b> Long term objectives, Segmentwise Competitor Capability Matrix – Ability to conceive and design, ability to produce, ability to market, ability finance, ability to execute.                                                                                                                               | CO3, CO4      | 3 |

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|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---|
| 12 | <b>Positioning:</b> Target Customers, need for the product; Elements of the positioning statements – Target market, frame of reference, point of parity, point of difference, reason to believe your claims; Criteria for evaluating the positioning statement – Relevance, clarity, uniqueness, attainability, sustainability; Marketing Mix linkage to the positioning statement | CO3, CO4, CO5 | 5 |
| 13 | <b>5A Framework</b> – Aware, Appeal, Ask, Act, Advocate; Omni channel.                                                                                                                                                                                                                                                                                                             | CO3, CO4      | 3 |
| 14 | Field Based Live Projects and Presentations by capturing insights from Markets; Capstone Case – Starbucks: Delivering Customer Value (Suggested Case)                                                                                                                                                                                                                              | CO3, CO4, CO5 | 4 |

#### **Text Books:**

1. Marketing Management, 15/16e by Kotler, Keller, Chernev, Sheth, Shainesh, Pearson Education
2. Fundamentals of Marketing – William Stanton et.al.
3. Essentials of Marketing - Charles W. Lamb, Jr., Joseph F. Hair, Carl McDaniel
4. Business to Business Marketing - Zimmerman

#### **Reference Books**

1. Marketing Management, 4e, Russel Winer
2. Essentials of Marketing – William Perrault Jr, Joseph Cannon et al
3. Marketing Management: Text and Cases, SIE – Kasturi Rangan, Rajiv Lal, John Quelch

## Mandatory Course 7: Operations Management

**Course Credits: 4**

**Course Outcomes:**

- CO1: RECALL basic concepts of operations management and cite its evolution
- CO2: ASSOCIATE the concepts of operations management and connect with business scenarios
- CO3: APPLY basic principles of operations management in production and operation functions
- CO4: EXAMINE the problems related to operations management in day-to-day functioning
- CO5: RECOMMEND solutions to the problems related to operations management
- CO6: PROPOSE innovative solutions related to operations management.

| Unit / Module | Content                                                                                                                                                                                                                                                                                            | CO Mapping  | Hours Assigned |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------|
| 1             | Introduction to Operations Management<br>Meaning, evolution and importance in management, Understanding goods and services, Transformation Process and its types, OM functions, Role of Operations Manager                                                                                         | CO1         | 3              |
| 2             | Process View of Operations<br>Process Choice Decisions (Eg. Projects, Job-shop, flow-shop and continuous flow), Product-process matrix, Process Design (Task, Activity, Process and Value Chain) in manufacturing and service industry, Process map (Flow chart), Process Analysis and Improvement | CO3,<br>CO4 | 3              |
| 3             | Facility Location<br>Factors affecting location decisions, Location Planning Models (Center of Gravity, Load-distance, Factor Rating)                                                                                                                                                              | CO3         | 3              |

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|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---|
| 4 | <p>Facility Layout</p> <p>Types of layout (Product, Process, Cellular Technology, Fixed Position and hybrid)</p> <p>Performance measures for layout design</p>                                                                                                            | CO2 | 3 |
| 5 | <p>Inventory Management I</p> <p>Nature of Inventory (RM, MRO, WIP, FG, GIT), Types and Function of Inventory (Seasonal, Decoupling, Cyclic, Pipeline, Safety Stock), Inventory Cost (Inventory Carrying, Cost of Ordering, Cost of Shortages)</p>                        | CO2 | 3 |
| 6 | <p>Inventory Management II</p> <p>Inventory Classification (ABC, HML, XYZ, VED, FSN, SDE, GOLF and SOS), Inventory Ordering Policies (EOQ, EPQ, ROP and Quantity Discounts)</p>                                                                                           | CO3 | 3 |
| 7 | <p>Capacity Planning</p> <p>Definition of Production Capacity, Measurement of Capacity, Ways of changing capacity, Economies of Scale, Analysing Capacity Planning Decisions (Make or Buy Decisions), Aggregate Planning (Level Production and Chase Demand Strategy)</p> | CO5 | 3 |
| 8 | <p>Materials Requirement Planning</p> <p>(Master Production Schedule, Product structure, BOM, Lot Sizing Rule (Lot for lot, Fixed Order Quantity, Periodic Order Quantity)</p>                                                                                            | CO4 | 3 |
| 9 | <p>Sequencing and Scheduling</p> <p>Scheduling Rules (Shortest Processing Time, Longest, Processing Time, Earliest Due Date), Gantt Chart, Johnson's Rule (N Jobs on Two machine/ Three machine)</p>                                                                      | CO4 | 3 |

|    |                                                                                                                                                                                                                                                                                    |     |   |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---|
| 10 | <p>Foundation of Quality Management</p> <p>Gurus - Walter Shewhart, Deming, Juran, Crosby, Ishikawa, Taguchi, Ohno and Shingo, Core elements of Quality, Continuous Improvement, Cost of Quality</p>                                                                               | CO2 | 3 |
| 11 | <p>Quality in Operations Management</p> <p>Quality Control, Statistical Quality Control, Statistical Process Control, Quality Management System (QMS), Quality Assurance, Environment Sustainability Governance, Sustainable Development Goals, PDCA Cycle (Plan Do Check Act)</p> | CO2 | 3 |
| 12 | <p>Value Engineering: its aims, examples, advantages, stages, types of values (use, cost, esteem, exchange), steps of value engineering, value engineering vs value analysis</p> <p>Value Analysis: Meaning, Stages of Value Analysis, Merits &amp; Limitations</p>                | CO3 | 3 |
| 13 | <p>Introduction to Logistics and Warehouse Management</p> <p>Mode of logistics, Vendor Managed Inventory (VMI), software's for warehouse management (Warehouse Management System- WMS), tools and equipment for material handling, Automating ware-houses</p>                      | CO2 | 3 |
| 14 | <p>Operations Strategies in a Global Economy</p> <p>Contemporary business situation, Competitive Priorities, Elements of Operations Strategy, Operations Strategy in Services, Linking Operations with marketing</p>                                                               | CO5 | 3 |
| 15 | <p>Introduction to Operations Technologies</p> <p>Types of manufacturing automations, Automated Production Systems, Automation Issues, Business Applications</p>                                                                                                                   | CO2 | 3 |

|    |                                                                                                                                                                                                                                                                                                     |              |   |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---|
| 16 | Lean Management<br>Introduction to lean management in manufacturing and services, Theory of Constraints (TOC), Business Applications                                                                                                                                                                | CO2 ,<br>CO3 | 3 |
| 17 | Demand Forecasting<br>Qualitative (Educated Guess, Delphi Method, Survey of Sales Force, Historical Analogy) and Quantitative methods (Moving Average, Weighted Moving Average, Exponential Smoothing), Short term, medium term and long term forecasting, forecast accuracy, Business Applications | CO4          | 3 |
| 18 | Introduction to Supply Chain Management<br>Information and Material Flows, Supply Chain Components (In-house and out-bound), Supply Chain Structure, Measures of Supply Chain Performance, Design of Supply Chain                                                                                   | CO2          | 3 |
| 19 | Service Operations Management<br>Nature of Services, Operations Strategies for Services, Challenges in Services                                                                                                                                                                                     | CO2          | 3 |
| 20 | Employee Productivity<br>Productivity and Human Behavior, Work Method Analysis, Work Measurements, Time Study, Learning Curves, Employees Health and Safety                                                                                                                                         | CO2          | 3 |

**Text Books:**

1. Operations Management, 9e by Norman Gaither, Cengage Learning
2. Operations management, 13e by William J Stevenson, McGrawHill
3. Operations Management: Theory and Practice, 3e, B. Mahadevan, Pearson

**Reference Books:**

1. Production and Operations Management-S N Chary, Tata McGraw Hill
2. Production and Operations Management- Chunawalla & Patel, Himalaya Publishing
3. Operations Management for Competitive Advantage-Chase & Jacob, McGraw-Hill

## Mandatory Course 8: Information Technology for Business

**Course Credits: 4**

**Course Outcomes:**

- CO1: Acquire the knowledge on information Technology, and its functional perspectives.
- CO2: Understanding the emerging trends of information technology, the Information Technology Infrastructure and its role to changing Business environment.
- CO2: Analyzing the emerging trends of information technologies and its integration to business application across the functions and verticals of the industry.
- CO4: Apply the knowledge of data management and data analytics tools to solve the business problems
- CO5: Develop and Design Various Information Technology strategies for successful digital transformation.

| Unit / Module | Content                                                                                                                                                                                                                                                             | CO Mapping          | Hours Assigned |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------|
| 1             | Introduction to Information Technology in Business<br><br>Overview of IT infrastructure and its role in business operations.<br><br>Emerging trends and technologies in Information Technology                                                                      | CO1,<br>CO2         | 6              |
| 2             | Big Data Management, Data Analytics and Business Intelligence<br><br>Introduction to database, data mining, Data warehouse, data analytics tools and techniques and big data management.<br><br>Business intelligence for decision-making and competitive advantage | CO2,<br>CO4,<br>CO5 | 8              |
| 3             | Telecommunication, Wireless Technology, Cloud Computing and Virtualization<br><br>Introduction to Telecommunication, the Internet and                                                                                                                               | CO2,<br>CO3         | 10             |

|   |                                                                                                                                                                                                                                                                                                                   |                                       |   |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---|
|   | <p>wireless Technology</p> <p>Cloud computing models (IaaS, PaaS, SaaS) and their business applications.</p> <p>Virtualization technologies and their benefits in business operations.</p>                                                                                                                        |                                       |   |
| 4 | <p>E-Business &amp; Digital Transformation Strategies</p> <p>Introduction to E-commerce &amp; E –Business, Digital Markets and Digital Goods</p> <p>Understanding digital transformation and its impact on businesses.</p> <p>Case studies on E-Business &amp; successful digital transformation initiatives.</p> | <p>CO1,<br/>CO4,<br/>CO5,<br/>CO6</p> | 8 |
| 5 | <p>IT Governance and Compliance &amp; Ethical and social issues</p> <p>IT governance frameworks and their implementation.</p> <p>Ethical and social issues in Information Technology</p> <p>Compliance and regulatory issues in IT management</p>                                                                 | <p>CO1,<br/>CO2,<br/>CO3</p>          | 8 |
| 6 | <p>Privacy &amp; Cybersecurity and Risk Management</p> <p>Fundamentals of Privacy Issues &amp; cybersecurity in business environments.</p> <p>Risk assessment and management strategies</p>                                                                                                                       | <p>CO2,<br/>CO4,<br/>CO5,<br/>CO6</p> | 8 |
| 7 | <p>Business Applications of IT</p> <p>Business application of Information Technology across function and Verticals of the Industry</p> <p>Enterprise resource planning (ERP) systems and their implementation.</p> <p>Case studies on Business Application of Information Technology</p>                          |                                       | 8 |

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|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|
| 8 | <p>Emerging Technologies and Innovation</p> <p>Exploration of emerging technologies such as Artificial Intelligence, (AI), ML, IoT, and Blockchain, Digital Payments, Mobile Computing, Social Media</p> <p>Innovation management and fostering a culture of innovation in IT.</p> |  | 4 |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|

**Text Books:**

1. Introduction to Information Technology: Turban , Rainer Potter
2. Management Information Systems for the Information Age (9e) by Maeve Cummings. McGraw-Hill/Irwin (2012).
3. Management Information System- Managing the Digital Firm by Laudon and Laudon.
4. Information Technology for Management by Dr Chandrahauns R Chavan & B Lal Universal Publication, Mumbai
5. Principal of Information System by Ralph M. Stair and Georg Reynold.

**Reference Books:**

1. Digital Business by Dr Chandrahauns Chavan , KBI International, Mumbai
2. A Management Information Systems by O'Brien, James. Tata McGraw Hill, New Delhi,
3. Introduction to Financial Technologies FINTECH, By Dr Chandrahauns Chavan & Atul Patankar , Pearson Publications
4. Elements of Systems Analysis and Design by Marvin Gore. Galgota Publications.
5. MIS a Conceptual Framework by Davis and Olson.
6. Analysis and Design of Information Systems by James Senn.
7. Information Systems Today by Jessup and Valacich. Prentice Hall India.
8. Management Information Systems by Jaiswal and Mittal. Oxford University Press.

# Elective Course 1: Managerial Communication

Course Credits: 2

Course Outcomes:

- CO1: Ability to use specific and direct language when giving instructions to and encourage open dialogue and sharing of diverse perspectives to reach mutually beneficial outcomes.
- CO2: Develop competency to give and receive feedback constructively.
- CO3: Develop listening and comprehension abilities for facilitation in decision making and problem solving and personal and professional development.
- CO4: Applying effective communication skills for the expression of emotions and demonstration of empathy to create strong relationships with colleagues and clients and to foster a collaborative environment.
- CO5: Create effective digital communication such as emails and social media posts and use video conferencing and collaborative tools to maintain clear communication with remote team members.

| Unit / Module | Content                                                                                                                                                                                                            | CO Mapping | Hours Assigned |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|
| 1             | <b>Fundamentals of Communication</b><br><br>- Introduction and Theory of Communication.<br>- Definition, Cycle, Models, Strategies, Channels and Types.<br>- 7 C's of Communication.<br>- Channels.<br>- Barriers. | CO1        | 3              |

|   |                                                                                                                                                                                                                                                                                                                                                                                                        |                     |   |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
| 2 | <p><b>Personality Assessment</b></p> <ul style="list-style-type: none"> <li>- Personality Development –</li> <li>- Self - discovery.</li> <li>- Developing a positive attitude.</li> <li>- Grooming.</li> <li>- Career Planning.</li> <li>- Stress Management.</li> <li>- Time Management.</li> </ul>                                                                                                  | CO1,<br>CO2,<br>CO3 | 6 |
| 3 | <p><b>Listening Skills</b></p> <ul style="list-style-type: none"> <li>- Hearing Vs. Listening</li> <li>- Process, Principles, Types, Barriers</li> </ul>                                                                                                                                                                                                                                               | CO1,<br>CO2,<br>CO3 | 3 |
| 4 | <p><b>Reading and Comprehension Skills</b></p> <ul style="list-style-type: none"> <li>- Developing Reading Skills.</li> <li>- Process, types and reading rate adjustment.</li> <li>- Tips for improving reading skills</li> <li>- Speed Reading</li> <li>- Reading Comprehension</li> <li>- Reading Business papers</li> <li>- Researching for Business</li> <li>- Review of a book/journal</li> </ul> | CO1,<br>CO2,<br>CO3 | 3 |

|   |                                                                                                                                                                                                                                                                                                                                                                                           |                     |   |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
| 5 | <p><b>Developing Effective Writing Skills</b></p> <ul style="list-style-type: none"> <li>- Progression of thoughts /ideas</li> <li>- Paragraph writing.</li> <li>- Mechanics and Semantics of sentences.</li> <li>- Writing sentences that communicate brevity, clarity, and simplicity.</li> <li>- Improving the tone and style of sentences.</li> <li>- Structure of Essays.</li> </ul> | CO3,<br>CO4         | 3 |
| 6 | <p><b>Effective Writing Skills</b></p> <ul style="list-style-type: none"> <li>- Paraphrasing</li> <li>- Summarizing</li> <li>- Note –taking</li> <li>- Proof - reading</li> <li>- Editing</li> <li>- Comprehension</li> <li>- Precis Writing</li> </ul> <p>Types of Reports -</p> <p>Purpose and Scope of a Report.</p> <p>Fundamental Principles of Report Writing.</p>                  | CO3,<br>CO4         | 3 |
| 7 | <p><b>Corporate Correspondence</b></p> <ul style="list-style-type: none"> <li>- Resume/CV/Profile, Cover Letters, E-mails, Etiquettes, Netiquettes</li> <li>- Appropriate usage of AI Tools</li> </ul>                                                                                                                                                                                    | CO3,<br>CO4,<br>CO5 | 3 |

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|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
| 8 | <p>Non-verbal Communication</p> <ul style="list-style-type: none"> <li>- Kinesics (body language), Oculistics (eye contact), Haptics (touch), proxemics (distance), Chronemics (use of time), Paralinguistics (vocalics)</li> </ul>                                                              | CO3,<br>CO4,<br>CO5 | 3 |
| 9 | <p>Presentation Skills</p> <ul style="list-style-type: none"> <li>- Public Speaking</li> <li>- Audience Analysis</li> <li>- Delivery Techniques (Impromptu, Manuscript, Memorized, and Extemporaneous.)</li> <li>- Visual Aids (PPTs, infographics, Audio-Visual Presentations, etc.)</li> </ul> | CO3,<br>CO4,<br>CO5 | 3 |

**Text Books:**

1. Asha Kaul, "Business Communication" - Eastern Economy Edition, Prentice – Hall of India Private Limited
2. Taylor & Chandra, "Communication for Business: A Practical Approach," Pearson
3. Singh Nirmal, "Business Communication: Principles, Methods & Techniques," Deep & Deep Publications, Delhi
4. Krishna Mohan & Meera Banerji, "Developing Communication Skills" MacMillan
5. Murphy, Hildebrandt & Thomas, "Effective Business Communication," McGraw Hill.

**Reference Texts & Material:**

1. The 3 Pillars of Personal Effectiveness by Troels Richte
2. The 7 Habits of Highly Effective People: Powerful Lessons in Personal Change by Stephen. R. Covey
3. Doctor & Doctor, "Business Communication," Sheth Publishers
4. Raman & Singh, "Business Communication," Oxford University Press

5. Madhukar R.K, "Business Communication, "Vikas Publishing house
6. McKay, Davis 7 Fanning, "Communication Skills, "B. Jain Publishers Pvt. Ltd, New Delhi

**Suggested Pedagogy** – Lectures, Audio-Visual Aids, Case Studies, Presentations, Role-plays, Assignments – Oral and Written

## Elective Course 2: Creativity & Design Thinking

**Course Credits: 2**

**Course Outcomes:**

- CO1: Demonstrate the understanding of critical theories of design, systems thinking, and design methodologies
- CO2: Demonstrate the understanding of diverse methods employed in design thinking and establish a workable design thinking framework to use in their practices
- CO3: Conceive, organize, lead and Design interdisciplinary domain while addressing social concerns with innovative approaches

| Unit / Module | Content                                                                                                                                                                                                                                                                                 | CO Mapping | Hours Assigned |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|
| 1             | Creativity, innovation and design - Core concepts of creativity, design and innovation Creative people, Creative organizations, & Creativity Impact– Case Analysis & Discussions Distributed creativity How diversity and collaboration through networks support the creativity process | CO1        | 3              |
| 2             | Design Thinking Overview: Concept of Design thinking; Importance of Design Thinking Method; Design Thinking Skills; Design Thinking Mind-set; Principles of Design Thinking; Design Think Process & Stages                                                                              | CO1, CO2   | 3              |
| 3             | General Design Thinking Practices: Listening and Empathizing Techniques; Observation. Ideation Techniques - Brainstorming, innovation heuristics, behaviour models, Unpacking; Personas; Pattern Recognition and Connecting the Dots                                                    | CO1, CO2   | 3              |
| 4             | Visualization Techniques and Diagrams, Use of Diagrams and Maps in Design Thinking - Exercise:                                                                                                                                                                                          | CO1, CO2   | 6              |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |   |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
|   | Create an Empathy Map; Exercise; Create an Affinity Diagram; Exercise: Create a Mind Map; Exercise: Create a Journey Map                                                                                                                                                                                                                                                                                                                           |                     |   |
| 5 | Prototype and Test Techniques; Types of Prototypes; Forms of Testing in Design Thinking                                                                                                                                                                                                                                                                                                                                                            | CO1,<br>CO2         | 3 |
| 6 | Experiments<br>Designing and executing experiments for value creation:<br>Empathize with the Customers and/or Users -<br>Exercise: Engage the Customer /User; Define the Problem - Exercise: Define the Point of View; Ideate -<br>Exercise: Develop Potential Solutions & Feedback on the Solutions; Prototype Alternate Solutions -<br>Exercise: Create a Prototype of the Solution & Review the Prototype and Gain Feedback; Test the Solutions | CO3                 | 6 |
| 7 | Moving from ideas to impact<br>Bring the ideas presented in this course together and show how organizations can create impact from ideas                                                                                                                                                                                                                                                                                                           | CO1,<br>CO2         | 3 |
| 8 | Cautions and Pitfalls: Assumptions &, Pitfalls, Cautions in Design Thinking Workgroups – case Discussions                                                                                                                                                                                                                                                                                                                                          | CO1,<br>CO2,<br>CO3 | 3 |

**Text Books:**

1. Tim Brown, Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, Harper Collins Publishers Ltd.
2. Idris Mootee, Design Thinking for Strategic Innovation, John Wiley & Sons Inc

**Reference Books:**

1. Brenda Laurel, Design Research methods and perspectives MIT press
2. Terwiesch, C. & Ulrich, K.T., Innovation Tournaments: creating and identifying Exceptional Opportunities, Harvard Business Press.
3. Ulrich & Eppinger, Product Design and Development, McGraw Hill
4. Bjarki Hallgrimsson, Prototyping and model making for product design, Laurence King Publishing Ltd

## Elective Course 3: Legal and Tax Aspects of Business

**Course Credits: 2**

**Course Outcomes:**

- CO1: Acquire the basic knowledge of rights and duties under various legal Acts as a responsible citizen as well as for the business.
- CO2: Understand and explain the consequences of applicability of various laws on business situations.
- CO3: Develop critical thinking through the use of law cases as a consumer for protection, as an investor as well as for data security
- CO4: Apply the various provisions of Direct and Indirect taxes for computation of Taxable Income.
- CO5: Create Income Tax computation for personal as well as for the corporate

| Unit / Module | Content                                                                                                                                              | CO Mapping          | Hours Assigned |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------|
| 1             | <b>Business Laws:</b><br>The Indian Contract Act,<br>The Sale of Goods Act,                                                                          | CO1,<br>CO2         | 6              |
| 2             | <b>Introduction to Companies Act – Important Provisions</b>                                                                                          | CO1,<br>CO2,<br>CO3 | 6              |
| 3             | <b>Laws related to Consumers</b><br>The Consumer Protection Act<br>The Right to Information Act                                                      | CO1,<br>CO2,<br>CO3 | 3              |
| 4             | <b>Finance Laws</b> <ul style="list-style-type: none"> <li>● Securities Contract Regulation Act</li> <li>● The Negotiable Instruments Act</li> </ul> | CO1,<br>CO2,<br>CO3 | 6              |

|   |                                                                                                                                                                                                                                                     |                     |   |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
| 5 | <b>Indian Income Tax Act-</b> <ul style="list-style-type: none"> <li>• Computation of Total Income and Determination of Tax Liability –individuals</li> <li>• Computation of Total Income and Determination of Tax Liability –Corporates</li> </ul> | CO3<br>CO4<br>CO5   | 6 |
| 6 | <b>Indirect Taxes</b><br>GST<br>Custom Act                                                                                                                                                                                                          | CO2,<br>CO3,<br>CO4 | 3 |

**Text Books:**

1. Students Guide to Income Tax – Monica Singhania and Vinod Singhania
2. Students Guide to Indirect Taxes – Monica Singhania and Vinod Singhania
3. Legal Aspects of Business – Akhileshwar Pathak
4. Kucchal M. C., Business Law/Mercantile Law, Vikas Publishing House (P) Ltd.: Part II & Part IV

**Reference Books**

1. Aggarwal Rohini, Mercantile & Commercial Law, Taxmann
2. Kapoor Gulshan, Business Law. New Age International Pvt. Ltd Publishers
3. Maheshwari & Maheshwari, Principle of Mercantile Law, National Publishing Trust.

## Elective Course 4: Bhartiya Management

**Course Credits: 2**

**Course Outcomes:**

- CO1: Understand the management lessons from ancient Indian philosophy and texts
- CO2: Applying the contexts from Indian philosophy in management discussion
- CO3: Analysing the Indian philosophical approaches to Leadership, Sarvodaya, Satyagraha and Trusteeship
- CO4: Evaluating the impact of Indian philosophical approaches in management of self and life skills
- CO5: Formulate Bhartiya Management Thought for Management Decision making, Leadership development

| Unit / Module | Content                                                                                                                                                                                                                                                                                                     | CO Mapping    | Hours Assigned |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|
| 1             | Bharatiya Management - Tenets & Relevance:<br>A. Tenets of Bharatiya Management : The synthesis of important dimensions of Indian Culture , Indian Philosophy & Management<br>B. Role & Relevance of Self-Management & Social development; Swami Vivekananda's Four Yoga (Bhakti, Karma, Jnana & Raja Yoga) | CO1, CO2      | 5              |
| 2             | Human Values Enrichment & Dimensions of Good Governance:<br>A. Human Values Enrichment: Significance of the Theory of the Purusarthas ( Dharma , Artha, Kama & Moksha)<br>B. Good Governance approach: Bhagwad Gita's approach on Lokasamgraha & Mahatma Gandhi's emphasis on Sarvodaya.                    | CO1, CO2, CO3 | 5              |
| 3             | Management Lessons from Ancient Texts:<br>A. Management Insights from Mahabharata - Lessons of Strategic Management from Mahabharata & Bhagwat Gita<br>B. Management Lessons from Arthashastra<br>C. Management Lessons from Panchatantra                                                                   | CO2, CO3, CO4 | 5              |

|   |                                                                                                                                                                                                                                                                                                                                                            |          |   |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---|
| 4 | <p>Leadership Lessons from Indian Philosophy:</p> <p>A. Philosophy of Yoga : Patanjali's Yoga approach on Astanga Marga</p> <p>B. Saptanga Model of Leadership: Reflections on Kautilya's Arthashastra</p> <p>C: Samkhya philosophy, 'Guna' concept of Indian Vedic philosophy</p> <p>D: Rajarshi Leadership; Indian Philosophy and Servant Leadership</p> | CO4, CO5 | 5 |
| 5 | <p>A. Focus on life Skills Management &amp; Significance of Indian scriptures</p> <p>B. Indian Philosophy &amp; context of Social Responsibility &amp; Sustainable Development.</p> <p>C. Trusteeship concept of Mahatma Gandhi</p> <p>D. Practical Application of Indian Philosophical Principles in Business - Discussion on Case Studies</p>            | CO4, CO5 | 5 |

**Text Books:**

1. Management by Values, by Chakraborty S K
2. Values of Ethics for Organization: Theory and Practice, by Chakraborty S. K.
3. Rajarshi Leadership, by S.K. Chakraborty & Debangshu Chakraborty

**Reference Books**

1. Leadership & Motivation: Cultural Comparisons, by Debangshu Chakraborty, S. K. Chakraborty
2. Spirituality in Management: Means or End?, by S.K. Chakraborty, Debangshu Chakraborty
3. Leadership and Power: Ethical Explorations, by S. K.Chakraborty, Pradip Bhattacharya
4. The Arthashastra - Kautilya (translation by L N Rangarajan), Penguin Books
5. Indian Models of Economy, Business and Management Paperback, by Kanagasabapathi P, Third Edition, Prentice Hall India Learning Private Limited
6. Economic Sutra: Ancient Indian Antecedents to Economic Thought, by Satish Y Deodhar, Penguin Portfolio

**Other Suggested Reading:**

1. <https://ebooks.inflibnet.ac.in/mgmt05/chapter/indian-thought-and-management/>
2. <https://ebooks.inflibnet.ac.in/hrmp01/chapter/246/>
3. <https://egyankosh.ac.in/bitstream/123456789/92306/1/Unit-9.pdf>

## **SEMESTER - II**

## Mandatory Course 1: Business Research Methods

**Course Credits: 4**

**Course Outcomes:**

- CO1: Identify research problem and develop research hypothesis on the basis of review of literature and research design (Understand and apply L2, L3)
- CO2: Construct the research process which includes research flow charts and organize the various attitude & measurement scales, Questionnaire design, and various sampling techniques (Apply, L3)
- CO3: Understand the methods of data collection with application in different research designs and demonstrate knowledge for proper sampling design and data processing methods (Understand, L2, Apply L3)
- CO4: Apply modern statistical tools as univariate & bivariate analysis, Chi-square, and ANOVA to analyze and to evaluate the data applying critical thinking abilities for given research problems/questions (Apply, Analyze and Evaluate, L3, L4, L5)
- CO5: Prepare and Analyze/Evaluate various research reports maintaining ethical practices to solve business problems. (Analyze L4, Evaluate L5, Create, L6)

| Unit / Module | Content                                                                                                                                                                                                                                                                                                                                                           | CO Mapping | Hours Assigned |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|
| 1             | <b>Introduction to Research:</b> What is research, objectives of research, types of research, difference between basic and applied research, research approaches, criteria for good research, research methods vs research methodology, Social research, social research approaches. Research applications in social and business sciences, and research process. | CO1        | 3              |
| 2             | <b>Research Problem, Literature review and Formulation of Research Hypotheses:</b> what is research problem, problem selection, necessity of defining the problem, Management Decision Problem vs Management Research Problem; Problem                                                                                                                            | CO1        | 4              |

|   |                                                                                                                                                                                                                                                                                                                                                                              |             |                                                                                 |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------|
|   | identification process; Components of the research problem; Objectives of literature review, Use of literature review, search for related literature, reading the literature, importance of literature review, sources of literature, literature review gaps, Types of Research hypothesis, and important terms. Writing research proposal- Contents of a research proposal. |             |                                                                                 |
| 3 | <b>Research Design:</b> Nature and Classification of Research Designs, need for research design, features of a good design, research design framework, Induction and deduction, Dependent, independent variables. Exploratory research design, descriptive, diagnostic research design, Experimental research design.                                                        | CO1         | 4                                                                               |
| 4 | <b>Sampling:</b> Sample design, Sampling design process, sampling and non-sampling errors, types of sampling (probability and non-probability), sample vs census, sample size decision. Determination of Sample size- Sample size for estimating population mean, Determination of sample size for estimating the population proportion                                      | CO2,<br>CO3 | 7<br><br>[3 hours session + 4 hours field work for the selected research topic] |
| 5 | <b>Attitude Measurement and Scaling:</b> quantitative and qualitative data, classification of measurement scale, goodness of measurement scale, types of scale, scale classification base, scaling techniques (comparative vs non comparative scaling techniques), and criteria for good measurement.                                                                        | CO3         | 4                                                                               |
| 6 | <b>Data collection and Data processing:</b> Data collection: Primary Data; Observation methods,                                                                                                                                                                                                                                                                              | CO2,<br>CO3 | 7                                                                               |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |   |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---|
|   | <p>survey methods, questionnaire, process of questionnaire, Types of Questionnaires, Process of Questionnaire Designing; Advantages and Disadvantages of Questionnaire Method. Pilot survey, sample questionnaire, difference between questionnaire and schedule. Interviews: types of interviews. Secondary data; classification of data( internal and external data), research authentication( Methodology check and accuracy check)</p> <p>Data processing: Editing Field Editing (centralized in house editing) Coding- Coding Closed ended structured Questions, Coding open ended structured Questions; Classification and Tabulation of data. Data cleaning, data adjusting.</p> <p><b>[Use of SPSS/EXCEL/JASP in Activity Based Learning is encouraged]</b></p> |     |   |
| 7 | <p><b>Univariate and Bivariate Analysis of Data:</b> Descriptive vs inferential analysis, descriptive analysis of univariate data (Missing data, analysis of multiple responses, grouping large data), descriptive analysis of bivariate data (cross-tabulation), calculating rank order, data transformation. Microsoft EXCEL: Working in the spreadsheet, creating a worksheet</p> <p><b>Reliability test- Cronbach alpha</b></p> <p><b>[Use of SPSS/EXCEL/JASP in Activity Based Learning is encouraged]</b></p>                                                                                                                                                                                                                                                     | CO4 | 7 |
| 8 | <p><b>Testing of Hypothesis:</b> Concepts in Testing of Hypothesis – Steps in testing of hypothesis, Test Statistic for testing hypothesis about population mean; Tests concerning Means- the case of single</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CO4 | 4 |

|    |                                                                                                                                                                                                                                                                                                                             |     |   |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---|
|    | <p>population; Tests for Difference between two population means; Use of SPSS in testing Hypothesis. Parametric and non-parametric test Z-test, t-test, f-test, One sample test, Two independent sample test, two related samples test.</p> <p><b>[Use of SPSS/EXCEL/JASP in Activity Based Learning is encouraged]</b></p> |     |   |
| 9  | <p><b>Analysis of variance:</b> The ANOVA techniques, basic principles, one way ANOVA, Two way ANOVA, ANOCOVA, MANCOVA <b>[Use of SPSS/EXCEL/JASP in Activity Based Learning is encouraged]</b></p>                                                                                                                         | CO4 | 3 |
| 10 | <p><b>Chi-Square Tests:</b> Chi square test for the Goodness of Fit; Chi square test for the independence of variables; Chi square test for the equality of more than two population proportions <b>[Use of SPSS/EXCEL/JASP in Activity Based Learning is encouraged]</b></p>                                               | CO4 | 2 |
| 11 | <p><b>Data analysis:</b> Statistical analysis, multivariate analysis, correlation analysis, regression analysis, Principal component analysis. Cluster Analysis <b>[Use of SPSS/EXCEL/JASP in Activity Based Learning is encouraged]</b></p>                                                                                | CO4 | 6 |
| 12 | <p><b>Research Report Writing and Ethics in research:</b> Need for effective documentation, types of research report, report preparation and presentation, report structure, general tips for writing research report, presentation of data, bibliography and references.</p>                                               | CO5 | 6 |

|     |                                                                                                                                                                                                                                                                                                                                                                                                                  |          |   |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---|
|     | <p>Guidelines for presenting tabular data, Guidelines for visual Representations.</p> <p>Meaning of Research Ethics; Clients Ethical code; Researchers Ethical code; Ethical Codes related to respondents; Responsibility of ethics in research</p> <p>Plagiarism check and understanding consequences of unethical practices [Suggested Activity <b>Research paper writing; Use of Plagiarism software</b>]</p> |          |   |
| 13. | Research Theme Based Research Papers / Presentation                                                                                                                                                                                                                                                                                                                                                              | CO5, CO6 | 6 |

### Text Books:

1. Business Research Methods – Cooper Schindler
2. Research Methodology Methods & Techniques – C.R. Kothari
3. Statistics for Management – Richard L Levin
4. Research Methods for Business: A Skill Building Approach - Uma Sekaran, Roger Bougie

### Reference Books:

1. D. K. Bhattacharya: Research Methodology (Excel)
2. P. C. Tripathy: A text book of Research Methodology in Social Science (Sultan Chand)
3. Saunder: Research Methods for business students (Pearson)
4. Marketing Research –Hair, Bush, Ortinau (2nd edition Tata McGraw Hill)
5. Business Research Methods – Alan Bryman& Emma Bell – Oxford Publications
6. Business Research Methods – Naval Bajpai – Pearson Publications
7. Business Research Methods- S N Murthy and U Bhojanna, Excel books
8. Research Methodology Methods & Techniques – C.R.Kothari and Gaurav Garg, New age international limited
9. Research Methodology- S.S.Vinod Chandra, S.Anand Hareendran,-Pearson
10. Research Methodology- S.S.Vinod Chandra, S.Anand Hareendran,-Pearson
11. Research Methodology-Dr.Prasant Sarangi-Taxmann Publications pvt.ltd.
12. Business Research Methods- Cooper Schindler, JK sharma-McGraw Hill

## Mandatory Course 2: Corporate Finance

**Course Credits: 4**

**Course Outcomes:**

- CO1: Recall basic terminologies in relation to financial system, sources of finance, Leverages, Ratio, capital structure, investment decisions, dividends, financial planning, inventory and working capital management.
- CO2: Explain the concepts & formulas pertaining to corporate finance, financial system, functions of financial management and financial practices to understand its relevance in current scenario.
- CO3: Make use of different models, formulas and frameworks related to ratios, Leverage Analysis, Capital structure, Capital budgeting, Working Capital and Dividend models.
- CO4: Examine and analyse various corporate financial statements of companies based on ratios, capital structure, capital budgeting, working capital management and dividend policies of companies and study its implications on the profits and valuation of firms
- CO5: Evaluate financial results to take managerial decisions related to financial planning, capital investments, dividend distribution, choice of capital structure and working capital decisions.
- CO6: Create an analytical report on capital structure, working capital management and dividend policy of a public listed company.

| Unit / Module | Content                                                                                                                                                                                                                                                                                                                                                                            | CO Mapping  | Hours Assigned |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------|
| 1             | <p><b>Corporate Finance</b></p> <p>Objectives of Corporate Finance</p> <p>Role and responsibilities of the financial manager, corporate finance decisions, Functions of corporate finance, Sources of Finance - Short Term and Long Term</p> <p>Goals of firm-profit maximisation v/s Shareholders wealth concepts of Economic value addition .market value addition (EVA/MVA)</p> | CO1,<br>CO2 | 4              |

|          |                                                                                                                                                                                                                                       |                    |   |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---|
| <b>2</b> | <b>Indian Financial system</b> - Financial Markets:<br>Capital Market (Equity and Debt market), Money market Financial Intermediaries Financial Assets, Regulatory system                                                             | CO1, CO2           | 4 |
| <b>3</b> | <b>Working Capital Management</b> and Short-Term Planning: Components of working capital, working capital cycle, Inventory Management, Receivables Management, Cash Management                                                        | CO3                | 6 |
| <b>4</b> | <b>Financial Planning and Forecasting</b> , Meaning and importance of financial planning, Preparation of Pro-forma Income Statement and Balance Sheet, Computation of external financing requirements                                 | CO3, CO4           | 4 |
| <b>5</b> | <b>Banking and Financial Institutions</b> types: Commercial banks, Investment Banks<br>Understanding banking Finances: Sources, Deposits, Loans, Advances, NPA, gross net, Basic overview of BASEL Norms, use of AI in Banking sector | CO2, CO3           | 4 |
| <b>6</b> | <b>Leverage Analysis:</b> Operating, financial and total leverage, Business risk, Operating and financial Risk and other types of risks                                                                                               | CO2, CO3, CO4      | 4 |
| <b>7</b> | <b>Capital Structure</b> , Cost of Capital, WACC, Determination of optimal capital structure, Decision making based on parameters PE ,ROI, EBIT and EPS/MPS approach                                                                  | CO2, CO3, CO4,CO5  | 6 |
| <b>8</b> | <b>Valuation Concepts:</b> Future values and compound interest; present values; level cash flows: perpetuities and annuities<br>Financial needs and suggestions for various investment options                                        | CO2, CO3, CO4, CO5 | 4 |

|           |                                                                                                                                                                                                                                                                                                                    |                 |         |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------|
| <b>9</b>  | <b>Investment in Capital Assets:</b> Capital budgeting and estimating cash flows; capital budgeting techniques; multiple internal rates of return<br>Decision making about best alternative project for investment use various evaluation techniques like<br>NPV, IRR, PI,ARR, Modified IRR<br>payback period etc. | CO3,<br>CO4,CO5 | 8 hours |
| <b>10</b> | <b>Dividend policy;</b> Factors affecting dividend decision; theories of relevance and irrelevance of dividend policy Dividend decision models; Walter model; Gordon model; Walter model MM approach                                                                                                               | CO3,<br>CO4,CO5 | 6       |
| <b>11</b> | <b>Ratio Analysis :</b> Financial performance analysis using Ratios of few companies and banks                                                                                                                                                                                                                     | CO3,<br>CO4,CO5 | 4       |
| <b>12</b> | Presentations and Assignments                                                                                                                                                                                                                                                                                      | CO6             | 03      |
| <b>13</b> | Presentation and Assignment                                                                                                                                                                                                                                                                                        | CO6             | 03      |

#### **Text Books:**

1. Financial Management – M.Y. Khan and P.K. Jain
2. Financial Management – Prasanna Chandra
3. Financial Management – I. M. Pandey

#### **Reference Books:**

1. Principles of Corporate Finance – Myers and Brealey
2. Fundamentals of Financial Management – James Van Horne
3. Fundamentals of Financial Management by Eugene F. Brigham, Joel F. Houston (2011), South Western (Cengage Learning)

## Mandatory Course 3: Human Resource Management

**Course Credits: 4**

**Course Outcomes:**

**CO1:** Understanding the importance of the most crucial asset of any business, i.e. Human Resource and to show how different modern concepts, techniques and practices in the management of human resources are important in the organizational set-up. (Bloom's Taxonomy Level 1 &2)

**CO2:** Analysing different functions of Human Resource Management which are important for the organizational effectiveness and to develop an awareness among the students about the influence of HRM on the business and its' strategies. (Bloom's Taxonomy Level 2, 3, 5 & 6)

**CO3:** Using the latest theoretical concepts and techniques to examine the problems with respect to the human resource in an organizational set-up and solve such problems to build and improve organizational effectiveness. (Bloom's Taxonomy Level 3, 4 & 6)

**CO4:** Analysing the relevance and application of ancient Indian Scriptures to HRM (Bloom's Taxonomy Level 4)

| Unit / Module | Content                                                                                                                             | CO Mapping | Hours Assigned |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|
| 1.            | Introduction to HRM: Definition, Importance, Challenges, Models of HRM, Structure and Functions of HR department.                   | CO1, CO2   | 4              |
| 2.            | HR Policies:<br>Human Resource Planning: Importance and the process of Human Resource Planning, Succession Planning & Job Analysis. | CO2        | 4              |
| 3.            | Talent Acquisition: Definition, Characteristics, Talent Acquisition process and methods.                                            | CO2, CO3   | 6              |
| 4.            | Learning and Development: Definition, Importance, Methods of Learning and Development & Evaluation.                                 | CO2, CO3   | 7              |
| 5.            | Performance Management System: Definition, Methods of Performance Management System,                                                | CO2, CO3   | 6              |

|     |                                                                                                                                                                                                                                                                                            |                     |   |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
|     | Difference between Performance Appraisal and Performance Management, Errors in Performance Appraisal, Competency Based PMS.                                                                                                                                                                |                     |   |
| 6.  | Compensation and Benefits: Definition, Direct & Indirect Compensation and Types of benefits.                                                                                                                                                                                               | CO2,<br>CO3         | 6 |
| 7.  | HR Accounting and HR Auditing – HR Capital Management                                                                                                                                                                                                                                      | CO3                 | 3 |
| 8.  | Human Resource Information Systems                                                                                                                                                                                                                                                         | CO3                 | 3 |
| 9.  | Strategic HRM, HR Balance Scorecard & Workforce Diversity                                                                                                                                                                                                                                  | CO3                 | 4 |
| 10. | Trends in HRM:<br>Definition, Importance and Applications of HR Analytics.<br>Definition, Importance, and benefits of AI in HRM.<br>Green HRM and Sustainability Definition, Introduction, Benefits of Green HRM and Sustainability practices, Flexible Work Strategies, International HRM | CO3                 | 8 |
| 11. | Industrial Relations: Definition, Importance and Benefits of IR                                                                                                                                                                                                                            | CO1,<br>CO2,<br>CO3 | 3 |
| 12. | Introduction to Labour Laws and Statutory Employment Laws.                                                                                                                                                                                                                                 | CO1,<br>CO2,<br>CO3 | 3 |
| 13. | Ancient Indian Scriptures and HRM                                                                                                                                                                                                                                                          | CO4                 | 3 |

**Text Books:**

1. Human Resource Management Garry Dessler & Biju Varkkey: Pearson Publication
2. Human Resource Management: K. Aswathappa; Mac Graw Hill Publication
3. Human Resource Management P. Subba Rao

**Reference Books:**

1. Human Resource Management by V S P Rao
2. Personnel Management C.B. Mammoria
3. AI in HRM: Concepts and Applications by Dr. S. Ganesh and Dr. M. Anandhavalli
4. Green HRM: A Sustainable Approach to People Management by K. Aswathappa and M.S. Premavathy.
5. Analytics for HR: A Practical Approach by Somnath Baishya and Sourav Sengupta
6. Human Resource Management – A South Asian Perspective by Snell, Bohlander & Vora Fourth Edition 2011
7. Human Resource Management by P. Jyothi, D.N. Venkatesh, 2011
8. Ancient Indian Scriptures and Human Resource Management by Sneh Bhardwaj, Regal Publications, 2020

# Mandatory Course 4: Application of Marketing: Theory and Practice

**Course Credits: 2**

**Course Outcomes:**

- CO1: Understand the various types of positioning, as well as the frameworks and models of Consumer Behaviour.
- CO2: Apply the concepts of consumer psychology and behaviour to business situations
- CO3: Analyze marketing decisions based on the frameworks and consistency among various elements of the marketing mix
- CO4: Evaluate marketing decisions and identify the optimal solution in a given context
- CO5: Formulate a situations audit, and draw a Marketing plan covering all concepts and theories learnt

| Unit / Module | Content                                                                                                                                                                                                                                                                                                                                                                                | CO Mapping    | Hours Assigned |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|
| 1             | <p><b>Positioning:</b> Reverse Positioning, Breakaway Positioning and Stealth positioning;</p> <p><b>Branding:</b> Concept, Definition, Commodity Vs Brand, Product Vs Brand, Brand Culture and Brand Extensions.</p> <p><b>Brand Value</b> – Reputation, Relationship, Experiential, Symbolic.</p> <p><b>Brand Evaluation</b> - Behaviour, attitude, relationships, Brand equity.</p> | CO1, CO2, CO3 | 3              |
| 2             | <p><b>Customer Satisfaction and Loyalty:</b> Success/Failure of Loyalty Programs, Customer Lifetime Value.</p>                                                                                                                                                                                                                                                                         | CO2           | 1.5            |
| 3             | <p><b>Consumer Behaviour:</b></p> <p>The framework of Consumer Behaviour – Cognitive vs. Emotional, High vs. Low Involvement, Optimising vs. Satisficing, Compensatory vs. Non-Compensatory Decisions.</p>                                                                                                                                                                             | CO2, CO3      | 3              |

|    |                                                                                                                                                                                                                                                                           |               |     |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----|
| 4  | <b>Consumer Decision-Making Process:</b> Pre-Purchase – Purchase – Post Purchase; Return Policy, Warranty, Impact of Social Media; Psychology in Consumer Behaviour – Consumer Benefits Ladder, Prospect theory, Thales' Endowment effect.                                | CO2, CO3, CO4 | 1.5 |
| 5  | Ehrenberg's Law of Buying Frequency, Double Jeopardy Effect, Consumer Purchase as a Journey, Consumer and Product Metrics.                                                                                                                                                | CO2, CO3, CO4 | 1.5 |
| 6  | <b>Pricing Policy:</b> Types of Pricing, Willingness to Pay; Steps in Pricing, Price Elasticity of Demand, List and Transaction Prices;                                                                                                                                   | CO2, CO3      | 1.5 |
| 7  | <b>Price band</b> – Reason for the Band, Category Expandability and Promotion, Constructing a Price Band through Price Differentials and Threshold Price, Pricing Strategies and Tactics, Promotion and Price bands                                                       | CO2, CO3, CO4 | 3   |
| 8  | <b>Business to Business Marketing:</b> Definition, Types of Products, Differences from Consumer Marketing; Nested Hierarchy Segmentation, Role of Decision-Making Units in Buying Decisions.                                                                              | CO2, CO3      | 3   |
| 9  | <b>B2B Purchases:</b> Influence of Types of Purchases, Stages in the Buying Process; Types of Benefits – Combination of Economic, Tangible, Non-Economic and Intangible Benefits.                                                                                         | CO2, CO3      | 1.5 |
| 10 | <b>Promotion and Marketing Communication:</b><br><br>Role of Promotion in Pricing, Initiating Price Changes and Response to Competitor Changes; Role of Incentives, Setting Communication Objectives and Drafting Communication Messages; Deciding on Communication Media | CO2, CO3      | 1.5 |
| 11 | <b>Integrated Marketing:</b> Advertising in Print, Online, Radio, Social Media Platforms etc.; Managing Events and Public Relations; role of AI in marketing communications                                                                                               | CO3, CO4      | 1.5 |

|    |                                                                                                                                        |                  |     |
|----|----------------------------------------------------------------------------------------------------------------------------------------|------------------|-----|
| 12 | <b>Personal Selling:</b> Designing the Sales Force, Managing the Sales Force, Evaluating the Sales Force; Direct Marketing             | CO2 ,<br>CO3     | 3   |
| 13 | <b>Distribution Decisions</b> – Logistics & Channel Decisions, Designing and Managing Distribution Channels (Retail, E-commerce, etc.) | CO2, CO3         | 3   |
| 14 | Field Based Live Projects and Presentations by capturing insights from Markets, and Cases                                              | CO3,<br>CO4, CO5 | 1.5 |

### **Text Books:**

1. Marketing Management, 15/16e by Kotler, Keller, Chernev, Sheth, Shainesh, Pearson Education
2. Marketing: Theory, Evidence, Practice: Byron Sharp, Oxford University Press.
3. Industrial Marketing, Robert R. Reeder, Briety & Betty H. Reeder, Prentice Hall India

### **Reference Books**

1. Why we Buy? The Science of Shopping – Paco Underhill
2. How Brands Become Icons – The Principles of Cultural Branding – Douglas Holt
3. How Customers Think – Essential Insights into the minds of the Market – Gerald Zaltman
4. Marketing Metaphoria: What Deep Metaphors Reveal About the Minds of Consumers – Gerald Zaltman
5. Marketing as Strategy: Understanding CEO's agenda for Driving growth and Innovation – Nirmalya Kumar

## Mandatory Course 5: Decision Models in Management

**Course Credits: 2**

**Course Outcomes:**

- CO1: RELATE basic concepts of operations research
- CO2: TRANSLATE the concepts of operations research and connect with business scenarios
- CO3: APPLY optimization techniques for decision making in business
- CO4: EVALUATE various scenarios of management and business using decision models
- CO5: PRIORITIZE solutions to the business problems related to operations research
- CO6: FORMULATE innovative solutions related to decision models

| Unit / Module | Content                                                                                                                                                                                                                                                                       | CO Mapping  | Hours Assigned |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------|
| 1             | Introduction to Operations Research<br>Definition of OR, Features of OR, OR-Quantitative Approach to Decision-making, Methodology of Operations Research, Application of Operations Research                                                                                  | CO1,<br>CO2 | 3              |
| 2             | Linear Programming: Formulation and Graphical Solutions<br>Structure and assumptions of LP model, Application areas of LP, Guidelines for LP model formulation<br>Two variable LP model, Graphical LP model (maximization and minimization), Duality and Sensitivity Analysis | CO3,<br>CO4 | 3              |
| 3             | Assignment Problem (AP1):<br>Mathematical Model of Assignment Problem, Enumeration Method, Transportation Method                                                                                                                                                              | CO3,<br>CO4 | 3              |
| 4             | Assignment Problem (AP2):<br>Simplex Method and Interpretation (Maximization and Minimization (two phase and Big M), Hungarian Method (Steps and numerical)                                                                                                                   | CO3         | 3              |

|    |                                                                                                                                                                                                                                                                                                                                                         |                     |   |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
| 5  | Transportation Problem (TP1):<br>Methods for finding initial solution: Vogel's Approximation Method (VAM), Northwest Corner Method, Least cost methods (LCM), Application areas of TP                                                                                                                                                                   | CO3,<br>CO4         | 3 |
| 6  | Transportation problem (TP2): Optimal Solution:<br>The Stepping Stone Method, Modified Distribution (MODI) Method and special cases                                                                                                                                                                                                                     | CO3,<br>CO4         | 3 |
| 7  | Game Theory<br>Introduction to Game Theory, 2 person zero sum game, Pure Strategies (Games with Saddle points), Limitation and Application of Game Theory, Rule of dominance                                                                                                                                                                            | CO2,<br>CO3,<br>CO4 | 3 |
| 8  | Decision Theory<br>Introduction, Steps in decision making process, types of decision environment (Under certainty, under risk, under uncertainty) , Decision making under uncertainty (optimism (maximax or minimin), pessimism (maximin or minimax), equal probabilities (laplace), coefficient of optimism (hurwicz), regret (savage)), Decision tree | CO4,<br>CO5         | 3 |
| 9  | Queuing Theory<br>Introduction, structure of queuing system (arrival process, service system, speed of service, queue structure (FIFO, LIFO, Service in Random order, Priority Service), Queuing models (deterministic and probabilistic model theory)                                                                                                  | CO1,<br>CO2         | 3 |
| 10 | Sequencing Problem<br>Sequencing Techniques using Johnsons' Rule (processing n jobs through 2 machine, 3 machines and m machines)                                                                                                                                                                                                                       | CO4,<br>CO5         | 3 |

**Text Books:**

1. Operation Research – An introduction- Hamdy Taha, Prentice Hall of India
2. Quantitative Techniques in Management –N. D. Vohra, Tata McGraw Hill
3. Operations Research Theory and Applications- J. K. Sharma, Macmillan Business books

**Reference Books:**

1. Principles of Operations Research –Wagner, Prentice Hall of India
2. Operations Research- Hillier, Liberman, Tata McGraw Hill
3. An introduction to Management Science – Anderson Sweeney Williams, Cengage Learning

## Mandatory Course 6: Information Systems and Digital Transformation

**Course Credits: 2**

**Course Outcomes:**

Course Outcome

- CO1: Acquire the basic knowledge on information systems, Organisations, Management and its related components
- CO2: Understanding the significance of information systems, Global Information Systems Infrastructure and its role to Business.
- CO2: Analyzing the business systems and need of information, emerging trends within functional information systems for marketing, financial, human resource, operations and for various verticals of the industry and its integration to business.
- CO4: Develop the information system strategies to solve the business problems for competitive advantage and derive value to the business.
- CO5: Create & Design Information systems models for successful digital transformation.

| Unit / Module | Content                                                                                                                                                                                                                                                                                                   | CO Mapping          | Hours Assigned |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------|
| 1             | <p><b>Information Systems, Management, Organization:</b></p> <p>Overview of information systems, management and organizations their components.</p> <p>Information &amp; Types of Information systems and its value dimension</p> <p>Role of IS in supporting business processes and decision-making.</p> | CO1,<br>CO2,<br>CO3 | 3              |
| 2             | <p><b>Building MIS across the Functions, Sectors &amp; Enterprise Resource Planning:</b></p> <p>Marketing Information Systems,</p> <p>Manufacturing Information Systems,</p>                                                                                                                              | CO2,<br>CO4,<br>CO5 | 6              |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |   |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---|
|   | <p>Human Resource Information Systems,<br/>Financial Information Systems,<br/>Supply chain Management Information System,<br/>Customer Relation Management Information System</p> <p>Information systems required across the functions, sectors and their Modules, MIS reporting and integrations.</p> <p>Enterprise Resource Planning &amp; Integration of enterprise systems</p> <p>Case studies on successful integration of Information systems to Business</p> |                             |   |
| 3 | <p><b>Digital Firms, Platforms and Business Models &amp; Digital Transformation:</b></p> <p>Insights on Digital Firm, Digital Platform &amp; Business models, Drivers, their integration and impact</p> <p>Strategies for developing and managing digital business</p> <p>Building and Managing Global Information Systems &amp; Global Business</p> <p>Case studies on successful digital Transformations</p>                                                      | CO2,<br>CO4,<br>CO5,<br>CO6 | 9 |
| 4 | <p><b>Developing &amp; Managing Information System Projects:</b></p> <p>Information System Development &amp; Building:<br/>Information System development Process and Models</p> <p>Managing software projects within budget, scope, and timeline constraints.</p> <p>Cost Benefit Analysis.</p> <p>Case studies on successful implementation of Information Systems Projects</p>                                                                                   | CO4,<br>CO5,<br>CO6         | 6 |
| 5 | <p><b>Information Systems Strategy , Planning &amp; Implementations:</b></p>                                                                                                                                                                                                                                                                                                                                                                                        | CO4,<br>CO5,<br>CO6         | 3 |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |   |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---|
|   | <p>Strategic alignment of IS with business goals and objectives.</p> <p>Virtual organization &amp; strategies</p> <p>Developing IS strategies for competitive advantage.</p> <p>Case studies on successful IS strategies and implementations.</p>                                                                                                                                                                                                         |                     |   |
| 6 | <p><b>Ethical &amp; Social, Privacy issues in Information Systems</b></p> <p>Ethical and social considerations in the use of information systems.</p> <p>Social &amp; Privacy issues and regulations affecting digital business.</p> <p>Sensitize students to the need for information security, Concepts such as confidentiality, Integrity and Availability.</p> <p>Case Studies on Social and Digital Ethics, Privacy &amp; Security Issues of IS.</p> | CO2,<br>CO5,<br>CO6 | 3 |

**Text Books:**

1. Management Information Systems for the Information Age (9e) by Maeve Cummings. McGraw-Hill/Irwin (2012).
2. Management Information System- Managing the Digital Firm by Laudon and Laudon.
3. Principal of Information System by Ralph M. Stair and Georg Reynold.
4. Digital Business by Dr Chandrahauns Chavan , KBI International , Mumbai

**Reference Books:**

1. A Management Information Systems by O'Brien, James. Tata McGraw Hill, New Delhi,
2. Introduction to Financial Technologies FINTECH, By Dr Chandrahauns Chavan & Atul Patankar , Pearson Publications
3. Elements of Systems Analysis and Design by Marvin Gore. Galgota Publications.
4. MIS a Conceptual Framework by Davis and Olson
5. Analysis and Design of Information Systems by James Senn.
6. Information Systems Today by Jessup and Valacich. Prentice Hall India.
7. Management Information Systems, Jaiswal and Mittal. Oxford University Press.

## **Mandatory Course 7: OJT / Field Project**

**Course Credits: 4**

**Course Outcomes:**

- CO1: Apply concepts learned in classrooms to real-world work environments, enhancing their understanding and skills.
- CO2: show insights into the challenges, opportunities, and culture of different workplaces, preparing them for future employment.
- CO3: Use and appreciate the use of emerging technologies and their applications, enhancing their technological literacy and adaptability.
- CO4: Display problem-solving abilities in making informed decisions in complex scenarios through practical situations.
- CO5: Build ability to work in teams and collaborate to achieve common goals in diverse work environments through collaborative projects.

On-the-job training course / Field Projects offer students the chance to develop essential skills that employers highly value. These include communication skills, problem-solving abilities, teamwork, and adaptability. By working in a professional environment, students gain valuable experience that enhances their employability. They also learn to navigate professional environments, manage responsibilities, and overcome challenges. This experiential learning fosters independence, confidence, and self-awareness, which are essential for success in both career and life. Furthermore, students get a first-hand look at various industries and career paths. This exposure allows them to explore different fields, understand industry trends, and identify areas of interest. OJT / Field Projects provide the students opportunities to practice skills and apply their knowledge under the most realistic conditions possible, which are the actual job conditions. The OJT work conducted in direct connect with industry should be minimum of 60-80 hours during the Semester.

- The OJT Guidelines applicable of University of Mumbai will apply for OJT component.
- The field project will be completed and assessment will be undertaken as per the Project Assessment guidelines in the syllabus.

**An OJT course in general sets out to achieve objectives such as:**

1. Align classroom learnings with workplace outcomes.

2. Provide students with real-world work experience and align their expectations with job demands.
3. Combine physical and digital learning modes in industry settings, blended with mentorship.
4. Foster research skills, including knowledge discovery, analytical tools, methodologies, and ethical conduct.
5. Introduce students to emerging technologies and their applications in various fields.
6. Strengthen students' entrepreneurial skills and encourage job creation.
7. Facilitate problem-solving, decision-making, teamwork, and collaboration.
8. Foster social awareness and philanthropic values among students.
9. Encourage collaboration between Higher Education Institutes (HEIs), industry, and academia for internships and research opportunities.
10. Instill professional principles, ethics, values, and integrity to meet employment market demands and social needs.

# Elective Course 1: Entrepreneurship Management

**Course Credits: 2**

**Course Outcomes:**

- CO1: REMEMBER Concepts of Entrepreneur, Entrepreneurship, and Enterprise
- CO2: UNDERSTAND the frameworks and key concepts in entrepreneurship management.
- CO3: APPLY the model of the entrepreneurial process for new venture development
- CO4: ANALYSE the entrepreneurial environment, legal framework, and expansion strategies.
- CO5: EVALUATE various types of entrepreneurship (social, opportunity, techno, intra & women) and suitable routes to start a business
- CO6: CREATE a business plan/model based on the innovative ideas and concepts of entrepreneurship.

| Unit / Module | Content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CO Mapping    | Hours Assigned |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|
| 1             | <b>Entrepreneurial Perspective:</b><br>Definition and Evolution of the Concept of Entrepreneurship; Definition and Concept of Entrepreneur, Concept of Enterprise; Entrepreneurship - Functions, Needs and Importance; Entrepreneurial Traits, Characteristics and Skills; Role of entrepreneurship in economic Development; Introduction to various forms of business organization (sole proprietorship, partnership, corporations, Limited Liability Company); Introduction of Start-up and types of Start-ups, Start-up Ecosystem in India | CO1, CO2      | 3              |
| 2             | <b>Types of Entrepreneurs and Entrepreneurship:</b><br>Innovators, Creators, Market makers, Expanders and scalers, Intrapreneurship, Social Entrepreneurship, Woman Entrepreneurship, Technopreneurship, Rural Entrepreneurship; Entrepreneurs, Managers and Intrapreneurs: Similarities and Differences.                                                                                                                                                                                                                                     | CO1, CO2, CO3 | 3              |

|   |                                                                                                                                                                                                                                                                                                                                                                      |                             |   |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---|
|   | <p><b>Entrepreneurial Pathways: Understanding New Venture Life-Cycle</b> - Pre-Seed, Early Stage, Launch; <b>Business Life Cycle:</b> Start-up, Launch, Growth, Maturity, Harvest, Re-Birth, Exit;</p> <p><b>Frameworks to Inform Your Entrepreneurial Path</b> - Introduction to Business Model Canvas, Lean Model Canvas, Design Thinking Process</p>              |                             |   |
| 3 | <p><b>Identifying Entrepreneurial Opportunity:</b><br/> Analysis of Business Opportunities in both the Domestic and Global Economies, including the Analysis of PEST Factors; Entrepreneurial Opportunity; Joseph Schumpeter's Theories &amp; Key Drivers of Opportunity; Researching Potential Business Opportunities,</p>                                          | CO1,<br>CO2,<br>CO3         | 3 |
| 4 | <p><b>Drivers of Entrepreneurship:</b><br/> Creativity, Innovation and Invention; Tools for Creativity and Innovation</p> <p><b>Idea Generation &amp; Evaluation:</b><br/> Sources of business ideas, Find &amp; Assess ideas, Data for ideation, Identify the problem, Problem – Solution Fit, Ideation to Prototyping Process.</p>                                 | CO2,<br>CO3,<br>CO4         | 3 |
| 5 | <p><b>Feasibility Analysis</b><br/> Product/Service Feasibility Analysis; Industry &amp; <b>Competitive Analysis:</b> SWOT, Three Circles (Company, Competitors, Customers); Financial Feasibility Analysis.</p>                                                                                                                                                     | CO3,<br>CO4                 | 3 |
| 6 | <p><b>The Enterprise Launching:</b><br/> Entrepreneurial Process;<br/> Product/ Project Identification;</p> <p><b>Developing a Business Plan:</b><br/> Meaning and Purpose of a business plan,<br/> Contents of a business plan,<br/> Guidelines for writing a Business Plan,<br/> Prerequisites from the perspective of an investor,<br/> (Creating Pitch Deck)</p> | CO3,<br>CO4,<br>CO5,<br>CO6 | 3 |

|   |                                                                                                                                                                                                                                                                                                                               |                             |   |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---|
| 7 | <b>Product/ Market Fit:</b> Concept, Importance for start-ups. Minimum Viable Product,<br><b>Business Financing:</b> Various Sources of Funding to Start-ups including venture capital finance and private equity Managing early growth of the business; New venture expansion - strategies and issues.                       | CO3,<br>CO4,<br>CO5,<br>CO6 | 3 |
| 8 | Legal framework for starting a business in India<br>Quick start routes to establish a business (franchising, ancillarisation, and acquisitions);<br>Support Organisations for an entrepreneur and their role; The Make in India and Digital India Campaigns – For Entrepreneurship support; Other Start-up Ecosystem in India | CO3,<br>CO4                 | 3 |
| 9 | Learning by Doing: Activity – Create a Business Model Canvas / Business Plan based on an Idea (Ideation till Pitch deck) and Presentations                                                                                                                                                                                    | CO6                         | 6 |

#### **Text Books:**

- Vasant Desai, “The Dynamics of Entrepreneurial Development and Management”, Himalaya Publishing House, Sixth Edition, 2011

#### **Reference Books:**

- Robert D Hisrich, Mathew J Manimala, “Entrepreneurship”, McGraw Hill Education (I) Pvt. Ltd., New Delhi, Ninth Edition - 2015
- Poornima M. Charantimath, “Entrepreneurship Development and Small Business Enterprises” Pearson, Ninth Impression - 2023
- Literature Published by Support Institutions, viz i) SIDBI, ii) MSSIDC iii) NSIC

## Elective Course 2: Economic Environment and Policy

**Course Credits: 2**

**Course Outcomes:**

- CO1: Understand and relate to the business environment prevailing in India and in the world and Identifying how the economy is affected by internal and external factor. (L1, L2)
- CO2: Describe the economic environmental factors impacting business & analyse their impact on businesses. (L2, L3, L4)
- CO3: Analyze the impact of changes in macroeconomic aggregates on economy. (L3, L4)
- CO4: Evaluate various macroeconomic policy tools and how they can be used to manage macroeconomic issues. ( L4, L5)
- CO5: Evaluate the macroeconomic variables related to international markets and evaluate impact of international financial institutions on global economy (Evaluate, L5)

| Unit / Module | Content                                                                                                                                                                                                                                                                                                                                                                                                                  | CO Mapping   | Hours Assigned |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------|
| 1             | <p><b>Business environment</b> - definition, nature and scope, distinction between internal and external environment of business, Micro and Macro external environment, Limitations of environmental analysis. Impact of macroeconomic environment on businesses (case studies)</p> <p>Macroeconomics: The origin of macroeconomics from Classical, Keynesian, to Monetarists (in brief) Rational Expectation Theory</p> | CO1,CO2, CO3 | 3              |
| 2             | <p><b>Understanding the functioning of an economy</b> (Circular flow of income), Consumption Function and Investment Function</p>                                                                                                                                                                                                                                                                                        | CO2,CO3      | 6              |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |          |   |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---|
|   | <p><b>Growth and development.</b> Interconnectivity between macroeconomic variables &amp; Business Cycles</p> <p>National Income Accounting: Measuring the Aggregate Economy. Concepts- GDP, NDP, GNP, GVA. Real vs. Nominal GDP, Deflator</p> <p><b>Brief discussion on background &amp; Industrial policy</b> - 1991 - LPG model (Liberalization, Privatization and Globalization)</p> <p>Discussion on evolving Economic Environment - Atmanirbhar Bharat (Make in India, Digital India, Start-up policy, Redefining MSMEs, Infrastructure thrust; Niti Aayog; Inclusive Growth - Jan-Dhan &amp; Aadhar; Amritkaal-Viksit Bharat</p> |          |   |
| 3 | <p><b>Money:</b> Concept of Money, of Money in India – M1, M2, M3, L1, L2, L3, Money supply &amp; Demand for money, velocity of money, credit creation process and changing banking scenario</p> <p><b>Inflation:</b> the concepts of headline inflation, core inflation, food inflation.</p> <p>Demand pull, cost push inflation, types of inflation, causes of inflation, effects of inflation, stagflation and India, The threat of inflation.</p>                                                                                                                                                                                   | CO3      | 6 |
| 4 | <p><b>Central Banking and Monetary Policy:</b> Role of central bank, methods of credit control, Instruments of credit control, objectives of monetary policy, Inflation &amp; monetary policy: Monetary measures to control inflation - Role of MPC (Reading of Review of Monetary Policy)</p>                                                                                                                                                                                                                                                                                                                                          | CO3, CO4 | 3 |

|   |                                                                                                                                                                                                                                                                                                                                                |           |   |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|
| 5 | <p><b>Fiscal policy &amp; Union Budget: Introduction to Fiscal Policy</b> - Public expenditure, Public Taxation &amp; Public Debt, Role of fiscal policy in developing country.</p> <p>Discussion on Union Budget: Budget Format, Sources of Funds, Use of Funds, Types of deficit in Budget, Financing of Fiscal Deficit, debt financing.</p> | CO3 , CO4 | 3 |
| 6 | <p><b>Balance of Payments &amp; External Sector:</b> Structure of BOP, Disequilibrium, Methods to correct disequilibrium</p> <p>Exchange Rate system, Capital Account Convertibility, Impossible Trinity</p> <p>Role of IMF in International Monetary System</p>                                                                               | CO3 , CO5 | 6 |
| 7 | Case studies and Presentations                                                                                                                                                                                                                                                                                                                 | CO4, CO5  | 3 |

**Text Books:**

1. Indian Economy – Performance and Policies – Uma Kapila 24<sup>th</sup> Edition
2. Indian Economy - Nitin Singhania

**Reference Books:**

1. Business Environment and Public Policy by R A Buchholz
2. Economic Survey by Ministry of Finance, Government of India - Different issues
3. World Development Report by the World Bank - different issues

4. Macroeconomics-theory and policy-Dr.H.L.Ahuja-S.Chand and company ltd.
5. Macroeconomics-Olivier Blanchard-Pearson
6. Macroeconomics-Rudiger dornbusch-Tata McGrawHill
7. Principles of Macroeconomics- Karl Ecase, Ray c flair- Pearson
8. Macroeconomics-understanding Economic outcomes- Steven Mark Cohn-Jaico

## Elective Course 3: Business Analytics

**Course Credits: 2**

### Course Outcomes:

- CO1: RELATE the basic terminologies related to the concepts of Business Analytics
- CO2: UNDERSTAND use of various tools of Business Analytics for making justifiable business decisions
- CO3: CHOOSE appropriate technique for data mining for providing appropriate business solutions
- CO4: ANALYZE the available data and recommend appropriate analytical techniques
- CO5: COMPARE and visualize the results for fact-based decision-making
- CO6: CONSTRUCT appropriate predictive models based on available information

| Unit / Module | Content                                                                                                                                                                                                                                             | CO Mapping  | Hours Assigned |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------|
| 1             | Introduction to Analytics<br>Meaning, application areas of business analytics, techniques of analytics.                                                                                                                                             | CO1,<br>CO2 | 3              |
| 2             | Statistics for Business Analytics<br>Central tendencies and dispersion, central, limit theorem, sampling distribution, hypothesis testing, simple linear regression, categorical data analysis, analysis of variance (ANOVA), non-parametric tests. | CO2,<br>CO3 | 3              |
| 3             | Advanced Excel Proficiency (Practical)<br>Describing Numeric Data, Pivot Table Analysis, Linear Regression, Comparing Two Sample Variances, Comparing Two Sample Means, Pair T Test, One Way ANOVA, Two Way ANOVA,                                  | CO3,<br>CO4 | 3              |

|   |                                                                                                                                                                                                                                                                |             |   |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---|
|   | Generating Random Numbers, Rank and Percentile, Histogram Procedure, Exponential Smoothing and Moving Average, Sampling, Covariance and Correlation, Goal Seek and Solver.                                                                                     |             |   |
| 4 | Understanding R<br>Using R Studio, working with data in R, R procedures.                                                                                                                                                                                       | CO1,<br>CO2 | 3 |
| 5 | Data Mining using Decision Tree<br>Introduction to decision trees, model design and data audit, demo of decision tree development, algorithm behind decision tree and other decision tree.                                                                     | CO2,<br>CO3 | 3 |
| 6 | Data Mining using clustering in R<br>Understanding cluster analysis using R, clustering as strategy, hierarchical clustering, non-hierarchical clustering - K means clustering, variants of hierarchical clustering, different distance and linkage functions. | CO3,<br>CO4 | 3 |
| 7 | Time Series Forecasting<br>Time series vs causal models moving averages, exponential smoothing, trend, seasonality, cyclicality causal modelling using linear regression forecast accuracy.                                                                    | CO3,<br>CO4 | 3 |

|    |                                                                                                                                                                                                                                                                                                                                                                                                               |             |   |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---|
| 8  | <p>Predictive Modelling – Logistic Regression using R</p> <p>Data import and sanity check, development and validation, important categorical variable selection, important numeric variable selection, indicator variable creation, stepwise regression, dealing with multicollinearity, logistic regression score and probability, KS calculation, coefficient stability check, iterate for final model.</p> | CO3,<br>CO4 | 3 |
| 9  | <p>Overview of Big Data and Hadoop</p> <p>Big data and Hadoop and concept, application, cloud computing, generators of big-data.</p>                                                                                                                                                                                                                                                                          | CO3         | 3 |
| 10 | <p>Data Analysis &amp; Visualization</p> <p>Credit risk analytics, fraud risk analytics, financial services marketing analytics, Data Visualization using Power BI and tableau tools</p>                                                                                                                                                                                                                      | CO4         | 3 |

## Elective Course 4: Cost and Management Accounting

**Course Credits: 2**

**Course Outcomes:**

- CO1: Understand the cost accounting concepts, elements and classification of cost and overheads and develop the application skill in drafting a cost sheet.
- CO2: Understand the need for material control, control of idle time of labour, methods of calculation of labour turnover and classification of overheads.
- CO3: Analyze the importance of Standard Costing and the effect upon cost effectiveness
- CO4: Use the different costing systems in practical scenario.
- CO5: Create control system through budgets and evaluate business decision making scenarios with CVP analysis.

| Unit / Module | Content                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CO Mapping    | Hours Assigned |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|
| 1             | Introduction to Cost and Management Accounting, Concept of Cost, Role of Cost in decision making analysis, classification of cost, Cost Accounting Standards, Preparation of Cost Sheet, Methods and Techniques of Costing.<br>Management Accounting: Evolution, Meaning, Objectives and Scope, Tools and Techniques of Management Accounting, Relationship of Cost Accounting, Financial Accounting, Management Accounting and Financial Management, Role of Management Accountant in Decision Making.<br>Elements of cost - Materials, Labour and Overheads, Allocation and Apportionment of overheads | CO1           | 1              |
| 2             | Introduction to different costing techniques; Methods of costing – with special reference to job costing, process costing, services costing                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CO1, CO2, CO3 | 2              |

|   |                                                                                                                                                                                                         |                    |   |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---|
| 3 | Responsibility Accounting and Transfer Pricing                                                                                                                                                          | CO1, CO2, CO3, CO4 | 4 |
| 4 | Activity Based Costing & Activity Based Management                                                                                                                                                      | CO1, CO2, CO3, CO4 | 4 |
| 5 | Target Costing, Lifecycle Costing, Environmental Costing                                                                                                                                                | CO1, CO2, CO3, CO4 | 4 |
| 6 | Standard Costing and Variance Analysis                                                                                                                                                                  | CO1, CO2, CO3, CO4 | 3 |
| 7 | Budgeting - Budget Concept, Fixed and Flexible Budgets, Preparation and Monitoring of Various types of Budgets, Budgetary Control System: Advantages, Limitations and Installation, Zero Base Budgeting | CO4, CO5, CO6      | 6 |
| 8 | Marginal Costing – Meaning, Limitations and Applications, Difference between Marginal Costing and Absorption Costing, Breakeven Analysis, Cost-Volume Profit Analysis, Margin of Safety and P/V Ratio   | CO4, CO5, CO6      | 6 |

### Text Books

1. Cost Accounting - A Managerial Emphasis, Horngren, Datar, Rajan 15th ed. Pearson
2. Accounting - Text and Cases, Anthony, Hawking, Merchant 13th ed. McGraw Hill
3. Cost Accounting for Managerial Emphasis – Horngren, Datar, Foster 2
4. Management Accounting – Robert Kaplan, Anthony A. Atkinson 3
5. Cost and Management Accounting – Ravi. M. Kishore

### Reference Books

1. Management Accounting for profit control – I. W. Keller, W. L. Ferrara
2. Accounting & Finance for Managers – T P Ghosh
3. Management Accounting – Paresh Shah – Oxford Publications
4. Cost Accounting – Jawaharlal and Seema Srivastava
5. Management and Cost Accounting – Colin Drury

## Elective Course 5: Foundations of Strategy

**Course Credits: 2**

**Course Outcomes:**

- Co1: To understand the underlying principles and frameworks in strategy
- CO2; To apply the conceptual frameworks to business situations
- CO3: To analyse business problems, and generate alternative solutions
- CO4: To critique different solutions to a problem, and arrive at an optimal solution keeping in view the business objectives and resources
- CO5: To use the theories learnt in the course and create a strategic plan

| Unit / Module | Content                                                                                                                                                                                                                                                                                                                           | CO Mapping    | Hours Assigned |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------|
| 1             | <p><b>Introduction to Strategy</b></p> <ul style="list-style-type: none"> <li>• Definition and importance of strategy</li> </ul> <p><b>Elements of Strategy</b></p> <ul style="list-style-type: none"> <li>• Objectives</li> <li>• Culture</li> <li>• Costs</li> <li>• Capabilities</li> </ul> <p><b>The 4 Ps of Strategy</b></p> | CO1, CO2, CO3 | 3              |
| 2             | <p><b>Corporate and SBU Strategies</b></p> <ul style="list-style-type: none"> <li>• Four levers: Scope, Assets, Design, Scale</li> <li>• Three positioning outcomes: Value proposition, bargaining power, cost structure</li> </ul>                                                                                               | CO2, CO3, CO4 | 3              |
| 3             | <p><b>Structural Analysis of Industries</b></p> <ul style="list-style-type: none"> <li>• Porter's Five Forces Model</li> </ul>                                                                                                                                                                                                    | CO2, CO3, CO4 | 3              |
| 4-5           | <p><b>Analysing the Firm</b></p> <ul style="list-style-type: none"> <li>• Value Chain Analysis, Activities as the building blocs of Competitive advantage</li> </ul>                                                                                                                                                              | CO2, CO3, CO4 | 3              |
| 6             | <p><b>Strategic Positioning of the Firm</b></p> <ul style="list-style-type: none"> <li>• Porter's Generic strategies: Cost leadership, differentiation, focus</li> </ul>                                                                                                                                                          | CO4, CO5      | 3              |

|    |                                                                                                                                                                             |                       |   |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---|
| 7  | <b>Resource-Based View of the Firm</b> <ul style="list-style-type: none"> <li>● Resource-Based View (RBV)</li> <li>● VRIS framework</li> <li>● Core competencies</li> </ul> | CO2, CO3,<br>CO4, CO5 | 3 |
| 8  | <b>Business Models</b> <ul style="list-style-type: none"> <li>● Osterwalder and Pigneur Business Model Canvas</li> </ul>                                                    | CO4, CO5              | 3 |
| 9  | <b>Business Ecosystems and Firm Networks</b>                                                                                                                                | CO3, CO4,<br>CO5      | 3 |
| 10 | <b>Blue Ocean Strategy</b>                                                                                                                                                  | CO4, CO5              | 3 |

### **Text Books:**

1. Strategic Management: A Competitive Advantage Approach, Concepts and Cases, by Fred R. David and Forest R. David: (Indian edition)
2. Crafting & Executing Strategy: The Quest for Competitive Advantage: Concepts and Cases, 23rd Edition, By Arthur Thompson, Margaret Peteraf, John Gamble and A. Strickland
3. Competitive Advantage: Creating and Sustaining Superior Performance, Michael E. Porter
4. Competitive Strategy: Techniques for Analyzing Industries and Competitors" by Michael E. Porter
5. Resource-based theory: Creating and Sustaining Competitive Advantage, By Jay B. Barney, Delwyn N. Clark · 2007

### **Reference Books & Readings**

1. Competing on Analytics: The New Science of Winning, by Thomas H. Davenport and Jeanne G. Harris: This book explores how organizations can gain a competitive advantage through data-driven decision-making and analytics.
2. The Art of Strategy: A Game Theorist's Guide to Success in Business and Life, by Avinash K. Dixit and Barry J. Nalebuff: Dixit and Nalebuff apply game theory principles

to business strategy, offering practical insights into decision-making, negotiation, and competition

3. *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*, by Clayton M. Christensen: Christensen discusses disruptive innovation and its impact on established companies, offering insights into how organizations can navigate disruptive change.
4. *Blue Ocean Strategy, Expanded Edition*, by Renee A. Mauborgne and W. Chan Kim
5. *Predators and Prey: A New Ecology of Competition*, James F. Moore
6. *All the Right Moves: A Guide to Crafting Breakthrough Strategy*, Constantinos Markides

**Indian case studies that can be used to illustrate various strategic management concepts:**

**1 Tata Group:**

- a. *Tata's Acquisition of Jaguar Land Rover*: Illustrates corporate-level strategy, international expansion, and the challenges of integrating acquired companies.
- b. *Tata Nano*: Explores product positioning, targeting, and the challenges of innovation in emerging markets.

**2 Infosys:**

- a. *Infosys' Global Delivery Model*: Demonstrates the use of business-level strategy (cost leadership) and the role of technology in achieving competitive advantage.
- b. *Infosys' Acquisition Strategy*: Discusses growth strategies and the challenges of integrating acquisitions in the IT services industry.

**3 Reliance Industries:**

- a. *Reliance Jio*: Examines disruptive innovation, market entry strategies, and competition in the telecommunications sector.
- b. *Reliance Retail*: Analyzes diversification strategies and the role of retail in Reliance's overall business portfolio.

**4 Flipkart:**

- a. *Flipkart vs. Amazon in India*: Explores competitive dynamics, pricing strategies, and customer acquisition in the e-commerce industry.
- b. *Flipkart's Big Billion Days*: Discusses promotional strategies, supply chain management, and the challenges of managing large-scale sales events.

- 5 Mahindra & Mahindra:
  - a. Mahindra's Farm Equipment Sector: Illustrates market segmentation, targeting, and the development of niche markets in the agricultural machinery industry.
  - b. Mahindra's Entry into Electric Vehicles: Examines diversification into new markets and the adoption of sustainable business practices.
- 6 Patanjali Ayurved:
  - a. Patanjali's Disruption in FMCG Sector: Discusses the strategies employed by Patanjali to challenge established players in the fast-moving consumer goods sector.
  - b. Patanjali's Distribution Strategy: Analyzes the company's distribution network and its role in achieving rapid growth.
- 7 Amul:
  - a. Amul's Cooperative Model: Examines Amul's cooperative structure and its role in achieving market leadership in the dairy industry.
  - b. Amul's Marketing Strategy: Discusses Amul's branding and promotional strategies, as well as its focus on product quality and affordability.
- 8 Indian Premier League (IPL):
  - a. IPL's Business Model: Explores the strategic decisions behind the creation and expansion of the IPL, including revenue streams, team ownership, and marketing strategies.
  - b. IPL's Expansion into New Markets: Discusses the challenges and opportunities of expanding the IPL brand internationally.
- 9 Zomato Gold, R Srinivasan, IIM Bangalore
  - a. The network economy
  - b. Issues in network business models

International case studies offer valuable insights into global business practices and can be instrumental in teaching the fundamentals of strategy.

- 1 Apple Inc.:
  - a. Apple's Innovation Strategy: Explores Apple's product innovation, differentiation strategy, and ecosystem approach.
  - b. Apple's Supply Chain Management: Analyzes Apple's supply chain strategy and its role in maintaining competitiveness.

- 2 Toyota:
  - a. Toyota's Lean Production System: Examines Toyota's production system and its emphasis on efficiency, quality, and continuous improvement.
  - b. Toyota's Global Expansion: Discusses Toyota's internationalization strategy and challenges faced in different markets.
- 3 IKEA:
  - a. IKEA's Cost Leadership Strategy: Illustrates IKEA's low-cost business model, flat-pack furniture concept, and global expansion strategy.
  - b. IKEA's Sustainability Initiatives: Explores IKEA's sustainability efforts and their integration into the company's overall strategy.
- 4 Samsung:
  - a. Samsung's Diversification Strategy: Analyzes Samsung's diversification into various product categories, including consumer electronics, semiconductors, and appliances.
  - b. Samsung's Branding and Marketing Strategy: Examines Samsung's branding strategy, product positioning, and marketing campaigns.
- 5 Amazon:
  - a. Amazon's Customer-Centric Approach: Explores Amazon's customer-focused strategy, including its emphasis on convenience, selection, and service.
  - b. Amazon's Expansion into Cloud Computing: Discusses Amazon's strategic move into cloud computing with Amazon Web Services (AWS) and its impact on the company's growth.
- 6 Nestlé:
  - a. Nestlé's Growth Strategies: Analyzes Nestlé's growth through acquisitions, diversification into new markets, and innovation in product categories.
  - b. Nestlé's Corporate Social Responsibility (CSR) Initiatives: Explores Nestlé's CSR initiatives and their alignment with the company's overall strategy.
- 7 McDonald's:
  - a. McDonald's Global Expansion: Examines McDonald's internationalization strategy, including its adaptation to local markets and cultural differences.
  - b. McDonald's Digital Transformation: Discusses McDonald's digital initiatives, such as mobile ordering, delivery services, and loyalty programs.

- 8** Tesla, Inc.:
  - a. Tesla's Disruptive Innovation: Illustrates Tesla's disruptive innovation in the automotive industry, focusing on electric vehicles and autonomous driving technology.
  - b. Tesla's Market Entry Strategies: Analyzes Tesla's market entry strategies in different regions and the challenges of scaling production.
- 9** Netflix:
  - a. Netflix's Content Strategy: Explores Netflix's content acquisition and production strategy, including original content creation and global licensing deals.
  - b. Netflix's Subscription Model: Discusses Netflix's subscription-based business model, pricing strategy, and customer retention efforts.
- 10** Unilever:
  - a. Unilever's Sustainable Living Plan: Examines Unilever's sustainability strategy and its integration into the company's brands and operations.
  - b. Unilever's Portfolio Management: Analyzes Unilever's brand portfolio strategy, including acquisitions, divestitures, and brand extensions.
- 11** Matching DELL by Jan Rivkin
- 12** Asahi Breweries - Japanese Beer industry

## **MMS Program - Guidelines under 10-point grading system**

- The MMS degree program shall be of two years duration consisting of Four (04) Semesters.
- The semester examinations for the Master of Management Studies will be held at the end of every semester i.e at the end of Semester I, Semester II, Semester III and Semester IV.
- The Semester I examination will be held in the Second half of the academic year in which the learner was admitted (i.e November/December)
- Semester II examination will be held in the first half of the calendar year (April/May)
- The Semester III examination will be held in the Second half of the academic year (i.e November/December)
- Semester IV examination will be held in the first half of the calendar year (April/May) respectively.

### **Examination / Assessment and Grading:**

#### **(I) Mode of Assessment of Theory courses:**

- Semester wise performance assessment of every registered learner is to be carried out through various modes of examinations. These include Internal Assessment and End Semester Examination.
- Internal Assessment includes class tests, home assignments based on live problems, course projects & presentations either in a group or individually, any other innovative assessment methods.
- The weightage of Internal Assessment and End Semester Examination is 40 and 60 percentage respectively.
- The Relative weightage for Internal Assessment is typically 40 percent and will be evaluated by the faculty as per his/her Teaching Learning Plan submitted at the beginning of the academic year.
- The end semester examination will be held at the end of the semester planned by the Institute and the relative weightage for this would be 60 percent.
- The end semester examination will normally be of 2 hours duration and will cover the full syllabus of the course. The end semester examination is mandatory.

- The grade for theory courses can be awarded only after successful completion of both Internal Assessment and End Semester Examination of the respective course.

## **(II) Mode of Evaluation of Projects**

- If the performance of a student is to be evaluated through a Project work for any course, then End Term Examination (written) may not be suitable method of evaluation. The project evaluation to be done as per the following guidelines keeping the ratio of Internal and External Viva Examination and presentation in ratio of 50:50
- The learner (individual / Group) to be given a Project (Problem or a situation) for which he needs to Prepare the solution. This Project is to be graded, at the end of the respective semester.
- The projects are supervised or guided, and need regular interaction (at least once a week) with the mentor/guide.
- Learner has to submit a project report and defend it in front of a panel of examiners. Panel of examiners for Project evaluation will be appointed by Head of Department/Institute.
- The project report will not be accepted if learner does not complete the project successfully and submit report on or before the deadline given for the project submission.
- The grade for Project can be awarded only after successful completion of Term Work and Oral Presentation / viva-voce as per the schedule.

## **(III) Mode of Evaluation of OJT**

- If the performance of a student is to be evaluated through an On-the-Job training, then End Term Examination (written) may not be suitable method of evaluation. The project evaluation to be done as per the following guidelines keeping the ratio of Internal and External Viva Examination and presentation in ratio of 50:50
- The learner will work on on-the-job project which will be supervised or guided through regular interaction (at least once a week) with the mentor/guide.
- Learner will submit a OJT project report and defend it in front of a panel of examiners. Panel of examiners for Project evaluation will be appointed by Head of Department/Institute.
- The project report will not be accepted if learner does not complete the project successfully and submit report on or before the deadline given for the project submission.
- The grade for Project can be awarded only after successful completion of Term Work and Oral Presentation / viva-voce as per the schedule.

#### (IV) Grading of Performance

The program will have 10 point grading system. The illustrative Grade Table is as follow

Table 1: Grade Allocation under 10 point grading scale in CBSGS

| Range of percentage of Marks | Letter Grade | Grade Point | Performance | SGPA / CGPA Range |
|------------------------------|--------------|-------------|-------------|-------------------|
| 80 and above                 | O            | 10          | Outstanding | 9.51 – 10         |
| 75-79.99                     | A+           | 9           | Excellent   | 8.51 – 9.50       |
| 70-74.99                     | A            | 8           | Very Good   | 7.51 – 8.50       |
| 65-69.99                     | B+           | 7           | Good        | 6.51 – 7.50       |
| 60-64.99                     | B            | 6           | Fair        | 5.51 – 6.50       |
| 55-59.99                     | C            | 5           | Average     | 4.51 – 5.50       |
| 50-54.99                     | P            | 4           | Pass        | 4.0 – 4.50        |
| Below 50                     | F            | 0           | Fail        | < 4               |
| Absent                       | AB           | 0           | Fail        |                   |

A learner who remains absent in any form of evaluation/examination, letter grade allocated to him/her should be AB and corresponding grade point is zero. He / She should reappear for the said evaluation/examination in due course.

## **(V) SGPA/ CGPA Calculation**

### **Semester Grade Point Average (SGPA):**

- The performance of a learner in a semester is indicated by a number called Semester Grade Point Average (SGPA).
- The SGPA is the weighted average of the grade points obtained in all the courses by the learner during the Semester. For example, if a learner passes five courses (Theory/Projects etc.) in a semester with credits C1, C2, C3, C4 and C5 and learners grade points in these courses are G1, G2, G3, G4 and G5 respectively, then learners' SGPA is equal to:

$$\text{SGPA} = \frac{C1G1 + C2G2 + C3G3 + C4G4 + C5G5}{C1 + C2 + C3 + C4 + C5}$$

The SGPA is calculated to two decimal places. The SGPA for any semester will take into consideration the "F or AB" grade awarded in that semester. For example if a learner has failed in Course 4, the SGPA will then be computed as:

$$\text{SGPA} = \frac{C1G1 + C2G2 + C3G3 + C4 \cdot \text{ZERO} + C5G5}{C1 + C2 + C3 + C4 + C5}$$

### **Cumulative Grade Point Average (CGPA):**

- An up-to-date assessment of the overall performance of a learner from the time s/he entered the University of Mumbai is obtained by calculating a number called the Cumulative Grade Point Average (CGPA), in a manner similar to the calculation of SGPA.
- The CGPA therefore considers all the courses mentioned in the curriculum/syllabus manual, towards the minimum requirement of the degree learner have enrolled for.
- The CGPA will be calculated for the completed academic year/s as follows:
  - Semester I & II
  - Semester I,II,III & IV
- The CGPA will reflect the failed status in case of F grade(s), till the course(s) is/are passed. When the course(s) is/are passed by obtaining a pass grade on subsequent examination(s) the CGPA will only reflect the new grade and not the fail grades earned earlier.

### Illustration of Computation of SGPA and CGPA:

Computation of SGPA and CGPA:

- The SGPA is the ratio of sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e

$$SGPA (S_i) = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

where  $C_i$  is the number of credits of the  $i$ th course and

$G_i$  is the grade point scored by the student in the  $i$ th course.

- The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a program, i.e.

$$CGPA = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

where  $S_i$  is the SGPA of the  $i$ th semester and

$C_i$  is the total number of credits in that semester.

- The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts. A Successful learner who has passed in all the courses of each Semesters i.e Semester I, Semester II, Semester III and Semester IV shall be awarded grades as shown in the table given below:

Grade Table: Grade Allocation under 10-point grading scale in CBSGS.

| Range of percentage of Marks | Letter Grade | Grade Point | Performance | SGPA / CGPA Range |
|------------------------------|--------------|-------------|-------------|-------------------|
| 80 and above                 | O            | 10          | Outstanding | 9.51 – 10         |
| 75-79.99                     | A+           | 9           | Excellent   | 8.51 – 9.50       |
| 70-74.99                     | A            | 8           | Very Good   | 7.51 – 8.50       |
| 65-69.99                     | B+           | 7           | Good        | 6.51 – 7.50       |
| 60-64.99                     | B            | 6           | Fair        | 5.51 – 6.50       |
| 55-59.99                     | C            | 5           | Average     | 4.51 – 5.50       |
| 50-54.99                     | P            | 4           | Pass        | 4.0 – 4.50        |
| Below 50                     | F            | 0           | Fail        | < 4               |
| Absent                       | AB           | 0           | Fail        |                   |

**Semester I**

| Subject        | Marks | Grade | Grade Point (Gi) | Credits (Ci) | CI*Gi     | SGPA                       |
|----------------|-------|-------|------------------|--------------|-----------|----------------------------|
| Sub - 1        | 95    | O     | 10               | 4            | 40        | SGPA =<br>108/16 =<br>6.75 |
| Sub - 2        | 59    | C     | 5                | 4            | 20        |                            |
| Sub - 3        | 59    | C     | 5                | 4            | 20        |                            |
| Sub - 4        | 58    | B+    | 7                | 4            | 28        |                            |
| Credits Earned |       |       |                  | 16           | 108       |                            |
| Remarks        |       |       |                  |              | Grade: B+ | Range 65-69.99             |

**Semester II**

| Subject             | Marks | Grade | Grade Point (Gi) | Credits (Ci) | CI*Gi     | SGPA                       |
|---------------------|-------|-------|------------------|--------------|-----------|----------------------------|
| Sub - 1             | 60    | B     | 6                | 4            | 24        | SGPA =<br>120/16 =<br>7.50 |
| Sub - 2             | 65    | B+    | 7                | 4            | 28        |                            |
| Sub - 3             | 5966  | B+    | 7                | 4            | 28        |                            |
| Sub - 4             | 80    | O     | 10               | 4            | 40        |                            |
| Credits Earned      |       |       |                  | 16           | 120       |                            |
| Remarks: Successful |       |       |                  |              | Grade: B+ | Range 65-69.99             |

**Calculation of CGPA (Semester I & II)**

| Semester             | SGPA (Si) | Credits (Ci) | Si*Ci | CGPA                    |          |
|----------------------|-----------|--------------|-------|-------------------------|----------|
| I                    | 6.75      | 16           | 108   | CGPA =<br>228/36 = 6.33 | Grade: B |
| II                   | 7.5       | 16           | 120   |                         |          |
| Total Credits Earned |           | 36           | 228   |                         |          |

**Semester III**

| Subject             | Marks | Grade | Grade Point (Gi) | Credits (Ci) | Ci*Gi    | SGPA                       |
|---------------------|-------|-------|------------------|--------------|----------|----------------------------|
| Sub - 1             | 62    | B     | 10               | 4            | 24       | SGPA =<br>128/16 =<br>8.00 |
| Sub - 2             | 68    | B+    | 5                | 4            | 28       |                            |
| Sub - 3             | 85    | O     | 5                | 4            | 40       |                            |
| Sub -4              | 78    | A+    | 6                | 4            | 36       |                            |
| Credits Earned:     |       |       |                  | 16           | 128      |                            |
| Remarks: Successful |       |       |                  |              | Grade: A | Range 70-74..99            |

**Semester IV**

| Subject             | Marks | Grade | Grade Point (Gi) | Credits (Ci) | Ci*Gi    | SGPA                      |
|---------------------|-------|-------|------------------|--------------|----------|---------------------------|
| Sub - 1             | 89    | O     | 10               | 4            | 40       | SGPA =<br>96/12 =<br>8.00 |
| Sub - 2             | 63    | B     | 6                | 4            | 24       |                           |
| Sub - 3             | 72    | A     | 8                | 4            | 32       |                           |
| Credits Earned      |       |       |                  | 12           | 96       |                           |
| Remarks: Successful |       |       |                  |              | Grade: A | Range 70-74.99            |

**Calculation of CGPA (Semester I, II, III & IV)**

| Semester             | SGPA (Si) | Credits (Ci) | Si*Ci | CGPA                    |          |
|----------------------|-----------|--------------|-------|-------------------------|----------|
| I                    | 6.75      | 16           | 108   | CGPA =<br>452/60 = 7.53 | Grade: A |
| II                   | 7.5       | 16           | 120   |                         |          |
| III                  | 8         | 16           | 128   |                         |          |
| IV                   | 8         | 12           | 96    |                         |          |
| Total Credits Earned |           | 60           | 452   |                         |          |

## **(VI) Standard of Passing & ATKT:**

1. A learner in order to pass has to obtain minimum 50% marks in aggregate consisting of minimum 50% marks in each set of the examinations separately i.e. internal examination and external examination, as per the standard of passing.
2. Learner(s), who does not obtain minimum 50% marks in subject(s)/paper(s)/course(s) either in the internal assessment or in the external examination or both, shall be declared as “Fail” as per the standard of passing of examination.
3. A learner failing in not more than two subjects/papers/courses in the Semester I exam shall be allowed to keep terms in Semester II of the MMS program.
4. A learner who has failed in more than two subjects/papers/courses in the Semester-I exam, shall not be permitted to proceed to Semester II of his/her first year MMS program. Learner will, however, be eligible to re – appear for the subjects in which learner has failed in the first semester by re – registering himself/herself in the supplementary examination to be conducted by the institute.
5. A learner who has passed in both the semester examinations conducted by the institute i.e.: Semester I and Semester II examinations shall be eligible for admission into Semester III of the MMS program.
6. A learner for being eligible for admission to Semester III must have passed both the Semester I and Semester II examinations.
7. A learner failing in not more than two subjects/papers/courses in the Semester III examination shall be allowed to keep terms in Semester IV of the MMS program.
8. A learner, who has failed in more than two subjects/papers/courses in Semester III, shall not be permitted to proceed to Semester IV of his/her second year MMS program. Learner will, however, be eligible to re – appear in the subjects in which he /she has failed in the third semester by re – registering himself/herself in the supplementary examination to be conducted by the institute/university or both.
9. A learner who has passed in all of the semester examinations of MMS i.e Semester I, Semester II, Semester III, Semester IV examinations shall not be allowed to re – register himself/herself for improvement of his/her semester examination results.
10. A learner who has not appeared in the internal examinations conducted by the institute for due to hospitalization shall as a special case be permitted to appear in those subject(s)/course(s)/paper(s) in the supplementary examination conducted by the institute after learner furnishes a valid medical certificate certified by the rank of

a civil surgeon or superintendent of Government hospital to the satisfaction of the Principal/Director of the institute.

### **Semester I Examination:**

1. A learner will be declared to have passed the Semester I examination if learner has secured minimum 50% marks in aggregate consisting of minimum 50% marks in each of the examinations separately i.e Internal Examination & Semester End Examination as per the standard of passing.
2. For a course of 100 marks, the learners shall obtain minimum of 50% marks i.e 20 out of 40 in the Internal Assessment and i.e 30 out of 60 in the Semester End examination separately.
3. For a course of 50 marks, the learners shall obtain minimum of 50% marks i.e 10 out of 20 in the Internal Assessment and 15 out of 30 in the Semester End examination separately.
4. A learner who has failed in the semester examination but has obtained Grade E (50% Marks) in some subject(s)/paper(s)/course(s) shall at his option be granted exemption from appearing in those subject(s)/paper(s)/course(s) in the subsequent examinations to be conducted by the institute.

### **Semester II Examination:**

1. A learner who has passed in all the paper(s)/subject(s)/course(s) of his semester I examination shall proceed to semester II of the MMS program.
2. A learner failing in two or less than two subjects/papers/courses in Semester I examination shall be allowed to keep terms into Semester II of the MMS program. Learner will however be required to pass in those respective subjects/papers/courses (two or less) in the supplementary examinations, to be held by the institute. Such supplementary examination for Semester I shall be held before first week of April, as per the schedule of the individual institution.
3. A learner who has failed in more than two subjects/papers/courses in Semester I, shall not be permitted to proceed to Semester II of the course. Learner will, however be eligible to re – appear in the subjects in which learner has failed, in the supplementary examination of Semester I to be conducted by the institute. Such supplementary examination of Semester I can be held as per the institute's schedule before April of the academic year.

4. A learner will be declared to have passed the Semester II examination if learner has secured minimum 50% marks in aggregate consisting of minimum 50% marks in each of the examinations separately i.e Internal Examination & Semester End Examination as per the standard of passing.
5. For a course of 100 marks i.e (60+40), the learners shall obtain minimum of 50% marks in the Internal Assessment i.e 20 out of 40 marks and 30 out of 60 marks in the Semester End examination.
6. For a course of 50 marks i.e (30+20), the learners shall obtain minimum of 50% marks in the Internal Assessment i.e 10 out of 20 marks and 15 out of 30 marks in the Semester End examination.
7. A learner who has failed in the semester examination but has obtained Grade E (50% Marks) in some subject(s)/paper(s)/course(s) shall at his option be granted exemption from appearing in those subject(s)/paper(s)/course(s) in the subsequent examinations to be conducted by the institute.

### **Semester III Examination:**

1. A learner for being eligible for admission to Semester III must have passed both the Semester I and Semester II examinations
2. A learner failing in two or less than two subjects in Semester I or Semester II or both (Semester I and Semester II taken together), shall be required to re appear in the supplementary examination and pass. Such supplementary examinations can be held for Semester I and for Semester II, as per individual institution's schedule before April/May or commencement of Semester III and upon passing of which, the learner will become eligible to enroll for the Semester III MMS Program.
3. A learner who has failed in more than two subjects/papers/courses in Semester II or Semester I and Semester II taken together, shall not be permitted to proceed to Semester III of the course. Learner will, however be eligible to re – appear in the subjects in which learner has failed, in the supplementary examination of Semester I and/or Semester II to be conducted by the institute. Such supplementary examinations can be held as per the institute's schedule before April/May for I<sup>st</sup> Semester and before November/December for II<sup>nd</sup> Semester of the academic year.
4. A learner will be declared to have passed the Semester III examination if learner has secured minimum 50% marks in aggregate consisting of minimum 50%

marks in each of the examinations separately i.e Internal Examination & Semester End Examination as per the standard of passing.

5. For a course of 100 marks i.e (60+40), the learners shall obtain minimum of 50% marks in the Internal Assessment i.e 20 out of 40 marks and 30 out of 60 marks in the Semester End examination.
6. For a course of 50 marks i.e (30+20), the learners shall obtain minimum of 50% marks in the Internal Assessment i.e 10 out of 20 marks and 15 out of 30 marks in the Semester End examination.
7. A learner who has failed in the semester examination but has obtained Grade E (50% Marks) in some subject(s)/paper(s)/course(s) shall be granted exemption from appearing in those subject(s)/paper(s)/course(s) in the subsequent examinations to be conducted by the institute/university.

#### **Semester IV Examination:**

1. A learner who has passed in all the paper(s)/subject(s)/course(s) of his semester III examination shall proceed to semester IV of the MMS program.
2. A learner failing in not more than two subjects/papers/courses in his/her Semester III examination shall be allowed to keep terms in Semester IV. Such learner will be required to pass in those respective subject(s)/paper(s)/course(s) (two or less) of semester III in the supplementary examinations of Semester III conducted to be by the Institute/ University.
3. A learner, who has failed in more than two subjects/papers/courses in Semester III, shall not be permitted to proceed to Semester IV of the course. Learner will however be eligible to re – appear in those subjects in which he /she has failed by re – registering himself/herself in the supplementary examinations to be conducted by the institute/university.
4. A learner failing in any subject(s) /paper(s) /course(s) in his/her Semester IV examination and shall be required to re appear in the supplementary examinations conducted by the institute/university to pass in those subjects/papers/courses.
5. A learner will be declared to have passed the Semester IV examination if learner has secured minimum 50% marks in aggregate consisting of minimum 50% marks in each of the examinations separately i.e Internal Examination & Semester End Examination as per the standard of passing.

6. For a course of 100 marks i.e (60+40), the learners shall obtain minimum of 50% marks in the Internal examination i.e 20 out of 40 marks and 30 out of 60 marks in the Semester End examination separately as per the standard of passing.
7. For a course of 50 marks i.e (30+20), the learners shall obtain minimum of 50% marks in the Internal examination i.e 10 out of 20 marks and 15 out of 30 marks in the Semester End examination separately.
8. A learner who has failed in the semester examination but has obtained Grade E (50% Marks) in some subject(s)/paper(s)/course(s) shall be granted exemption from appearing in those subject(s)/paper(s)/course(s) in the subsequent examinations to be conducted by the institute/university.
9. To facilitate the convenience of students, who are employed on completion of their IVth Semester, but have failed in their Semester III and/or Semester IV University examinations, the University shall hold such examinations twice a year in the subjects/papers/courses that are assessed by the university. I.e. Semester III university examination shall be held in May along with Semester IV examination and Semester IV university examination shall be held in November/December along with Semester III examination.
10. A learner shall be declared to have passed his MMS degree course if learner has secured minimum 50% marks in aggregate consisting of minimum 50% marks in Internal examination & 50% marks in External examination separately in Semester I, Semester II, Semester III and Semester IV examinations as per the standard of passing.
11. A learner who has passed in all the semester examinations of MMS degree shall not be allowed to reregister himself/herself for improvement of his/her earlier semester results.
12. A Successful learner who has passed in all the courses of each Semesters i.e Semester I, Semester II, Semester III and Semester IV shall be awarded grades as shown in the table given below:

### **Heads of Passing:**

- Internal Assessment (IA) and End Semester Examination (ESE) should be two separate heads for passing. E.g. 40 marks (IA), 60 marks (ESE). Passing standard will be 50% in each individually, i.e 20 marks in (IA) and 30 marks in ESE.

### **Promotion of Learner and Award of Grades:**

- A learner will be declared PASS and be eligible for Grade in M.M.S. course (Post Graduate Program) if a learner secures at least 50% marks separately in each head of passing as mentioned above.
- At the end of each Semester the Grade card which states the performance of the learner in that Semester, is prepared and issued to the learner. The Grade Card will contain the courses undertaken by the learner, credits of each course, Grade obtained by the learner and SGPA / CGPA in the format given by the University.

### **Carry Forward of Marks:**

In case of a learner who does not fulfill criteria mentioned in section above and fails in the Internal Assessment and/or End Semester Examination in one or more courses:

- A learner who PASSES in the Internal Assessment but FAILS in the End Semester Examination of the course shall reappear for the End Semester Examination of that course. However his/her marks of the Internal Assessment shall be carried over and learner shall be entitled for grade obtained by him/her on passing.
- A learner who PASSES in the End Semester Examination but FAILS in the Internal Assessment of the course shall reappear for the Internal Assessment of that course. However, his/her marks of the End Semester Examination shall be carried over and learner shall be entitled for grade obtained by him/her on passing.

### **Re-examination of Internal Assessment and End Semester Examination**

- Re-examination for Internal Assessment and End Semester Examination should be completed, as per the schedule planned by the respective institutes, before the commencement of next semester theory examination.
- Example: A learner who is supposed to reappear for Internal Assessment or End Semester Examination in semester-I course will appear for the re-examination before commencement of End Semester Examination of semester -II. However, if a learner has to appear for the re- examination for a subject in semester II then the examination should be conducted and the result should be declared by the

institute before the examination forms for the semester III are sent to the University.

- Re-examination of Internal Assessment will be based on single examination having same marks as of original assessment. A learner who supposed to reappear for Internal Assessment will be given course project/ assignment problems/ test/ tutorials etc., by the concerned teacher. A learner will do the submission of the assigned work in the predefined period. Records should be maintained properly for all the re-examinations as well as Internal Assessments.

### **Rules for Standard of Passing and Allowed to Keep Terms (ATKT):**

- A learner in order to pass has to obtain minimum 50% marks in aggregate consisting of minimum 50% marks in each set of the examinations separately i.e. internal examination and external examination, as per the standard of passing.
- Learner, who does not obtain minimum 50% marks in subject(s)/paper(s)/course(s) either in the internal assessment or in the external examination or both, shall be declared as “Fail” as per the standard of passing of examination.
- A learner failing in not more than two subjects/papers/courses in the Semester I exam shall be allowed to keep terms in Semester II of the MMS program.
- A learner who has failed in more than two subjects/papers/courses in the Semester I exam, shall not be permitted to proceed to Semester II of his/her first year MMS program. He/ She will, however, be eligible to re – appear for the subjects in which he /she has failed in the first semester by re – registering himself/herself in the supplementary examination to be conducted by the institute.
- To move to semester III a learner should not be failing in more than two subjects/papers/courses in the Semester I & II exam combined together.
- A learner failing in not more than two subjects/papers/courses in the Semester III examination shall be allowed to keep terms in Semester IV of the MMS program.
- A learner, who has failed in more than two subjects/papers/courses in Semester III, shall not be permitted to proceed to Semester IV of his/her second year MMS program. Learner will, however, be eligible to re – appear in the subjects in which he /she has failed in the third semester by re – registering himself/herself in the supplementary examination to be conducted by the institute/university or both.

- A learner who has passed in all of the semester examinations of MMS i.e Semester I, Semester II, Semester III, Semester IV examinations shall not be allowed to re – register himself/herself for improvement of his/her semester examination results.
- A learner who has not appeared in the internal examinations conducted by the institute for due to hospitalization shall as a special case be permitted to appear in those subject(s)/course(s)/paper(s) in the supplementary examination conducted by the institute after learner furnishes a valid medical certificate certified by the rank of a civil surgeon or superintendent of Government hospital to the satisfaction of the Principal/Director of the institute.

## Suggested Question Paper Format

### (i) Question Paper of 60 Marks (4 Credit Course) – 2 Hours Written Examination

|                                                                                                                                                                                                                                                                                                    |                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| <ul style="list-style-type: none"> <li>• Total Questions – 6 Questions</li> <li>• Question 1 - Compulsory (20 Marks)</li> <li>• Option to Attempt Any 4 Questions from Question 2 to Question 6 (Each Question 10 Marks)</li> </ul>                                                                |                           |
| Q1: Case Study                                                                                                                                                                                                                                                                                     | 20 Marks                  |
| Q2 to Q 6 <ul style="list-style-type: none"> <li>• Covering important of topics / concepts across syllabus</li> <li>• Mix of theoretical and quantitative questions based on requirement of the subject content.</li> <li>• COs to be mentioned against each question in Question paper</li> </ul> | Each Question<br>10 Marks |

### (ii) Question Paper of 30 Marks (2 Credit Course) - 1 Hour Written Examination

|                                                                                                                                                                                                                                     |                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| <ul style="list-style-type: none"> <li>• Total Questions – 4 Questions</li> <li>• Question 1 - Compulsory (10 Marks)</li> <li>• Option to Attempt any 2 Questions from Question 2 to Question 4 (Each Question 10 Marks)</li> </ul> |                           |
| Q1: Case Study                                                                                                                                                                                                                      | 10 Marks                  |
| Q2 to Q 4 <ul style="list-style-type: none"> <li>• Covering important of topics / concepts across syllabus</li> <li>• Mix of theoretical and quantitative questions based on</li> </ul>                                             | Each Question<br>10 Marks |

requirement of the subject content.

- COs to be mentioned against each question in Question paper

