



**Empowering Minds to Elevate Lives.**

**Shree Chanakya Education Society's**

**Indira College of Engineering and Management**

Affiliated to Savitribai Phule Pune University

And Approved by AICTE Delhi

**Shree Chanakya Education Society's  
Indira College of Engineering & Management, (ICEM)**

**(An Autonomous Institute affiliated to SPPU)  
Two Year Full Time Four Semester POST GRADUATE  
PROGRAMME**

**Semester III & IV**

**MBA Curriculum for the Batch of 2024 - 2026**

| Semester III - Generic / Subject Core                      |   |         |     |     |       |
|--|---|---------|-----|-----|-------|
| Course Code  | Course  | Credits | FA  | SA  | Marks |
| GC - 14  | Strategic Management                          | 3       | 50  | 50  | 100   |
| SC 01  |   | 3       | 50  | 50  | 100   |
|  | Total   | 3       | 50  | 50  | 200   |
| Semester III - SIP - Compulsory for all Specialisations    |   |         |     |     |       |
| Course Code  | Course  | Credits | FA  | SA  | Marks |
| OJT 01   | Summer Internship Program/On the Job Training | 8       | 100 | 100 | 200   |
| Semester III – Marketing Specialization Core Courses       |   |         |     |     |       |
| Course Code  | Specialization subject                        | Credits | FA  | SA  | Marks |
| SC MKT- 01   | Services Marketing                            | 3       | 50  | 50  | 100   |
|  | Total   | 3       | 50  | 50  | 100   |
| Semester III - Specialization Elective - Any 4 - Marketing |   |         |     |     |       |
| Course Code  | Specialization subject                        | Credits | FA  | SA  | Marks |
| SE - MKT – 05  | Personal Selling Lab                          | 3       | 50  | 50  | 100   |
| SE - MKT – 06  | Product & Brand Management                    | 3       | 50  | 50  | 100   |
| SE - MKT – 07  | Sales & Distribution Management               | 3       | 50  | 50  | 100   |
| SE - MKT – 08  | Business to Business Marketing                | 3       | 50  | 50  | 100   |
| SE - MKT – 09  | International Marketing                       | 3       | 50  | 50  | 100   |
| SE - MKT – 010   | Integrated Marketing Communications           | 3       | 50  | 50  | 100   |

|   |  |                |            |            |              |
|---|--|----------------|------------|------------|--------------|
| SE - MKT<br>– 011   | Marketing Analytics                                  | 3              | 50         | 50         | 100          |
| SE - MKT<br>– 012   | Marketing 4.0  | 3              | 50         | 50         | 100          |
|   | <b>Total</b>   | <b>12</b>      | <b>200</b> | <b>200</b> | <b>400</b>   |
| <b>Semester III – Finance Specialization Core Courses</b>       |  |                |            |            |              |
| <b>Course Code</b>  | <b>Specialization subject</b>                        | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| SC FIN-01   | Advanced Financial Management                        | 3              | 50         | 50         | 100          |
|   | <b>Total</b>   | <b>3</b>       | <b>50</b>  | <b>50</b>  | <b>100</b>   |
| <b>Semester III – Specialization Elective - Any 4 - Finance</b> |  |                |            |            |              |
| <b>Course Code</b>  | <b>Specialization subject</b>                        | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| SE - FIN-05   | Digital Banking                                      | 3              | 50         | 50         | 100          |
| SE - FIN-06   | Financial Literacy                                   | 3              | 50         | 50         | 100          |
| SE - FIN-07   | Indirect Taxation                                    | 3              | 50         | 50         | 100          |
| SE - FIN-08   | Personal Financial Planning                          | 3              | 50         | 50         | 100          |
| SE - FIN-09   | Financial Securities Evaluation and Portfolio Design | 3              | 50         | 50         | 100          |
| SE - FIN-010  | Insurance Legislation and Compliance                 | 3              | 50         | 50         | 100          |
| SE - FIN-011  | Financial Reporting                                  | 3              | 50         | 50         | 100          |
| SE - FIN-012  | International Finance                                | 3              | 50         | 50         | 100          |
|   | <b>Total</b>   | <b>12</b>      | <b>200</b> | <b>200</b> | <b>400</b>   |
| <b>Semester III - Human Resource Management Core Courses</b>    |  |                |            |            |              |

| Course Code  | Specialization subject                            | Credits   | FA         | SA         | Marks      |
|--|---|-----------|------------|------------|------------|
| SC HRM- 01   | Strategic Human Resource Management               | 3         | 50         | 50         | 100        |
|  | <b>Total</b>                                      | <b>3</b>  | <b>50</b>  | <b>50</b>  | <b>100</b> |
| <b>Semester III - Specialization Elective - Any 4 - Human Resource Management</b>              |   |           |            |            |            |
| Course Code  | Specialization subject                            | Credits   | FA         | SA         | Marks      |
| SE - HR - 05   | International HR                                  | 3         | 50         | 50         | 100        |
| SE - HR - 06   | Talent Acquisition & Talent Management            | 3         | 50         | 50         | 100        |
| SE - HR - 07   | HR Analytics                                      | 3         | 50         | 50         | 100        |
| SE - HR – 08   | Employee Relations and Labour Legislations        | 3         | 50         | 50         | 100        |
| SE - HR – 09   | HR Perspective in Merger & Acquisition            | 3         | 50         | 50         | 100        |
| SE - HR – 010  | Labour Economics & Costing                        | 3         | 50         | 50         | 100        |
| SE - HR – 011  | Competency Based Human Resource Management System | 3         | 50         | 50         | 100        |
| SE - HR – 012  | Conflict management and Negotiation Skills        | 3         | 50         | 50         | 100        |
|  | <b>Total</b>                                      | <b>12</b> | <b>200</b> | <b>200</b> | <b>400</b> |
| <b>Semester III – Operations and Supply Chain Management Subject Core Courses</b>              |   |           |            |            |            |
| Course Code  | Specialization subject                            | Credits   | FA         | SA         | Marks      |
| SC OPE- 01   | Services Operations Management                    | 3         | 50         | 50         | 100        |
|  | <b>Total</b>                                      | <b>3</b>  | <b>50</b>  | <b>50</b>  | <b>100</b> |
| <b>Semester III – Specialization Elective - Any 4 - Operations and Supply Chain Management</b> |   |           |            |            |            |
| Course Code  | Specialization subject                            | Credits   | FA         | SA         | Marks      |

|  |  |                |            |            |              |
|--|--|----------------|------------|------------|--------------|
| SE - OPE - 05  | Logistics Management                                   | 3              | 50         | 50         | 100          |
| SE - OPE- 06   | Supply Chain Analytics                                 | 3              | 50         | 50         | 100          |
| SE - OPE- 07   | Operations & Service Strategy                          | 3              | 50         | 50         | 100          |
| SE - OPE- 08   | Theory of Constraints                                  | 3              | 50         | 50         | 100          |
| SE - OPE- 09   | Manufacturing Resource Planning                        | 3              | 50         | 50         | 100          |
| SE - OPE- 010  | Strategic Supply Chain Management                      | 3              | 50         | 50         | 100          |
| SE - OPE- 011  | Business Excellence                                    | 3              | 50         | 50         | 100          |
| SE - OPE- 012  | Service Value Chain Management                         | 3              | 50         | 50         | 100          |
|  | <b>Total</b>   | <b>12</b>      | <b>200</b> | <b>200</b> | <b>400</b>   |
|  |  |                |            |            |              |
| <b>Course Code</b>   | <b>Specialization subject</b>                          | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| SC BA – 01   | Python   | 3              | 50         | 50         | 100          |
|  | <b>Total</b>   | <b>3</b>       | <b>50</b>  | <b>50</b>  | <b>100</b>   |
| <b>Semester III - Specialization Elective - Any 4 - Business Analytics</b> |  |                |            |            |              |
| <b>Course Code</b>   | <b>Specialization subject</b>                          | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| SE - BA – 05   | Machine Learning & Cognitive intelligence using Python | 3              | 50         | 50         | 100          |
| SE - BA – 06   | Advanced Statistical Methods using R                   | 3              | 50         | 50         | 100          |
| SE - BA - 07   | Cognos Analytics                                       | 3              | 50         | 50         | 100          |
| SE - BA – 08   | Visual Analytics                                       | 3              | 50         | 50         | 100          |

|   |  |                |            |            |              |
|---|--|----------------|------------|------------|--------------|
| SE - BA – 09  | E Commerce Analytics-I                           | 3              | 50         | 50         | 100          |
| SE - BA – 010   | Industrial Internet of Things                    | 3              | 50         | 50         | 100          |
| SE - BA – 011   | Supply & Operation Chain Analytics               | 3              | 50         | 50         | 100          |
| SE - BA – 012   | Economics of Network Industries                  | 3              | 50         | 50         | 100          |
|   | <b>Total</b>                                     | <b>12</b>      | <b>200</b> | <b>200</b> | <b>400</b>   |
|   | <b>Grand Total Sem III</b>                       |                |            |            |              |
| <b>Semester IV - Generic / Subject Core</b>                     |  |                |            |            |              |
| <b>Course Code</b>  | <b>Course</b>                                    | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| GC - 01   | Entrepreneurship, Innovation and Design Thinking | 3              | 50         | 50         | 100          |
| GC - 02   | Enterprise Performance Management                | 2              | 0          | 50         | 50           |
| SC - 01   |  | 3              | 50         | 50         | 100          |
| RP  | Research project                                 | 6              | 100        | 50         | 150          |
|   | <b>Total</b>                                     | <b>14</b>      | <b>200</b> | <b>200</b> | <b>400</b>   |
| <b>Semester IV – Marketing Specialization Core Courses</b>      |  |                |            |            |              |
| <b>Course Code</b>  | <b>Specialization subject</b>                    | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| SC MKT- 02  | Marketing Strategy                               | 3              | 50         | 50         | 100          |
|   | <b>Total</b>                                     | <b>3</b>       | <b>50</b>  | <b>50</b>  | <b>100</b>   |
| <b>Semester IV – Specialization Elective - Any 4- Marketing</b> |  |                |            |            |              |
| <b>Course Code</b>  | <b>Specialization subject</b>                    | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |

|  |  |                |            |            |              |
|--|--|----------------|------------|------------|--------------|
| SE - MKT-13  | Marketing 5.0                            | 3              | 50         | 50         | 100          |
| SE - MKT-14  | Rural & Agriculture Marketing            | 3              | 50         | 50         | 100          |
| SE - MKT-15  | Customer Relationship Management         | 3              | 50         | 50         | 100          |
| SE - MKT-16  | Digital Marketing-II                     | 3              | 50         | 50         | 100          |
| SE - MKT-17  | Retail Marketing                         | 3              | 50         | 50         | 100          |
| SE - MKT-18  | Marketing of Financial Services          | 3              | 50         | 50         | 100          |
| SE - MKT-19  | Recent trends in Marketing               | 3              | 50         | 50         | 100          |
| SE - MKT-20  | Contemporary Market Research             | 3              | 50         | 50         | 100          |
|  | <b>Total</b>                             | <b>12</b>      | <b>200</b> | <b>200</b> | <b>400</b>   |
| <b>Semester IV – Finance Specialization Core Courses</b>       |  |                |            |            |              |
| <b>Course Code</b>   | <b>Specialization subject</b>            | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| SC FIN-02  | Financial Markets and Banking Operations | 3              | 50         | 50         | 100          |
|  | <b>Total</b>                             | <b>3</b>       | <b>50</b>  | <b>50</b>  | <b>100</b>   |
| <b>Semester IV - Specialization Elective - Any 4 – Finance</b> |  |                |            |            |              |
| <b>Course Code</b>   | <b>Specialization subject</b>            | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| SE - FIN-13  | Rural and Micro Finance                  | 3              | 50         | 50         | 100          |
| SE - FIN-14  | Current Trends & Cases in Finance        | 3              | 50         | 50         | 100          |
| SE - FIN-15  | Financial Modeling                       | 3              | 50         | 50         | 100          |

|  |   |                |            |            |              |
|--|---|----------------|------------|------------|--------------|
| SE - FIN-16  | Fixed Income Securities                     | 3              | 50         | 50         | 100          |
| SE - FIN-17  | Project Finance and Trade Finance           | 3              | 50         | 50         | 100          |
| SE - FIN-18  | Strategic Cost Management                   | 3              | 50         | 50         | 100          |
| SE - FIN-19  | Corporate Financial Restructuring           | 3              | 50         | 50         | 100          |
| SE - FIN-20  | Commodities Market                          | 3              | 50         | 50         | 100          |
|  | <b>Total</b>                                | <b>12</b>      | <b>200</b> | <b>200</b> | <b>400</b>   |
| <b>Semester IV – Human Resource Management Specialization Core Courses</b>       |   |                |            |            |              |
| <b>Course Code</b>   | <b>Specialization subject</b>               | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| SC HR-02   | Labour Welfare                              | 3              | 50         | 50         | 100          |
|  | <b>Total</b>                                | <b>3</b>       | <b>50</b>  | <b>50</b>  | <b>100</b>   |
| <b>Semester IV - Specialization Elective - Any 4 - Human Resource Management</b> |   |                |            |            |              |
| <b>Course Code</b>   | <b>Specialization subject</b>               | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| SE - HR - 13   | Best Practices in HRM                       | 3              | 50         | 50         | 100          |
| SE - HR - 14   | Compensation & Reward Management            | 3              | 50         | 50         | 100          |
| SE - HR - 15   | e HRM                                       | 3              | 50         | 50         | 100          |
| SE - HR - 16   | Performance Management System               | 3              | 50         | 50         | 100          |
| SE - HR - 17   | Change Management & New Technologies in HRM | 3              | 50         | 50         | 100          |
| SE - HR - 18   | Designing HR Policies                       | 3              | 50         | 50         | 100          |



|   |   |                |            |            |              |
|---|---|----------------|------------|------------|--------------|
| SE - HR - 19  | Mentoring & Coaching                            | 3              | 50         | 50         | 100          |
| SE - HR - 20  | Employee Engagement and Ownership               | 3              | 50         | 50         | 100          |
|   | <b>Total</b>                                    | <b>12</b>      | <b>200</b> | <b>200</b> | <b>400</b>   |
| <b>Semester IV – Operations and Supply Chain Management Specialization Core Courses</b>       |   |                |            |            |              |
| <b>Course Code</b>  | <b>Specialization subject</b>                   | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| SC OSCM-02  | Supply Chain Management                         | 3              | 50         | 50         | 100          |
|   | <b>Total</b>                                    | <b>3</b>       | <b>50</b>  | <b>50</b>  | <b>100</b>   |
| <b>Semester IV - Specialization Elective - Any 4 - Operations and Supply Chain Management</b> |   |                |            |            |              |
| <b>Course Code</b>  | <b>Specialization subject</b>                   | <b>Credits</b> | <b>FA</b>  | <b>SA</b>  | <b>Marks</b> |
| SE - OPE-13   | Industry 4.0                                    | 3              | 50         | 50         | 100          |
| SE - OPE-14   | Six Sigma for Operations                        | 3              | 50         | 50         | 100          |
| SE - OPE-15   | Toyota Production System                        | 3              | 50         | 50         | 100          |
| SE - OPE-16   | Supply Chain Strategy                           | 3              | 50         | 50         | 100          |
| SE - OPE-17   | World Class Manufacturing                       | 3              | 50         | 50         | 100          |
| SE - OPE-18   | Financial Perspectives in Operations Management | 3              | 50         | 50         | 100          |
| SE - OPE-19   | Facilities Planning                             | 3              | 50         | 50         | 100          |
| SE - OPE-20   | Sustainable Supply Chains                       | 3              | 50         | 50         | 100          |
|   |   |                |            |            |              |
|   | <b>Total</b>                                    | <b>12</b>      | <b>200</b> | <b>200</b> | <b>400</b>   |
| <b>Semester IV – Business Analytics Specialization Core Courses</b>                           |   |                |            |            |              |

| Course Code   | Specialization subject                           | Credits   | FA         | SA         | Marks      |
|---|--|-----------|------------|------------|------------|
| SC BA-02  | Artificial Intelligence in Business Applications | 3         | 50         | 50         | 100        |
|   | <b>Total</b>                                     | <b>3</b>  | <b>50</b>  | <b>50</b>  | <b>100</b> |
| <b>Semester IV - Specialization Elective - Business Analytics</b> |  |           |            |            |            |
| Course Code   | Specialization subject                           | Credits   | FA         | SA         | Marks      |
| SE - BA-13  | Workforce Analytics                              | 3         | 50         | 50         | 100        |
| SE - BA-14  | Social media, Web & Text Analytics               | 3         | 50         | 50         | 100        |
| SE - BA-15  | Sparks & Scala                                   | 3         | 50         | 50         | 100        |
| SE - BA-16  | E Commerce Analytics-II                          | 3         | 50         | 50         | 100        |
| SE - BA-17  | Healthcare Analytics                             | 3         | 50         | 50         | 100        |
| SE - BA-18  | Predictive Modelling using SPSS Modeler          | 3         | 50         | 50         | 100        |
| SE - BA-19  | Marketing Analytics                              | 3         | 50         | 50         | 100        |
| SE - BA-20  | Retailing Analytics                              | 3         | 50         | 50         | 100        |
|   | <b>Total</b>                                     | <b>12</b> | <b>200</b> | <b>200</b> | <b>400</b> |
|   | <b>Grand Total Sem IV</b>                        | <b>26</b> | <b>400</b> | <b>400</b> | <b>800</b> |

|                   | No. OF SUBJECTS | Credit   |
|-------------------|-----------------|----------|
| GC (Generic Core) | <b>3</b>        | <b>8</b> |

|                                     |           |           |
|-------------------------------------|-----------|-----------|
| RP (Research Project, Dissertation) | <b>1</b>  | <b>6</b>  |
| SC (Subject Core)                   | <b>2</b>  | <b>6</b>  |
| SE (Subject Elective)               | <b>8</b>  | <b>24</b> |
| OJT (On the job training, SIP)      | <b>1</b>  | <b>8</b>  |
| <b>Total</b>                        | <b>15</b> | <b>52</b> |

| <b>Year</b>  | <b>Sem</b> | <b>Credits</b> | <b>Marks</b> |
|--------------|------------|----------------|--------------|
| <b>1</b>     | <b>I</b>   | <b>26</b>      | <b>800</b>   |
| <b>1</b>     | <b>II</b>  | <b>26</b>      | <b>800</b>   |
| <b>2</b>     | <b>III</b> | <b>26</b>      | <b>800</b>   |
| <b>2</b>     | <b>IV</b>  | <b>26</b>      | <b>800</b>   |
| <b>Total</b> | <b>IV</b>  | <b>104</b>     | <b>3200</b>  |

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**Two Year Full Time Four Semester POST GRADUATE PROGRAMME**

**Semester: III & IV**

**MBA Syllabus Curriculum for the Batch of 2024 - 2026**

### Semester III

| <b>Course Name: Strategic Management</b>   |  |   | <b>Semester: III</b> |
|--|--|---|----------------------|
| <b>Course Code: GC-14</b>  |  | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COGC-14.1 REMEMBERING DESCRIBE the basic terms and concepts in Strategic Management.</p> <p>COGC-14.2 UNDERSTANDING EXPLAIN the various facets of Strategic Management in a real-world context.</p> <p>COGC-14.3 UNDERSTANDING DESCRIBE the trade-offs within and across strategy formulation, implementation, appraisal.</p> <p>COGC-14.4 APPLYING INTEGRATE the aspects of various functional areas of management to develop a strategic perspective.</p> <p>COGC-14.5 ANALYSING EXPLAIN the nature of the problems and challenges confronted by the top management team and the approaches required to function effectively as strategists.</p> <p>COGC-14.6 CREATING DEVELOP the capability to view the firm in its totality in the context of its environment.</p> |  |   |                      |
| Module No.   | Module Name                              | Details   | No. of Hours (L+T+P) |
| 1  | Understanding Strategy                   | <p>Concept of strategy, Levels of Strategy - Corporate, Business and Functional. Strategic Management - Meaning and Characteristics. Distinction between strategy and tactics, Strategic Management Process, Stakeholders in business, Roles of stakeholder in strategic management. Strategic Intent – Meaning, Hierarchy, Attributes, Concept of Vision &amp; Mission - Process of envisioning, Difference between vision &amp; mission.</p> <p>Characteristics of good mission statements. Business definition using Abell's three dimensions. Objectives and goals, Linking objectives to mission &amp; vision. Critical success factors (CSF), Key Performance Indicators (KPI), Key Result Areas (KRA). Components of a strategic plan, Analyzing Company's External Environment: Environmental appraisal, Scenario planning – Preparing an Environmental Threat and Opportunity Profile (ETOP). Analyzing Industry Environment: Industry Analysis - Porter's Five Forces Model of competition, Entry &amp; Exit Barriers</p> | [7+2]                |
| 2  | Analyzing Company's Internal Environment | <p>Resource based view of a firm. Analyzing Company's Resources and Competitive Position - meaning, types &amp; sources of competitive advantage, competitive parity &amp; competitive disadvantage. VRIO Framework, Core Competence, characteristics of core competencies, Distinctive competitiveness. Benchmarking as a method of comparative analysis. Value Chain Analysis Using Porter's Model:</p>   | [7+2]                |

|   |                                |   |       |
|---|--------------------------------|---|-------|
|   |                                | primary & secondary activities. Organizational Capability Profile: Strategic Advantage Profile, Concepts of stretch, leverage & fit, ways of resource leveraging – concentrating, accumulating, complementing, conserving, recovering.<br>Portfolio Analysis: Business Portfolio Analysis – BCG Matrix – GE 9 Cell Model  |       |
| 3 | Generic Competitive Strategies | Meaning of generic competitive strategies, Low cost, Differentiation, Focus – when to use which strategy. Grand Strategies: Stability, Growth (Diversification Strategies, Vertical Integration Strategies, Mergers, Acquisition & Takeover Strategies, Strategic Alliances & Collaborative Partnerships), Retrenchment – Turnaround, Divestment, Liquidation, Outsourcing Strategies   | [7+2] |
| 4 | . Strategy Implementation      | Barriers to implementation of strategy, Mintzberg's 5 Ps – Deliberate & Emergent Strategies. Mc Kinsey's 7s Framework. Organization Structures for Strategy Implementation: entrepreneurial, functional, divisional, SBU, Matrix, Network structures, Cellular/ Modular organization, matching structure to strategy, organizational design for stable Vs. turbulent environment, Business Continuity Planning. Changing Structures & Processes: Reengineering & strategy implementation – Principles of Reengineering. Corporate Culture: Building Learning organizations, promoting participation through technique of Management by Objectives (MBO). Strategy Evaluation: Operations Control and Strategic Control - Symptoms of malfunctioning of strategy – Concept of Balanced scorecard for strategy evaluation | [7+2] |
| 5 | Blue Ocean Strategy            | Difference between blue & red ocean strategies, principles of blue ocean strategy, Strategy Canvass & Value Curves, Four Action framework. Business Models: Meaning & components of business models, new business models for Internet Economy– E-Commerce Business Models and Strategies – Internet Strategies for Traditional Business –Virtual Value Chain. Sustainability & Strategic Management: Start-ups-growth and reasons for decline. Threats to sustainability, Integrating Social & environmental sustainability issues in strategic management, meaning of triple bottom line, people-planet-profits.   | [7+2] |

**Suggested Text Books:**

1. Strategic Management and Business Policy by Azhar Kazmi, Tata McGraw-Hill
2. Strategic Management by Ireland, Hoskisson & Hitt, Indian Edition, Cengage Learning
3. Crafting and Executing Strategy- The Quest for Competitive Advantage by Thompson, Strickland, Gamble & Jain, Tata McGraw-Hill
4. Concepts in Strategic Management & Business Policy by Thomas L. Wheelen & J. David Hunger, Pearson

**Suggested Reference Books:**

1. Strategic Management by Dr. Yogeshwari L. Giri
2. Competitive Strategy: Techniques for Analyzing Industries and Competitors by Michael E. Porter, First Free Press Edition
3. Competing for the Future by Gary Hamel & C.K. Prahalad.
4. Blue Ocean Strategy by Kim & Mauborgne

|   |                   |                      |
|---|-------------------|----------------------|
| <b>Course Name:</b> Summer Internship Program/On the Job Training |                   | <b>Semester: III</b> |
| <b>Course Code: OJT 01</b>  | <b>Credits: 8</b> | <b>Marks: 200</b>    |

At the end of Second Semester each student shall undertake a Summer Internship Project (SIP) for a **minimum of 8 weeks**. It is mandatory for the student to seek advance written approval from the faculty guide and the Director of the Institute about the topic and organization before commencing the SIP.

The SIP may or may not have a Functional Focus, i.e. the student may take up a SIP in his/her intended area of specialization or in any other functional area of management. **Ideally the SIP should exhibit a cross-functional orientation.** SIP can be carried out in a Corporate Entity / NGO / SME / Government Undertaking / Cooperative Sector. SIP may be a research project – based on primary / secondary data or may be an operational assignment involving working by the student on a given task/assignment/project/ etc. in an organization / industry. It is expected that the SIP shall sensitize the students to the demands of the workplace.

**Each student shall maintain a SIP Progress Diary detailing the work carried out and the progress achieved on a daily basis.** The student shall submit a written structured SIP report based on work done during this period. The student shall submit the SIP Progress Diary along with the SIP Report.

**Students shall also seek a formal evaluation of their SIP from the company guide.** The formal evaluation by the company guide shall comment on the nature and quantum of work undertaken by the student, the effectiveness and overall professionalism. The learning outcomes of the SIP and utility of

the SIP to the host organization must be specifically professionalism. The learning outcomes of the SIP and utility of the SIP to the host organization must be specifically highlighted in the formal evaluation by the company guide. The SIP evaluation sheet duly signed and stamped by the industry guide shall be included in the final SIP report.

The SIP report must reflect 8 weeks of work and justify the same. The SIP report should be well documented and supported by –

1. Institute's Certificate
2. Certificate by the Company
3. Formal feedback from the company guide
4. Executive Summary
5. Organization profile
6. Outline of the problem/task undertaken
7. Research methodology & data analysis (in case of research projects only)
8. Relevant activity charts, tables, graphs, diagrams, AV material, etc.
9. Conclusion
10. Learning of the student through the project
11. Contribution to the host organization
12. References in appropriate referencing styles. (APA, MLA, Harvard, Chicago Style etc.)

The completion of the SIP shall be certified by the respective Faculty Guide & approved by the Director of the Institute. The external organization (Corporate / NGO/ SME/ Government Entity/ Cooperative/ etc.) shall also certify the SIP work.

The students shall submit a spiral bound copy of the SIP report by 15th September (The date may change according to Academic Calendar). The Institute shall conduct **formative assessment for evaluation of the SIP for 100 marks** between 15th September to 30th September (The date may change according to Academic Calendar). The Panel shall comprise of two evaluators appointed by the Director of the Institute / Head of Department (for MBA departments in engineering colleges). Institutes are encouraged to involve senior alumni, industry experts, recruiters to conduct the internal viva- voce. The internal viva-voce panel shall provide a detailed assessment of the SIP report and suggest changes required, if any.

**After the formative assessment**, the student shall finalize the SIP report by incorporating all the suggestions and recommendations of the internal viva-voce panel. The internal guide shall then issue the Institute's Certificate to the student.

The student shall submit TWO hard copies of the project report before 10th October in Sem III. (The date may change according to Academic Calendar). One hard copy of the SIP report is to be returned to the student by the Institute after the External Viva-Voce. In the interest of environmental considerations, students are encouraged to print their project reports on both faces of the paper.



**There shall be an external Summative Assessment for the SIP for 100 marks.** The Summative assessment shall be conducted before/after the theory exam of Semester III.

**The Formative & the Summative viva-voce shall evaluate the SIP based on:**

1. Adequacy of work undertaken by the student
2. Application of concepts learned in Sem I and II
3. Understanding of the organization and business environment
4. Analytical capabilities
5. Technical Writing & Documentation Skills
6. Outcome of the project – sense of purpose
7. Utility of the project to the organization
8. Variety and relevance of learning experience

Copies of SIP report and records of evaluation shall be maintained by the Institute for a period of 3 academic years.

| <b>Course Name: Services Marketing</b>  |   |   | <b>Semester: III</b> |
|---|---|---|----------------------|
| <b>Course Code: SC MKT- 01</b>  |   | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSCMKT01.1 REMEMBERING RECALL the key concepts in services marketing</p> <p>COSCMKT01.2 UNDERSTANDING Describe the role of Extended Marketing Mix in Services in managing consumer behaviour and in improving service quality.</p> <p>COSCMKT01.3 APPLYING Identify concepts related to service experience in the context of real world offering.</p> <p>COSCMKT00.4 ANALYSING Examine the elements of services marketing and service quality in contemporary context.</p> <p>COSCMKT01.5. CREATING EVALUATE Segmentation, Targeting &amp; Positioning of Services and assess its importance and challenges in the dynamic marketing environment</p> |   |   |                      |
| Module No.  | Module Name   | Details   | No. of Hours (L+T+P) |
| 1   | Services Marketing - An Insight into Emerging Sector of Economy | Introduction, Nature & Definition of Services, Difference between goods & Services: Service-Continuum, Key classifications of the Services, Service Characteristics; Traditional elements of Services Mix; Need for extended marketing mix elements in Services. Need to study Service Marketing: Evolution of Services as Value Contributors, Service Sector beyond 2020 - Indian, Asian & Global perspectives | 7+2                  |
| 2   | Role of Process,  | Process - Service system - Service system, Importance of Process in Services; Service Blueprint; Mapping the  | 7+2                  |

|   |   |   |     |
|---|---|---|-----|
|   | People & Physical Evidence in Services Marketing                | Process- Horizontally & Vertically; Variety in Service Process; Value addition in Process. People- The Key to a Service Marketing; People Dimensions in Services Marketing; Service Encounters; High- Contact & Low-Contact Services; Emotions in Service Situations; Service Profit Chain; Service Culture Servicescape: Physical Evidence- Contribution of Physical Evidence to the Service Understanding, Managing the Physical Evidence in Service Marketing  |     |
| 3 | Managing Consumer Behavior & Service Quality                    | Consumer and Organizational Behavior in Services – Understanding Our Customers & Collaborators in services, stages of service consumption Service Quality- Levels & Dimensions; Service Quality Models - ServQual, GAP Model and Critical Incident Model. Managing demand and capacity - capacity constraints, understanding demand patterns, strategies for matching and adjusting capacity and demand Service Recovery, Service Recovery Process, Impact of Service Failures, Nature of Complaining Behavior-Complaint Resolution | 7+2 |
| 4 | Segmentation, Targeting & Positioning of Services in Modern Era | Bases for Segmentation of Services; Selecting Target Market & Approaches; Techniques of Positioning Services. Managing of Relationships in Services Marketing, service marketing triangle, Current customer retention and customer lifetime value. Importance & Challenges for STP of services in modern era  | 7+2 |
| 5 | Marketing of Services: New Paradigm and Perspectives            | Customer as the Centre of Attention; Services as Key Differentiators; New Service Opportunities: Emergence of Work from Home, Automation & New Technologies in Services; Service Marketing Opportunities in India Applications of Service Marketing: Marketing in Tourism, Retail, Hospitality, Airlines, Telecom, IT & ITES, Sports & Entertainment, Logistics, Health Care Sector, Event Management Services and Banks & Financial Sector, on- Profit Organizations. Emergence of e-services in various sectors                   | 7+2 |

Note: Relevant cases must be discussed for the above all units.

#### **Suggested Text Books:**

1. Service Marketing Concepts Applications & Cases Mk Rampal, S. Gupta, Galgotia Publishing Company
2. Services Marketing: People Technology Strategy, by Wirtz Jochen, Lovelock Christopher, Chatterjee Jayanta, Pearson Education; 8th edition (2017)
3. Services Marketing by Zeithaml, Bitner, Gremler & Pandit, TMGH, 4th Edition
4. Services Marketing: Global Edition by Christopher Lovelock, Jochen Wirtz, Pearson Education; Services Marketing- Valarie A Zeithaml, Mary Jo Bitner, Dwayne D. Gremler, Ajay Pandit, McGraw-Hill

**Suggested Reference Books:**

1. Service Management: Operations, Strategy, and Information Technology, James A. Fitzsimmons, Mona J. Fitzsimmons, McGraw-Hill/Irwin, 2006
2. Services Marketing: Concepts and Practices by Ramneek Kapoor, Justin Paul & Biplab Halder, McGraw Hill
3. Services Marketing by Rajendra Nargundkar, McGraw-Hill, 3rd Edition
4. Services Marketing, 2nd Edition by Rao -Pearson
5. Service Marketing - by C. Bhattacharya, Excel Books 6. Services Marketing – K. Rama Mohana Rao, Pearson; 2 edition (2011)

**Suggested Journals**

1. Journal of Services Marketing Information
2. Journal of Services Marketing; Emerald Group Publishing Ltd.
3. International Journal of Service Marketing (IJSN)

**Suggested Swayam Course**

1. Services Marketing: A Practical Approach Indian Institute of Technology, Kharagpur and NPTEL via Swayam
2. Services Marketing - The Next Level via Open Learning
3. Service Marketing: A practical approach by Prof. Dr. Biplab Datta
4. Services Marketing: Integrating People, Technology, Strategy by Prof. Zillur Rahman

| Course Name: Personal Selling Lab   |            | Semester: III |
|---|------------|---------------|
| Course Code: SE - MKT - 05  | Credits: 3 | Marks: 100    |
| COURSE OUTCOMES: After completion of this course the students will be able to<br>COSEMKT05.1- REMEMBERING EXPLAIN the theories and concepts that are central to personal selling.<br><br>COSEMKT05.2- APPLYING Apply the interpersonal and team skills necessary in successful relationship selling.<br><br>COSEMKT05.3- ANALYSING ILLUSTRATE the use of various sales techniques needed to achieve a profitable sale in a real-world scenario for a real-world product/ service / e product / e-service.<br><br>COSEMKT05.4- CREATING DEVELOP a customer plan that identifies all elements of personal selling, essential to creating successful sales in a real-world scenario for a real-world product/ service / e-product / e-service. |            |               |

COSEMKT05.5- CREATING CREATE sales presentation for a real-world product/ service / e-product / eservice and for variety of selling situations.

| Module No. | Module Name                     | Details  | No. of Hours (L+T+P) |
|------------|---------------------------------|--|----------------------|
| 1          | Personal Selling & Salesmanship | Defining Personal selling and salesmanship, selling as a profession, Objectives and importance of personal selling, Essentials of Personal Selling, Traditional & Modern Selling Approach, Ethical and Legal Considerations in Personal Selling, Role of Selling in Marketing, Types of selling, Qualities of Winning Sales Professionals - Physical, Mental, Social and Character Traits. Theories of Selling: AIDA, right set of circumstances theory of selling, Buying Formula theory of selling, Behavioral Equation theory, Career in Personal Selling / Sales; What Companies Look for in New Salespeople   | 7+2                  |
| 2          | Personal Selling Process        | Prospecting- objectives, sources and methods, Lead Generation, Getting appointment, Sales Responsibilities and Preparation; Pre approach-step toward sales planning-elements of sales call planning; Customer need discovery & Analysis; Approach- sales presentation/ demonstration- selection of appropriate presentation method, essentials of presentation, sales presentation mix- persuasive communication, visual presentation and dramatization, Use of questions- Direct questions, non- directive questions, rephrasing, redirect questions; Sales Leads, Account Management, Building long-term partnership by Selling, Strategic Understanding of Company, Products, Competition, and Markets Strategic Understanding of Company, Strategic Understanding of Products. | 7+2                  |
| 3          | Personal Selling Process        | Handling objection- hidden, stalling, no need, money objection, etc., objection handling techniques, Closing the sale- reading buying signals, closing techniques- the alternative choice, assumptive, the compliment, the summary, the continuous, the minor point, the tea account, the standing room and the probability; Follow up after sales- Discuss service requirements, handling complaints, Key Account Management. Customer Service: meaning of Customer Service, Importance of Customer Satisfaction Customer Follow-Up Strategies, Customer Service Questionnaire, Evaluating Customer Service.  | 7+2                  |
| 4          | Personal Selling Skills         | Negotiation, Communicating Effectively with Diverse Customers – Meaning of Communication, Developing Communication Skills, essentials of Effective Communicator, Communication Styles, making choice of Communication Style, Communication and Trust Building , Listening Skills, Presentation and Demonstration, , Body Language- Space, Moments, Eye Contacts & Postures, Follow up Calls, Writing Effective Sales Letters and e- mails, Positive Mental Attitude, Goal Setting, Effective Dressing, Managing  | 7+2                  |

|   |  |   |     |
|---|--|---|-----|
|   |  | Yourself, Managing Time and Territory Self-Management Effectiveness and Efficiency Sales Activities, Setting Priorities Account And Territory Management, Working Smarter , Cold Call Mechanism, Tools and Technical aids for Selling.  |     |
| 5 | Personal Selling Applications and Situations | Selling of services- financial, IT and telecommunication, advertising, education; Selling of industrial products- raw material, capital goods, supplies; Selling of consumer goods- convenience, shopping and specialty goods; International selling; Selling in rural markets; Selling high and low involvement products; Selling to new and existing customers Market; Selling to end users, intermediaries, government departments and agencies; Selling individual and groups | 7+2 |

### Suggested Text Books:

1. Fundamentals of Selling by Charles M. Futrell, Tata McGraw Hill 10th Edition
2. A B C's of Selling by Charles M. Futrell, AITBS, New Delhi,
3. World Class Selling by Roy Chitwood, JAICO Publishing House
4. Successful Selling Solutions by Julian Clay, Viva Books
5. Value Added Selling by Tom Reilly, TMGH Suggested

### Reference Books:

1. Achieving Sales Excellence by Howard Stevens, Viva Books Pvt. Ltd.
2. Power Sales Presentation by Stephan Schiffman, Adams Media Corporations.
3. Sales Essentials by Stephan Schiffman, Avon Massachusset
4. Smarter Selling by Keith Dugdale& Lambert, Prentice Hall.
5. Successful Sales- Get Brilliant Results Fast by Pauline Rowson, Viva Books.
6. Successful Selling Skills by Richard Denny, The Sunday Times.
7. The Art and Science of Negotiation by Raiffa H, Cambridge: Belknap/Harvard Press 8. Getting to Yes by Fisher R and Ury W, Harmondsworth Middlesex, GB Penguin Books

|  |                   |                      |
|--|-------------------|----------------------|
| <b>Course Name: Product &amp; Brand Management</b>   |                   | <b>Semester: III</b> |
| <b>Course Code: SE - MKT - 06</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>    |
| COURSE OUTCOMES: After completion of this course the students will be able to<br>COSEMKT06.1: REMEMBERING Recall and identify the different product classifications, characteristics, and types of product strategies.<br><br>COSEMKT06.2: UNDERSTANDING Explain the stages in new product development, product differentiation, and positioning strategies. |                   |                      |

COSEMKT06.3: APPLYING Apply product strategies and brand building techniques in real-world situations to improve brand equity and market positioning.

COSEMKT06.4: ANALYSING Break down product strategies and branding decisions to evaluate their effectiveness in different sectors such as industrial, retail, service, banking, and insurance.

COSEMKT06.5: CREATING Evaluate the impact of branding decisions on brand equity, including methods for brand valuation and revitalization.

| Module No. | Module Name                        | Details   | No. of Hours (L+T+P) |
|------------|------------------------------------|---|----------------------|
| 1          | Product Decisions                  | Product Concepts – Product Classification – Consumer Goods and Industrial Goods Classification – Product Line and Product Mix – Product Characteristics – Responsibility of Product Manager – Types of Product Strategies | 7+2                  |
| 2          | Product Management                 | Product differentiation – Product Strategies – Stages in the New Product Development – Product Positioning Strategies – Packaging Management  | 7+2                  |
| 3          | Branding Decisions                 | Essentials of Good Brand Name – Types of Brands – Advantages of branding – Brand Loyalty – Brand Valuation Methods – Brand Revitalization   | 7+2                  |
| 4          | Creating and Managing Brand Equity | Advantages of Brand Equity – Brand Building Strategies – Brand Extension – New Brand Failures -   | 7+2                  |
| 5          | Branding in Different Sectors      | Branding in Industrial sector, Retail Sector, Service sector, Banking Sector and Insurance Sector.  | 7+2                  |

Text book:

· Marketing Management –Philip Kotler, Kevin Lane Keller ,15th Edition, Pearson.

REFERENCES:

- Product & Brand Management – Text & Cases, Prof.K. VenugopalRao, Himalaya
- Product Management in India, RamanujMajumdar, PHI
- Product Management, C.Nandan, , TMH.
- Compendium of Brand Management,Chunawalla. S. A, Himalaya
- Product & Brand Management, Mathur.U.C, Excel
- Brand Positioning, Subroto Sengupta, TMH.
- Marketing and Branding, S. Ramesh Kumar, Pearson.
- What's in a Brand? John Philip Jones, TMH
- Brand Management – Text & Cases, Harsh V Verma, Excel
- Become the Brand of Choice, Jason Hartman, Jaico.

| <b>Course Name: Sales and Distribution Management</b>   |                                       |  | <b>Semester: III</b> |
|---|---------------------------------------|--|----------------------|
| <b>Course Code: SE - MKT - 07</b>   |                                       | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p><b>COSEMKT07.1 REMEMBERING</b> Recall the basic concepts and terminologies associated with sales management, marketing channels, and channel intermediaries.</p> <p><b>COSEMKT07.2 UNDERSTANDING</b> Explain the functions of marketing channels, the structure of sales management systems, and the objectives of sales personnel.</p> <p><b>COSEMKT07.3 APPLYING</b> Apply knowledge to design and administer sales compensation plans, conduct training programs, and evaluate marketing channel performance.</p> <p><b>COSEMKT07.4 ANALYSING</b> Analyse the components of a sales management system and evaluate the effectiveness of marketing channels.</p> <p><b>COSEMKT07.5 CREATING</b> Evaluate the effectiveness of sales evaluation programs, compensation structures, and channel management strategies.</p> |                                       |  |                      |
| Module No.  | Module Name                           | Details  | No. of Hours (L+T+P) |
| 1   | Overview of Sales Management          | Nature and Scope of Sales Management; Setting and Formulating Personal Selling Objectives; Recruiting and Selecting Sales Personnel.   | 7+2                  |
| 2   | Compensation, Training and Motivation | Developing and Conducting Sales Training Programmes; Designing and Administering Compensation Plans; Motivating Sales Personnel.   | 7+2                  |
| 3   | Sales Evaluation and Cost Analysis    | Sales Meetings and Sales Contests; Designing Territories and Allocating Sales Efforts; Objectives and Quotas for Sales Personnel; Developing and Managing Sales Evaluation Programme; Sales Cost and Cost Analysis.  | 7+2                  |
| 4   | Overview of Marketing Channels        | An Overview of Marketing Channels, their Structure, Functions and Relationships; Channel Intermediaries -Wholesaling and Retailing; Logistics of Distribution; Channel Planning, Organisational Patterns in Marketing Channels; Managing Marketing Channels. | 7+2                  |
| 5   | Evaluation of Marketing Channels      | Information System and Channel Management; Assessing Performance of Marketing Channels; International Marketing Channels.  | 7+2                  |

### Textbooks

Sales Management: Concepts and Cases by Richard R. Still, Edward W. Cundiff, Norman A. P. Govoni

Sales Management: A Global Perspective by Pramod Kumar and S. Ramesh

Fundamentals of Sales Management for the Newly Appointed Sales Manager by William S. Hatch

### Reference Books

Sales Management: Theory and Practice by Douglas J. Dalrymple and William L. Cron

Strategic Sales Management: A Leadership Approach by Nigel F. Piercy

Marketing Channels: A Strategic Approach by Anne T. Coughlan, Erin Anderson, Louis W. Stern, and Adel I. El-Ansary.

| <b>Course Name: Business to Business Marketing</b>  |  |   | <b>Semester: III</b> |
|---|--|---|----------------------|
| <b>Course Code: SE - MKT - 08</b>   |  | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| COURSE OUTCOMES: After completion of this course the students will be able to<br>COSEMKT08.1 REMEMBERING DEFINE the terms and concepts related to Business-to-Business marketing<br><br>COSEMKT08.2 UNDERSTANDING EXPLAIN the terms and concepts used in business-to-business marketing<br><br>COSEMKT08.3 APPLYING IDENTIFY challenges and opportunities in Business-to-Business Marketing.<br><br>COSEMKT08.4 ANALYSING FORMULATE segmentation, targeting and positioning, consumer buying behavior and marketing mix in the context of Business-to-Business marketing<br><br>COSEMKT08.5 CREATING DESIGN marketing mix elements considering business-to-business sales and service situations. |  |   |                      |
| Module No.  | Module Name                                | Details   | No. of Hours (L+T+P) |
| 1   | Overview of Business-to-Business Marketing | Introduction to Business-to-Business Marketing: Business, Organizational & Government Markets, Organizational Buying Behavior, Concept of the Business-to-Business (B2B) Marketing, Comparison of Business-to-Business & Business-to-Consumer Marketing. Buying Situations, buy grid Framework, Role of Buying Centre, Models of B2B Marketing – Webster & Wind Model, Sheth Model, Impact of Macro/Micro Environmental factors on decision making. | 7+2                  |



|   |   |   |     |
|---|---|---|-----|
| 2 | Segmentation, Targeting & Positioning for B2B Markets       | Market Segmentation Bases: Macro Variables - Industry Characteristics, Company Size, Customer Location, End User Markets, product Applications. Micro Variables: Customer Interaction needs, Organizational Capabilities, Purchasing Policies, Purchasing Criteria, and Personal Characteristics. Target Markets: Concentrated Marketing, Differentiated Marketing, Undifferentiated Marketing. Criteria used for choosing a target market. Positioning   | 7+2 |
| 3 | Product and Pricing Strategy for B2B Markets                | Industrial Products: Definition of an Industrial Product, Industrial Product Lifecycle & Strategies across the PLC, Product strategies for New Products and Existing Products, Costs, volume and Experience curve. After Sales Service – Importance, Use of Innovation, Competitiveness & Technology. Strategies used for marketing of Projects, Industrial Services, and High technology products. Pricing: Factors influencing Pricing Decisions, Pricing Strategies – Competitive bidding, Pricing of New Products, Pricing Policies, Commercial Terms and Conditions, Contracts, Hiring & Leasing, Negotiation, Bargaining, Persuasion & Conviction. Methods used to Influence Industrial Customers, Special Dealing between Buyer and Sellers, Reciprocity, Ethical Issues. International Market based pricing | 7+2 |
| 4 | Promotion Mix for B2B Markets                               | Personal Selling: Role & Characteristics of Personal Selling, Development & Management of Sales Force, Key Account Management - ABC Analysis of Industrial Customers. Promotions: Developing Industrial Communication Program, Trade Shows, Exhibitions, Catalogues, Samples, Public Relations, and Advertising.  | 7+2 |
| 5 | Distribution Channels and Current Trends for B-to-B markets | Distribution Channels: Distinctive Nature of B-To-B Distribution Channels, Types of Industrial Middlemen, Channel Flow Design, Formulating Distribution Strategies and Cost Benefit Analysis, Current Trends for B-to-B markets: Use of social media, Use of technology in branding, Use of digital platforms by B-to-B organizations, Virtual Marts.   | 7+2 |

### **Suggested Text Books:**

**Industrial Marketing:** Text and Cases Krishna K.

Havaldar Tata McGraw-Hill Education Industrial Marketing by Hill,

Alexander and cross, Irwin Industrial Marketing by Mukerjee, Excel Book

**Suggested Reference Books:** Business to Business Marketing by Ross Brennan, Louise Canning, Raymond MacDowell industrials Marketing by Mathur, New age international Publishers

**Supplementary Reading Material:** - 1. Marketing White Book (Latest edition)

**Suggested MOOCs:**

International B2B (Business-to-Business) Marketing on Coursera

B2B Marketing Foundations Training (LinkedIn Learning – Lynda)

B2B Pricing Strategy Online Program (IMD)

| <b>Course Name: International Marketing</b>  |               |  | <b>Semester: III</b> |
|--|---------------|--|----------------------|
| <b>Course Code: SE - MKT - 09</b>  |               | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEMKT09.1 REMEMBERING DESCRIBE various terms and key concepts associated with international marketing.</p> <p>COSEMKT09.2 UNDERSTANDING EXPLAIN various key concepts used in all aspects of international marketing.</p> <p>COSEMKT09.3 APPLYING ILLUSTRATE all stages in international marketing management process.</p> <p>COSEMKT09.4 ANALYSING EXAMINE various facets of international marketing environment and the relevant aspects of international marketing management process from a data driven decision perspective.</p> <p>COSEMKT09.5 ANALYSING JUDGE suitability of alternative market segmentation bases, target market selection, market entry strategies, positioning strategies and international marketing mix strategies based on assessment of international marketing environment.</p> <p>COSEMKT09.6 CREATING DESIGN appropriate market segmentation, target market, market entry strategies, positioning strategies and international marketing mix strategies for global business organizations.</p> |               |  |                      |
| Module No.   | Module Name   | Details  | No. of Hours (L+T+P) |
| 1  | Introduction: | Meaning, Nature, Scope and Importance of International Marketing; Management Orientations in the context of International Marketing EPRG Framework; Overview of International Marketing Management Process; International Marketing Environment and Its Effect on International Marketing– Economic Environment, Trade Environment, Social and Cultural Environment, Political Environment, Legal and Regulatory Environment, Demographic Environment, Natural Environment, Technological Environment. | 7+2                  |

|   |  |  |     |
|---|--|--|-----|
| 2 | Approaching International Marketing              | International Marketing Information System and International Marketing Research; International Market Segmentation; Target Market Selection; International Market Entry Strategies; International Positioning Strategies.  | 7+2 |
| 3 | International Marketing Mix I:                   | International Product Planning: Major Product Decisions - Product Features and Quality, Product Design, Branding, Packaging, Labeling, and Product Support Services; Product Standardization vs. Adaptation; New Product Development; IPR Issues; International Product Life Cycle; Managing Product Mix and Product Line. Pricing for International Markets: Factors affecting International Price Determination; Pricing Strategies for International Markets; Price Quotations and Terms of Sale, Delivery and Payment; Dumping; Gray Market; Transfer Pricing. | 7+2 |
| 4 | International Marketing Mix II:                  | Managing International Promotion: International Promotion Mix Decisions: Advertising, Sales Promotion, Public Relations and Publicity, Personal Selling, Direct Marketing; Standardization vs. Adaptation issue; Developing International Promotion Campaign. Distribution Managing International Distribution: Designing International Distribution Channels; Management of International Channel; Distribution Channel Dynamics; International Logistics Management. (   | 7+2 |
| 5 | Managing International Marketing in 21st Century | Patterns of International Marketing Organization; Leadership; Role and Significance of Digital Marketing and International Marketing; Developing International Competitiveness; Ethics, CSR and Social Responsiveness in Globalization Era.  | 7+2 |

#### Suggested Text Books:

1. Global Marketing Management by Keegan Warren J. and Green M.C. Pearson Education.
2. International Marketing: Analysis and Strategy by Sakon visit and John Shaw, Prentice Hall of India.
3. International Marketing by Cateora, Graham and Salwan, McGraw-Hill.
4. International Marketing Management by Subhash Jain, CBS Publishers & Distributors.
5. International Marketing by Rakesh Mohan Joshi, Oxford University Press. 6. International Marketing by Rajgopal, Vikas Publishing House. Suggested

#### Reference Books:

1. International Marketing by Czinkota and Ronkainen, Cengage Learning.
2. Global Marketing Management by Kotabe and Helsen, Wiley Publication.
3. International Marketing by Terpstra Vern and Sarathy Ravi, The Dryden Press.
4. Global Marketing by Svend Hollensen, Prentice Hall.

5. International Marketing: An Indian Perspective by Varshney R. L. and Bhattacharya B., Sultan Chand and Sons.

6. International Marketing by PK Vasudeva, Excel Books.

**Text book:**

· Marketing Management –Philip Kotler, Kevin Lane Keller ,15th Edition, Pearson.

**REFERENCES:**

- Product & Brand Management – Text & Cases, Prof.K. VenugopalRao, Himalaya
- Product Management in India, RamanujMajumdar, PHI
- Product Management, C. Nandan, , TMH.
- Compendium of Brand Management,Chunawalla. S. A, Himalaya
- Product & Brand Management, Mathur.U.C, Excel
- Brand Positioning, Subroto Sengupta, TMH.
- Marketing and Branding, S. Ramesh Kumar, Pearson.
- What's in a Brand? John Philip Jones, TMH
- Brand Management – Text & Cases, Harsh V Verma, Excel
- Become the Brand of Choice, Jason Hartman, Jaico.

| Course Name: Integrated Marketing Communications  |  |  | Semester: III        |
|---|--|--|----------------------|
| Course Code: SE - MKT - 10  |  | Credits: 3   | Marks: 100           |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEMKT10.1 REMEMBERING Describe the key concepts &amp; components of IMC</p> <p>COSEMKT10.2 UNDERSTANDING EXAMINE the role of integrated marketing communications in building brand identity, brand equity, and customer franchise.</p> <p>COSEMKT10.3 APPLYING Apply the integrated marketing communications tools in contemporary real-world scenarios.</p> <p>COSEMKT10.4 ANALYZE and critically evaluate the communications effects and results of an IMC campaign to determine its success for a variety of brands.</p> <p>COSEMKT10.5 ANALYSING Evaluate the IMC mix, advertising – sales promotion &amp; PR strategies with real world examples of products / services / e-products / e-services</p> <p>COSEMKT10.6 CREATING Develop an integrated creative message and concept to reach the target audience and deliver the brand promise through an IMC campaign.</p> |  |  |                      |
| Module No.  | Module Name                              | Details  | No. of Hours (L+T+P) |
| 1   | An Introducti on to Integrated Marketing | Meaning and role of Integrated Marketing Communication in marketing process, Role of IMC in creating brand identity, brand equity, Communication Process, Promotional Mix: Tools for IMC, The IMC Planning Process, Global IMC. The Value of IMC plans – information technology, changes in channel power, | 7+2                  |

|   |   |   |     |
|---|---|---|-----|
|   | Communi-<br>cation  | increase in competition, brand parity, integration of information, decline in the effectiveness of mass-media advertising.  |     |
| 2 | Advertisi-<br>ng - I:   | (a) Definition, History, Roles and Functions of Advertising, Types of Advertising, Steps in Development of Advertisement. (b) Advertising Design: Appeals, Message Strategies & Execution Framework: Advertising Design, Advertising Theory, Types of Advertising Appeals, Message Strategies, Cognitive strategies, Execution Strategies, Advertising Effectiveness. (c) Copywriting: Meaning and Definition of Copywriting, The Copywriter, Copywriting for Print, Copywriting guidelines, Radio Copywriting, TV Copywriting, writing for the Web, Tips for writing good web content, blog writing, storytelling. (10)  | 7+2 |
| 3 | Advertisi-<br>ng - II:  | (a) Media Planning and Strategies: Growth and Importance of Media, Meaning and Role of Media Planning, Media Planner & its role, Media Budget, Media buying Process, Market Analysis, Media Objectives, Developing and Implementing Media Strategies, Evaluating the effectiveness. (b) Print Media and Outdoor media: Characteristics of the press, Basic media concepts, Newspapers, Magazines, Factors to consider for magazine advertising, Packaging, Out-of-home Advertising. In Transit Advertising, Digital signboard, billboards, Point-of-Sale Advertising. (c) Broadcast and Internet Media: Meaning of Broadcast Media, Radio as Medium, Television as Medium, Internet Advertising, Email Advertising. OTT Advertising, Audio Music & Podcast, Social Media Advertising, Influencer Marketing, Mobile Advertising. (10) (D) Digital Media & Advertising: Advertising on Digital Media, Advertising Laws & Ethics: Adverting & Law, Advertising & Ethics, Pester Power, Intellectual Property Rights. | 7+2 |
| 4 | Sales Promotio-<br>n:   | Scope and Role of Sales Promotion, Growth of Sales Promotion, Consumer Oriented Sales Promotion, Techniques in Sales Promotion, Trade Oriented Sales Promotion, coordinating sales promotion and advertising; Sales promotion abuse; Personal selling. Role of Sales Promotion in communicating and offering Value to its customers, Techniques in Sales Promotion, Trade Oriented Sales Promotion, Customer Oriented Sales Promotion, Coordinating sales promotion and advertising, Digital Sales Promotion (Coupons, Gift Vouchers, Cash Back etc.) Personal selling: Meaning and Importance,   | 7+2 |
| 5 | Public Relations,<br>Publicity and<br>Corporate Advertisi-<br>ng: | Definition of Public Relations, Publicity and Corporate Advertising; Role and functions of Public Relations in Digital Economy Difference between public relations and advertising, Functions of Public Relations; Creating positive image building activities; Preventing or reducing image damage; Sponsorship and Event  | 7+2 |

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|  |  | marketing; Role of internet in Public Relations, Publicity, Advantages and Disadvantages of Publicity. |  |
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**Suggested Text Books:**

1. Advertising and Promotion, Belch, George and Belch, Michael, Tata McGraw Hill, New Delhi.
2. Integrated Advertising, Promotion and Marketing Communication, Clow, Kenneth & Black, Donald, Pearson Education, New Delhi.
3. Advertising Management, Jethwa Ney, Jaishree and Jain, Shruti, Oxford University Press, New Delhi.
4. Advertising and Promotions, Semenik Allen, Cengage Learning
5. Advertising and Promotion, SHH Kazmi, SatishBatra, Excel Books
6. Advertising and Promotions, Shah, D'Souza, Tata McGraw Hill

**Suggested Reference Books:**

1. Integrated Marketing Communication, Tom Duncan, McGraw-Hill
2. Integrated Marketing Communication: Trends and Innovations, Shridha Jain, Global India Publications
3. IMC, The Next Generation, Don Schultz and Heidi Schultz, Tata McGraw Hill, New Delhi.

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|---|------------------------|--|-----------------------------|
| <b>Course Name: Marketing Analytics</b>   |                        |  | <b>Semester: III</b>        |
| <b>Course Code: SE - MKT - 11</b>   |                        | <b>Credits: 3</b>  | <b>Marks: 100</b>           |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p>COSEMKT11.1 REMEMBERING DESCRIBE the use of Voice of the Customer data in making data driven marketing decisions.</p> <p>COSEMKT11.2 UNDERSTANDING DEMONSTRATE an understanding of utility theory to measure customer preferences and choices.</p> <p>COSEMKT11.3 UNDERSTANDING DEMONSTRATE an understanding of utility theory to measure customer preferences and choices.</p> <p>COSEMKT11.4 APPLYING ILLUSTRATE the use of various tools and frameworks to solve strategic marketing problems using marketing data.</p> <p>COSEMKT11.5 ANALYSING DETERMINE the most effective target markets.</p> |                        |  |                             |
| <b>Module No.</b>   | <b>Module Name</b>     | <b>Details</b>   | <b>No. of Hours (L+T+P)</b> |
| 1   | Segmentation Analytics | Market Segmentation Variables, Market Segmentation Types, Marketing Data Landscape, Data for Segmentation, Analytics for Need Based Segmentation - Voice of the Customer, managing "Voice of the | 7+2                         |

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|   |   | Customer” Data, Customer Co-Creation, RFM Analysis, Life Cycle Segmentation, Cross Tabulation Segmentation, Regression based segmentation, Clustering, Conjoint Analysis Segmentation, The Cluster Analysis + Discriminant Analysis Approach,  |     |
| 2 | Approaches to Choosing Target Segment/s | Rationale for Segment Targeting, Analytics for Perceptual Mapping and Product Positioning, Product Positioning, Multi-Dimensional Scaling (MDS) and Factor Analysis, Relevance of Mapping for Product Positioning, Preference Mapping, Incorporating Preferences in Perceptual Mapping.  | 7+2 |
| 3 | Approaches to Choosing Target Segment/s | The Relevance of Trade-off Approaches, Conjoint Analysis, Approaches to Conjoint Analysis, Interpreting Conjoint Results, Optimizing Design using Conjoint Results.  | 7+2 |
| 4 | Approaches to Choosing Target Segment/s | Rationale for Customer Analytics, Customer acquisition cost, Customer Churn, Customer Attrition models, Customer lifetime value, Net promoter score, Calculating the number of new customers, Calculating average customer age & Days to convert, calculating customer acquisition cost & Average purchases, calculating touch points & Lead conversion, analyzing age demographics, first contact with customer, Customer satisfaction, Understanding customer engagement, Diffusion Models - The Bass Model. | 7+2 |
| 5 | Approaches to Choosing Target Segment/s | Rationale for Customer Analytics, Customer acquisition cost, Customer Churn, Customer Attrition models, Customer lifetime value, Net promoter score, Calculating the number of new customers, Calculating average customer age & Days to convert, calculating customer acquisition cost & Average purchases, calculating touch points & Lead conversion, analyzing age demographics, first contact with customer, Customer satisfaction, Understanding customer engagement, Diffusion Models - The Bass Model. | 7+2 |

#### Suggested Text Books:

Marketing Analytics: Data-Driven Techniques with Microsoft Excel, Wayne L. Winston Marketing Analytics: Strategic Models and Metrics,

Stephan Sorger Marketing Analytics: A Practical Guide to Improving Consumer Insights Using Data Techniques,

Mike Grigsby Cutting-edge Marketing Analytics: Real World Cases and Data Sets for Hands on Learning, Paul Farris, Rajkumar Venkatesan, and Ronald T. Wilcox

| <b>Course Name: Marketing 4.0</b>  |                               |  | <b>Semester: III</b> |
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| <b>Course Code: SE - MKT - 12</b>  |                               | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEMKT12.1 REMEMBERING DESCRIBE the various concepts associated with Marketing 4.0.</p> <p>COSEMKT12.2 UNDERSTANDING EXPLAIN the importance of various concepts in Marketing 4.0. like prompted Advocacy ,5A's, Four Major Industry Archetypes, and content marketing leading to Brand Affinity.</p> <p>COSEMKT12.3 APPLYING APPLY the concepts of digital marketing by Using Digital Anthropology to connected customers, which will drive up the productivity, by Integrating the Best of Online and Offline Channels in the digital world.</p> <p>COSEMKT12.4 ANALYSING ANALYSE the online and offline interactions between the companies and customers to be the effective marketers.</p> <p>COSEMKT12.5 CREATING EVALUATE how Technology &amp; connectivity has changed human life and business in the context of real-world commodities, products &amp; services.</p> |                               |  |                      |
| Module No.   | Module Name                   | Details  | No. of Hours (L+T+P) |
| 1  | Introduction to Marketing 4.0 | Power Shifts to the Connected Customers, Shift from Exclusive to Inclusive, social communities, ,Reverse innovation,<br>Frugality change in focus From Vertical to Horizontal, Transition from Individual to Social approach, Online go-to-market option-factor (friends, families, Facebook, Fans, twitter followers),<br>Creating Inclusivity and Sustainability for Society<br>The Paradoxes of Marketing to Connected Customers<br>Breaking the Myths of Connectivity - connectivity as a game changer, lowering entry barriers, disruption, collaboration, cocreation, Informed customers vs Distracted customers, brand conversion, Negative Advocacy vs Positive Advocacy, prompted Advocacy<br>The Influential Digital Subcultures<br>Youth: Acquiring the Mind Share, Fast changing Pop culture, Youth as a primary market, Early adopters,<br>Women: Growing the Market Share, Women's role in decision making, Researched decision process, Women's | 8+2                  |



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|   |  | role<br>as a gatekeeper, Netizens: Expanding the Heart Share, savvy, smart and High influence of Netizens.  |     |
| 2 | Marketing 4.0 in the Digital Economy         | Moving from Traditional to Digital Marketing, Integrating Traditional and Digital Marketing, technologies that drive digital economy, digitally empowered entrants, combining online and offline interaction, ,Blending style with substance, The New Customer Path Brand clarification of characters and codes-Brand positioning, consistency in Brand characters, Brand differentiation based on Human-to Human touch, Four Ps to 4Cs, Commercializing 4C's Understanding How People Buy: From Four A's to Five A's, Aware, Appeal, Ask, Act, and Advocate. Driving from Awareness to Advocacy: The O Zone (O3) | 7+2 |
| 3 | Marketing Productivity Metrics               | Introducing PAR and BAR, Decomposing PAR and BAR Driving Up Productivity, Purchase Action Ratio and Brand Advocacy Ratio Industry Archetypes and Best Practices Four Major Industry Archetypes, Four Marketing Best Practices   | 7+2 |
| 4 | Human-Centric Marketing for Brand Attraction | Understanding Humans Using Digital Anthropology, Human and Machine in new customer experience (CX), Building the Six Attributes of Human-Centric Brands, When Brands Become Humans Content Marketing for Brand Curiosity Content Is the New Ad, #Hashtag Is the New Tagline, Step-by-Step Content Marketing, Creating Conversations with Content, Introduction to Contextual Marketing  | 6+2 |
| 5 | Omnichannel Marketing for Brand Commitment   | The Rise of Omnichannel Marketing. Step-by-Step Omnichannel Marketing, moving from physical to digital channels, Integrating the Best of Online and Offline Channels Engagement Marketing for Brand Affinity Enhancing Digital Experiences with Mobile Apps, Providing Solutions with   | 7+2 |

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|  |  | Social CRM, Driving Desired Behavior with Gamification. Mobile Apps, Social CRM, and Gamification, Augmented Marketing, Using Predictive marketing for Engagement, Epilogue: Getting to WOW! What Is a “WOW”? Enjoy, Experience, Engage. |  |
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#### **Suggested Text Books:**

1. Marketing 4.0 by Philip Kotler, Hermawan Kartajaya, and Iwan Setiawan, John Wiley & Sons
2. Managing Content Marketing: -The Real-World Guide for creating Passionate subscribers to Your Brand-Jie Pulizzi, Roibert Rose, CMI Books
3. Engagement Marketing: -How small business wins in a socially connected world, By Gail Goodman, Wiley Publishers
4. Marketing Metrics: -The Manager's Guide to Measuring Marketing Performance -Neil T Bendle, Paul Farris and Philip Pfeifer, Pearson FT Press. Third edition

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

1. The Art of Digital Marketing: The definitive guide to creating strategic, Targeted and Measurable online campaigns-Ian Dodson
2. Permission Marketing, turning strangers into friends and friends into customers by Seth Godin,
3. Collaboration and Co-creation-New platforms for marketing and innovation-Bhalla, Gurav
4. Customer Relationship Management: -Concepts and technologies-Fancis Butle, Routledge Taylor and Francis Group, London and New York
5. Marketing 5.0 Technology for Humanity, Philip Kotler, Hermawan Kartajaya, and Iwan Setiawan John Wiley & Sons, Inc. Hoboken, New Jersey.

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|--|-------------------|----------------------|
| <b>Course Name: Advanced Financial Management</b>  |                   | <b>Semester: III</b> |
| <b>Course Code: SC-FIN-01</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>    |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p>COSC-FIN-01.01: UNDERSTANDING – EXPLAIN theoretical concepts related to raising and use of funds and value of firm.</p> <p>COSC-FIN-01.02: APPLYING - CALCULATE values for making capital structure, investment, liquidity and dividend decisions in the financial management of a firm.</p> <p>COSC-FIN-01.03: ANALYSING -ANALYZE the options for making the right financial decisions of a firm.</p> <p>COSC-FIN-01.04: EVALUATING - ASSESS the role of financial planning, risk analysis in investments, liquidity and credit management policy of the firm on shareholder value.</p> <p>COSC-FIN-01: 05 CREATING -DESIGN an appropriate financial strategy using any one or multiple concepts/ techniques learned in this course.</p> |                   |                      |

| Module No. | Module Name                              | Details   | No. of Hours (L+T+P) |
|------------|--|---|----------------------|
| 1.         | Financial Planning and Shareholder Value | Overview of Financial Planning; Long term and short-term sources of finance; Financial Statements including Funds Flow and Cash Flow Statements; Importance of Cash Flows; Concept of Financial Distress; Shareholder wealth and managerial behaviour; Growth and Value; Concept and features of value-based management; Economic Value Added (EVA): Meaning, Components, Advantages & Drawbacks, Calculating EVA.  | 6+2                  |
| 2.         | Capital Structure and Firm Value         | Assumptions and Definitions; Net Income Approach; Net Operating Income Approach; Traditional Position; Modigliani and Miller Position Taxation and Capital Structure; Trade-off; Signalling Theory; PB IT - EPS Analysis; ROI - ROE Analysis; Leverage Ratios; Guidelines for Capital Structure Planning.   | 7+2                  |
| 3.         | Investment Decisions                     | Meaning and Process, Risk and Uncertainty in Capital Budgeting: Capital rationing and Project Selection. Inflation and Capital budgeting; Capital budgeting practices in Indian companies.  | 5+2                  |
| 4.         | Working Capital Management               | Determination of level of current assets, working capital financing by banks; cash and liquidity Management- aspects of cash management, motives for holding cash and marketable securities, cash Management Models, Strategies for managing surplus funds; Credit Management: Objectives of trade credit, credit policies. Control and collection of accounts receivables, role of factoring in receivables management. <b>(No problems on estimation of working capital).</b> | 9+2                  |
| 5.         | Dividend Policy and Firm Value           | Why Firms Pay Dividends; Factors Influencing Dividend Policy; Legal and Procedural Aspects; Bonus Shares and Stock Splits; share Buybacks and Valuation; Dividend Policies in Practice; Dividend Models: Walter's model, Gordon's model, Modigliani and Miller's Hypothesis; Models in Which Investment and Dividend Decisions are Related.   | 8+2                  |

**Note:**

1. The weightage in the question paper shall be as follows: **Numerical problems: 60% & Theory: 40%**
2. Numerical problems on the following should be taught:
  - Funds Flow Statement and Cash Flow Statement
  - Calculating EVA
  - Firm value (Theories of Capital Structure), PBIT - EPS Analysis
  - Sensitivity analysis and Scenario analysis in risk analysis in Capital budgeting, Capital Rationing
  - Calculation of Optimum Cash Balance using Operating Cycle Model and Inventory Model
  - Receivables Management- calculation of collection period, Determining the number of uncollectible Receivables
  - and Bad Debt Expense: Percent of Sales Method, Percent of Receivables Method
  - Dividend Models: Walter's model, Gordon's model, Modigliani and Miller's Hypothesis;

#### **Suggested Textbooks:**

1. Financial Management: Text and Problems by M Y Khan & P K Jain, Publisher: TMH, New Delhi.
2. Financial Management Theory & Practice by Prasanna Chandra, Publisher: TMH, New Delhi.
3. Financial Management by I M Pandey, Publisher: Vikas Publishing House, New Delhi.
4. Advanced Financial Management by Dr. Mahesh Abale & Dr. Shriprakash Soni, Himalaya Publication House
5. Financial Management by Ravi Kishore, Publisher: Taxman's Publishing House, New Delhi.
6. Financial Management by C. Paramasivan, T. Subramanian, New Age
7. Financial Management by Dr. Anil Kumar Dhagat- Wiley India

#### **Suggested Reading:**

1. Financial Management: Theory & Practice by Eugene F. Brigham, Michael C. Ehrhardt
2. Fundamentals of Financial Management by Van Horne, Publisher: Prentice Hall of

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|--|-------------------|----------------------|
| <b>Course Name: Digital Banking</b>  |                   | <b>Semester: III</b> |
| <b>Course Code: SE - FIN- 05</b>   | <b>Credits: 3</b> | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEFIN05.01: REMEMBERING – Remember various concepts and products in Digital Banking</p> <p>COSEFIN05.02: UNDERSTANDING - Explain and understand the significance and development of Digital Banking</p> <p>COSEFIN05.03: APPLYING - Compare and contrast the Branchless Banking and Traditional Banking</p> <p>COSEFIN05.04: ANALYSING - Analyze the payment system of digital banking from consumer's point of view</p> <p>COSEFIN05.05: EVALUATING Evaluate Role of digital banking and emerging technologies in economic development</p> <p>COSEFIN05.6: CREATING - ELABORATE various options for payment and technologies in banking and digital payments.</p> |                   |                      |

| Module No. | Module Name                       | Details   | No. of Hours (L+T+P) |
|------------|-----------------------------------|---|----------------------|
| 1.         | <b>Basics of Digital banking.</b> | Concept, Advantages, Products, significance, development of digital Banking, Distinct Functionaries/Dimensions of a Digital Bank, Customer Education for Digital Banking, Role of digital banking in economic development, Financial Inclusion (  | 4+2+2                |
| 2.         | Products in digital banking.      | ATMs : Instant Money Transfer Systems, Proprietary, Brown Label and White Label ATMs, ATM Network Planning – Onsite / Offsite, Security and Surveillance of ATM Sites, Cash Deposit Machines : Overview, Features, CDM Network Planning – Onsite / Offsite and Profitability of CDMs, Mobile Banking: Overview and Brief History, Product Features and Diversity, IMPS, Profitability of Mobile Banking, Risk Management and Frauds, Internet Banking : Product Features Corporate and Individual Internet Banking. | 8+2+6                |
| 3.         | <b>Branchless Banking:</b>        | Objectives, Introduction, Financial Inclusion – Logic and logistics, Vehicles for Financial Inclusion, Business Correspondents / Business facilitators, Digital Banking Products for Financial Inclusion  | 5+2+2                |
| 4.         | <b>Payment System</b>             | Overview of global and domestic payment systems, Immediate Payment Service (IMPS), National Unified USSD Platform (NUUP) and UPI, Participants in UPI, Benefits to Participants, National Automated Clearing House (NACH) Aadhaar Enabled Payment System (AEPS) , e-KYC , Cheque truncation System (CTS) , National Financial Switch (NFS) , RTGS, NEFT   | 5+2+4                |
| 5.         | <b>Innovation and Banking</b>     | Innovative Technologies in Banking: Artificial Intelligence, Machine Learning, Big Data, Block Chain, Forex Settlement  | 8+3+3                |

**Suggested Books:** 1. Digital Banking – Indian Institute of Banking and Finance 2. The Digital Banking Revolution – Lugi Wewege 3. Digital Bank: Strategies to Launch or become a Digital Bank – Chris Skinner

**Suggested Reference Books:**

**1. Banking Beyond Banks and Money:** A guide to Banking Services in Twenty first Century – Paolo Tasca, Tomaso Aste, Lorian Pelizzon, Nicolas Perony

**2. [www.rbi.org.in](http://www.rbi.org.in)**

| <b>Course Name: Financial Literacy</b>   |  |   | <b>Semester: III</b> |
|--|--|---|----------------------|
| <b>Course Code: SE-FIN – 06</b>  |  | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSE-FIN-06.01: UNDERSTANDING - Demonstrate the importance of saving, investing, and planning for retirement</p> <p>COSE-FIN-06.02: APPLYING - PERFORM and identify factors that affect credit worthiness</p> <p>COSE-FIN-06.03: ANALYSING - ANALYSE understand how to identify and protect yourself from frauds, schemes, and scams</p> <p>COSE-FIN-06.04: EVALUATING – EVALUATE the financial impact of the decision of Saving &amp; Investment.</p> <p>COSE FIN-06.5 CREATING - ELABORATE various options for paying college, post-secondary education, and training.</p> |  |   |                      |
| Module No.   | Module Name                              | Details   | No. of Hours (L+T+P) |
| 1.   | <b>Basics of Savings and Investment.</b> | Savings Vs Investment, Principles of Investment–Safety, Liquidity and Return, Risk and Return, Inflation effects on Investment, Securities and its types, i.e., Equity, Debentures or Bonds, IPOs and FPOs, Mutual Funds, Types of Mutual Funds, Brokers, sub-brokers, Process for becoming a capital market investor, Investment plans, Hybrid plans-Ulip, SIP and VIP of mutual funds, index funds. | 7+1                  |
| 2.   | <b>Tax saving Schemes</b>                | Taxes, Types of taxes, Tax rates, how taxes impact income, Tax planning v/s tax evasion, Tax saving investment - Government Schemes-National Saving Certificates, Public Provident Fund, Post Office Schemes, Equity Linked Savings Schemes, Retirement Benefits Schemes- NPS (New Pension System), Tax free bonds.   | 8+2                  |

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| 3. | <b>Personal Finance</b>                        | Financial Planning- Meaning, Household financial health checkup, Investor's Age and Assets Allocation, Budgeting, Setting Financial Goals, Medical and other Emergencies, Retirement planning.  | 7+2 |
| 4. | <b>Insuring and protecting</b>                 | Insider trading, Money laundering; Consumer protection and redressal mechanism, Rights of Consumers, filing a complaint, complain to entity concerned, Regulators, Arbitration, Consumer courts, Govt. Websites, Investor Associations. | 7+2 |
| 5. | <b>Entrepreneurship &amp; Business Finance</b> | Personal Finance Case Studies<br>Creating a Financial Plan<br>Real-World Investment & Budgeting Exercises   | 5+1 |

#### Suggested Textbooks:

1. **Personal Finance**" – Jeff Madura
2. **Fundamentals of Financial Planning**" – Michael A. Dalton & James F. Dalton

#### Suggested Reference Books:

1. **Personal Financial Planning** – Lawrence J. Gitman, Michael D. Joehnk, & Randall Billingsley
2. **Financial Literacy Education: Addressing Student, Business, and Government Needs**" – Dorothy C. Bassett
3. **Financial Education and Capability** – Thomas A. Lucey & Kathleen S. Cooter

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|--|-------------------|----------------------|
| <b>Course Name: Indirect Taxation</b>  |                   | <b>Semester: III</b> |
| <b>Course Code: SE - FIN - 07</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course, the students will be able to</p> <p>COSEFIN07.01: REMEMBERING – Remembering the key concepts of Indirect Taxes in India, Identifying and enumerating the various terms associated with GST and other indirect taxes</p> <p>COSEFIN07.02: UNDERSTANDING - Explain how GST works as a Uniform Tax Structure, Illustrate the GST framework of India, &amp; describe the important concepts such as supply, dual taxation method, registration process, etc.</p> <p>COSEFIN07.03: APPLYING - Apply the theories and Principles and perform all calculation through numerical problems on valuation and calculation of taxes. Identify the time value of supply; determine the taxable person and tax levied on goods and services</p> <p>COSEFIN07.04: ANALYSING - Illustrate the e filling process of GST Categorize the Goods and Services under GST and amount of tax to be paid using Dual tax concept. COSEFIN07.05: EVALUATING Evaluate Input Tax Credit Process, reversal, late filing and New Amendments;</p> |                   |                      |

| appraise various indirect taxes; Interpret the GST framework in India & verify the tax levied on Goods and Services.<br>COSEFIN07.6: CREATING - ELABORATE all Provisions of GST and can correlate with filing of returns; virtual e filing can be done Estimate the GST, TDS, anticipate goods, services, tax payable person for the business. |   |   |                      |
|--|---|---|----------------------|
| Module No.   | Module Name                                     | Details   | No. of Hours (L+T+P) |
| 1.   | <b>Introduction to Indirect Taxes.</b>          | Indirect Taxes - Customs, Excise Duty, VAT, GST. Concept, Need and Genesis of GST. Dual GST Model: CGST, SGST, UTGS, IGST. GST Network, GST council, Role and Phases of GST Council, Constitutional provisions to enforce indirect Taxes & GST, CESS  | 4+2+2                |
| 2.   | <b>Registration under GST</b>                   | Registration Procedure, Persons not liable for registration, Compulsory registration, Deemed registration, Cancellation vs. Revocation of registration, Unique Identification Number, Registration Number Format. Types and periodicity of GST return for different categories of Taxpayers   | 8+2+6                |
| 3.   | <b>Supply under GST and Valuation of Supply</b> | Key Concepts- Levy and Collection of Tax, Supply, Place of Supply, Interstate and Intrastate Supply, Export of Service, Export of Goods, Imports of Goods, Import of Service, Valuation of Supply, Types of Supply under GST Regime, Composition Levy, Exemption from tax, Person liable to pay tax, Tax Deduction at source (TDS) under GST. | 5+2+2                |
| 4.   | <b>Input Tax Credit under GST &amp; Returns</b> | Input Tax Credit Process, Negative List for Input Tax Credit, Input Tax Credit Utilization and Input Tax Credit Reversal, Types of GST returns and their due dates, late filing, late fee and interest. Reverse Charge Mechanism  | 5+2+4                |
| 5.   | <b>Innovation under GST</b>                     | Glossary terms of custom act, IGST. Demonstrating the payment of GST with the help of case studies.   | 8+3+3                |

#### Suggested Books:

1. Indirect Tax Reform in India: 1947 To GST and Beyond Book by Vinay K. Srivastava and Yashwant Sinha
2. GST Acts, Rules & Forms with Reference by Ashok Batra
3. Taxman's Basics of GST
4. Taxman's GST: A practical Approach Theory & Practice of GST, Srivathsala, HPH



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|--|---------------------------------------|--|----------------------|
| Course Name: Personal Financial Planning   |                                       |  | Semester: III        |
| Course Code: SE - FIN – 08   |                                       | Credits: 3   | Marks: 100           |
| COURSE OUTCOMES  |                                       |  |                      |
| COSE FIN-08.1 UNDERSTAND: the need and aspects of personal financial planning & describe the investment options available to an individual |                                       |  |                      |
| COSE FIN-08.2. APPLYING: IDENTIFY types of risk and means of managing it   |                                       |  |                      |
| COSE FIN-08.3 ANALYSING: DETERMINE the ways of personal tax planning   |                                       |  |                      |
| COSE FIN-08.4 EVALUATING: EXPLAIN retirement and estate planning for an individual and design a financial plan.                            |                                       |  |                      |
| COSE FIN-08. 5 CREATING: CREATE a financial plan for a variety of individuals  |                                       |  |                      |
| Module No.   | Module Name                           | Details  | No. of Hours (L+T+P) |
| 1.   | Introduction                          | Introduction to Financial Planning: Need for Financial Planning, Assessing personal and financial goals, needs and priorities, attitudes and expectations and risk tolerance level, Personal Financial Planning Process, Preparation of Personal Budget, Personal Financial Statements, Responsibilities of a Financial Planner, Time Value of Money, KYC, PAN, & AADHAR   | 5 + 2                |
| 2.   | Key Investments Criteria and Strategy | Investment Criteria and Asset Classes <ul style="list-style-type: none"><li>• Key Investment Criteria: Liquidity, Safety, Profitability, and Tax Efficiency</li><li>• Investment Vehicles:</li><li>• Traditional: Fixed Deposits (FDs), Post Office Savings, Bonds, Real Estate</li><li>• Market-linked: Equity, Mutual Funds (MFs), Exchange-Traded Funds (ETFs)</li><li>• Alternative: Gold, Cryptocurrencies, Commodities</li></ul> | 7+2                  |

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|----|--|--|-----|
|    |  | <ul style="list-style-type: none"> <li>Insurance as an Investment Tool</li> </ul> <p>Investment Strategies</p> <ul style="list-style-type: none"> <li>Active vs Passive Investing</li> <li>Value vs Growth Investing</li> <li>Asset Allocation and Diversification</li> <li>Systematic Investment Plans (SIP), Systematic Transfer Plans (STP), and Systematic Withdrawal Plans (SWP)</li> <li>New Fund Offers (NFOs)</li> </ul>   |     |
| 3. | Risk Analysis, Insurance Planning and Debt | <p>Risk analysis, Concept of long-term risk, Insurance decisions in personal financial planning, Types of insurance cover- mortality, health, disability, property and liability, ULIPs and Term Plans, Credit Card Financing, Types of Consumer and Home Loans- cost and risk, Credit Score.</p>  | 8   |
| 4. | Practical Financial Planning               | <p>Practical Financial Planning</p> <ul style="list-style-type: none"> <li>Personal Finance Case Studies</li> <li>Hands-on Budgeting and Investment Planning</li> <li>Financial Goal Setting and Execution</li> </ul>  | 6+2 |
| 5. | Financial Markets                          | <p>Trading in Financial Markets</p> <ul style="list-style-type: none"> <li>Basics of Stock Market and Trading Mechanisms</li> <li>Commodity Trading and Futures &amp; Options (F&amp;Os)</li> <li>Understanding Derivatives and Hedging Strategies</li> <li>Role of Technical &amp; Fundamental Analysis</li> <li>Cryptocurrency and Digital Assets</li> <li>Introduction to Cryptocurrencies and Blockchain Technology</li> <li>Risks, Volatility, and Regulatory Aspects</li> <li>Crypto Trading vs Traditional Investments</li> </ul> | 8+2 |

**Suggested Text Books:**

1. **Basics of Personal Financial Planning Insurance Education Series by NIA, K C Mishra, Steward Doss, Cengage Delmar Learning India Pvt. Ltd.**

**Suggested Reference Books:**

1. **Introduction to Financial Planning, Indian Institute of Banking & Finance**

2. **Personal Financial Planning Theory and Practice, Kaplan Schweser**

3. **Personal Finance, E. Thomas Gorman and Raymond E. Forgue, Southwest-Western Cengage Learning.**

4. **Fundamentals of Financial Planning, Michael Dalton, Joesph Gillice, James Dalton and Thomas Langdon, Money Education**

5. **Personal Financial Planning, Benedict Koh Wai Mun Fong, Pearson**

6. **Personal Financial Planning, Lawrence J. Gitman, Michael D. Joehnk, Cengage NOW**

| <b>Course Name: Financial Securities Evaluation and Portfolio Design</b>  |  |   | <b>Semester: III</b> |
|---|--|---|----------------------|
| <b>Course Code: SE - FIN - 09</b>   |  | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEFIN09.01: REMEMBERING – REMEMBER various concepts of Security &amp; portfolio management.</p> <p>COSEFIN09.02: UNDERSTANDING-EXPLAIN various theories of Investment Analysis and Portfolio Management.</p> <p>COSEFIN09.03: APPLYING - CALCULATE risk and return on investment using various concepts covered in the syllabus.</p> <p>COSEFIN09.04: ANALYSING –ANALYZE and DISCOVER intrinsic value of a security</p> <p>COSEFIN09.05: CREATING - DESIGN/ CREATE optimal portfolio.</p> |  |   |                      |
| Module No.  | Module Name                                    | Details   | No. of Hours (L+T+P) |
| 1.  | <b>Introduction &amp; Concepts: Investment</b> | Meaning, nature & objectives, Investments Vs. Speculation & Gambling, Investment Process, Investment Environment, Investment avenues: Marketable & Non marketable financial assets. Portfolio Management: Meaning, attributes, significance and process of Portfolio Management, Portfolio manager and his role | 4+2+2                |
| 2.  | <b>Risk &amp; Return Analysis</b>              | Meaning and Elements of Risk & Return, Measurements of Risk &   | 8+2+6                |

|    |                                      |  |       |
|----|--------------------------------------|--|-------|
|    |                                      | Return, Relationship between risk and return. Fundamental Analysis: Economy analysis, industry analysts and company analysis, weaknesses of fundamental analysis. Technical Analysis: Meaning, Tools of technical analysis, Technical Analysis vs. Fundamental Analysis  |       |
| 3. | <b>Valuation of bonds and shares</b> | Bond Valuation: Meaning, Types, Bond Prices, Bond Return, Risks in Bonds. Equity Valuation: Meaning, Concept of Present Value, Share Valuation Models, Multiplier Approach to Share Valuation  | 5+2+2 |
| 4. | <b>Selection of portfolio</b>        | Concept of portfolio and portfolio management: Meaning, Types of Portfolio Risks, Diversification of Risks, Selection of Optimal Portfolio. Markowitz Portfolio Selection Model: Efficient set of portfolios, Optimal Portfolio selection, Limitations of the Model. Capital Asset Pricing Model (CAPM): Meaning, Assumptions & Limitations of CAPM. Theory: Arbitrage Pricing Theory and its principles, Comparison of Arbitrage Pricing Theory with the Capital Asset Pricing Mode | 5+2+4 |
| 5. | <b>Building Portfolio model</b>      | To design and revise the portfolios by using various techniques and models.  | 8+3+3 |

Suggested Text Books: 1. Investment Analysis and Portfolio Management, Chandra, Prasanna (Tata McGraw Hill Publishing Co. Ltd.)

2. Securities Analysis & Portfolio Mgmt., V A Avadhani, Himalaya Publications

3. Security Analysis and Portfolio Management, S. Kevin, PHI Learning Pvt. Ltd.

4. Investment Analysis & Portfolio Management, Ranganathan & Madhumathi, Pearson Education Pvt. Ltd.

Suggested Reference Books: 1. Security Analysis and Portfolio Management, Fischer DE & Jordan R J, Prentice Hall.

2. Portfolio Management, Barua, S. K.; Raghunathan V; Varma, J R, Tata McGraw Hill Publishing Co. Ltd.

3. Investment Analysis and Portfolio Management, Frank K. Reilly and Keith C. Brown, Thomson Learning

4. Modern Investments and Security Analysis, Fuller R J; Farrel JL, McGraw Hill 5. Investment Management, V.K. Bhalla, S. Chand & Co.

| <b>Course Name: Insurance Legislation and Compliance</b>  |  |  | <b>Semester: III</b> |
|---|--|--|----------------------|
| <b>Course Code: SE - FIN – 10</b>   |  | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course, the students will be able to</p> <p>COSEFIN10.01: REMEMBERING – RELATE to terminologies used in Insurance Law</p> <p>COSEFIN10.02: UNDERSTANDING-EXPLAIN the role of insurance law in overall development of the country through risk management and insurance coverage.</p> <p>COSEFIN10.03: APPLYING - IDENTIFY risk management plans, strategies and techniques in Life and General Insurance.</p> <p>COSEFIN10.04: ANALYSING –APPRAISE Regulatory Framework of Insurance Business in India &amp; Corporate Governance Practices for Insurance Companies.</p> <p>COSEFIN10.05: CREATING - ASSESS the insurance policies in the light of risk valuation.</p> |  |  |                      |
| Module No.  | Module Name  | Details  | No. of Hours (L+T+P) |
| 1.  | <b>Introduction to Insurance</b>                           | History and Evolution of Insurance; Risk Management. Nature of Insurance Contract; Types of Insurance Life and General Insurance. Framework for Insurance Companies.   | 4+2+2                |
| 2.  | <b>Regulatory Framework of Insurance Business in India</b> | Development of Insurance Legislation in India and Insurance Act 1938; Insurance Regulatory and Development Authority of India (IRDAI) Functions and Insurance Councils; IRDAI and its Licensing Functions; Policy Holders Rights of Assignment, Nomination and Transfer; Protection of Policy Holders Interest; Dispute Resolution Mechanism; Financial Regulatory Aspects of Solvency Margin and Investments; International Trends In Insurance Regulation. | 8+2+6                |
| 3.  | <b>Life Insurance</b>                                      | Nature, Scope and Practice, Application of Principles in Life Insurance Contract – Representation - Assignment and Nomination - Title and Claims - Tax Law Implications - Concept of Trusts in Life Policy - Stamp Duties - Role and Function of Life Insurance Companies. Life Insurance & Pension Products   | 5+2+2                |
| 4.  | <b>General Insurance</b>                                   | Practices and Procedures: Introduction to General Insurance; Policy Documents and forms; Underwriting; General Insurance Products: Property Insurance (Fire and Engineering), Marine Insurance (Hull and Cargo), Motor Insurance, Business Interruption, Liability Insurance (Public, Products, Professional, Directors & Officers etc), Personal Lines (Health, Accident, Travel, Residential Premises etc.), Rural and Agricultural.                       | 5+2+4                |

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|----|---|---|-------|
| 5. | <b>International Insurance and Regulation</b> | Formation of International Insurance contracts; International Association of Insurance Supervisors – Future Trends. Enforcement and settlement. Conventions regulating Insurance on Maritime and Nuclear disaster | 8+3+3 |
|----|---|---|-------|

Suggested Text Books: 1. T.S. Mann, Law and Practice of Life Insurance, Deep and Deep Publications, 7th edn (2011)

2. Utpal Rajan Sarkar, Motor Accidents and Motor Insurance Claims, Sodhi Publications, 5th Edn. (2015)

3. R.P. Katariya, An Exhaustive Commentary on Motor Vehicle Act 1988, Unique Law Publications, 5th Edn (2012)

Reference Reading: 1. Banerjee, law of insurance, Asia Law House, Hyderabad, (1997)

2. J.V.N. Jaiswal, Law of Insurance, Eastern Book Company, 9th edn. (2008)

3. Principles and Practice of Life Insurance, Committee on Insurance and Pension, The Institute of Chartered Accountants of India, Fourth Edition-October 2008, New Delhi

4. Insurance - Law & Practice, The Institute of Company Secretaries of India, December 2019, New Delhi..

|   |                             |   |                      |
|---|-----------------------------|---|----------------------|
| <b>Course Name: Financial Reporting</b>   |                             |   | <b>Semester: III</b> |
| <b>Course Code: SE - FIN - 11</b>   |                             | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p><b>COURSE OUTCOMES</b></p> <p>COSE FIN11.1 REMEMBERING Describe the basic concepts related to Financial Reporting taught through the syllabus.</p> <p>COSE FIN11.2 UNDERSTANDING Explain, in detail, all the theoretical concepts taught through the syllabus.</p> <p>COSE FIN11.3 APPLYING Do all the necessary calculations pertaining to financial reporting.</p> <p>COSE FIN11.4 ANALYSING Analyze the situation and decide the key elements of financial reporting through the financial statements.</p> <p>CO SEFIN11.5 EVALUATING Evaluate the compliance and quality of financial reporting.</p> <p>CO SEFIN 11.6 CREATIVE -</p> <p>. Design and develop a comprehensive financial report or model for hypothetical or real business scenario by integrating financial concepts, standards and reporting principals.</p> |                             |   |                      |
|   | Module Name                 | Details   | No. of Hours (L+T+P) |
| 1.  | <b>Financial Statements</b> | Financial Statements Preparation Framework: Purpose and Scope of Financial Statements, Users of | 5 + 1                |

|    |   |   |     |
|----|---|---|-----|
|    | <b>Preparation Framework</b>  | Financial Statements, Underlying Assumptions – Going Concern, Consistency and Accrual, Qualitative Aspects of Financial Statements – Understandability, Materiality, Faithful Representation, Substance Over Form, Neutrality, Prudence, Completeness   |     |
| 2. | Preparation of Corporate Financial Statements   | Preparation of Corporate Financial Statements: Division II of Schedule III of the Companies (Amendment) Act, 2015– Part I: Balance Sheet and Statement of Changes in Equity, Part II – Statement of Profit and Loss and Notes to Financial Statements   | 8+2 |
| 3. | Presentation of Items in Financial Statements and Revenue Recognition using relevant Indian Accounting Standards (AS):    | Presentation of Items in Financial Statements and Revenue Recognition using relevant Indian Accounting Standards (AS): Ind AS 1 “Presentation of Financial Statements”, Ind AS 7 - “Statement of Cash Flows”, Ind AS 8 “Accounting Policies, Changes in Accounting Estimates and Errors” and Ind AS 34 – “Interim Financial Reporting”, Ind AS 115 – “Revenue from Contract with Customers”   | 8   |
| 4. | Reporting of Assets, Liabilities and Disclosures in Financial Statements using relevant Indian Accounting Standards (AS): | Reporting of Assets, Liabilities and Disclosures in Financial Statements using relevant Indian Accounting Standards (AS): Ind AS 2 “Inventories”, Ind AS 16 “Property, Plant and Equipment”, Ind AS 23 “Borrowing Costs”, Ind AS 36 “Impairment of Assets”, Ind AS 38 “Intangible Assets”, Ind AS 19 “Employee Benefits”, Ind AS 37 “Provisions, Contingent Liabilities and Contingent Assets”, Ind AS 33 “Earnings Per Share” and Ind AS 108 “Operating Segments”. | 6+2 |
| 5. | Miscellaneous Issues in Financial Reporting:  | Miscellaneous Issues in Financial Reporting: Reporting of Financial Instruments, Value Added Statements, Corporate Social Responsibility Reporting.   | 8+2 |

Suggested Text Books:

1. Advanced Accountancy, ShuklaGrewal, S. Sultan Chand & Co.

2. Financial Accounting: Reporting and Analysis, Stice
3. Financial Reporting and Management Accounting, Bruns
4. Financial Management, Prasanna Chandra
5. Indian Accounting Standards& GAAP, Dolphy D'Souza, Snow White Publications
6. Financial Management, Khan and Jain
7. Corporation Finance, S.C.Kuchhal

| <b>Course Name: International Finance</b>   |   |   | <b>Semester: III</b>    |
|---|---|---|-------------------------|
| <b>Course Code: SE - FIN - 12</b>   |   | <b>Credits: 3</b>   | <b>Marks: 100</b>       |
| <p><b>COURSE OUTCOMES</b></p> <p>COSE FIN12.1 Understanding - Summarize the various the concepts related to regulators, financial markets, Financial Instruments, tax structures at international level.</p> <p>COSE FIN12. 2. Applying Illustrate the role of international monetary systems &amp; intermediaries in Global financial market.</p> <p>COSE FIN12.3 Analyzing - Inspect the various parameters of global financial market and interpret best possible international investment opportunities.</p> <p>COSE FIN12.4 Evaluating - Determine the various strategies to start investment or business at the international level by considering various factors of international finance.</p> <p>COSE FIN12. 5 Creating - Formulate the investment plan or business plan by adapting international finance environment</p> |   |   |                         |
| Module No.  | Module Name                               | Details   | No. of Hours<br>(L+T+P) |
| 1.  | Introduction to Foreign Exchange Markets: | Meaning/Importance, Scope, Globalization of the World Economy, Goals of International Finance, Structure and participants of the global financial system, Functioning of the global financial system in the globalization process, The Emerging Challenges in International Finance, Evolution of International Monetary System, Gold Standard System, Bretton Woods System, Current Exchange Rate Arrangements, Issues involved in overseas funding choices, International Financial Institutions: International Monetary Fund, World Bank. International credit rating agencies, Balance of Payment: Component, Collection reporting, surplus & deficits. | 6 + 1                   |



|    |   |   |     |
|----|---|---|-----|
| 2. | Introduction to Foreign Exchange Markets:                     | Structure of Foreign Exchange Markets, Types of Transactions and Settlement Date, Exchange Rate Quotations and Arbitrage, Interest Rate Parity, Purchasing Power Parity and Fisher's Parity, Forecasting Exchange Rates: Efficient Market Approach, Fundamental Approach, Technical Approach, Global Financial Markets and Interest Rates, Concept and types of currency, Convertibility of currency, Exchange rate: the nature, types and regimes, Demand and supply of foreign currency.  | 8+2 |
| 3. | The transactions on the international foreign exchange market | The transactions on the international foreign exchange market: Spot transactions, forward contracts, currency swaps, currency futures, currency options, Transaction Exposure - Forward Hedge, Money Market Hedge, International Credit Market, Different forms of international lending, Monetary and financial conditions of the international credit, international security market: Concept & trends of development, Intermediaries of the international security market; International market of foreign equities and euro equities & depositary receipts (ADR & GDR), International bond market, foreign bonds market, Eurobonds market, Types of Bonds, floating Rate Notes (FRNs), Deep Discount Bonds, Zero Coupon Bonds, Dual Currency Bonds, and Equity related Bonds. Procedure for Bonds Issues. | 8   |
| 4. | Taxation Systems and Legal Aspects:                           | International double taxation and the ways of its regulation, Tax evasion, Definition of Money Laundering, organization of money laundering procedure: stages and methods, Monitoring, International cooperation in dealing with money laundering: the establishment of legal   | 5+2 |

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|----|---|--|-----|
|    |   | framework, The functions and activity of the FATF.   |     |
| 5. | International Receivables and cash management | International Receivables and cash management, foreign exchange risk, The essence and types of currency risks, Risks of making decisions about foreign direct investment, Political risk, International Financial Reporting Standards (I.F.R.S) and Indian Accounting Standards (I.A.S) on foreign transactions, Foreign Exchange Trade Settlement in India, SWIFT, CHIPS, CHAPS | 8+3 |

**Suggested Textbooks:**

1. International Finance by Rajiv Srivastav, Oxford University Press
2. International Financial Management by P.G. Apte 2010 Ed.
3. International Financial Management by Vyuptakesh Sharan
4. International Financial Management by S.P. Srinivasan
5. International Finance by Maurice Levi, Keith P. (2013 Edition)
6. Foreign Exchange, International Finance, Risk Management by A.V. Rajwade
7. Currency Exposures and Derivatives by A.V Rajwade

**Suggested Reference Book:**

1. International Finance, by Maurice Levi, 5th edition, Mc Graw Hill
2. International Financial Management by Jeff Madura; 2008, Cengage Learning
3. International Financial Management by Eun and Resnick, 4th edition Tata McGraw Hill
4. International Economics by Carbaugh 11th Edition, Cengage Learning.
5. Paul R Krugman and Maurice Obstfeld, 'International Economics', 8th edition
6. Multinational Financial Management by Alan Shapiro, 9th Ed, Wiley

|  |                   |                      |
|--|-------------------|----------------------|
| <b>Course Name: Strategic Human Resource Management</b>  |                   | <b>Semester: III</b> |
| <b>Course Code: SC- HRM- 01</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>    |
| COURSE OUTCOMES: After completion of this course the students will be able to<br>COSCHRM01.01: REMEMBERING – REMEMBER the strategies adopted by HR and their implementation issues and challenges faced by the organization in national and international context. |                   |                      |

COSCHRM01.02: UNDERSTANDING – Ability to UNDERSTAND and ARTICULATE the basic concepts of SHRM and link the HR strategies to the organizational business strategies.  
 COSCHRM01.03: APPLYING & ANALYSING - Ability to ANALYZE HR as an investment to the company.  
 COSCHRM01.04: EVALUATING – Ability to INTERPRET and EVALUATE the implementation of the HR strategies.  
 COSCHRM01.05: CREATING- FORMULATE and provide realistic solutions to the industry by designing innovative strategies and logical decision making.

| Module No. | Module Name   | Details   | No. of Hours (L+T+P) |
|------------|---|---|----------------------|
| 1.         | Introduction to Strategic Human Resource Management | Definition and objectives of SHRM, Evolution of SHRM, Strategic Fit, Types of HR strategies, Linking HR strategies to business strategies.  | 7+1                  |
| 2.         | Components of SHRM                                  | Human Capital management, Valuation of human resources in a strategic level, HR cost, Investments in HR, Formulation of HR strategies, Strategic HR vs traditional HR, HRM in knowledge economy, Challenges and issues in implementation of HR strategies in Indian context | 9+1                  |
| 3.         | HR Planning as a strategy                           | Business Strategy & HRP, HRP process, Job Analysis, Forecasting and analysing HR demand (qualitative and quantitative), Supply forecasting (external and internal), Comparison of demand and supply forecasting   | 8+1                  |
| 4          | Specific HR strategies                              | Talent Management strategies, Career Planning and succession planning, Compensation and reward strategies, Employee engagement strategies   | 7+1                  |
| 5.         | Global Dimensions to HR strategy                    | SHRM in international context, Global competitive advantage, Issues and challenges in SHRM, cross cultural management- developing cross cultural sensitivity, OCTAPACE, Global business ethics  | 9+1                  |

**Note:**

1. Case study-based approach should be emphasized
2. Numerical approach in HR planning and HR valuation should be adopted

**Suggested Text Books:**

1. Strategic Human Resource Management, (Agrawal, Tanuja), Oxford University Press
2. Strategic Human Resource Management- A General Managerial Approach, (Greer, Charles P.), Pearson Publications, Second Edition
3. Strategic Human Resource Management, (Mello, Jeffrey A.), Thomson Publications, Second Edition

**Suggested Reference Books:**

1. Human Resource Management- Text and Cases, (Pande, Sharan; Basak, Swapnalekha), Pearson Publication
2. Global Resource Management, (Bedi, S.P.S; Kishore, Minakshi), Wisdom Publications, Latest Edition
3. International Human Resource Management, (Dowling, Peter J.; Welch, Denice E.), 4th Edition

**Suggested Weblinks:**

1. [www.shrmindia.org](http://www.shrmindia.org)
2. [www.peoplesmatters.com](http://www.peoplesmatters.com)

**Journals:**

1. Journal of Strategic Human Resource Management
2. International Journal of Human Resource Management
3. Human Resource Management Journal

| <b>Course Name: International HR</b>  |   |   | <b>Semester: III</b> |
|---|---|---|----------------------|
| <b>Course Code: SE - HR – 05</b>  |   | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p>COSEHR05.01: REMEMBERING – IDENTIFY key perspectives of global workforce management.</p> <p>COSEHR05.02: UNDERSTANDING- UNDERSTAND cultural aspects of International HRM.</p> <p>COSEHR05.03: APPLYING – PREPARE HR planning for long term global staffing.</p> <p>COSEHR05.04: ANALYSING- ILLUSTRATE steps involved in global selection of human resources.</p> <p>COSEHR05.05: EVALUATING – FORMULATE Training and development policy for expatriate employees of an organization.</p> <p>COSEHR05.06: CREATING - ANALYZE / COMPARE important points that needs to be included while drafting global workforce performance &amp; development management system of an organization.</p> |   |   |                      |
| Module No.  | Module Name                                   | Details   | No. of Hours (L+T+P) |
| 1.  | Introduction and Overview of International HR | Global Market Context-Key Perspective in Global Workforce Management - Cultural Foundations of International Human Resource Management- Changes and challenges in the Global Labor Market- Globalization Technological Advancement- change in labour force Demographics and Migration- Emerging on the contingent workforce- Offshore sourcing- global workforce Management challenges, Concepts of | 4+2                  |

|    |  |  |     |
|----|--|--|-----|
|    |  | Host Country Nationals HCN's, Parent sourcing- global workforce Management challenges, Concepts of Host Country Nationals HCN's, Parent Country Nationals PCN's and Third Country Nationals TCN's in International Business.   |     |
| 2. | The role of International HRM in Successful MNC: | Knowledge Transfer-Global Leadership training and Development-Strategic Control Needs-Competitive strategy of Multinational corporations- Structuring for Optimal global Performances- Understanding culture-Major models of National Culture- Linking Human Resource management practices to Competitive Strategy and Organization Structure-Paradigm Shift of international Human Resource Management form contingency model to Structure-Paradigm Shift of international Human Resource Management form contingency model to Process Development. | 4+2 |
| 3. | Global Human Resource Planning                   | From strategy to Decision about work Demand and labour supply External Environment Scanning- Job Design for Meeting global Strategy work demand HR planning for the long term-Global Staffing: General Actors Affecting Global Staffing-Global Recruitment of Human Resources-Global selection of Human Resources.   | 4+2 |
| 4. | Training and development of Global employees     | Strategic role of Training and Development in the global Market Place- Fundamental concepts and principles for Guiding global Training and Development- Training imperative for the global workforce- Managing International Assignments- Expatriate Preparation, Foreign Assignment an Repatriation-International Assignments considerations for Special Expatriates- New and Flexible International Assignments.   | 4+2 |
| 5. | Global workforce performance Management          | Performing Management Process- Important consideration for Global Performance Management-Planning and Implementing Global Performance Appraisal- Compensation for a Global workforce- Managing Compensation on a global Scale: Fundamental Practices-Key compensation for  | 4+2 |

|  |  |   |  |
|--|--|---|--|
|  |  | Expatriates, Host Country Nationals<br>HCN's and Third Country Nationals<br>TCN's – Global Employee Relations-<br>current ER issues-Influence of MNC's<br>and Union on Global ER. |  |
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**Suggested Readings:**

- Charles M Vance and Yongsunpaik, Managing Global Work force, PHI, Latest Edition
- Mark E.Mendenhall, Gary R.Oddou, Gunter K.Stahl, Reading and Cases in International Human Resource Management, Routledge, Latest Edition
- Tony Edwards and Chris Rees: International Human Resource Management, Pearson, Latest Edition
- Nilanjan Sengupta, Mousumi S. Bhattacharya, Excel Books, Latest Edition
- Peter Dowling, International Human Resource Management: Managing People in a Multinational Context, Thomson, Latest Edition
- K. Ashwathappa, Sadhna Dash, International Human Resource Management, Tata Mc Graw Hill, Latest Edition
- S. K. Bhatia, International Human Resource Management, Deep & Deep Publications, Latest Edition

| <b>Course Name: Talent Acquisition &amp; Talent Management</b>  |                   |   | <b>Semester: III</b> |
|---|-------------------|---|----------------------|
| <b>Course Code: SE - HR - 06</b>  |                   | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEHR06.01: REMEMBERING – DEFINE Talent Management and its significance</p> <p>COSEHR06.02: UNDERSTANDING – UNDERSTANDING performance excellence through Talent Management</p> <p>COSEHR06.03: APPLYING – APPLY Talent Management concepts in Human Resource Management</p> <p>COSEHR06.04: ANALYSING - ANALYSING Talent Management practices in employee development and career enhancement</p> <p>COSEHR06.05: EVALUATING – FORMULATE the Talent Management Strategies for any organization.</p> |                   |   |                      |
| Module No.  | Module Name       | Details   | No. of Hours (L+T+P) |
| 1.  | Talent Management | Definition, Meaning of Talent Management, Objectives & Role of Talent Management in building sustainable competitive advantage to a firm, Key Processes of Talent Management, Consequences of Failure in Managing Talent, Benefits of Talent Management: How Your Business Can Benefit From it, Responsibilities of Talent Management Manager & Professionals | 5+1                  |

|    |  |   |     |
|----|--|---|-----|
| 2. | Talent Management Planning                         | Understanding the Needs and Mind set of Employee, Steps in Talent Management Process, Knowledge, Values, Beliefs and Skill Implications for Talent Management, Modelling Excellence   | 5+1 |
| 3. | Talent Acquisition                                 | Defining Talent Acquisition, develop high potential employee - High performance workforce, Importance of Talent Development Process, Steps in Developing Talent, Succession Planning, Difference between Talent Acquisition and Recruitment, Current Trends in Talent Acquisition.                                      | 5+1 |
| 4. | Talent Retention                                   | "SMR Model" (Satisfy, Motivate and Reward) – The Formula to Win Your Employees & Retain Them, Employee Retention Programs, Career Planning & Development, Return on Investment (ROI) on Talent Management, Employee Engagement, Best Practices in Employee Retention.   | 5+1 |
| 5. | Opportunities and Challenges in Talent Management: | Talent Management Challenges, Strategies to Overcome the Challenges, Opportunities in Talent Management, Talent Management in the Digital Era Current trends in Talent Management. Students in a group of 2-4 to study and submit spiral bound report on Talent Management Strategy in any organisation of their choice | 5+1 |

#### **Suggested Text Books:**

1. A Framework for Human Resource Management, Dessler Gary, Pearson, Edition: 7th
2. Fundamentals of Human Resource Management, Varkkey Biju, Dessler Gary, Pearson, Edition: 14th
3. Talent Management Hand Book, Lance A Berger, Dorothy R Berger, McGraw-Hill, Edition: 13th
4. Talent management in India: Challenges and opportunities, Hasan, M., Singh, A. K., Dhamija, Atlantic Publication,
5. 5A Handbook of Human Resource Management Practice, Armstrong, Michael, Kogan Page Publication
6. 6Human Resource Management, Pattanayak Biswajeet, PHI Learning Pvt. Ltd.

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

1. . Talent IQ, Emmet Murphy, Platinum Press,
2. Talent Management: Process of Developing & Integrating Skilled Workers, Shukla Ravinder, Global India Publications, Latest Edition
3. Talent Management - Strategies for Success from Six Leading Companies by ASTD, ASTD, Cengage Learnig

4. Strengths Based Recruitment and Development: A Practical Guide to Transforming Talent Management Strategy for Business Results., Sally Bibb
5. Talent Management, R.N. Misra, Discovery Publishing House Pvt. Ltd.

**Websites:**

1. <https://bookboon.com/en/talent-management-a-focus-on-excellence-ebook>
2. [https://silversoft.co.za/wp-content/uploads/2016/05/Talent\\_Management\\_for\\_Dummies.pdf](https://silversoft.co.za/wp-content/uploads/2016/05/Talent_Management_for_Dummies.pdf)
3. <http://www.oracle.com/us/media1/talent-retention-6-best-practices-1676595.pdf>
4. <https://www.teleosconsulting.com/who-we-serve-and-how/our-unique-approach/strategic-talent-alignment-2/>

| <b>Course Name: HR Analytics</b>  |                            |  | <b>Semester: III</b> |
|---|----------------------------|--|----------------------|
| <b>Course Code: SE - HR - 07</b>  |                            | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEHR07.01: REMEMBERING – ENUMERATE the key concepts related to the subject matter.</p> <p>COSEHR07.02: UNDERSTANDING – DEMONSTRATE experimentation and innovation.</p> <p>COSEHR07.03: APPLYING – USE thinking &amp; decision-making ability beyond the existing capabilities and present environment.</p> <p>COSEHR07.04: ANALYSING - ANALYSE the behavioral Patterns of an individual &amp; map the competency- the audit Perspective.</p> <p>COSEHR07.05: EVALUATING – EXPLAIN the innovative and formulate strategies which enhance innovative skills and Promote Innovation.</p> <p>COSEHR07.06: CREATING - FORMULATE the linkage between HR Analytics and Business Analytics.</p> |                            |  |                      |
| Module No.  | Module Name                | Details  | No. of Hours (L+T+P) |
| 1.  | Introduction & Concept:    | Disruptive Technological Era: Evolution of Industry Revolution 4.0 and aspect of HR, Big data in HR, understanding of Machine Learning, sensors and cloud computing, Business Intelligence in HR.  | 4+2                  |
| 2.  | Importance of HR Analytics | Role and Responsibilities of HR Analytics, Framework of contemporary HR Analytics, - Predictive tools and Applications in solving problems using HR analytics. Gartner's Analytics Maturity Model. | 4+2                  |
| 3.  | Innovation                 | Concept of innovation, Kinds of Innovation, Developing Innovative culture in an organization. HR analytics linkage to business outcomes, Measuring use of HR analytics impact on business outcome  | 4+2                  |



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|----|------------------------|--|-----|
| 4. | Strategy Formulation   | Redefining HR Policies and Practices, Robust competency mapping, understanding future of work and workplace, Decision framework. Use of HR analytics in workforce planning: talent acquisition, talent development, talent compensation, talent engagement and retention | 4+2 |
| 5. | Learning from Analysis | Case studies and best practices in use of HR Analytics in industry (5 cases)   | 4+2 |

**Suggested Text books:**

1. Winning on HR analytics: Leveraging data for competitive advantage, Ramesh Soundararajan and Kuldeep Singh, Sage Publication
2. The Practical Guide to HR Analytics: Using Data to Inform, Transform, and Empower HR Decisions Paperback, Shonna D. Waters, Valerie N. Streets, Lindsay Mcfarlane, Rachael Johnson-murray
3. 3Human Capital Analytics: How to Harness the Potential of Your Organization's Greatest Asset, Boyce Byerly, Gene Pease, and Jac Fitz-enz
4. 4Doing HR Analytics: A Practitioner's Handbook with R Examples, Lyndon, Mr. Sundmar, Createspace Independent Pub
5. 5The Power of People: Learn How Successful Organizations Use Workforce Analytics to Improve Business Performance, Guenole Nigel, Ferrar Jonathan, Feinzig Sheri, Pearson Publication

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|---|-------------------|----------------------|
| <b>Course Name: Employee Relations and Labour Legislations</b>  |                   | <b>Semester: III</b> |
| <b>Course Code: SE - HR – 08</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>    |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p>COSEHR08.01: REMEMBERING – SHOW awareness of important and critical issues in Employee Relations</p> <p>COSEHR08.02: UNDERSTANDING – INTERPRET and relate legislations governing employee relations.</p> <p>COSEHR08.03: APPLYING - DEMONSTRATE an understanding of legislations relating to working environment.</p> <p>COSEHR08.04: ANALYSING - OUTLINE the role of government, society and trade union in ER.</p> <p>COSEHR08.05: EVALUATING – EXPLAIN aspects of collective bargaining and grievance handling.</p> |                   |                      |

| COSEHR08.06: CREATING - DISCUSS the relevant provisions of various Labour Legislations. |   |   |                      |
|---|---|---|----------------------|
| Module No.  | Module Name                               | Details   | No. of Hours (L+T+P) |
| 1.  | Introduction                              | Background of Employee Relations, Concept, definition, scope, objectives, factors, participants & importance of ER, Approaches to employee relations – The Dunlop’s approach, The Social Action Approach, The Human Relations Approach and The Gandhian Approach, Labour policies, role of ILO and its influence on legislation in India  | 5+3                  |
| 2.  | Mechanism for harmonious ER               | Collective bargaining - definition, meaning, nature, essential conditions, functions and importance, process and its implementation, Worker’s participation in management& Problem-solving attitude, Grievance, meaning and forms, sources, approaches, procedures, model grievance procedure and grievance handling committees.  | 6+3                  |
| 3.  | Legislations governing Employee Relations | The Industrial Disputes Act 1947 – Definition of industry, workmen and industrial dispute, authorities under the act, procedure, powers and duties of authorities, strikes and lockouts, layoff, retrenchment and closure, The Contract Labour (Regulation and Abolition) Act 1970 – Advisory boards, registration of establishment, Licensing of Contractors, Welfare and health of contract labour, registers and other records to be maintained.   | 6+3                  |
| 4.  | Legislation governing Unions and wages:   | The Trade Union Act 1926- Formation and registration of Trade Unions, Principal privileges of a registered trade union, rights of recognised trade unions, types and structure of trade unions, impact of globalisation on trade union movement, Maharashtra Recognition of Trade Union and Prevention of Unfair Labour Practices Act 1971 – Unfair labour practices on the part of Employers and Employees, authorities and punishments under the act, Minimum Wages Act 1948 – Definition of wages, fixation and revision of minimum wages advisory boards and committees, fixing hours for a normal working day, wages for worker who works for less | 6+3                  |

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|    |   | than normal working day, maintenance of registers and records.  |     |
| 5. | Legislation governing working environment | The Factories Act 1948 – Definitions of factory, manufacturing process, worker, occupier; provisions under health, safety and welfare, working hours, annual leave with wages, prohibition of employment of young children, Maharashtra Shops & Establishment (Regulation of Employment and Conditions of Service) Act, 2017 – Scope, Registration of establishments, opening and closing hours, hours of work, interval for rest, spread over, wages for overtime and weekly off, leave with pay and payment of wages and welfare provisions, offences and penalties, Maternity benefit Act, 1961 – Entire Act and latest amendment, The Sexual harassment of women at workplace (Prevention, prohibition and Redressal) Act, 2013 – Definitions of sexual harassment, employee, workplace, complaints committee, complaint mechanism, Aggrieved Woman, Chairperson; Constitution of Internal Complaints Committee, Complaint, Inquiry into complaint, duties of employer. | 7+3 |

**Suggested Text Books:**

1. Personnel Management, C B Mamoria
2. Dynamics of Personnel Administration, Rudrabaswaraj
3. Personnel Management, Edwin Flippo
4. Industrial and Labour Laws, S. P. Jain

**Suggested Reference Books:**

1. Guide on Labour Management forms and precedents (Law, Practice and Procedure), S D Puri, Snow white publication
2. Introduction of Labour and Industrial Laws, Avatar Singh
3. Elements of Mercantile Law, N. D. Kapoor, Sultan Chand
4. Bare

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|---|-------------------|----------------------|
| <b>Course Name: HR Perspectives in Mergers &amp; Acquisitions</b> |                   | <b>Semester: III</b> |
| <b>Course Code: SE - HR – 09</b>                                  | <b>Credits: 3</b> | <b>Marks: 100</b>    |

**COURSE OUTCOMES:** After completion of this course the students will be able to  
**COSEHR09.01: REMEMBERING** – LIST conceptual framework of Mergers & Acquisitions and organization integration  
**COSEHR09.02: UNDERSTANDING** – UNDERSTAND HR's role and due diligence process in Mergers & Acquisitions  
**COSEHR09.03: APPLYING** – MANAGE/ SOLVE HR issues arising out during Mergers & Acquisitions  
**COSEHR09.04: ANALYSING** - ORGANIZE HR due diligence before M & A  
**COSEHR09.05: EVALUATING** – SUPPORT process of change management in M & A  
**COSEHR09.06: CREATING** - FORMULATE HR processes for restructuring compensation and benefits in Mergers & Acquisitions

| Module No. | Module Name                            | Details  | No. of Hours (L+T+P) |
|------------|--|--|----------------------|
| 1.         | Conceptual Framework                   | Concepts of M&A, Organizational Growth through M&A, M&A in historical perspective, The Indian Scenario of M&A, an overview of HR contributions towards M&A, Govt. perspective Legal requirements to be followed in Mergers and Acquisitions.                               | 4+2                  |
| 2.         | Role of HR in Mergers and Acquisitions | Role of HR in Pre and Post Mergers and Acquisitions, Different Phases of Mergers and Acquisitions. HR's Role in doing Human Due diligence before initiating Mergers and Acquisitions.  | 4+2                  |
| 3.         | HR Issues in M&A                       | Attracting and retaining high performers, Utilizing and managing excess manpower, establishing of continuity and integration of culture, managing insecurity and stress, Managing Workplace Diversity in Mergers and Acquisitions  | 4+2                  |
| 4.         | Restructuring HR processes in M&A      | Performance Management System Re-designing after Mergers, Re- looking into Compensation for balancing organizational systems and process, Benefits and Reward Management Practices restructuring after mergers and acquisitions  | 4+2                  |
| 5.         | Leveraging HR Competencies in M&A      | Managing Stress in Mergers and Acquisitions by learning stress management techniques, Managing Change in Mergers and Acquisitions by becoming a change agent, Acquiring HR Competencies for handling smooth transition of the organization during Mergers and Acquisitions | 4+2                  |

**Suggested Text Books:**

1. Mergers, Acquisitions and Corporate Restructuring – Nishikant Jha – Himalaya Publishing House

2. Human Resource Management in Mergers and Acquisitions: Theories and Practices - by Dipak Kumar Bhattacharyya – Cengage Learning
3. Mergers, acquisitions and business valuations – Ravindhar Vadapalli – Excel Books

| <b>Course Name: Labour Economics and Costing</b>   |                               |   | <b>Semester: III</b> |
|--|-------------------------------|---|----------------------|
| <b>Course Code: SE - HR – 10</b>   |                               | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEHR10.01: REMEMBERING - IDENTIFY the basic concepts of Labour Economics, Wage Determination, Labour Productivity and Costing.</p> <p>COSEHR10.02: UNDERSTANDING – UNDERSTANDING the Labour Markets in India with reference to demand and supply of Labour and Social Security Problems associated to it.</p> <p>COSEHR10.03: APPLYING – DETERMINATION of various Wage and Non-Wage Factors applicable in various sectors of businesses.</p> <p>COSEHR10.04: ANALYSING - IMPLEMENTATION of various theories of wage determination in various business sectors.</p> <p>COSEHR10.05: EVALUATING – EVALUATION of Labour Cost Benefit Analysis of important HR functions.</p> <p>COSEHR10.06: CREATING - APPLICATION of social security of labours in various sectors.</p> |                               |   |                      |
| Module No.   | Module Name                   | Details   | No. of Hours (L+T+P) |
| 1.   | Introduction Labour Economics | Concept and Definition, Nature, Scope and Importance - Labour as a Unique Factor of Production - Labour Economics as a Branch of Economics - Interdisciplinary Character of Labour Economics, Rise of economic problems in Labour Management, Labour Market -Definitions, facts and trends.   | 2+1                  |
| 2.   | Labour Demand and Supply      | Determinants of the Supply and Demand for Labour, Organized and Unorganized Labour, Demand and Supply for labour in Indian Markets, Labour Demand Elasticity- Own-wage elasticity of demand, Cross-wage elasticity of demand, Major issues of Indian labour market -Labour Absenteeism, Labour turnover, Labour Productivity, Labour Migration and mobility, Impact of technological change on Labour Markets, Globalisation and international labour demand outsourcing. | 4+1                  |
| 3.   |                               | Classical, neo-classical and bargaining theories of wage determination, Modern theory of wage determination, Concepts of minimum wage, living wage and fair wage in theory and practice, Wage determination in various sectors - rural, urban, organized,   | 5+1                  |

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|    | Wage Determination                       | unorganized and in informal sectors<br>National wage policy, Wages and Wage Boards in India, Non-wage component of labour remuneration, non-wage labour costs – factors and its relation with wage determination.  |     |
| 4. | Concept of Labour Productivity & Costing | Measurement and Importance of Labour Productivity & its Determinants, Causes for Low Labour Productivity and Measures to Increased Labour Productivity, Productivity and the basis of yearly pay, Productivity and the level of pay, Productivity and the sequencing of pay, Costs -Various concepts, Elements of Labour cost – Fixed Pay and Variable pay. Various Statutory Requirements related to Cost of Labour, Cost Benefit Analysis of important HR functions, Labour turnover & productivity, Productivity and wage relationship, Cases related to labour cost calculation in Indian context. | 5+1 |
| 5. | Social Security of Labour                | Concept of Social Security and its evolution; Special problems of labour-Child Labour, Female Labour, Child labour policy, Problems and policy of female workers, Structure and achievement of labour union in India. Cases related to Issues of Social Security of labours in various sectors.  | 4+1 |

#### **Suggested E Books:**

1. Labour Economics By Stephen W. Smith
2. Fundamentals of Labor Economics By Thomas Hyclak, Geraint Johnes, Robert
3. Handbook of Labor Economics, edited by Orley Ashenfelter, David Card

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

1. McConnell, C.R. and S.L.Brue , Contemporary Labour Economics, McGraw-Hill, Latest Edition New York..
2. Reymonds L., Labour Economics & Labour Relations – Prentice Hall Inc., New Jercey.
3. Sadanand P Degaonkar , Labour Cost & Accounting, Everest Publishing House.
4. Jawahar Lal & Seema Srivastava, Cost Accounting, 4th Edition, Tata McGrew Hill Publishing Company Ltd, New Delhi
5. Jhabvala, R. and R.K. Subrahmanya (Eds.), Latest Edition,The (Unorganised Sector Work Security and Social Protection, Sage Publications, New Delhi.
6. Suman Kalyan Chakrvarthy, Labour Economics, Himalaya Publishing House Private Limited.

#### **Online References:**

1. <https://www.ilo.org/public/english/standards/relm/ilc/ilc89/pdf/rep-vi.pdf>
2. <https://pos.toasttab.com/blog/restaurant-labor-cost-percentage>

3. [https://www.accountingnotes.net/cost-accounting/labour-cost-cost-accounting/how-to-calculate-](https://www.accountingnotes.net/cost-accounting/labour-cost-cost-accounting/how-to-calculate-1. labour-cost-per-hour-per-unit-techniques-and-formula/16904)
1. [labour-cost-per-hour-per-unit-techniques-and-formula/16904](https://www.accountingnotes.net/cost-accounting/labour-cost-cost-accounting/how-to-calculate-1. labour-cost-per-hour-per-unit-techniques-and-formula/16904)
4. <https://getsling.com/blog/labor-costs/>
5. <https://smallbusiness.chron.com/figure-out-direct-labor-cost-per-unit-76675.ht>

| Course Name: Competency Based Human Resource Management System   |                               |   | Semester: III        |
|--|-------------------------------|---|----------------------|
| Course Code: SE - HR – 11  |                               | Credits: 3  | Marks: 100           |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEHR11.01: REMEMBERING – DEFINE the key terms related to performance management and competency development.</p> <p>COSEHR11.02: UNDERSTANDING – EXPLAIN various models of competency development</p> <p>COSEHR11.03: APPLYING - PRACTICE competency mapping.</p> <p>COSEHR11.04: ANALYSING - ANALYSE competencies required for present and potential future job roles at various levels and across a variety of organizations.</p> <p>COSEHR11.05: EVALUATING – DESIGN and MAP their own competency and plan better and appropriate career for themselves.</p> <p>COSEHR11.06: CREATING - DEVELOP a customized competency model in accordance with the corporate requirements.</p> |                               |   |                      |
| Module No.   | Module Name                   | Details   | No. of Hours (L+T+P) |
| 1.   | Performance Management System | Introduction of PMS-Definition, Scope, Importance, Performance Planning – Individual Goal Setting, Linking individual goals to Organization goals, Performance Coaching- Identification of Training Needs- Job Specification, Identify the Performance Gap, Training Specification, Choose appropriate training module, Counselling for Better Performance, Feedback Mechanism in Organization.                         | 6+3                  |
| 2.   | Introduction to Competency    | Definition and History of Competency, Basic Components of Competency (Knowledge(K), Skill(S), Attitude(A)), Performance Vs Competency, Difference between Competence and Competency, Type of Competency- Generic Vs Key Competency, Functional and Technical Competency, Leadership and managerial Competency, Need for Competency Framework, Limitation and Learning from Competency Framework, Myth about Competency. | 6+3                  |
| 3.   |                               | Need for and Importance of Competency Development, Stages in developing Competency Model, Types of Competency Model – Core/Generic, Job Specific, Managerial/Leadership,  | 5+3                  |

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|    | Competency Development & its Models  | Custom, Development of Personnel Competency Framework – Lancaster Model of Competency.   |     |
| 4. | Competency Mapping                   | Procedures/Steps-Determining objectives and Scope, clarifying implementation goals and standards, create an action plan, define competency-based performance effectiveness (Key Result Area (KRA) & Key Performance Indicators (KPI)), tools for data collection, data analysis, validating competency model, mapping future jobs and single incumbent jobs, using competency profile in HR decisions, Mapping Competency for Recruitment and Selection, Training and Development, Performance and Compensation. | 7+3 |
| 5. | Competency Driven Career and Culture | Role of Competency in Career Progression - Transactional Competency Tradition Competency and Transformational Competency, Evaluation of Career through KSA (Knowledge, Skill and Attitude) Competency based Succession and Career planning, Corporate Competency driven Culture.   | 6+3 |

#### Suggested Text Books:

1. Competency based HRM, Ganesh Shermon, Tata Mc Graw Hill Publishing
2. The handbook of Competency Mapping: Understanding, Designing and Implementing Competency Models in Organizations, Seema Sanghi, Sage Publication Inc

#### Suggested Reference Books:

1. Human Capital Measurement: An Introduction, K Sangeetha ICFAI University
2. Competency Mapping, R K Sahu
3. Competency Study: Mapping the Future, Paul R Bernthal, ASTD Press
4. Human resource Management, K Ashwath Appa
5. Human Resource Management, L M Prasad
6. Human Resource Management, Gary Dessler

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|---|-------------------|----------------------|
| <b>Course Name: Conflict management and Negotiation Skills</b>  |                   | <b>Semester: III</b> |
| <b>Course Code: SE - HR – 12</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>    |
| COURSE OUTCOMES: After completion of this course the students will be able to COSEHR12.01: REMEMBERING – DEFINE the key concepts of the subject matter. |                   |                      |



COSEHR12.02: UNDERSTANDING – EXPLAIN the negotiation process, Zone of possible agreement (ZOPA) and best alternative to a negotiated agreement (BATNA) .

COSEHR12.03: APPLYING - APPLY the negotiation process, Zone of possible agreement (ZOPA) and best alternative to a negotiated agreement (BATNA) for successful negotiations.

COSEHR12.04: ANALYSING - APPRAISE the importance of in business negotiations and managing conflicts.

COSEHR12.05: EVALUATING – DEVELOP the logical thinking, communication skills and other prerequisite for successful business negotiations and handling organizational conflict.

COSEHR12.06: CREATING - COMBINE the theoretical concepts practical methods of managing and resolving organizational conflict and negotiation styles in the organizational context.

| Module No. | Module Name                 | Details  | No. of Hours (L+T+P) |
|------------|-----------------------------|--|----------------------|
| 1.         | Fundamentals of Negotiation | definition: Introduction to the importance of negotiation, its importance and Nature of negotiation, negotiation Vs other interactions, Dimensions of Negotiation, Structure and the prerequisites of successful negotiation, types of negotiation, Strategy & planning of negotiation, four stage model of negotiation.   | 4+2                  |
| 2.         | Negotiation Process         | Perception & Preparation for the negotiations, goal setting for the negotiation, options and criteria for negotiation, role of Communication & Influence in the negotiation process, Identifying BATNA (Best alternative to a negotiated agreement) and ZOPA (zone of possible agreement) in the negotiation process, Ethics in negotiation, Agreement   | 4+2                  |
| 3.         | Negotiation styles          | Leigh Thompson's 5 negotiation mental models, importance of establishing trust and building a Relationship in negotiation, Win-Win Negotiation, use of creativity and problem Solving in Negotiations, application of Transactional analysis for negotiations.   | 4+2                  |
| 4.         | Conflict Management         | Introducing the concept of conflict management, Definition, importance and Models of conflict (Process & Structural), Sources of conflict, analyse the relationship between conflict & performance in team advantages & Disadvantages of Conflict. Creating conducive climate to resolve the conflict, apply the fundamentals of conflict management to build teams in the organizations, design the process for conflict management and create the situations to minimize the conflicts in an organization. | 4+2                  |

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| 5. | Types of Conflicts | understanding the importance of developing mechanism to manage conflicts in the organizations, managing interpersonal and intrapersonal conflict, and conflict resolution, dealing with difficult subordinates, boss & colleagues, evaluate the organization conflict, analyse the techniques to resolve team conflict creating the strategies to manage organizational conflict, understand the concept of third-party conflict resolution (ADR), demonstrate the use of third-party conflict resolution (ADR). Simulation: Case study on best business negotiations and conflict management, Role Play | 4+2 |
|----|--------------------|--|-----|

#### Suggested Text Books:

1. Negotiation: Communication For Diverse Settings, Spangle, Michael L.; Isenhardt, Myra Warren: Sage Publications
2. The Negotiation Field book Simple Strategies to Help you negating everything, Grande, Lum. New Delhi: TATA MCGRAW HILL Publishing Company Limited
3. Negotiation / Harvard Business Essentials. U S A, Harvard Business Publishing Corporation
4. How to Conduct Effective Negotiations, Forsyth, Patrick Jaico Publishing House
5. Managing Workplace Conflicts, Subbalakshmi., Hyderabad: ICFAI University Press
6. The Power of Positive Confrontation: The Skills You Need to Know to Handle Conflicts at Work, At Home and In Life, Pachter, Barbara. Magna Publishing Co. Ltd

#### Suggested Reference Books:

1. Getting to Yes: Negotiating Agreement without Giving In, Roger Fisher, William Ury, Bruce Patton
2. Bargaining for Advantage: Negotiation Strategies for Reasonable People, G. Richard Shell
3. Secrets of Power Negotiating: Inside Secrets from a Master Negotiator, Roger Dawson

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|---|------------------|----------------------|
| <b>Course Name: -Service Operation Management</b>   |                  | <b>Semester –III</b> |
| <b>Course Code-SC-OPE-01</b>  | <b>Credits-3</b> | <b>Marks-100</b>     |
| <b>COURSE OUTCOMES: After completion of this course the students will be able to</b><br><b>CO SC OPE 01.1:(REMEMBERING)</b> Define the key concepts in Services Operations Management.<br><b>CO SC OPE 01.2:(UNDERSTANDING)</b> DIFFERENTIATE between various service strategies, service quality dimensions, and customer relationships based on lifetime value.<br><b>CO. SC OSCM 01.3: (APPLY)</b> Apply the principles and practices of services operations management in a given scenario.<br><b>CO. SC OSCM 01.4: (ANALYZE)</b> Examine the different demand and supply aspects of services.<br><b>CO. SC OSCM 01.5: (EVALUATE)</b> Measure the service quality using SERVQUAL Model.<br><b>CO. SC OSCM 01.6: (CREATE)</b> Construct service blueprint for the given service. |                  |                      |

| Module No. | Module Name                          | Details  | No. of Hours (L+T+P) |
|------------|--------------------------------------|--|----------------------|
| 1.         | Understanding the Nature of Services | <p><b>Understanding the Nature of Services:</b> Introduction and imperative of services, Nature &amp; Characteristics of services, Classification of services and analyzing service operations</p> <p><b>Aligning Service Strategy &amp; Competitiveness:</b> Introduction to Service Strategy, Competitive Service Strategies, Strategic Service Vision</p> <p><b>Service Design, development and Automation:</b> New Service design &amp; development, Service system design and delivery process, Technology &amp; automation in services, service encounter.</p> | 7+2+2                |
| 2.         | Service Design                       | <p><b>Service Design Overview:</b> Front stage vs. Backstage, Components of 'Service Design', Human-Centered Service Design</p> <p><b>Service facility design &amp; location:</b> Service facility design, Facility Location design factors, Quantitative models for single and multiple facility Location</p>   | 7+2+2                |
| 3.         | Demand Management in Services        | <p><b>Demand Management in Services:</b> Forecasting Demand in Services, Smoothing Customer Demand in Services</p> <p><b>Supply Management in Services:</b> Service Capacity Management, Yield Management, Resource and Workforce Scheduling in Services.</p>  | 7+2+2                |
| 4.         | Quality management and SCM in SOM    | <p><b>Quality management, SERVQUAL</b> measurement, Quality management approaches, Service recovery, Service guarantee</p> <p><b>Service Inventory &amp; Supply Chain Management:</b> Introduction to the concept, Service Supply Chain, Processes in Service Supply Chains.</p>   | 7+2+2                |
| 5.         | Decision making in services          | <p><b>Service Process decisions,</b> Understanding the nature of service processes -Engineering' service processes, Controlling service processes, Repositioning service processes, Service processes and their importance, Customer contact</p> <p>Production-line approach, Service process matrices, Self-service, Lean thinking, Queuing, service-profit chain</p>   | 7+2+2                |

**Suggested Textbooks:**

1. B. Fitzsimmons, James A., and Mona J. Fitzsimmons, Service Management: Operations, Strategy, and Information Technology, 6th Ed., Irwin/McGraw-Hill, 2007.
2. C. Haksever, Render B., Russel S. R. and Murdick R. G., Service Management and Operations, 2nd Ed., Prentice Hall, 2007
3. Greasley, Andrew (2013), Operation Management, 3rd Edition (or later if available), John Wiley and Sons Ltd.

**Suggested Reference Books:**

1. Heskett, J.L. (1991), "Lessons in the service sector" in The Service Management Course: Cases & Reading, Free Press, 47-64.
2. Johnston, R. (2005), "Service operations management: from the roots, up" International Journal of Operations & Production Management, 25, 12, 1298-1308

| <b>Course Name: Logistics Management</b>  |                                    |   | <b>Semester: III</b> |
|---|------------------------------------|---|----------------------|
| <b>Course Code: SE-OPE-05</b>   |                                    | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p><b>CO SE OPE 05.01:</b> REMEMBERING –DEFINE basic terms and concepts related to Logistics management.</p> <p><b>CO SE OPE 05.02:</b> UNDERSTANDING - EXPLAIN the infrastructure of logistics, its linkage with various types of communication mode</p> <p><b>CO SE OPE 05.03:</b> APPLYING - DESCRIBE the various dimensions of logistics management and transport, their inter-linkages with different types of freight.</p> <p><b>CO SE OPE 05.04:</b> ANALYSING – CALCULATE logistic costs and various classification methods of reducing the cost. Involving information technology and its impacts.</p> <p><b>CO SE OPE 05.05:</b> EVALUATING – OUTLINE a typical logistic framework and services. ILLUSTRATE the linkages with its dynamic storage system / Customer Issues, Logistic and Business Issues in a real-world context.</p> <p><b>CO SE OPE 05.06:</b> CREATING - DISCUSS modern real world logistical systems using the various concepts in the syllabus.</p> |                                    |   |                      |
| Module No.  | Module Name                        | Details   | No. of Hours (L+T+P) |
| 1.  | <b>The Principles of Logistics</b> | Definitions and Significance of Logistics. Logistical System of Services Elements of Logistics, Distinction between Procurement Logistics, Production Logistics and Distribution Logistics, Service Level Logistics and Corporate Strategy, Supply Chains and Networks. | 7+2                  |
| 2.  |                                    | Logistical Infrastructure, Basic Terminology, Types and Functions, Transport Infrastructure and Superstructure, Transport Routes and Transport Networks, Logistics Real Estate, Logistics Parks, and Freight  | 8+2                  |

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|    | <b>Logistics Systems</b>                          | Villages Information Infrastructure and Communication Infrastructure, Telecommunication Infrastructure, Satellite Systems and Satellite Navigation.   |     |
| 3. | <b>Transport Systems and Logistics Services</b>   | Transport Basics, Significance and Development, Modes of Transport and Transport Technologies, Transport Value and Transport Affinity, Road Freight Transport, Rail Freight Transport, Sea Freight Transport, Inland Waterway Transport, Air Freight Transports, Pipeline Transport.  | 8+2 |
| 4. | <b>Logistics Service Providers</b>                | Carriers and Forwarders, Courier, Express Parcel and Mail Service Providers, Systems Service Providers and Contract Logistics Providers. IT in Logistics, Communication Standards, Identification Standards, Classification of IT in the Fields of Inventory and Warehousing.   | 7+2 |
| 5. | <b>Warehousing, Handling, and Picking Systems</b> | Warehousing, Handling, and Picking Systems, Warehousing Basics, Storage Facilities, Static Storage Systems, Dynamic Storage Systems, Conveyors, Discontinuous Conveyors, Continuous Conveyors, Sorters, Packages, Loading Units, and Load Carriers, Picking and Handling, Warehouse Organization, Inventory, Stock and Provisioning Management. | 5+2 |

#### **Suggested Text Books:**

1. Logistics, by Harald Gleissner and J Christian Femerling
2. Lean Supply Chain and Logistics Management, by Paul Myerson
3. Supply chain logistics management, By Bowersox

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

1. Supply Chain Logistics Management, Donald Bowersox, David Closs, M Bixby Cooper, Tata McGraw Hill.
2. Introduction to Materials Management, J.R. Tony Arnold, Stephen Chapman, Ramakrishnan, Pearson.
3. Supply Chain and Logistics Management: Concepts, Methodologies, Tools, and Applications, by Information
1. Resources Management Association, US.

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| <b>Course Name: Supply Chain Analytics</b> | <b>Semester: III</b> |
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| <b>Course Code: SE-OPE-06</b>  |   | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
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| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p><b>CO SE OPE 06.01:</b> REMEMBERING – DESCRIBE the importance of the basics of Supply Chain Analytics and Optimization.</p> <p><b>CO SE OPE 06.02:</b> UNDERSTANDING- EXPLAIN the role and applications of Descriptive, Predictive &amp; Prescriptive Analytics in a Supply Chain</p> <p><b>CO SE OPE 06.03:</b> APPLYING – ILLUSTRATE the basics of Modeling through R Language</p> <p><b>CO SE OPE 06.04:</b> ANALYSING- EXAMINE the level of uncertainty associated with the supply of products and services to targeted customer segments and justify the choice of a supply chain strategy and it's fit with competitive strategy.</p> <p><b>CO SE OPE 06.05:</b> EVALUATING – DETERMINE the right tools for addressing various issues in Supply Chain Analytics</p> <p><b>CO SE OPE 06.06:</b> CREATING - COMBINE the various approaches to Supply Chain Analytics for improvements in the supply chain system</p> |   |   |                      |
| Module No.   | Module Name                                   | Details   | No. of Hours (L+T+P) |
| 1.   | <b>Context of Supply Chain Analytics</b>      | Context of today's supply chains (SC) analytics. Understanding and defining supply chain analytics (SCA). Review of Basics of Supply Chain Management, Significance of Analytics in a supply chain, Relating Operations Management with Supply Chain concepts and SC Analytics. The importance of supply chain analytics in the flows involving material, money, information and ownership. Key issues in Supply chain analytics, Case studies of Supply Chains Analytics in India. | 5+1                  |
| 2.   | <b>Supplier Selection Analytics</b>           | Linear Programming, rating method, ranking method, Borda Count, Clustering, Goal Programming and related multi-criterion decision making (MCDM) techniques.   | 5+1                  |
| 3.   | <b>Transportation Modelling and Analytics</b> | Transportation models, Route planning, Transshipment, Shipment schedule, Flow path optimization.  | 5+1                  |
| 4.   | <b>Warehousing Modelling and Analytics</b>    | Warehouse location problem, MILP formulation, Location with foreign exchange risks, space calculation for warehouse, Non-linear optimization for warehouse space allocation.  | 5+1                  |

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| 5. | <b>Strategic Performance Improvement</b> | Data Envelopment Analysis for competitive comparisons among multiple warehouses and service units and formulation of strategic action plans for improving the efficiencies of non-performing DMUs, Stochastic Frontier Analysis. | 5+1 |
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#### Suggested Textbooks:

1. Unleashing the Potential of Supply Chain Analytics by Melissa R. Bowers, Adam Petrie and Mary C. Holcomb, Oreilly
2. Modeling the Supply Chain, Jeremy F. Shapiro, Duxbury Thomson Learning
3. Supply Chain Management, Sunil Chopra, and Peter Meindl, Pearson
4. Business Analytics, Rahul Saxena and Anand Srinivasan

#### Suggested Reference Books:

1. Designing and Managing the Supply Chain concepts, Strategies and Case studies, D. Simchi-Levi, P. Kaminsky, E.
1. Simchi-Levi, and Ravi Shankar, Tata McGraw Hill, New
2. Global Business Analytics Models: Concepts and Applications in Predictive, Healthcare, Supply Chain, and
3. Finance Analytics by Hokey Min
4. Supply Chain Planning and Analytics by Gerald Feigin

| Course Name: - Operations and Service Strategy  |   | Semester –III   |                      |
|---|---|---|----------------------|
| Course Code- SE-OPE-07  | Credits-3                                     | Marks-100   |                      |
| <b>COURSE OUTCOMES:</b> After completion of this course the students will be able to<br><b>CO SE OPE 07.01: (REMEMBERING)</b> DEFINE Concept of Service and Operations Strategy<br><b>CO SE OPE 07.02: UNDERSTANDING)</b> – Understand the strategic role of service and operations management in achieving business competitiveness<br><b>CO SE OPE 07.03: (APPLYING)</b> - Apply productivity improvement techniques such as Lean, Six Sigma, and SERVQUAL to optimize service operations.<br><b>CO SE OPE 07.04: (ANALYSING)</b> –. Analyze and design service systems using operational frameworks to enhance service efficiency and customer satisfaction<br><b>CO SE OPE 07.05:( EVALUATING)</b> – Evaluate the impact of digital transformation, AI, automation, and analytics in service operations<br><b>CO SE OPE 07. 06 :(CREATING)</b> - Develop sustainable, agile, and resilient service operations strategies to address emerging industry trends. |   |   |                      |
| Module No.  | Module Name                                   | Details   | No. of Hours (L+T+P) |
| 1.  | Introduction to Service & Operations Strategy | Concept of Service and Operations Strategy, Role of Operations Strategy in Business Competitiveness, Differences between Manufacturing & Service Operations, Service-Dominant Logic and its Implications, Strategic Service Vision and Competitive Priorities, Frameworks for Developing an Operations Strategy | 6+2+4                |

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| 2. | <b>Service Design &amp; Delivery Strategies</b>                          | Service System Design and Service Blueprinting, Managing Customer Expectations and Experience, Service Process Structuring: Standardization vs. Customization, Capacity Planning in Services, Location & Layout Strategies for Service Facilities, Designing Services for Sustainability and Scalability, Case Studies on Innovative Service Models | 6+2+4 |
| 3. | <b>Operational Efficiency &amp; Productivity in Services</b>             | Productivity Management in Service Operations, Lean Principles & Six Sigma in Service Industry, Managing Service Quality: SERVQUAL Model, Demand and Supply Alignment in Service Operations, Service Recovery Strategies and Complaint Management, Benchmarking and Performance Measurement in Services, Case Discussion on Operational Excellence  | 6+2+4 |
| 4. | <b>Technology &amp; Digital Transformation in Services</b>               | Role of Technology in Service Operations, AI, Automation, and Robotics in Service Strategy, Service Analytics and Data-Driven Decision Making, E-Services, Self-Service Technologies & Omni-Channel Strategies, IT Service Management (ITSM) & Cloud-based Services, Case Studies on Digital Service Transformation                                 | 6+2+4 |
| 5. | <b>Emerging Trends &amp; Future of Service &amp; Operations Strategy</b> | Sustainable Service Operations & Circular Economy, Agile & Resilient Service Operations Strategies, Service Operations in Global & Emerging Markets, Ethical and Legal Considerations in Service Operations, Industry 4.0 and Future of Service Operations  | 6+2+4 |

#### Suggested Textbooks:

1. Fitzsimmons, J. A., & Fitzsimmons, M. J. – Service Management: Operations, Strategy, Information Technology (McGraw-Hill)
2. Chase, R. B., Jacobs, F. R., & Aquilano, N. J. – Operations and Supply Chain Management (McGraw-Hill)
3. Haksever, C., Render, B., Russell, R. S., & Murdick, R. G. – Service Management and Operations (Pearson)
4. Metters, R., King-Metters, K., Pullman, M., & Walton, S. – Successful Service Operations Management (Cengage Learning)

#### Additional Readings and References:

1. Slack, N., & Lewis, M. – Operations Strategy (Pearson)
2. Heizer, J., Render, B., & Munson, C. – Operations Management: Sustainability and Supply Chain Management (Pearson)
3. Johnston, R., & Clark, G. – Service Operations Management: Improving Service Delivery (Pearson)
4. Brown, S., Bessant, J., & Lamming, R. – Strategic Operations Management (Routledge)



| <b>course Name: -Theory of Constraints</b>   |   | <b>Semester -III</b>  |                             |
|--|---|---|-----------------------------|
| <b>Course Code-SE OPE 08</b>   | <b>Credits-3</b>  | <b>Marks-100</b>  |                             |
| <b>COURSE OUTCOMES: After completion of this course the students will be able to</b><br><b>CO SE OPE 08.01(DEFINE)</b> DEFINE the key concepts of TOC.<br><b>CO SE OPE 08.02(UNDERSTANDING)</b> DEMONSTRATE knowledge & understanding of the fundamentals of TOC<br><b>CO. SE OPE 08.03: (Apply)</b> IDENTIFY and mitigate both real constraints and managerial constraints.<br><b>CO. SE OPE 08.04(Analyzing)</b> ILLUSTRATE the tools and techniques that help in managing constraints to improve organizational performance.<br><b>CO. SE OPE 08.05: (Evaluate)</b> EXPLAIN the benefits an organization may reap through the successful implementation of the TOC.<br><b>CO. SE OPE 08.06: (Create).</b> DEVELOP solutions to common problems in Project Management, Operations Management and Supply Chain Management using TOC principles and methods. |   |   |                             |
| <b>Module No.</b>  | <b>Module Name</b>                                      | <b>Details</b>  | <b>No. of Hours (L+T+P)</b> |
| 1.   | <b>Thinking Process</b>                                 | Introduction to Theory of Constraints (TOC), Tools of TOC, where is TOC applicable? What is a constraint, TOC’s thinking process and Human Being, Terminology used in the thinking process, Steps to implement in the thinking process, Current Reality Tree, Conflict Resolution Diagram, Future Reality Tree, Prerequisite Tree, Transition Tree, Three Cloud Method. | 5+1                         |
| 2.   | <b>Finance and Measures</b>                             | Economic Decisions, TOC and Product Costing, Economic Decisions using TOC Costing   | 5+1                         |
| 3.   | <b>Project Management</b>                               | Phases of Project Management, Common problems in Project Environment, Critical Chain project Management – A TOC approach.   | 5+1                         |
| 4.   | <b>Drum-Buffer-Rope Solution</b>                        | Introduction, The Drum – The MPS of the Capacity Constraint Resource, Implementing Drum-Buffer-Rope, Implementing Drum-Buffer-Rope on the shop floor, MPS using Drum-Buffer-Rope Scheduling method.   | 5+1                         |
| 5.   | <b>Theory of Constraints in Supply Chain Management</b> | Introduction, TOC in distribution Solution, Drum-Buffer-Rope in distribution.   | 5+1                         |

**Suggested Text Books:**

1. Theory of Constraints by S K Mukhopadhyay, Jaico Books.
2. The Goal by E M Goldratt and Cox J, Great Barrington, North River

### Suggested Reference Books:

1. What is the thing called Theory of Constraints? by E M Goldratt, Great Barrington, North River
2. It's Not Luck by E M Goldratt, Great Barrington, North River
3. Essays on Theory of Constraints by E M Goldratt, Great Barrington, North River
4. Critical Chain by E M Goldratt, Great Barrington, North River

| <b>Course Name: Manufacturing Resource Planning</b>  |   |   | <b>Semester: III</b> |
|--|---|---|----------------------|
| <b>Course Code: SE-OPE-09</b>  |   | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p><b>COSEOPE09.01: REMEMBERING</b> – DEFINE basic terms and concepts related to MRP II</p> <p><b>COSEOPE 09.02: UNDERSTANDING</b> – DESCRIBE the integrated planning structure and functions incorporated within MRP</p> <p><b>COSEOPE 09.03: APPLYING</b> - ILLUSTRATE the importance of MRP as a top-management planning tool</p> <p><b>COSEOPE 09.04: ANALYSING</b> - IDENTIFY the vertical and horizontal cross-functional integration within the MRP II planning hierarchy.</p> <p><b>COSEOPE 09.05: EVALUATING</b> – EXPLAIN how what-if simulation, modeling, and analysis are used to produce feasible plans.</p> <p><b>COSEOPE 09.06: CREATING</b> - DISCUSS how MRP supports the company's cost, quality, and delivery operating objectives.</p> |   |   |                      |
| Module No.   | Module Name                               | Details   | No. of Hours (L+T+P) |
| 1.   | <b>Master Production Scheduling (MPS)</b> | Introduction to MPS, Need, objectives & functions of MPS, Role of MPS in management- as a "Link between strategic and tactical planning". Logical flow of materials in different manufacturing scenarios (VAT Analysis), Planning horizons and Time periods (Buckets) of MPS, Order management in MPS, Safety and hedges, Projected Available Balance (PAB) and Available To Promise (ATP), Time Fences & effect of changing MPS decisions on time fences, Final Assembly Schedule (FAS). | 5+1                  |
|  |   | Introduction to MRP-I, Roles & functions of MRP-I, Independent &  |                      |

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| 2. | <b>Material Requirements Planning (MRP-I)</b>                | Dependent Demand, Bill of Materials (BOM), Types of BOM, Numerical Problems on BOM, Lot-sizing, MRP-I as Input & Output Process, MRP-I Spreadsheet problem, pegging reports & where-used files.  | 5+1 |
| 3. | <b>Capacity Management</b>                                   | Introduction to 'Capacity' and 'Capacity management', Capacity Expansion Strategies Capacity Planning levels vis-à-vis Manufacturing planning levels, Capacity measurement, Rough Cut Capacity Planning (RCCP), Capacity Requirement Planning (CRP), Shop Calendar, Scheduling strategies- Backward & Forward scheduling Infinite & Finite loading, Production smoothing policies. | 5+1 |
| 4. | <b>Manufacturing Resource Planning (MRP-II)- (Module-I)</b>  | Introduction to MRPII, Roles & functions of MRP-II, MRP-II framework, Information flow in MRP-II, Relation of MRP-II with Demand management and Capacity management, Manufacturing calendar.   | 5+1 |
| 5. | <b>Manufacturing Resource Planning (MRP-II)- (Module-II)</b> | Transition from MRP-I to MRP-II, Closed loop MRP, Comparison between MRP-I and MRP-II, Plant & supplier scheduling, Problems associated with MRP-II, Benefits and prospects of MRP-II, Compatibility between MRP-II & Just-in-Time (JIT).  | 5+1 |

#### **Suggested Text Books:**

1. Manufacturing Resource Planning System, Mr. Oliver Wight
2. Manufacturing Resource Planning, Mr. Khalid Shaikh,
3. Manufacturing Resource Planning System, S. M. Emberly

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

1. Operations Management by Terry Hill, Palgrave
2. The fundamentals of Production Planning and Control by Stephen Chapman, Pearson

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| <b>Course Name: -Strategic Supply Chain Management</b> |                  | <b>Semester -III</b> |
| <b>Course Code-SE-OPE-10</b>                           | <b>Credits-3</b> | <b>Marks-100</b>     |

**COURSE OUTCOMES: After completion of this course the students will be able to**

**CO SE OPE 10.01:( REMEMBERING) – DEFINE** Key configuration components of Strategic Supply Chain Management.

**CO SE OPE 10.02: (UNDERSTANDING) –EXPLORE** Process Architecture and Toolkits of in Strategic Supply Chain Management.

**CO SE OPE 10.03: (APPLYING)– ILLUSTRATE** the Design Organization for Performance and Organizational Change

**CO SE OPE 10.04: (ANALYSING) - EXAMINE** the Right Collaborative Model and Drivers of collaboration of Strategic Supply Chain Management.

**CO SE OPE 10.05:( EVALUATING) – ILLUSTRATE** Use of Metrics to Drive Business Success and Roadmap to change.

**CO SE OPE 10.06: (CREATING) - DEVELOP** the architecture of a supply chain.

| Module No. | Module Name                                | Details   | No. of Hours (L+T+P) |
|------------|--|---|----------------------|
| 1.         | <b>Supply chain as Strategic Asset</b>     | Key configuration components - Operations strategy, Outsourcing strategy, Channel strategy, Customer service strategy, Asset network, Criteria of robust SC strategy - Aligned with business strategy, aligned with customers' needs, aligned with power position, Adaptive, Next Generation Strategy – support continuing improvements in productivity and drive the achievement of business-level outcomes.   | (5+1)                |
| 2.         | <b>Process Architecture</b>                | SC architecture details the process, applications, and information to improve and evolve, Components of SC architecture, Tests of Supply Chain Architecture – Strategic fit, End-to-end focus, Simplicity and Integrity, Architectural Toolkits, Levels of the Supply-Chain Operations Reference-model (SCOR) Model – processes, sub processes, and activities, Processes for End-to-End Supply Chain Management – Plan, Source, Make, Deliver and Return, Next-Generation Processes. | (5+1)                |
| 3.         | <b>Design Organization for Performance</b> | Primary challenges - structure of SC organization, roles and responsibilities, right people with the right skills. Organizational Change Is an Ongoing Process – modify & redefine, Evolution of the SC Organization, Guiding Principles for Organizational Design - organization should mirror process, every process has an accountable function or individual, Know, grow, and   | (5+1)                |

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|    |  | keep your core capabilities, organize around the skills you need, Gaining Respect for the Supply Chain Discipline, Next-Generation Organizational Design – new roles and new skills.  |       |
| 4. | <b>Build the Right Collaborative Model</b>   | Drivers of collaboration, desire to access - technology, capital-intensive technology, cost of competency to acquire, develop, or maintain, and new market effectively closed off by high entry costs or preconditions. Collaboration Spectrum model, transactional, cooperative, coordinated, and synchronized, Finding the right place on the Spectrum, The Path to Successful Collaboration - Master internal collaboration first, Define the degree of collaboration for each partner segment, Next-Generation Collaboration. | (5+1) |
| 5. | <b>Use Metrics to Drive Business Success</b> | Why Measure, Managing Performance with Metrics, Which Metrics, Next-Generation Performance Management, Roadmap to change - advanced systems Aren't Enough, Stages of supply chain process maturity model, Characteristics of the Next Generation - transparency, flexibility, and simultaneity, developing a Roadmap – creating the roadmap to change.  | (5+1) |

#### **Suggested Textbooks:**

1. Strategic SCM – The Five discipline for top performers - Shoshanah Cohen, Joseph Roussel
2. Strategic Supply Chain Management: Creating Competitive Advantage and Value Through Effective Leadership, by Samir Dani
3. Supply Chain Strategies – Customer Driven & Customer Focused by Tony Hines, Elsevier
4. Supply chain management – strategy, planning & operation –Sunil Chopra , Peter Meindl.

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

1. Managing the SC- A Strategic Perspective by Gattorna Walters, Palgrave Macmillan
2. Extending the Supply Chain by Boyer, Forhlich and Hult, PHI, 3rd Indian Reprint
3. Strategic Supply Chain Management by S. Kale, Everest Publication
4. New Directions in Supply Chain Management: Technology & Strategy Implementation by Tonya Boone and Ram Ganeshan, Jaico Publishing

5. Designing & Managing the SC – Concepts, Strategies & Case studies – by Levi, Kaminskyet. al., TMGH

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| <b>Course Name: - Business Excellence</b>  |                            | <b>Semester -III</b>   |                             |
| <b>Course Code-SE-OPE-11</b>   | <b>Credits-3</b>           | <b>Marks-100</b>   |                             |
| <b>COURSE OUTCOMES: After completion of this course the students will be able to</b>   |                            |  |                             |
| <b>CO SE OPE 11.01: (REMEMBERING)</b> – REPRODUCE the essential tenets of Business Excellence in organizations with special emphasis on Operations Excellence.   |                            |  |                             |
| <b>CO SE OPE 11.02: (UNDERSTANDING)</b> – EXPLAIN the basic principles of various models of Business Excellence.   |                            |  |                             |
| <b>CO SE OPE 11.03: (APPLYING)</b> – MAKE USE OF the concepts, tools and techniques of Business Excellence in the various areas of Operations, Supply Chain and Services.  |                            |  |                             |
| <b>CO SE OPE 11.04: (ANALYSING)</b> - ILLUSTRATE the various facets of development, implementation and assessment of business excellence.  |                            |  |                             |
| <b>CO SE OPE 11.05: (EVALUATING)</b> – FORMULATE a managerial perspective and DEVELOP an informed decision- marking ability for driving Business Excellence in the various areas of Operations, Supply Chain and Services. |                            |  |                             |
| <b>CO SE OPE 11.06: (CREATING)</b> - DISCUSS what makes some organizations best-in-class organizations   |                            |  |                             |
| <b>Module No.</b>  | <b>Module Name</b>         | <b>Details</b>   | <b>No. of Hours (L+T+P)</b> |
| 1.   | <b>Business Excellence</b> | Business Excellence – Concept & Need. Fundamental concepts, European Foundation for Quality Management (EFQM), Malcolm Baldrige National Quality (MBNQA) framework, Deming Award, Indian BE Models such as Tata Business Excellence Model, Golden Peacock Award by the Institute of Directors(IOD), CII-EXIM Bank Award for Business Excellence, Rajiv Gandhi National Quality Award (RGNQA), etc, Core Values and Concepts, TQM Vs Business Excellence, Paradigm Shift. | (5+1)                       |
| 2.   | <b>Leadership triad</b>    | Leadership, Strategy and Customers, Role of Senior Leadership and communication, Vision, Mission and Values, Organizational Governance, Strategy - Strategy development and deployment process, Tools and Techniques for strategy development and deployment - Hoshin Kanri, BSC, etc. Customers – Voice of Customer, current and potential customers, Customer Satisfaction and Engagement, Product and Service Offerings.  | (5+1)                       |
| 3.   | <b>Results triad</b>       | People, Operations and Results, Results  | (5+1)                       |

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|    |                                     | flowing from all areas of organization, Measurement, Analysis, and Knowledge Management, Overall Performance Management.                                |       |
| 4. | <b>Assessment</b>                   | Assessment of organizations based on BE Models and guidelines, developing assessors, Factors in assessment, scoring bands, global scale for comparison. | (5+1) |
| 5. | <b>Comparisons and Benchmarking</b> | Benchmarking within organization, across the BUs and sister organizations, benchmark grid, benchmarking with competitors and global benchmarks.         | (5+1) |

#### **Suggested Textbooks:**

1. The Business of Excellence: Building High-performance Teams and Organizations by Justin Hughes, Bloomsbury Publishing.
2. Achieving Class A Business Excellence: An Executive's Perspective by Dennis Groves, Kevin Herbert and Jim Correll, Wiley Publications
3. Design for Operational Excellence: A Breakthrough Strategy for Business Growth by Kevin J. Duggan, McGraw-Hill Education
4. From Quality to Business Excellence: A Systems Approach to Management by Charles G. Cobb, ASQ PR
5. Business Excellence through Process Management by Manik Kher, VIVA BOOKS

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

1. Achieving Business Excellence by Pravin Rajpal, Om Books International
2. Creating a Lean Culture: Tools to Sustain Lean Conversions by David Mann, CRC Press
3. Measuring Business Excellence, Routledge Advances in Management and Business Studies Book
4. EFQM, MBNQA, RGNQA Guidelines
5. 54 Tools and Techniques for Business Excellence by Michael Wash, Management Books

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|---|------------------|----------------------|
| <b>Course Name: - Service Value Chain Management</b>  |                  | <b>Semester -III</b> |
| <b>Course Code-SE-OPE-12</b>  | <b>Credits-3</b> | <b>Marks-100</b>     |
| <p><b>COURSE OUTCOMES: After completion of this course the students will be able to</b></p> <p><b>CO SE OPE 12.01: (REMEMBERING)</b> – DEFINE the core concepts related to Service Value Chain, Service Profit Chain, Innovation, CRM, networks.</p> <p><b>CO SE OPE 12.02: (UNDERSTANDING)</b> – ILLUSTRATE managing the service process through service value chain.</p> <p><b>CO SE OPE 12.03: (APPLYING)</b> – IDENTIFY factors influencing Innovation and service organizational design.</p> |                  |                      |

**CO SE OPE 12.04: (ANALYSING)** - EXAMINE the inter-relationships between the Focal firm, Supplier Networks, Distribution Networks, etc.

**CO SE OPE 12.05: (EVALUATING)** - EVALUATE the role of Business Networks as partners in value creation.

**CO SE OPE 12.06: (CREATING)** - DEVELOP strategies built on Principles of Service Value Chain & Service Profit Chain for various types of organizations.

| <b>Module No.</b> | <b>Module Name</b>                                    | <b>Details</b>   | <b>No. of Hours (L+T+P)</b> |
|-------------------|---|--|-----------------------------|
| 1.                | <b>Basic Concepts, Value, Value Processes</b>         | Basic Concepts, Value, Value Processes, service product, Value creation by services marketing, evaluating internal customer value leading to external customer satisfaction, Costing of Services- Defining the cost part of service value: service pricing, delivering service value – Managing service delivery.  | (5+1)                       |
| 2.                | <b>Service Value Chain &amp; Service Profit Chain</b> | Introduction, Definitions, Significance, Managing the service process through service value chain, service value chain and service profit chain, Key elements of service profit chain – customer loyalty and satisfaction, understanding value from customer perspective, dream team cycle.  | (5+1)                       |
| 3.                | <b>Value Chain Service Innovations</b>                | Introduction, Components, Types, Models, Processes of Innovation, Evolution and Characteristics of Innovation Management, Key drivers, Factors influencing Innovation, Organizing for Innovation, Factors influencing service organizational design, Developing Innovation Strategy.   | (5+1)                       |
| 4.                | <b>Managing Networks</b>                              | What is a Network? Business Networks, Network Position, Concept of Focal firm, Business Networks and CRM, Supplier Networks, Distribution Networks, Management of Networks, Supplier Relationships, Product Development, Supplier Accreditation Programmes, Process Alignment, E Procurement, Partners in Value Creation, Alliance between non-competing firms, Alliance between competing firms, Benchmarking Partners, Customer Advocacy groups, Sponsors, Partners in Value Delivery. IT Enabled Customer Services - Call Centre Operations and Management, Web-enabled Services, ERP enabled | (5+1)                       |



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|    |                     | Field and Technical Support Services, Tele marketing and servicing.  |       |
| 5. | <b>Case Studies</b> | Case Studies related to Service Value Chain in Banking & Insurance, Hospital and Health Care, Travel & Tourism, Hotel & Catering, Retail and Contractual Services. | (5+1) |

**Suggested Textbooks:**

1. Service Profit Chain: How Leading Companies Link Profit and Growth to Loyalty, Satisfaction and Value, W. Earl Sasser, Leonard A. Schlesinger, James L. Heskett
2. Competitive Advantage, Porter, Michael E, The Free Press. New York
3. Strategic Management: a Methodological Approach, Rowe, Mason, Dickel, Mann, Mockler; Addison-Wesley

| <b>Course Name: Python</b>  |                               | <b>Semester: III</b>  |                      |
|---|-------------------------------|---|----------------------|
| <b>Course Code: SC BA - 01</b>  |                               | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p>COSEBA1.01: REMEMBERING- Understand the basics of Python, including syntax, keywords, and data types.</p> <p>COSEBA1.02: UNDERSTANDING- Develop programs using control structures and functions</p> <p>COSEBA1.03: APPLYING- Implement data structures like lists, tuples, sets, and dictionaries.</p> <p>COSEBA1.04: ANALYSING- Analyse and apply file handling, modules, and exception handling.</p> <p>COSEBA1.05: EVALUATING- Use libraries like NumPy, Pandas for data analysis.</p> <p>COSEBA1.06: CREATING- Develop basic real-world applications in Python</p> |                               |   |                      |
| Module No.  | Module Name                   | Details   | No. of Hours (L+T+P) |
| 1.  | <b>Introduction to Python</b> | <p>History and features of Python</p> <ul style="list-style-type: none"> <li>• Installing Python and IDEs (IDLE, VS Code, Anaconda)</li> <li>• Python Interpreter and interactive mode</li> <li>• Writing and executing Python scripts</li> <li>• Variables, Identifiers, Keywords</li> <li>• Data types: int, float, str, bool, complex</li> <li>• Type conversion and casting</li> <li>• Input and Output functions</li> <li>• Operators: Arithmetic, Relational, Logical, Bitwise, Assignment</li> </ul> | 8+2                  |

|    |   |   |     |
|----|---|---|-----|
| 2. | <b>Module 2:<br/>Control<br/>Structures &amp;<br/>Functions</b>             | <ul style="list-style-type: none"> <li>• Conditional Statements: if, if-else, if-elif-else</li> <li>• Loops: for, while, break, continue, pass</li> <li>• range () function</li> <li>• Functions: <ul style="list-style-type: none"> <li>○ Defining and calling functions</li> <li>○ Arguments and return values</li> <li>○ Types: Default, Keyword, Variable-length arguments</li> <li>○ Lambda functions</li> <li>○ Recursion</li> </ul> </li> </ul>  | 7+2 |
| 3. | <b>Module 3: Data<br/>Structures in<br/>Python</b>                          | <ul style="list-style-type: none"> <li>• <b>List</b> <ul style="list-style-type: none"> <li>○ Creating, Indexing, Slicing, Iteration</li> <li>○ List Comprehension</li> <li>○ Methods: append, extend, insert, remove, pop, sort, reverse</li> </ul> </li> <li>• <b>Tuple</b> <ul style="list-style-type: none"> <li>○ Immutability</li> <li>○ Tuple operations</li> </ul> </li> <li>• <b>Set</b> <ul style="list-style-type: none"> <li>○ Set operations (union, intersection, difference)</li> <li>○ Methods: add, remove, discard</li> </ul> </li> <li>• <b>Dictionary</b> <ul style="list-style-type: none"> <li>○ Key-value pairs</li> <li>○ Methods: get, keys, values, items, update, pop</li> </ul> </li> </ul> | 7+2 |
| 4. | <b>Module 4:<br/>Strings, File<br/>Handling,<br/>Exception<br/>Handling</b> | <ul style="list-style-type: none"> <li>• String Operations: <ul style="list-style-type: none"> <li>○ Indexing, slicing</li> <li>○ Built-in functions: upper, lower, find, replace, split, join</li> </ul> </li> <li>• File Handling: <ul style="list-style-type: none"> <li>○ Opening and closing files</li> <li>○ Reading and writing files (text &amp; binary)</li> <li>○ Modes: r, w, a, r+, etc.</li> <li>○ Using with statement</li> </ul> </li> <li>• Exception Handling: <ul style="list-style-type: none"> <li>○ Try, except, finally</li> </ul> </li> </ul>  | 6+2 |

|    |  |   |     |
|----|--|---|-----|
|    |  | <ul style="list-style-type: none"> <li>○ Catching specific exceptions</li> <li>○ Raising exceptions</li> <li>○ Custom exceptions (basics)</li> </ul>  |     |
| 5. | <b>Module 5:<br/>Modules,<br/>Libraries, and<br/>OOP</b> | <ul style="list-style-type: none"> <li>• Importing modules: built-in and user-defined</li> <li>• math, random, datetime, os</li> <li>• Introduction to OOP: <ul style="list-style-type: none"> <li>○ Classes and Objects</li> <li>○ <code>__init__</code> method</li> <li>○ Attributes and methods</li> <li>○ Inheritance (single, multiple - basics)</li> <li>○ Encapsulation and Polymorphism (basic overview)</li> </ul> </li> </ul> | 7+2 |

#### Suggested Text Books:

1. Data Mining: The Textbook by Charu C. Aggarwal
2. Data Science for Business by Foster Provost and Tom Fawcett, O'Reilly
3. Introduction to Data Mining by Pang-Ning Tan, Michael Steinbach, Vipin Kumar, Addison Wesley
4. Data Mining and Analysis: Fundamental Concepts and Algorithms by Mohammed J. Zaki and Wagner Meira

|  |             |                      |                      |
|--|-------------|----------------------|----------------------|
| <b>Course Name: Machine Learning &amp; Cognitive intelligence using Python</b>   |             | <b>Semester: III</b> |                      |
| <b>Course Code: SE - BA - 05</b>   |             | <b>Credits: 3</b>    | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSE BA 05.1 UNDERSTANDING- EXPLAIN the applications of Machine Learning in multiple business domains and scenarios the key terms in Python, Machine Learning and Cognitive Intelligence</p> <p>COSE BA 05.2 APPLYING - DEVELOP a thought process to think like data scientist/business Analyst</p> <p>COSE BA 05.3 ANALYSING - ANALYSE data using supervised and unsupervised Learning Techniques</p> <p>COSE BA 05.4 EVALUATING -SELECT the right functions, arrays of Python for Machine Learning algorithms.</p> <p>COSE BA 05.5 CREATING - COMBINE various tools and functions of Python language in developing Machine Learning algorithms and use them in live analytical projects in multiple business domain and scenarios.</p> |             |                      |                      |
| Module No.   | Module Name | Details              | No. of Hours (L+T+P) |

|    |  |  |      |
|----|--|--|------|
| 1. | Python Basics:                               | Overview, Python Features, Basic Syntax, Variable Types, Basic Operators, decision making, Loops, Python Data Structures - Lists and Tuples, Sets, Dictionaries, Date & time, Functions, Scope of Variables, Function overloading, Operator overloading, Objects and Classes.  | 9+1  |
| 2. | Working with Data in Python:                 | Reading files with Open, writing files with Open, loading data with Pandas, working with and saving with Pandas, Array oriented Programming with Numpy, Data cleaning and preparation, Plotting and Visualization, data Aggregation and Group Operations   | 9+1  |
| 3. | Machine Learning and Cognitive Intelligence: | Introduction to Machine Learning- History and Evolution, Machine Learning categories: Supervised, Unsupervised and Reinforcement learning. Framework for building ML Systems-KDD process model, CRISP-DM & SEMMA, Machine learning Python packages, Machine Learning Core Libraries. Introduction to Cognitive Intelligence, Features of Cognitive Intelligence. | 8+1  |
| 4. | Supervised Learning:                         | Introduction to classification, Linear Regression, Metrics for evaluating linear model, Multivariate regression, Non-Linear Regression, K-Nearest Neighbour, Decision Trees, Logistic Regression, Support Vector Machines, Model Evaluation, Applications of supervised learning in multiple domains.  | 9 +1 |
| 5. | Unsupervised Learning:                       | Clustering, Hierarchical clustering, Partitioning Clustering- K-mean clustering, Applications of unsupervised learning in multiple domains.  | 4+1  |

#### **Suggested Text Books:**

1. Machine Learning using Python - Manaranjan Pradhan, U Dinesh Kumar

2. Ultimate Step by Step Guide to Machine Language using Python: Predictive modelling concepts explained in simple

terms for beginners by Daneyal Anis

3. Machine Learning by Anuradha Srinivasa Raghavan and Vincy Joseph

4. Machine Learning in Python – Michael Bowles

5. Machine Learning for Absolute Beginners: A Plain English Introduction (First Edition by Oliver Theobald

### Suggested Reference Books:

1. Mastering Machine Learning with Python in Six Steps: A Practical Implementation Guide to Predictive Data Analytics Using Python by Manohar Swamynathan

2. Machine Learning by Tom Mitchell

3. Python for Data Analysis by Wes McKinney

4. Machine Learning by Rajiv Chopra

5. Machine Learning by Peter Flach

6. Introduction to Machine Learning by Alpaydin Ethem

7. Machine Learning: A step-by-Step Guide to Learning and Understanding from Beginner to Expert (Beginner, Intermediate and Advanced) – Ronald Anthony

|  |                          |   |                             |
|--|--------------------------|---|-----------------------------|
| <b>Course Name: - Advanced Statistical Methods using R</b>   |                          | <b>Semester -III</b>  |                             |
| <b>Course Code- SE - BA – 06</b>   | <b>Credits-3</b>         | <b>Marks-100</b>  |                             |
| COURSE OUTCOMES: After completion of this course the students will be able to  |                          |   |                             |
| <b>CO SE - BA – 06.01: REMEMBERING</b> – RECALL all basic statistical concepts and associated values, formulae   |                          |   |                             |
| <b>CO SE - BA – 06.02: UNDERSTANDING</b> – EXPLAIN the statistical tools and DESCRIBE their applications in multiple business domains and scenarios                                    |                          |   |                             |
| <b>CO SE- BA - 06.03: APPLYING</b> – APPLY time series analysis in prediction of various trends.   |                          |   |                             |
| <b>CO SE - BA - 06.04: ANALYSING</b> - DISCRIMINATE between various types of probability and probability distributions.  |                          |   |                             |
| <b>CO SE - BA - 06.05: EVALUATING</b> – FORMULATE and TEST hypothesis using tools of R.  |                          |   |                             |
| <b>CO SE -BA- 06.06: CREATING</b> - COMBINE various tools and functions of R programming language and see them in live analytical projects in multiple business domains and scenarios. |                          |   |                             |
| <b>Module No.</b>  | <b>Module Name</b>       | <b>Details</b>  | <b>No. of Hours (L+T+P)</b> |
| 1.   | <b>Statistics with R</b> | Computing basic statistics, Business Hypothesis Testing concepts, Basics of statistical modeling Logistic Regression, comparing means of two samples, testing a correlation for significance, testing a | (7+2)                       |

|    |                            |  |       |
|----|----------------------------|--|-------|
|    |                            | proportion, t test, z Test, F test, Basics of Analysis of variance (ANOVA), One way ANOVA, ANOVA with interaction effects, two-way ANOVA Summarizing Data, Data Mining Basics, Cross tabulation. Case studies in different domains- using R.   |       |
| 2. | <b>Linear Regression</b>   | Concept of Linear regression, Dependency of variables, Ordinary Least Sum of Squares Model, Multiple Linear Regression, Obtaining the Best fit line, Assumptions and Evaluation, Outliers and Influential Observations, Multi-collinearity, Case studies in different domains- using R. Dimension Reduction Techniques – Concept of latent Dimensions, need for dimension reduction, Principal Components Analysis, Factor Analysis. Case studies in different domains- using R.   | (7+2) |
| 3. | <b>Probability</b>         | Definition, Types of Probability, Mutually Exclusive events, Independent Events, Marginal Probability, Conditional Probability, Bayes Theorem. Probability Distributions – Continuous, Normal, Central Limit theorem, Discrete distribution, Poison distribution, Binomial distribution.   | (7+2) |
| 4. | <b>Predictive Modeling</b> | <p><b>(a) Multiple Linear Regression:</b><br/>Concept of Multiple Linear regression, Step wise Regression, Dummy Regression, Case studies in different domains- using R</p> <p><b>(b) Logistic regression:</b> Concept of Logistic Regression, odds and probabilities, Log likelihood ratio test, Pseudo R square, ROC plot, Classification table, Logistic regression &amp; classification problems, Case studies in different domains- using R</p> <p><b>(c) Linear Discriminant Analysis:</b><br/>Discriminant Function, Linear Discriminant Analysis, Case studies in different domains- using R</p> | (7+2) |
| 5. | <b>Time Series</b>         | Time Series objects in R, Trends and Seasonality Variation, Decomposition of Time Series, autocorrelation function (ACF) and partial autocorrelation (PACF) plots, Exponential Smoothing, holts Winter Method, Autoregressive Moving Average Models (ARMA), Autoregressive   | (7+2) |

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|  |  | Integrated Moving Average Models (ARIMA), Case studies in different domains- using R. |  |
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#### Suggested Textbooks:

1. R for Business Analytics, A Ohri
2. . Data Analytics using R, Seema Acharya, TMGH
3. Data mining and business analytics with R, Johannes Ledolter. New Jersey: John Wiley & Sons.
4. Statistical Methods, S.P.Gupta
5. Quantitative Techniques, L.C.Jhamb
6. Quantitative Techniques, N.D.Vohr

#### Suggested Reference Books:

1. Statistics for Management, Levin and Rubin
2. Statistical data analysis explained: applied environmental statistics with R, Clemens Reimann. Chichester: John Wiley and Sons
3. Data science in R: a case studies approach to computational reasoning and problem solving, Deborah Nolan Boca Raton: CRC Press

| <b>Course Name: Cognos Analytics</b>  |  |  | <b>Semester: III</b> |
|---|--|--|----------------------|
| <b>Course Code: SE - BA - 07</b>  |  | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| COSEBA07.1 REMEMBERING TELL how and when to use visualization<br>COSEBA07.2 UNDERSTANDING ILLUSTRATE uses of crosstabs and SQL queries<br>COSEBA07.3 APPLYING BUILD stunning Dashboards with Cognos Analytics<br>COSEBA07.4 ANALYSING ILLUSTRATE the full-fledged Report Authoring tool<br>COSEBA07.5 EVALUATING EXPLAIN how a dashboard is different from a report, and when to use both<br>COSEBA07.6 CREATING DEVELOP the advanced reporting solutions which allow users to perform complex analysis tasks and interact with information |  |  |                      |
| Module No.  | Module Name                                | Details  | No. of Hours (L+T+P) |
| 1.  | Getting started with IBM Cognos Analytics: | The user interface, Work in design, structure, or preview vie, Report layout and queries, Layout, Queries Report, objects, Find objects in a report, Relational and dimensional reporting styles, Options, Web browser settings. | 5+2                  |
| 2.  | Dashboards:                                | Designing for mobile use, create simple Dashboards, create complex interactive Dashboards,   | 5+1                  |

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|    |                 | modify Dashboards, control Dashboard data.  |     |
| 3. | Reports:        | Create list reports, apply filters, use prompts, conditional formatting, calculations and macros, markers, presenting data graphically, using HTML and XML, using Crosstabs, using reusable objects, using layout control, combining multiple related objects, using interactivity. | 5+1 |
| 4. | Active Reports: | Create report connections, using Charts, Visualizations and Decks, managing controls and variables.   | 5+1 |
| 5. | Data:           | Connecting to the Data source, using Data sources, differences between using Data modules and Framework Manager packages on a report, using data shaping, creating reports using an SQL statement, using bursting.  | 5+1 |

#### **Suggested Text Books:**

2. IBM Cognos User Guide – IBM
3. First Guide to Dashboards using IBM Cognos Analytics by Abhishek Sanghani

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

1. Going beyond Dashboards with IBM Cognos Analytics by Abhishek Sanghani
2. IBM Cognos Business Intelligence by Dustin Adkison
3. IBM Cognos 10 Report Studio Cookbook, by Ahmed Lashin , Abhishek Sanghani (Author)
4. Cognos 8 BI for Consumers: A Step-by-step Introductory Guide to Cognos By Juan A. Padilla

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|---|-------------------|----------------------|
| <b>Course Name: Visual Analytics</b>  |                   | <b>Semester: III</b> |
| <b>Course Code: SE - BA - 08</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEBA08.01: REMEMBERING – IDENTIFY opportunities for creating value using business analytics and DESCRIBE the basic concepts in Business Analytics, DATA Science and Business Intelligence.</p> <p>COSEBA08.02: UNDERSTANDING - EXPLAIN the applications of Business Analytics in multiple business domains and scenarios.</p> <p>COSEBA08.03: APPLYING - DEVELOP a thought process to think like a data scientist/business analyst.</p> <p>COSEBA08.04: ANALYSING - ANALYZE data graphically by creating a variety of plots using the appropriate visualization tools of R.</p> |                   |                      |



| COSEBA08.05: EVALUATING – SELECT the right functions of R for the given analytics task<br>COSEBA08.6: CREATING - COMBINE various tools and functions of R programming language and use them in live analytical projects in multiple business domains and scenarios. |                                  |   |                      |
|---|----------------------------------|---|----------------------|
| Module No.  | Module Name                      | Details   | No. of Hours (L+T+P) |
| 1.  | Introduction and fundamentals    | Introduction to Data Visualization. How do analysis and visualization work in tandem in solving complex data science problems? Example tools VAST Challenge problem (single data type)  | 4+2+2                |
| 2.  | Dealing with classical data      | Types of data • Exploratory visualizations of classical databases • Comparing visualizations systems (open source and commercial) • Exploratory analytics • Comparing analytic/computational systems (open source and commercial) • Integrating visualization and analytics   | 8+2+6                |
| 3.  | Connecting to Data               | Basic Charts (bar/line/area chart, dual/combined axis chart, scatter plot, tree map, word cloud, etc.)  | 5+2+2                |
| 4.  | Statistical Analysis in Tableau: | The Analytics Pane, Reference Lines, Trend Lines, and Forecasting. Compare analysis and visualization results   | 5+2+4                |
| 5.  | Audio and video                  | Using one of the VAST Challenges that deals with imagery and video, or using one of the other data sets that deals with imagery and video extend the class ontology. Compare analysis and visualization results. Identify where analytics is most useful and how visualizations support computational steering. Design an extension to these tools that would support dealing with imagery or video over time | 8+3+3                |

#### Suggested text books:

1. Few, Stephen (2012). Show Me the Numbers.
2. Designing Tables and Graphs to Enlighten. (Second Edition).
3. Analytics Press. o Sleeper, Ryan (2018).
4. Practical Tableau: 100 Tips, Tutorials, and Strategies from a Tableau Zen Master. 1st edition.

#### Suggested reference Books:

1. Beijing: O'Reilly Media. o Jones, Ben (2014).
2. Communicating Data with Tableau: Designing, Developing, and Delivering Data Visualizations. 1st edition.
3. Sebastopol, CA: O'Reilly Media. o Yau, Nathan (2013).
4. Data Points: Visualization That Means Something. Indianapolis, IN: John Wiley & Sons, Inc.

| <b>Course Name: E Commerce Analytics - I</b>   |   |   | <b>Semester: III</b> |
|--|---|---|----------------------|
| <b>Course Code: SE - BA - 09</b>   |   | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>Course Outcomes: On successful completion of the course, the learner will be able to</p> <p>COSEBA09.1 REMEMBERING DESCRIBE the key concepts in e-commerce analytics.</p> <p>COSEBA09.2 UNDERSTANDING DEMONSTRATE the use of analytics to drive profitability throughout the organization, and across the entire customer experience and lifecycle.</p> <p>COSEBA09.3 APPLYING SOLVE the unique problems in e-commerce, and transform data into better decisions and customer experiences.</p> <p>COSEBA09.4 ANALYSING DISCOVER high-value insights via dashboards and visualization.</p> <p>COSEBA09.5 EVALUATING DEVELOP analytical approaches to improve ecommerce marketing and advertising, understand customer behavior, increase conversion rates, strengthen loyalty, optimize merchandising and product mix, streamline transactions, optimize product mix, and accurately attribute sales.</p> <p>COSEBA08.6 CREATING FORMULATE the right analytics driven strategy for ecommerce businesses.</p> |   |   |                      |
| Module No.   | Module Name                                   | Details   | No. of Hours (L+T+P) |
| 1.   | Ecommerce Analytics                           | Role of Ecommerce Analytics in Creating Business Value and Driving Business Growth, The Ecommerce Analytics Value Chain, Identifying and Prioritizing Demand, Developing an Analytical Plan. Activating the Ecommerce Analytics Environment, Elements of an Ecommerce Analytics Environment, Collecting and Governing Data and Metadata. Preparing and Wrangling Data, Analyzing, Predicting, Optimizing, and Automating with Data, Socializing Analytics, Communicating the Economic Impact of Analytics | 5+1                  |
| 2.   | Methods and Techniques for Ecommerce Analysis | Understanding the Calendar for Ecommerce Analysis, Storytelling, Tukey's Exploratory Data Analysis. Analyzing Ecommerce Data Using Statistics and Machine Learning. Key Performance Indicators for Ecommerce: KPI Metrics - Page or Screen Views, Visits or Sessions, Returns, Total Revenue and Revenue by N, Gross Margin, Lifetime Value, Repeat Visitors / Users / Customers. KPI Rate Metrics - Conversion Rate, Step Completion Rate, Abandoned Cart Rate; KPI Average Metrics - Average            | 5+1                  |

|    |   |  |     |
|----|---|--|-----|
|    |   | Order Value. KPI Derivative Metrics - Bounce Rate, Percentage of Orders with Promotions or Discounts, Inventory Turnover, Return on Investment, Loyalty—Time Since Last Visit (Recency), Retention—Time between Visits (Frequency). KPI Percentage Metrics - Percentage of X from Source N, Percentage of New Customers (or N Metric), KPI “Per” Metrics - Cost and/or Revenue per Visitor, Revenue per Customer, Cost per Customer Acquisition. |     |
| 3. | Visualizing, Dashboarding, and Reporting Ecommerce Data and Analysis: | Understanding Reporting, Explaining the RASTA Approach to Reporting, Understanding Dashboarding, Explaining the LIVEN Approach to Dashboarding, What Data Should I Start with in an Ecommerce Dashboard? Understanding Data Visualization, The Process for Data Visualization, Maximizing Impact with Data Visualization: The SCREEN Approach and More, Why Use Data Visualizations Types of Data Visualization.                                 | 5+1 |
| 4. | Ecommerce Analytics Data Model and Technology:                        | Understanding the Ecommerce Analytics Data Model- Facts and Dimensions, Sample Ecommerce Data Model, Understanding the Inventory Fact, Understanding the Product Fact, Understanding the Order Fact, Understanding the Order Item Fact, Understanding the Customers Fact, Understanding the Customer Order Fact, Reviewing Common Dimensions and Measures in Ecommerce   | 5+1 |
| 5. | Marketing and Advertising Analytics in Ecommerce:                     | Understanding the Shared Goals of Marketing and Advertising Analysis, Reviewing the Marketing Lifecycle, Understanding Types of Ecommerce Marketing, Analyzing Marketing and Advertising for Ecommerce, What Marketing Data Could You Begin to Analyze? Analyzing Behavioral Data: Answering Business Questions with Behavioral Analytics, Understanding   | 5+1 |

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|  |  | Metrics and Key Performance Indicators for Behavioral Analysis, Reviewing Types of Ecommerce Behavioral Analysis, Behavioral Flow Analysis, Shopping Behavior Analysis, Content Analysis, In-Page or On-Screen Behavior Analysis. |  |
|--|--|---|--|

**Suggested Text Books:**

1. Ecommerce Analytics: Analyze and Improve the Impact of Your Digital Strategy by Judah Phillips
2. Building a Digital Analytics Organization: Create Value by Integrating Analytical Processes, Technology, and People into Business Operations by Judah Phillips

| <b>Course Name: Industrial Internet of Things</b>   |                                       |   | <b>Semester: III</b> |
|---|---------------------------------------|---|----------------------|
| <b>Course Code: SE -BA-10</b>   |                                       | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p>COSEBA10.01: REMEMBERING- ENUMERATE the key concepts of industry 4.0, data science in manufacturing, operations analytics and IIOT</p> <p>COSEBA10.02: UNDERSTANDING- DISCUSS the value added by analytics in the operations function.</p> <p>COSEBA10.03: APPLYING- DEMONSTRATE the practical applications of data analytics and data science in manufacturing operations.</p> <p>COSEBA10.04: ANALYSING-EXAMINE the Industrial Internet of things (IIoT) and the role of Big Data Analytics.</p> <p>COSEBA10.05: EVALUATING- EXPLAIN the applications of analytics in operations.</p> <p>COSEBA10.06: CREATING- COMPILE the issues pertaining to the adoption of technologies that will shape industry</p> |                                       |   |                      |
| Module No.  | Module Name                           | Details   | No. of Hours (L+T+P) |
| 1.  | Data Science for Modern Manufacturing | Business Analytics and Big Data Driving Organizational Change, Industry 4.0, Industrial Internet, (Industrial) Internet of Things - A Platform Built for Manufacturing, Big Data and Analytics – Hardware, Platforms. Technology & Global Trends, The data-driven manufacturer, Issues and Challenges Data Science for Modern Manufacturing – Blending analytic skills and domain expertise, Rethinking business processes, Factoring in change management, Security, Data Integration. | 8+2                  |

|    |                                    |  |     |
|----|------------------------------------|--|-----|
| 2. | Machine Learning                   | Basics of Machine Learning, Natural-Language Processing, Autonomous Robots, Augmented Reality, and More: Simulation, Additive Manufacturing.   | 7+2 |
| 3. | Industry 4.0                       | LEAN Production Systems, The Fourth Revolution, Industry 4.0: Cyber Physical Systems, Industrial Processes - Sensing & Actuation, Processing, Communication. Next Generation Sensors, Collaborative Platform and Product Lifecycle Management.   | 7+2 |
| 4. | Industrial IoT-Application Domains | Healthcare, Power Plants, Inventory Management & Quality Control, Plant Safety and Security (Including AR and VR safety applications), Facility Management.  | 6+2 |
| 5. | Industrial IoT-Application Domains | Oil, chemical and pharmaceutical industry, Applications of UAVs in Industries, Real case studies: Case study - I: Milk Processing and Packaging Industries, Case study - II: Manufacturing Industries - Part I, Case study - III: Manufacturing Industries - Part II, Case study – IV, Virtual Reality Lab, Case study - V: Steel Technology Lab | 7+2 |

#### **Suggested Textbooks:**

1. Data Science for Modern Manufacturing by Li Ping Chu, O'Reilly Media
2. Industry 4.0 Data Analytics Paperback by Rajesh Agnihotri, Samuel New
3. Industry 4.0: The Industrial Internet of Things by Alasdair Gilchrist
4. Industrial Internet of Things: Cyber manufacturing Systems by Sabina Jeschke, Christian Brecher, Houbing Song, Danda B. Rawat

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

1. Advances in Business, Operations, and Product Analytics: Cutting Edge Cases from Finance to Manufacturing to Healthcare (FT Press Analytics) by Matthew J. Drake

|  |                   |                      |
|--|-------------------|----------------------|
| <b>Course Name: Supply &amp; Operation Chain Analytics</b>   |                   | <b>Semester: III</b> |
| <b>Course Code: SE -BA-11</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>    |
| COURSE OUTCOMES: After completion of this course the students will be able to                              |                   |                      |
| COSEBA11.01: REMEMBERING- DESCRIBE the importance of the basics of Supply Chain Analytics and Optimization |                   |                      |

COSEBA11.02: UNDERSTANDING- EXPLAIN the role and applications of Descriptive, Predictive & Prescriptive Analytics in a Supply Chain  
 COSEBA11.03: APPLYING- ILLUSTRATE the basics of Modeling through R Language.  
 COSEBA11.04: ANALYSING-EXAMINE the level of uncertainty associated with the supply of products and services to targeted customer segments and justify the choice of a supply chain strategy and it's fit with competitive strategy.  
 COSEBA11.05: EVALUATING- DETERMINE the right tools for addressing various issues in Supply Chain Analytics.  
 COSEBA11.06: CREATING- COMBINE the various approaches to Supply Chain Analytics for improvements in the supply chain system

| Module No. | Module Name                            | Details   | No. of Hours (L+T+P) |
|------------|--|---|----------------------|
| 1.         | Context of Supply Chain Analytics      | Context of today's supply chains (SC) analytics. Understanding and defining supply chain analytics (SCA). Review of Basics of Supply Chain Management, Significance of Analytics in a supply chain, Relating Operations Management with Supply Chain concepts and SC Analytics. The importance of supply chain analytics in the flows involving material, money, information and ownership. Key issues in Supply chain analytics, Case studies of Supply Chains Analytics in India. | 8+2                  |
| 2.         | Supplier Selection Analytics           | Linear Programming, rating method, ranking method, Borda Count, Clustering, Goal Programming and related multi-criterion decision making (MCDM) techniques  | 7+2                  |
| 3.         | Transportation Modelling and Analytics | Transportation models, Route planning, Transshipment, Shipment schedule, Flow path optimization.  | 7+2                  |
| 4.         | Warehousing Modelling and Analytics    | Warehouse location problem, MILP formulation, Location with foreign exchange risks, space calculation for warehouse, Non-linear optimization for warehouse space allocation.  | 6+2                  |
| 5.         | Strategic Performance Improvement      | Data Envelopment Analysis for competitive comparisons among multiple warehouses and service units and formulation of strategic action plans for improving the efficiencies of non-performing DMUs, Stochastic Frontier Analysis.  | 7+2                  |

#### Suggested Textbooks:

1. Unleashing the Potential of Supply Chain Analytics by Melissa R. Bowers, Adam Petrie and Mary C. Holcomb, Oreilly
2. Modelling the Supply Chain, Jeremy F. Shapiro, Duxbury Thomson Learning
3. Supply Chain Management, Sunil Chopra, and Peter Meindl, Pearson

4. Business Analytics, Rahul Saxena and Anand Srinivasan

**Suggested Reference Books:**

1. Designing and Managing the Supply Chain concepts, Strategies and Case studies, D. Simchi-Levi, P. Kaminsky, E. Simchi-Levi, and Ravi Shankar, Tata McGraw Hill, New
2. Global Business Analytics Models: Concepts and Applications in Predictive, Healthcare, Supply Chain, and Finance Analytics by Hokey Min
3. Supply Chain Planning and Analytics by Gerald Feigin

|  |                          |  |                             |
|--|--------------------------|--|-----------------------------|
| <b>Course Name: - Economics of Network Industries</b>  |                          | <b>Semester -III</b>   |                             |
| <b>Course Code-SE - BA – 012</b>   | <b>Credits-3</b>         | <b>Marks-100</b>   |                             |
| COURSE OUTCOMES: After completion of this course the students will be able to  |                          |  |                             |
| <b>CO SE - BA – 012.01: REMEMBERING</b> – PPRECIATE the differences in the nature of information goods as opposed to traditional goods and services.   |                          |  |                             |
| <b>CO SE - BA – 012.02: UNDERSTANDING</b> – DESCRIBE the characteristics of the markets for network products.  |                          |  |                             |
| <b>CO SE – BA - 012.03: APPLYING</b> – ILLUSRTRATE the characteristics of the cost structure of information goods and its implications for pricing of information goods w.r.t. price discrimination, versioning of information goods, and bundling |                          |  |                             |
| <b>CO SE - BA - 012.04: ANALYSING</b> - COMPARE and CONTRAST the pros and cons of keeping products compatible, and strategic aspects of the decision regarding compatibility.  |                          |  |                             |
| <b>CO SE - BA- 012.05: EVALUATING</b> – EVALUATE the role of complementary products, compatibility and standards, switching costs and lock-in in network industries.   |                          |  |                             |
| <b>CO SE - BA - 012.06: CREATING</b> - DISCUSS the economics of Internet advertising, and the business model of zero pricing   |                          |  |                             |
| <b>Module No.</b>  | <b>Module Name</b>       | <b>Details</b>   | <b>No. of Hours (L+T+P)</b> |
| 1.   | <b>Network Economics</b> | Introduction, information goods and services, traditional goods and services, Overview of Network Industries, Demand side economies of scale - Network externality, Supply side economies of scale – Increasing returns. Systems effect in information industry, Network effects in physical (telecommunication) and virtual (systems) networks; Internalizing the network externality – gateways, adapters and standards. | (7+2)                       |

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| 2. | <b>Analyzing the hardware &amp; software industry</b> | Analyzing the hardware industry - Hardware Compatibility, Network externalities approach, The Components approach. Analyzing the software industry - Principles of Software Production, Determinants of Software variety, Software variety under hardware competition, Software Variety and Partial Compatibility, Software Piracy, Software Pricing and Market Segmentation.                              | (7+2) |
| 3. | <b>Technology advance and standardization</b>         | New Technology Adoption – Static Approach, Technology Revolutions – Dynamic Approach, patents, licensing and standardization in network industries.  | (7+2) |
| 4. | <b>Industry Reviews- I</b>                            | Economics of the Telecommunication Industry, Interconnections, Broadcasting and Cable Television, Spectrum Allocation, Digital Convergence, Markets for Information – Information reproduction, Economics of Libraries, Pricing Information Goods.   | (7+2) |
| 5. | <b>Industry Reviews II:</b>                           | Banks and Money – Switching costs and Competition, ATMs, Media of Exchange as Networks. Airline Industry – Network Structure and Network Economies, Deregulation and Entry, Code Sharing Agreements. Social Interaction – Status Seeking versus Conformism, Conformity, Vanity and Price Competition, Economics of Entertainment Places, Gifts. Languages as Networks, Religious Affiliations as Networks. | (7+2) |

**Suggested Textbooks:**

1. The Economics of Network Industries by Oz Shy
2. Information Rules: A Strategic Guide to the Network Economy by Carl Shapiro and Hal R. Varian

|   |                   |                     |
|---|-------------------|---------------------|
| <b>Course Name: Indian Ethos &amp; Business Ethics</b>                        |                   | <b>Semester: IV</b> |
| <b>Course Code: GC-01</b>   | <b>Credits: 3</b> | <b>Marks: 100</b>   |
| COURSE OUTCOMES: After completion of this course the students will be able to |                   |                     |



COGC01.01: REMEMBERING – DESCRIBE major theories, concepts, terms, models and framework of Indian ethos and business ethics. DISCOVER the contemporary Issues in Business Ethics

COGC01.02: UNDERSTANDING – CLASSIFY and RECOGNIZE Karma, Karma Yoga and discover its relevance in business setting, ILLUSTRATE the business ethical decision rationale derived from Indian Heritage Scriptures.

COGC01.03: – UNDERSTANDING - APPLY Principles, Theories, Models and Framework of Indian ethos and business ethics in order to incorporate value system in work culture and work place.

COGC01.04: APPLYING - DEVELOP and EXHIBIT analytical, problem-solving skills, and work ethos by COMPREHENSION and PRACTICE of Indian ethos and value system

COGC01.05: ANALYSING - IMPLEMENT, EVALUATE, and FACILITATE ethical business behavior and promote sustainable business ecology, improve profitability, foster business relation and employee productivity

COGC01.06: CREATING - ELABORATE Ethical dilemmas in different business areas of marketing, HRM and Finance and ADAPT dilemma resolution interventions by referring to certain norms, theories and models of Eastern Management

| Module No. | Module Name  | Details   | No. of Hours (L+T+P) |
|------------|--|---|----------------------|
| 1.         | Indian Ethos and Values: Its relevance at Workplace: Indian Ethos- | Meaning, Features, Need, Evolution, Relevance, Principles Practiced by Indian Companies, Requisites, Elements, Role of Indian Ethos in Managerial Practices, Triguna Theory-OSHA Model. Work Ethos meaning, dimensions of Work Ethos. Values - Concepts, Values in business, Value system in work culture, and Values of Indian Managers, Relevance of Value Based Management in Global Change; Impact of values on Stakeholders; Trans-Cultural Human Values, Ethics v/s Ethos, Eastern Management v/s Western Management. | 8+1                  |
| 2.         | Indian Model of Management   | Concept of Indian Model of Management in the Indian socio-political environment, Laws of Karma and its relevance in business settings, Indian Heritage in Business-Management. Production and Consumption: Management lessons from Indian heritage scriptures (like Mahabharata & Ramayana), Leadership   | 8+1                  |

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|----|--|--|-----|
|    |  | Pointers from Kautilya's Arthashastra, VEDA Model of Leadership, Corporate Rishi Model, Theory K, WE theory (West- East Theory)  |     |
| 3. | Business Ethics as Applied ethics  | Meaning, Characteristics of Business Ethics, Importance of Business Ethics (Long Term growth, Cost reduction, Risk mitigation, Limited resources, etc.) Types of Business Ethics (Transactional Ethics, Participatory Ethics, Recognition Ethics), Factors influencing business ethics. Categories of Ethics (Personal, Professional, Managerial) Business Code of Conduct), Approaches to Business Ethics: Consequentialist & Non-Consequentialist Theories of Ethics - Deontological Theory & Teleological Theory, Kohlberg Six stage moral development. | 8+1 |
| 4. | Ethical decision making in business matrix   | Framework of Ethical decision making, Ethical dilemmas in different functional areas of Business (Finance, Marketing HRM and International Business), Intellectual Property Rights and Business Ethics, Ethical challenges for Managers, Ethical Decision-Making process, it's Model -STEP Model, PLUS Filter Model.   | 8+1 |
| 5. | Applications of Ethical Principles to Contemporary, Moral and Ethical problems / issues related to Business: | Contemporary cases on Corporate Strategy and Climate Change, Corporate Strategy and Natural resource depletion, Corporate Social Responsibility, transparency and accountability, social media and E-Platforms. Current ethical issues like Bank scams, Airlines etc.  | 8+1 |

#### **Suggested Text Books:**

1. Business Ethics (Concept, Application, Framework and Cultural Impact) k. Aswathappa, J. Ushar Rani, Sunanda Gundavajhala, Himalaya Publishing House
2. Ethics in Management and Indian Ethos, Biswanath Ghosh, Vikas Publishing House
3. Indian Ethos of Management, Tushar Agarawal and Nidhi Chandorkar, Himalaya Publication House.

4. Indian Ethos and Values for Managers, Khandelwal, Himalaya Publishing House

**Suggested Reference Books:**

1. Indian Ethos & Values in Management, Nandagopal R, Ajith Sankar, Tata McGraw Hill Publishing Co. Ltd.
2. New Mantras in Corporate corridors From Ancient Routes to Global Roots, Subhas Sharma, New Age International Publisher
3. Business Ethics: Concepts and Cases, Velasquez, Pearson Education India.

|  |                               |  |                             |
|--|-------------------------------|--|-----------------------------|
| <b>Course Name: - Enterprise Performance Management</b>  |                               | <b>Semester -III</b>   |                             |
| <b>Course Code-GC-02</b>   | <b>Credits-3</b>              | <b>Marks-100</b>   |                             |
| <b>COURSE OUTCOMES: After completion of this course the students will be able to</b><br><b>CO GC-02.01: (REMEMBERING)</b> – Enumerate the different parameters & facets of management control of an enterprise.<br><b>CO GC-02.02: (UNDERSTANDING)</b> – Illustrate the various techniques of enterprise performance management for varied sectors.<br><b>CO GC-02.03: – (UNDERSTANDING)</b> - Determine the applicability of various tools and metrics as a performance evaluation & management tool.<br><b>CO GC-02.04: (APPLYING)</b> - Analyse the key financial & non-financial attributes to evaluate enterprise performance.<br><b>CO GC-02.05: (ANALYSING)</b> – Formulate the various parameters to evaluate enterprise performance effectively through implementation of strategy. |                               |  |                             |
| <b>Module No.</b>  | <b>Module Name</b>            | <b>Details</b>   | <b>No. of Hours (L+T+P)</b> |
| 1.   | <b>Performance Management</b> | Concept, Need, Linkages with Strategic Planning, Management Control and Operational Control. <b>Performance Evaluation Parameters:</b> Financial – Responsibility Accounting –Concept of Responsibility Centers, Revenue Centre, Expense Centre - Engineered and Discretionary costs – Committed costs, Profit Centre, Investment Centers. ROI, ROA, MVA, EVA – DuPont analysis. (Numerical Not expected – Interpretation only) Limitations of Financial Measures. | (8+1)                       |

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| 2. | <b>Performance Evaluation Parameters</b>                | Non-Financial Performance measures – Balanced Scorecard, Malcolm Baldrige Framework. <b>Measuring SBU Level Performance:</b> Concept, Need, and Linkages with Enterprise Performance Management – Goal Congruence. Transfer Pricing – Objective, Concept, and Methods – Cost based, Market price based & Negotiated, Applicability of Transfer Pricing. (Numerical / Case is expected)  | (7+1) |
| 3. | <b>Capital Expenditure Control</b>                      | Concept, Need, Process of Capital Budgeting, Types of capital expenditure decisions pre-sanction, operational and post-sanction control of capital expenditure. Tools & Techniques of Capital Expenditure Control: Performance Index, Technical Performance Measurement, Post completion audit. <b>Performance Evaluation Parameters for Projects</b> Project Control Process: Setting base line plan, measuring progress and performance, comparing plan against action, Taking action, Schedule variance (time overruns), Project Cost Variance (cost overruns) | (8+2) |
| 4. | <b>Performance Evaluation Parameters for Banks:</b>     | Customer Base, NPAs, Deposits, ROI, Financial Inclusion, Spread, Credit Appraisal, Investments. <b>Performance Evaluation Parameters for Retail:</b> ABC analysis, Sell Through Analysis Multiple Attribute Method, Gross Margin Return on Investment (GMROI), GMROI as Gross Margin/Average Inventory at Cost, <b>Performance Evaluation Parameters for Non-Profit:</b> Features of Non-profit organizations, fund accounting, governance, product pricing, strategic planning & budget preparations, social audit.  | (8+2) |
| 5. | <b>Performance Evaluation Parameters for E-Commerce</b> | Features of E commerce, Need of evaluation, Metrics for performance evaluation: Business metrics, Traffic metrics, Conversion matrix & Audience involvement metrics. Various KPI used by E Commerce industry: Website traffic, referral traffic, conversion rate optimization, bounce   | (9+1) |

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|  |  | rate of website, repeat visit, cart abandon rate, cost per conversion, average order value, revenue on advertising spend, customer life time value, net promoter score, churn rate.<br><b>Audit Function as a Performance Measurement Tool:</b> Financial Audit, Internal Audit, Cost Audit, Management Audit – Principles and Objectives (Audit Reports / Formats are expected to be discussed in the class from a performance measurement perspective). |  |
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#### Suggested Textbooks:

1. Management Control System by Robert Anthony & Vijay Govindrajan, Tata McGraw Hill Publishing Co. Ltd.
2. Management Control in Non-Profit Organizations by Robert Anthony & David Young, McGraw Hill International Publication.
3. Retailing Management by Swapna Pradhan, TMGH

#### Suggested Reference Books:

1. Project Management by K.Nagarajan, New Age International Publications
2. Principles and Practices of Auditing by Ravindar Kumar & Virendar Sharma, PHI.
3. Principles and Practices of Banking by Indian Institute of Banking & Finance, MacMillan India Ltd.
4. Financial Management by Prasanna Chandra, TMGH
5. E business: A Canadian perspective for a Networked World, Gerald Trites, J. Efrim Boritz Pearson

#### Semester IV

|   |                   |                     |
|---|-------------------|---------------------|
| <b>Course Name: Research Project</b>  |                   | <b>Semester: IV</b> |
| <b>Course Code: RP 01</b>   | <b>Credits: 6</b> | <b>Marks: 150</b>   |
| <ol style="list-style-type: none"> <li>1. The student will demonstrate their ability to conduct advanced research on contemporary management issues, develop a structured dissertation, and present findings through a detailed report and oral presentation, showing comprehensive understanding and application of research methodologies.</li> <li>2. This CO emphasizes the student's ability to analyze and break down complex topics into detailed reports, thereby showcasing their research skills, understanding of the subject, and ability to present their findings clearly.</li> </ol> |                   |                     |

In Semester IV the student shall work under the supervision of the faculty and carry out a Research project and submit a structured report in TWO hard copies & one soft copy. In the interest of environmental considerations, students are encouraged to print their dissertation reports on both faces of the paper.

The student is required to conduct advanced research on a topic related to one (or more) of contemporary issues in management. The topic is chosen in consultation with the student's supervisor/guide.

The student will prepare and present a detailed research proposal prior to starting the work. It is mandatory for the student to seek advance written approval from the faculty guide and the Director of the Institute about the topic before commencing the research project work. A research project outlining the entire problem, including a survey of literature and the various results obtained along with their solutions is expected to be produced. The student must submit the completed research project and make an oral presentation of the same. Through the research project, the student is expected to furnish evidence of competence in understanding varied aspects of the theme/topic selected and a deep understanding of the specialty area. The completion of the research project shall be certified by the Faculty Guide & approved by the Director of the Institute. The student can undergo desk research or field research and can follow the guidelines mentioned in the SIP for preparation of their final hard copy.

The Panel shall comprise of 2 Faculty members (One who has guided the student and the other appointed by the Institute head).

| <b>Course Name: Marketing Strategy</b>  |                                    |   | <b>Semester: IV</b>  |
|---|------------------------------------|---|----------------------|
| <b>Course Code: SC MKT- 02</b>  |                                    | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSCMKT02.1 REMEMBERING DESCRIBE various concepts of marketing strategies.</p> <p>COSCMKT02.2 UNDERSTANDING EXPLAIN various marketing strategies to handle marketing circumstances</p> <p>COSCMKT02.3 APPLYING APPLY the concepts of marketing strategy to solve real-life business problems.</p> <p>COSCMKT02.4 ANALYSING DISCOVER the suitable competitive advantage useful to design market specific and organization specific marketing strategies</p> <p>COSCMKT02.5 CREATING DESIGN marketing strategies to lead the organization towards sustainable growth.</p> |                                    |   |                      |
| Module No.  | Module Name                        | Details   | No. of Hours (L+T+P) |
| 1   | Introduction to Marketing Strategy | Overview of marketing strategy levels: Concept, Principles, Strategic Marketing Vs Tactical Marketing, Scope of Strategy & Tactics, integrating marketing strategy with the firm's other strategies & resources, Discovering Market Opportunities: Market Opportunity Analysis, Process of Identification, Formulation, Implementation & Control, Marketing Plans, Marketing Audit. Market Knowledge Systems: | 7+2                  |

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|---|---|--|-----|
|   |   | Marketing Intelligence, Marketing Databases, Marketing Data Touch Points- Significance & Application   |     |
| 2 | Marketing for Customer Advantage & Value Creation | Customer Value Leadership and the business model; Generating and using customer insight to drive strategy, integrating marketing & sales to manage customers, tools for innovating new values for customers, managing customers for experience, managing customers for profit. Strategies for innovating new values for customers: proactive, active, reactive and passive. CLV, Value Life Cycle. Targeting customers & inbound marketing, Cognitive marketing strategy, Gaining Market Position: Steal-Share Strategy, Differentiation strategy, Similarity strategy | 7+2 |
| 3 | Pricing – The Ultimate Marketing Strategy         | Pricing Excellence, Pricing Maturity Model, Transformational Model, Centralized Versus Decentralized Pricing Options for Pricing Organizational Designs, Pricing Capabilities: Pricing Dimensions, Pricing Myths at the Organizational Level, Emergence of Pricing Technology, competing against low-cost rivals, Pricing during recession   | 7+2 |
| 4 | Vibrant Scope of Marketing Strategy               | Account Based Marketing, Data-Driven Marketing Strategy, Service Marketing Strategy, Digital Marketing Strategies, Relationship Marketing Strategies, Experiential Marketing, Inbound Marketing Strategies – Content Marketing, Multilevel Marketing, Promotion Strategy Marketing, and Offline Marketing, strategic marketing in the new normal, Market-Innovation Strategy: Pioneering New Markets (types), Defending Market Position: not taking action, repositioning the existing offerings   | 7+2 |
| 5 | Executing Marketing Plan                          | Formulation, reformulation of marketing strategies, the control process. Preparing marketing plan for Ed-tech, Automobile, Banking & Insurance, FMCG, Food & Beverage. Presenting Marketing Plan, Marketing decision making with reasons, Marketing Strategies to compete globally.  | 7+2 |

### Suggested Text Books:

Strategic Marketing by A. Nag, Macmillan Publication

The Pricing Journey: The Organizational Transformation Toward Pricing Excellence, Stephan M. Liozu, 2015

Marketing Strategy by Walker, Mullins, Boyd & Larreche, McGraw-Hill/Irwin

Marketing Strategy and Competitive Positioning by Graham Hooley, Brigitte Nicoulaud, Nigel F. Piercy, Pearson Education, 5th Edition.

Strategic Marketing Management-Richard Wilson & Colin Gilligan, Routledge Strategic Marketing: An Introduction by Tony Proctor

**Suggested Reference Books:**

Strategic Marketing David. W. Cravens, Nigel. F. Piercy, Tata MacGraw Hill Publication Marketing Strategy: A Decision-Focused Approach-John W. Mullins, By Felix Mavondo, John Gountas, Orville C. Walker; McGraw-Hill Education; 2nd Revised Edition Strategic Marketing Text & Cases-S. Shajahan,

Viva Books Strategic Management & Marketing by Narendra Singh, Himalaya Publication Strategic Marketing Management- Text & Cases by UC Mathur, Macmillan

**Supplementary Reading Material:**

MarketingWarfare:20th Anniversary Edition By AlRies, Jack Trout, (McGraw-HillEducation;2ndedition)

Marketing Strategy a Complete Guide-2019 Edition by Gerardus Blokdyk,5 star cooks Blue Ocean strategy-WChan Kim and Renee A Mauborgne

**Websites:**

<https://www.educba.com/pricing-strategies-in-marketing/> Business Strategy-Business Standards  
Brand Equity-Economic Times

**Audio Visuals link:**

1. <https://www.youtube.com/watch?v=Fy1pcW9mvNo>
2. <https://www.youtube.com/watch?v=RCHofmkLgzs>
3. [https://www.youtube.com/watch?v=jF\\_MDRMFcPs](https://www.youtube.com/watch?v=jF_MDRMFcPs)
4. <https://www.youtube.com/watch?v=cZom3AAOsgs>

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|--|-------------------|---------------------|
| <b>Course Name: Marketing 5.0</b>  |                   | <b>Semester: IV</b> |
| <b>Course Code: SE - MKT – 13</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>   |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEMKT13.1 UNDERSTANDING Understand the evolution of marketing from traditional to Marketing 5.0 and its significance in the digital age.</p> <p>COSEMKT13.2 ANALYSING Analyze the role of AI, big data, and automation in shaping modern marketing strategies.</p> <p>COSEMKT13.3 EvaluatingEvaluate consumer behavior and the impact of digital transformation on customer experience.</p> <p>COSEMKT13.4 Evaluating Design data-driven and personalized marketing strategies using emerging techno logies</p> <p>COSEMKT13.5 ANALYSING Assess ethical considerations, sustainability, and responsible marketing in a digital-first world.</p> <p>COSEMKT13.6 APPLYING Apply Marketing 5.0 principles in real-world business scenarios through case studies and projects.</p> |                   |                     |



| Module No. | Module Name                                     | Details  | No. of Hours (L+T+P) |
|------------|---|--|----------------------|
| 1          | Introduction to Marketing 5.0                   | Evolution of Marketing (1.0 to 5.0)<br>Key Concepts: AI, Automation, Personalization, and Experience Economy<br>The Role of Human & Technology Integration in Marketing<br>Challenges and Opportunities in the Digital Marketing Landscape | 7+2                  |
| 2          | AI, Big Data & Automation in Marketing          | AI-Powered Customer Insights & Predictive Analytics<br>Big Data & Consumer Behavior Analysis<br>Automation & Chatbots in Customer Engagement<br>Case Studies: AI in Marketing (Netflix, Amazon, Spotify)                                   | 7+2                  |
| 3          | Digital Consumer Behavior & Personalization     | Customer Journey in a Digital World<br>Behavioral Targeting & Neuromarketing<br>Personalization Strategies & Hyper-Personalization<br>Customer Data Privacy & Ethical Concerns   | 7+2                  |
| 4          | Sustainability, Ethics, & Responsible Marketing | Sustainable Marketing & Green Consumerism<br>Ethical Issues in Data-Driven Marketing<br>Diversity, Inclusion & Social Responsibility in Branding<br>Future of Marketing: Purpose-Driven & Conscious Consumerism                            | 7+2                  |
| 5          | Applications of Marketing 5.0                   | AI & IoT in Retail and E-commerce<br>Augmented Reality (AR) & Virtual Reality (VR) in Marketing<br>Blockchain & NFTs in Digital Branding<br>Industry Trends & Future Outlook of Marketing 5.0  | 7+2                  |

#### Books:

1. **Philip Kotler, Hermawan Kartajaya, Iwan Setiawan (2021)** – *Marketing 5.0: Technology for Humanity*
2. **David Meerman Scott (2022)** – *The New Rules of Marketing & PR*
3. **Bernard Marr (2021)** – *Data Strategy: How to Profit from a World of Big Data, Analytics & AI*
4. **Christian Sarkar & Philip Kotler (2023)** – *Brand Activism: From Purpose to Action*

#### Research Papers & Reports:

- **McKinsey & Company Reports** – AI & Digital Marketing Trends
- **Harvard Business Review** – Personalization & Marketing Ethics
- **Deloitte Insights** – Future of Customer Experience

#### Online Courses (MOOCs):

##### 1. Coursera:

- *Marketing in a Digital World* (University of Illinois)
- *AI For Everyone* (Andrew Ng, DeepLearning.AI)

##### 2. edX:

- *Digital Transformation in Business* (Boston University)
- *Big Data & AI for Marketing* (Columbia Business School)

### 3. LinkedIn Learning:

- *Marketing Trends 2024: AI & Personalization*
- *Ethical Marketing in the Digital Age*

### 4. HubSpot Academy (Free Courses):

- *AI-Powered Marketing*
- *Customer Experience & Personalization Strategies*

| Course Name: Rural & Agriculture Marketing  |   |  | Semester: IV         |
|---|---|--|----------------------|
| Course Code: SE - MKT - 14  |   | Credits: 3   | Marks: 100           |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEMKT14.1 REMEMBERING DEFINE various concepts related to Rural and Agricultural Marketing</p> <p>COSEMKT14.2 UNDERSTANDING UNDERSTAND the rural consumer buying Behavior, Rural Marketing Mix, Industrial and Agriculture Market, Difference between Rural and Urban market on different terms and Environment,</p> <p>COSEMKT14.3 APPLYING APPLY Rural Marketing research for Segmentation, Positioning with data collection methods for current rural market in India.</p> <p>COSEMKT14.4 ANALYSING ILLUSTRATE the Rural product, Pricing and Distribution Strategies with modern approach and challenges faced in rural Market and emerging Models in Rural Market.</p> <p>COSEMKT14.5 CREATING FORMULATE a model for Marketing of Agricultural products by using marketing mix tools.</p> |   |  |                      |
| Module No.  | Module Name                                   | Details  | No. of Hours (L+T+P) |
| 1   | Rural Marketing                               | Introduction, Defining rural markets & rural marketing, rural vs. urban markets, Rural Marketing Environment – PEST analysis, Rural Economic Structure, Rural Occupation Pattern, Incomes & Consumption, Rural market Size, Rural Infrastructure               | 4+2                  |
| 2   | Rural Consumer Behaviour & Marketing Research | Characteristics of Rural Consumers, Role of Opinion Leaders, Diffusion of Innovation in Rural Markets, Sources & Type of Secondary Data on Rural markets, Collecting Primary Data in Rural Setting, Segmentation, Targeting & Positioning: Bases of Segmenting | 6+2                  |

|   |   |   |     |
|---|---|---|-----|
|   |   | Rural Markets, Target Marketing, Coverage of Markets, Positioning in Rural Markets, Rural consumer Buying Process   |     |
| 3 | Rural Product, Pricing and Distribution | Rural Product Categories, Branding in Rural Markets, Problem of Fake Brands, Pricing Strategy – special considerations in rural markets, Credit in rural markets – need, sources & innovative credit delivery systems, Modern supply chain management approach, Challenges of distribution in Rural markets, Rural Retail System – last mile problem, public distribution system, cooperatives, Emerging Models in Rural Markets: Rythu Bazars (Farmers' Markets), Project Shakti, Apni Mandi | 6+2 |
| 4 | Introduction to Agricultural Marketing  | Definition of Market and agricultural marketing, Understanding Agricultural Markets, Nature & scope, Objectives of Agriculture Marketing, Organizations and functions of agricultural marketing in India. Difference between consumer, industrial and agricultural markets  | 4+2 |
| 5 | ICT in Agricultural Marketing           | Information and Communication Technology (ICT) tools used in Agricultural Marketing, Market Research-Market information service - electronic auctions (e-bay), AGMARKNET, e-Chaupals, Agrimarket, e-NAM, m-krishi, and Domestic and Export market Intelligence Cell (DEMIC) – Market extension, ICT initiatives of NGOs. Role of social media in agricultural marketing. Successful case studies  | 5+2 |

**Suggested Text Books:**

7. The Rural Marketing Book by Pradeep Kashyap & Siddhartha Raut
8. A New Approach to Rural Marketing by Kaushik Sircar
9. Marketing of Agricultural Products by Richard Louis Kohls, Joseph N. Uhl, Person Publication, 9th Edition.
10. Agriculture Marketing in India by S.S. Acharya & N.L. Agarwal, Oxford & IBH Publishing Co. Pvt. Ltd New Delhi, 4th Edition
11. Rural Agriculture & Marketing by S.B. Verma, S.K. Jiloka & Mandal, Deep & Deep Publication

Pvt. Ltd.

**Suggested Reference Books**

4. Rural Marketing – Concepts & Practices by Balram Dogra, Karminder Ghuman
5. New Perspective in Rural & Agricultural Marketing by Ramkishen Y., Jaico Publishing House, 2nd Edition
6. Introduction to Agribusiness Marketing by George Seperich, Michael Woolverton, James Beierlein, Pearson Education. New Perspective in Rural & Agricultural Marketing by Ramkishen Y., Jaico Publishing House, 2nd Edition
7. Introduction to Agribusiness Marketing by George Seperich, Michael Woolverton, James Beierlein, Pearson Education.

| Course Name: Customer Relationship Management   |                     |  | Semester: IV         |
|---|---------------------|--|----------------------|
| Course Code: SE - MKT – 15  |                     | Credits: 3   | Marks: 100           |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEMKT15.1 UNDERSTANDING Understand the fundamentals and importance of CRM in business strategy.</p> <p>COSEMKT15.2 ANALYSING Analyze customer data to improve relationship management and loyalty.</p> <p>COSEMKT15.3 Evaluating Evaluate different CRM models and their application in various industries.</p> <p>COSEMKT015.4 APPLYING Implement digital CRM tools and AI-driven personalization techniques.</p> <p>COSEMKT15.5 APPLYING Develop strategies for customer acquisition, retention, and engagement.</p> <p>COSEMKT015.6 Evaluate Assess ethical considerations and data privacy concerns in CRM practices.</p> |                     |  |                      |
| Module No.  | Module Name         | Details  | No. of Hours (L+T+P) |
| 1   | Fundamentals of CRM | Introduction to CRM & Its Evolution<br>Objectives & Benefits of CRM<br>Understanding the Customer Lifecycle<br>CRM vs. Traditional Marketing Approaches<br>Key Components of CRM | 7+1+1                |

|   |   |   |       |
|---|---|---|-------|
| 2 | CRM Strategies & Customer Insights        | Customer Acquisition & Retention Strategies<br>Customer Segmentation & Lifetime Value (CLV)<br>Data-Driven Decision Making in CRM<br>Customer Satisfaction & Loyalty Programs<br>Case Studies: Amazon, Starbucks, and Zappos  | 7+1+1 |
| 3 | Digital CRM & AI-Driven Personalization   | Role of AI & Machine Learning in CRM<br>CRM Software & Tools (Salesforce, HubSpot, Zoho)<br>Predictive Analytics & Customer Data Management<br>Omnichannel CRM: Social Media, Chatbots & Email Marketing<br>Case Studies: Netflix, Spotify, and E-commerce Personalization  | 7+1+1 |
| 4 | CRM in Different Industries               | CRM in Banking & Financial Services<br>CRM in Retail & E-commerce<br>CRM in Healthcare & Hospitality<br>CRM for B2B & SaaS Companies<br>Measuring CRM Success (KPIs & Metrics)  | 7+1+1 |
| 5 | Ethics, Challenges & Future Trends in CRM | Data Privacy & Ethical Issues in CRM (GDPR, CCPA)<br>Customer Trust & Transparency in Data Usage<br>Challenges in CRM Implementation & Adoption<br>The Future of CRM: Blockchain, AI, & Hyper-Personalization<br>Hands-on Project: Developing a CRM Strategy for a Business | 7+1+1 |

#### Reference Materials:

##### Books:

1. **Peppers, Don & Rogers, Martha (2020)** – *Managing Customer Experience and Relationships*
2. **Buttle, Francis & Maklan, Stan (2019)** – *Customer Relationship Management: Concepts and Technologies*
3. **Kumar, V. & Reinartz, Werner (2022)** – *Customer Relationship Management: Concept, Strategy, and Tools*
4. **Kotler, Philip & Keller, Kevin (2022)** – *Marketing Management* (CRM Chapters)

##### Research Papers & Reports:

- **Gartner Report on CRM Trends & Technologies**
- **McKinsey & Company – The Future of AI in CRM**
- **Deloitte Insights – CRM in the Digital Age**

##### Online Courses (MOOCs):

**1. Coursera:**

- *Customer Relationship Management* (IE Business School)
- *Digital Marketing & CRM* (University of Illinois)

**2. edX:**

- *AI-Powered CRM & Customer Insights* (Harvard University)
- *CRM & Customer Analytics* (Wharton Business School)

**3. LinkedIn Learning:**

- *Salesforce for Beginners*
- *Customer Experience & CRM Strategy*

**4. HubSpot & Google Academy (Free Courses):**

- *HubSpot CRM Training*
- *Google Digital Garage – Customer Retention & Engagement*

| <b>Course Name: Digital Marketing II</b>   |                                   |  | <b>Semester: IV</b>  |
|--|-----------------------------------|--|----------------------|
| <b>Course Code: SE - MKT - 16</b>  |                                   | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEMKT16.1 REMEMBERING DEFINE the key terms and concepts related with digital marketing</p> <p>COSEMKT16.2 UNDERSTANDING EXPLAIN the role of Facebook, Google Ad words, Youtube, Email marketing and other related tools in digital marketing.</p> <p>COSEMKT16.3 APPLYING MAKE USE OF Facebook, Google Ad words, Youtube and Email marketing and other related tools for carrying out digital marketing for given situation</p> <p>COSEMKT16.4 ANALYSING ILLUSTRATE the use of Facebook, Google Ad words, Youtube and Email marketing and other related tools in given situation.</p> <p>COSEMKT16.5 CREATING CREATE appropriate content for a digital marketing campaign.</p> |                                   |  |                      |
| Module No.   | Module Name                       | Details  | No. of Hours (L+T+P) |
| 1  | Website Development and Analytics | Website development basics, webpage, website structure, the interlinkage of working between search engine and website pages. Website development on free to use platform of google. Managing the content on website and mobile application. Different types of web presence blog, stand-alone website, websites on internet aggregation platforms. Application of Website Analytics, | 7+1+1                |

|   |                                      |   |       |
|---|--------------------------------------|---|-------|
|   |                                      | Different types of Web Analytics, Social Web Analytics, Mobile Web Analytics, Conversion Web Analytics, Key Performance Indicators, Google Analytic, Benefits of using Google Analytics, Clicky vs. Google Analytics, Website Traffic Measurement Metrics   |       |
| 2 | Digital Marketing Tool and platforms | Google Adwords: Understanding Adwords, Google Ad Types, Pricing Models, PPC Cost Formula, Ad Page Rank, Adwords User Interface, Keyword Planning, Keywords Control, Creating Ad Campaigns, Creating Text Ads, Linking Google Analytics, Designing Remarketing Images. Affiliate Marketing, Influencer marketing<br>What is Traffic? Type of Traffic How to analyze & Track Traffic (Google analytics), Ways to Increase Traffic, What is affiliate Marketing, Cost per Action   | 7+1+1 |
| 3 | Email Marketing                      | Content Writing: Email Machine –The Strategy, Email Frequency, Why People Don't Buy, The Fuel –Value, Triggers in Email using 4Ps, Sequence of Email Triggers, Email Example - Topic, Intro, Product, Secondary Value, Fear, Regret, Ask for Sales, Reinforcement, Offers Announcements, Urgency, Cross Sales, Re-Engagement. Buyer vs Consumer. Planning Email Campaign, Email Templates and Designs.  | 7+1+1 |
| 4 | Social Media Marketing I             | Introduction to Social Media, Advantages Over Online Marketing, Social Media Strategy. Understanding Web and Mobile Marketing perspective. B to C Perspective, B to B Perspective<br>Facebook Marketing: Understanding of Facebook Marketing, Types of Facebook Advertising, Creating first ad on Facebook, Setting Campaign and optimization, Facebook Power Editor, Facebook Video Marketing, Facebook App & Shopping Marketing, Facebook ad library, Traffic and Leads Generation.<br>Twitter Advertising: Twitter Advertising, Types of Twitter Advertising, Creating first ad on Twitter Setting | 7+1+1 |

|   |                           |   |       |
|---|---------------------------|---|-------|
|   |                           | <p>Campaign and optimization, Create conversion code, Twitter App Advertising, Twitter Video Advertising Leads &amp; Traffic Advertising Increase followers, Twitter Marketing, Strategy and Planning, Tracking and Conversion.</p> <p>Youtube Marketing: YouTube Marketing Strategy, Find Video Ideas with Competitor Analysis, Find Video Ideas with Keyword Research, Find Video Ideas with Keyword Research, YouTube Account Setup (Create business account with personal account), YouTube Account Optimization, YouTube Banner, YouTube Channel Tags , YouTube SEO ,Enable Custom Thumbnails, Manage Multiple YouTube Accounts , YouTube Monetization, YouTube Ads, YouTube Analytics</p>   |       |
| 5 | Social Media Marketing II | <p>Instagram Marketing: Instagram Business Account Setup, Follow These Instagram Accounts, Instagram Profile Image, Instagram Bio, Instagram Content Creation, Instagram Reposting, Instagram Followers Hack, Instagram Hashtags, Instagram Stories, Instagram Spam (reduce spam), Instagram Analytics.</p> <p>LinkedIn Advertising: What is LinkedIn advertising? Creating first ad on LinkedIn, Setting Campaign and optimization, create conversion code, Types LinkedIn Advertising, LinkedIn New feed Advertising, LinkedIn Message Advertising, Traffic and Leads Generation, Billing and Report.</p> <p>Pinterest Marketing: Why market your business on Pinterest, Pinterest account setting, Pinterest account to follow, Pinterest account optimization, account verification, Pinterest board, Pinterest follower, Pinterest graphics, Pinterest chrome extension.</p> | 7+1+1 |

**Suggested Text Books:**

1. Internet Marketing, Dave Chaffey, Fiona Ellis-Chadwick, Kevin Johnston, Richard Mayer, Pearson Education.
2. Digital Marketing, Oliver J Rich.



3. Online Marketing, Gerry T. Warner and Joe Wilson Schaefer.

**Suggested Reference Books:**

1. Digital Marketing, Prof. Seema Gupta, McGraw Hill Publications.
2. E- Marketing by Judy Strauss, Adel Ansary, Raymond Frost, Prentice Hall.
3. Social Media Marketing All-In-One for Dummies, Jan Zimmerman and Deborah.
4. Google Adwords for Beginners: A Do-It-Yourself Guide to PPC Advertising, Cory Rabazinsky.
5. Email Persuasion: Captivate and Engage Your Audience, Build Authority and Generate More Sales with Email Marketing, Ian Brodie

**Supplementary Reading Material:**

1. Journal of Internet Marketing and Advertising.
2. International Journal of Electronic Commerce.
3. International Journal of Electronic Retailing and Marketing.
4. International Journal of Online Marketing.

**Websites:**

1. [www.smartinsights.com/digital-marketing-strategy/customer-segmentation-targeting/segmentation-targeting-and-positioning/](http://www.smartinsights.com/digital-marketing-strategy/customer-segmentation-targeting/segmentation-targeting-and-positioning/)
2. [www.ibef.org](http://www.ibef.org)
3. [www.salesforce.com/Digital/Marketing](http://www.salesforce.com/Digital/Marketing)

**Suggested MOOCs:**

1. Fundamentals of Digital Marketing- By Google  
<https://learndigital.withgoogle.com/digitalunlocked/course/digital-marketing>
2. Digital Tools Certification- By Google

|   |                   |                      |
|---|-------------------|----------------------|
| <b>Course Name: Retail Marketing</b>  |                   | <b>Semester: IV</b>  |
| <b>Course Code: SE - MKT – 17</b>   | <b>Credits: 3</b> | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEMKT17.1 UNDERSTANDING Understand the fundamentals of retail marketing and its significance in the global economy.</p> <p>COSEMKT17.2 ANALYSING Analyze consumer behavior and decision-making in retail environments.</p> <p>COSEMKT17.3 ANALYSING Evaluate omnichannel retail strategies, including e-commerce, store formats, and digital integration.</p> <p>COSEMKT17.4 APPLYING Apply pricing, merchandising, and promotional strategies for effective retail management</p> <p>COSEMKT17.5 APPLYING Assess the impact of technology, AI, and data analytics in modern retailing.</p> <p>COSEMKT17.6 CREATING Develop sustainable and customer-centric retail strategies through case studies and projects.</p> |                   |                      |
| Module No.  | Module Name       | No. of Hours (L+T+P) |

|   |  |   |     |
|---|--|---|-----|
| 1 | Introduction to Retail Marketing                     | Definition, Scope, and Importance of Retail Marketing<br>Evolution of Retailing: Traditional vs. Modern Retail<br>Retail Formats: Department Stores, Supermarkets, Malls, E-commerce, D2C (Direct-to-Consumer)<br>Key Players in Global and Indian Retail Markets | 7+2 |
| 2 | Consumer Behavior & Retail Buying Process            | Understanding Consumer Decision-Making in Retail<br>Factors Influencing Retail Shopping Behavior<br>Role of Branding & Store Image in Retail Selection<br>Trends in Consumer Shopping Preferences (Online vs. Offline)  | 7+2 |
| 3 | Omnichannel Retailing & Technology in Retail         | Omnichannel vs. Multichannel Retailing<br>E-commerce & Mobile Commerce (m-commerce)<br>Strategies<br>AI, Big Data, and Personalization in Retail<br>Case Studies: Amazon, Walmart, Reliance Retail, and Nykaa   | 7+2 |
| 4 | Retail Pricing, Merchandising & Promotion Strategies | Retail Pricing Strategies: EDLP, Psychological Pricing, Dynamic Pricing<br>Visual Merchandising & Store Layout Design<br>Retail Promotion Mix: Discounts, Loyalty Programs, Digital Campaigns<br>Impact of Influencer Marketing & Social Commerce on Retail       | 7+2 |
| 5 | Sustainable & Future Trends in Retailing             | Green & Sustainable Retailing Practices<br>Ethical & Responsible Retailing (Fair Trade, CSR Initiatives)<br>Future of Retail: Metaverse, AR/VR, AI-Driven Stores<br>Case Studies on Sustainable Retailing: IKEA, Patagonia, FabIndia                              | 7+2 |

#### Books:

1. **Barry Berman & Joel R. Evans (2021)** – *Retail Management: A Strategic Approach*
2. **Levy, Weitz & Grewal (2023)** – *Retailing Management*
3. **Philip Kotler & Gary Armstrong (2022)** – *Principles of Marketing (Retail Applications)*
4. **M. Dhruv Grewal (2021)** – *Retail Marketing & Branding*

#### Research Papers & Reports:

- **McKinsey & Company Reports** – Retail Innovations & Trends
- **Harvard Business Review** – Omnichannel Retailing & Consumer Behavior
- **Deloitte Insights** – The Future of Retail in the Digital Age

#### Online Courses (MOOCs):

##### 1. Coursera:

- *Retail and Omnichannel Management* (Dartmouth College)
- *The Business of Retail* (University of Pennsylvania)

##### 2. edX:

- *Retail Fundamentals* (Deloitte & HarvardX)
- *AI in Retail & E-commerce* (Columbia Business School)

##### 3. LinkedIn Learning:

- *Retail Management Foundations*
- *Merchandising & Store Layout Strategy*

#### 4. Shopify Academy (Free Courses):

- *E-commerce & Digital Retailing*
- *Omnichannel Retail Strategy*

| Course Name: Marketing of Financial Services   |   |   | Semester: IV         |
|--|---|---|----------------------|
| Course Code: SE - MKT – 18   |   | Credits: 3  | Marks: 100           |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEMKT18.1 UNDERSTANDING Understand the nature, scope, and significance of financial services marketing.</p> <p>COSEMKT18.2 ANALYSING Analyze consumer behavior and decision-making processes in financial services.</p> <p>COSEMKT18.3 ANALYSING Evaluate the impact of digitalization, fintech, and AI on financial services marketing.</p> <p>COSEMKT18.4 CREATING Develop strategies for branding, promotion, and customer relationship management in financial services.</p> <p>COSEMKT18.5 ANALYSING Assess ethical, legal, and regulatory challenges in financial services marketing.</p> <p>COSEMKT18.6 CREATING Apply financial marketing strategies through case studies and real-world applications.</p> |   |   |                      |
| Module No.   | Module Name                                     | Details   | No. of Hours (L+T+P) |
| 1  | Introduction to Marketing of Financial Services | Concept, Nature & Scope of Financial Services Marketing<br>Characteristics of Financial Services & Service Marketing Mix (7Ps)<br>Types of Financial Services: Banking, Insurance, Mutual Funds, Fintech, Wealth Management<br>Evolution & Growth of Financial Services in India and Globally | 7+2                  |
| 2  | Consumer Behavior in Financial Services         | Factors Influencing Consumer Decisions in Financial Services<br>Risk Perception & Trust in Financial Products<br>Segmentation, Targeting & Positioning (STP) in Financial Services<br>Customer Lifetime Value (CLV) & Customer Retention Strategies   | 7+2                  |
| 3  | Digitalization & Technology                     | Role of AI, Big Data, and Blockchain in Financial Services Marketing  | 7+2                  |

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|---|---|--|-----|
|   | gical Innovations in Financial Services                           | Fintech Disruption: Digital Payments, Robo-Advisory, Peer-to-Peer Lending<br>Omnichannel Strategies in Financial Services Marketing<br>Case Studies: Paytm, Google Pay, Zerodha, and Neobanks  |     |
| 4 | Branding, Promotion & CRM in Financial Services                   | Branding Strategies for Banks, Insurance, and Investment Firms<br>Promotional Strategies: Advertising, Digital Campaigns, Referral Marketing<br>Customer Relationship Management (CRM) & Customer Experience Management<br>Impact of social media & Influencer Marketing in Financial Services | 7+2 |
| 5 | Ethical, Regulatory & Sustainable Marketing in Financial Services | Legal & Regulatory Framework: RBI, SEBI, IRDAI Guidelines<br>Ethical Issues in Financial Services Marketing (Mis-selling, Data Privacy, Transparency)<br>Sustainable Finance & Green Banking Initiatives<br>Future Trends in Financial Services Marketing                                      | 7+2 |

#### **Books:**

Lovelock & Wirtz (2021) – Services Marketing: People, Technology, Strategy

V.A. Avadhani (2022) – Marketing of Financial Services & Banking

Meghna Pant & Pranjal Kamra (2023) – Investonomy: The Stock Market Guide

Philip Kotler (2021) – Marketing Management (Financial Services Applications)

Research Papers & Reports:

McKinsey & Company Reports – Digitalization in Financial Services

Harvard Business Review – Fintech, AI, and Future of Banking

Deloitte Insights – Customer Experience in Financial Services

Online Courses (MOOCs):

1. Coursera:

Digital Transformation in Financial Services (Copenhagen Business School)

AI in Financial Services (University of London)

2. edX:

Fintech: The Future of Finance (HarvardX)

Marketing Strategy for Financial Services (Columbia Business School)

3. LinkedIn Learning:

Financial Services Marketing Fundamentals

Customer Experience in Banking & Fintech

4. Khan Academy & Udemy (Free & Paid Courses):

Personal Finance & Investment Strategies

Financial Markets & Banking Services

| <b>Course Name: Recent trends in Marketing</b>  |   |   | <b>Semester: IV</b>  |
|---|---|---|----------------------|
| <b>Course Code: SE - MKT – 19</b>   |   | <b>Credits: 3</b>   | <b>Marks:100</b>     |
| COURSE OUTCOMES: After completion of this course the students will be able to<br>COSEMKT19.1 UNDERSTANDING Understand emerging trends and their impact on marketing strategies.<br><br>COSEMKT19.2 ANALYSING Analyze the role of digital transformation and AI in marketing.<br><br>COSEMKT19.3 ANALYSING Evaluate the effectiveness of influencer and experiential marketing.<br><br>COSEMKT19.4 APPLYING Apply data-driven decision-making for personalized marketing<br><br>COSEMKT19.5 APPLYING Assess the importance of sustainability and ethical marketing practices.<br><br>COSEMKT19.6 CREATING Develop innovative marketing strategies for real-world business scenarios. |   |   |                      |
| Module No.  | Module Name                               | Details   | No. of Hours (L+T+P) |
| 1   | Digital Transform ation & AI in Marketing | Evolution of Digital Marketing & Key Trends<br>Role of AI, Chatbots, and Machine Learning in Consumer Engagement<br>Personalization & Predictive Analytics in Marketing<br>Case Studies: Netflix, Amazon, and Google’s AI-driven marketing  | 7+2                  |
| 2   | Social media, Influencer & Experienci     | Growth of Influencer Marketing & ROI Measurement<br>Viral Marketing & Meme Culture in Brand Promotion<br>Experiential Marketing & Immersive Brand Experiences (AR/VR)<br>Case Studies: Starbucks, Nike, and Airbnb’s Experiential Campaigns | 7+2                  |

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|---|--|---|-----|
|   | al Marketing                               |   |     |
| 3 | Data-Driven & Performance Marketing        | Big Data & Consumer Insights for Marketing Decision-Making<br>Growth Hacking Strategies & Performance Marketing Tools<br>Programmatic Advertising & Real-Time Bidding<br>Case Studies: Meta Ads, Google Ads, and Programmatic Success Stories                               | 7+2 |
| 4 | Sustainable & Ethical Marketing            | Green Marketing, Eco-Branding & Corporate Social Responsibility (CSR)<br>Ethical Consumerism & Transparency in Marketing<br>Impact of Regulations on Digital Advertising & Privacy Laws (GDPR, CCPA)<br>Case Studies: Tesla, Patagonia, and Unilever's Sustainable Branding | 7+2 |
| 5 | Future of Marketing : Trends & Innovations | The Rise of the Metaverse & Virtual Marketplaces<br>Blockchain in Marketing: Transparency & Consumer Trust<br>The Role of Neuromarketing & Behavioral Economics<br>Future Predictions: Marketing in 2030 & beyond   | 7+2 |

#### Books:

1. **Philip Kotler, Hermawan Kartajaya & Iwan Setiawan (2021)** – *Marketing 5.0: Technology for Humanity*
2. **Ryan Deiss & Russ Henneberry (2022)** – *Digital Marketing for Dummies*
3. **Jonah Berger (2020)** – *Contagious: Why Things Catch On*
4. **Avinash Kaushik (2021)** – *Web Analytics 2.0: The Art of Online Accountability*

#### Research Papers & Reports:

- **McKinsey & Company Reports** – The Future of Marketing & AI
- **Harvard Business Review** – Innovations in Digital & Experiential Marketing
- **Deloitte Insights** – Sustainability & Ethical Consumerism

#### Online Courses (MOOCs):

##### 1. Coursera:

- *Digital Marketing Specialization* (University of Illinois)
- *AI for Marketing* (Duke University)

##### 2. edX:

- *Marketing Analytics* (Columbia Business School)
- *Sustainable Marketing & Ethics* (University of Cambridge)

##### 3. LinkedIn Learning:

- *AI-Powered Digital Marketing*
- *Influencer Marketing Strategies*

##### 4. Google & HubSpot Academy (Free Courses):

- *Google Digital Garage – Fundamentals of Digital Marketing*
- *HubSpot Academy – Content & Social Media Marketing*

| <b>Course Name: Contemporary Market Research</b>   |                                 |   | <b>Semester: IV</b>  |
|--|---------------------------------|---|----------------------|
| <b>Course Code: SE - MKT – 20</b>  |                                 | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEMKT20.1 REMEMBERING Understand the fundamentals of market research and its role in business decision-making.</p> <p>COSEMKT20.2 APPLYING Apply qualitative and quantitative research techniques effectively.</p> <p>COSEMKT20.3 UNDERSTANDING Utilize digital tools and AI-driven analytics for data interpretation.</p> <p>COSEMKT20.4 ANALYSING Analyze consumer insights using neuromarketing and behavioral research.</p> <p>COSEMKT20.5 ANALYSING Evaluate ethical considerations and data privacy regulations in market research.</p> <p>COSEMKT20.6 CREATING Design and execute a contemporary market research project.</p> |                                 |   |                      |
| Module No.   | Module Name                     | Details   | No. of Hours (L+T+P) |
| 1  | Fundamentals of Market Research | Introduction to Market Research & Its Importance<br>Types of Research: Exploratory, Descriptive & Causal<br>Research Design & Formulating Hypotheses<br>Emerging Trends in Market Research (Big Data, AI, & Automation) | 7+2                  |
| 2  | Qualitative & Quantitative      | Qualitative Research: Focus Groups, In-Depth Interviews, Ethnography<br>Quantitative Research: Surveys, Experiments, & Statistical Analysis<br>Sampling Techniques & Questionnaire Design                               | 7+2                  |

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|---|--|---|-----|
|   | Research Methods                                   | Data Collection Challenges & Bias in Research   |     |
| 3 | Digital & AI-Driven Market Research                | Role of AI & Machine Learning in Market Research<br>Social Media Analytics & Sentiment Analysis<br>Google Trends, Web Scraping & Online Behavioral Data<br>Case Studies: AI in Consumer Insights (Amazon, Netflix, Google)                      | 7+2 |
| 4 | Neuromarketing & Behavioral Insights               | Introduction to Neuromarketing & Consumer Psychology<br>Eye Tracking, EEG, fMRI & Their Applications<br>Behavioral Economics & Decision-Making Biases<br>Case Studies: Coca-Cola, Apple, and Retail Store Layout Optimization                   | 7+2 |
| 5 | Ethical Considerations & Future of Market Research | Ethical Issues in Market Research (Data Privacy, GDPR, CCPA)<br>Fake Data, Manipulation & Consumer Trust<br>The Future of Market Research: Blockchain & Predictive Analytics<br>Hands-on Project: Designing & Executing a Market Research Study | 7+2 |

#### **Books:**

Malhotra, Naresh K. (2020) – Marketing Research: An Applied Orientation

Burns, Alvin C., & Bush, Ronald F. (2019) – Marketing Research

Zikmund, William G. (2022) – Business Research Methods

Green, Paul E. (2021) – Analyzing Multivariate Data

Research Papers & Reports:

McKinsey & Company – AI in Market Research

Harvard Business Review – Consumer Behavior Analytics

Deloitte Insights – The Future of Consumer Insights

Online Courses (MOOCs):

#### **1. Coursera:**

Market Research Specialization (University of California)

Digital Market Research & Analytics (University of Virginia)

#### **2. edX:**

Data-Driven Marketing Research (University of Maryland)

Consumer Insights & Behavior (Columbia Business School)

#### **3. LinkedIn Learning:**

AI & Machine Learning for Market Research

Behavioral Analytics for Marketers



#### 4. Google & HubSpot Academy (Free Courses):

Google Analytics for Beginners

HubSpot – Customer Insights & Research

| Course Name: Financial Markets and Banking Operations  |                                     |   | Semester: IV         |
|--|-------------------------------------|---|----------------------|
| Course Code: SC - FIN – 02   |                                     | Credits: 3  | Marks: 100           |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSCFIN02.01: REMEMBERING – RECALL the structure and components of Indian financial system through banking operations &amp; Financial Markets.</p> <p>COSCFIN02.02: UNDERSTANDING-UNDERSTAND the concepts of financial markets, their working and importance.</p> <p>COSCFIN02.03: APPLYING - ILLUSTRATE the working and contribution of Banks and NBFCs to the Indian Economy.</p> <p>COSCFIN02.04: ANALYSING –ANALYZE the linkages in the Financial Markets.</p> <p>COSCFIN02.05: EVALUATING - EXPLAIN the various banking and accounting transactions.</p> <p>COSCFIN02.06: CREATING DEVELOP necessary competencies expected of a finance professional.</p> |                                     |   |                      |
| Module No.   | Module Name                         | Details   | No. of Hours (L+T+P) |
| 1.   | Concepts of Indian Financial System | Structure and Components: Indian financial system in India, Role of financial system in economic development. Introduction to financial Institutions – Banking – Non-Banking Institutions.<br>Role and Functions of Banks and their Contribution to Indian Economy.<br>Introduction to Financial Markets, Functions and Classification. Money Market, Capital markets, Bond markets, Commodity markets, Money markets, Derivatives markets, | 4+2+2                |

|    |  |  |       |
|----|--|--|-------|
| 2. | Money Market                                       | Structure and components: Participants in Indian Money Market, Money Market Instruments, Structure of Money Market, Role of central bank in money market; Players in the Indian Money Market, The reforms in Indian Money Market.  | 8+2+6 |
| 3. | Capital Market                                     | Components & Functions of Capital Markets, Primary & Secondary Market Operations, Capital Market Instruments - Preference Shares, Equity Shares, Fixed Deposits, Debentures and Bonds, Global Depository receipts, American Depository receipts, Role of SEBI in Capital Market.   | 5+2+2 |
| 4. | Banks and NBFCs                                    | Types of Banks & NBFCs: Central Bank, Nationalized & Co-Operative Banks, Regional Rural Banks, Scheduled Banks, Private Banks & Foreign Banks, Mudra Bank, Small Finance Banks, Specialized Banks, NBFCs. Types of Banking: Wholesale and Retail Banking, Investment Banking, Corporate Banking, Private Banking, Development Banking. | 5+2+4 |
| 5. | Concepts in Banking and Accounting of transactions | Accounting in banks, Electronic Banking, RTGS, ATM, MICR, OCR, OMR, and DATANET, Petty Cash, Electronic Clearing Service (ECS), National Electronic Funds Transfer (NEFT) System, Real Time Gross Settlement (RTGS) System, IMPS   | 8+3+3 |

#### **Suggested Text Books:**

1. Indian Financial Services, M Y Khan
2. Marketing of Financial Services, Dr D Guruswamy
3. Financial Services In India, Avadhani, V.A.
4. Risk and Insurance Concepts, P Perriasamy, M Veerasevalam
5. Financial services of India, Dr. D Guruswamy
6. Capital Markets & Financial Services, Anil Agashe
7. Financial services, M. Y. Khan

#### **Suggested reference Books:**

1. "Financial Markets and Institutions" – Frederic S. Mishkin & Stanley Eakins

2. "The Economics of Money, Banking, and Financial Markets" – Frederic S. Mishkin

3. "Options, Futures, and Other Derivatives" – John C. Hull

4. "Financial Market Analysis" – David Blake

| <b>Course Name: Rural &amp; Micro Finance</b>   |  |   | <b>Semester: IV</b>  |
|---|--|---|----------------------|
| <b>Course Code: SE-FIN-13</b>   |  | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEFIN13.01: UNDERSTANDING – EXPLAIN and UNDERSTAND the relevance of Microfinance and how its work towards rural development &amp; growth.</p> <p>COSEFIN13.02: APPLYING - IDENTIFY Micro Finance Models and their contribution towards, economic growth, poverty elimination, women empowerment and gender equality.</p> <p>COSEFIN13.03: ANALYSING - ANALYZE the linkage between MFIs and Rural development.</p> <p>COSEFIN13.04: EVALUATING – EVALUATE the significance and funding Microfinance Institutions &amp; Self-Help Group.</p> <p>COSEFIN13.05: CREATING - FORMULATE and DISCUSS Cases related to MF (Models) &amp; Rural development, Women Empowerment and Gender Equality.</p> |  |   |                      |
| Module No.  | Module Name  | Details   | No. of Hours (L+T+P) |
| 1.  | Overview of Microfinance                                       | Background, Concept, Fundamentals of Microfinance, Characteristics of Micro Finance, Microfinance & Banking, The Graeme Bank, Microfinance & Micro Credit, Microfinance<br>1. NGOs, Channels of Microfinance, Microfinance & Rural Development- Role of MFIs and Rural credit, Types of rural Credit Poverty Microfinance and Economic Well-being, Microfinance & Women Empowerment, Financial Inclusion. | 7+1                  |
| 2.  | Microfinance Lending Models and its Financial & other Products | Microfinance Delivery Models and Banks<br>Linkages Programme MFI Group Lending Model, MFI Individual Lending Model, MFI Loan Products & Related<br>Issues, MFI Savings & Saving Products, Remittances, MFI Micro insurance.   | 7+1                  |
| 3.  | Microfinance Service Providers and Microfinance Institutions   | Governance and the Constitution of the Board<br>of Various Forms of MFIs in India, Intermediaries for Microfinance, Commercialization of Microfinance Institutions, Challenges to Microfinance Institutions.  | 6+1                  |
|   |  | Meaning of SHGs, Pattern of their Functions-Funding Agencies of these   |                      |

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|----|--|--|-----|
| 4. | Microfinance & Self-Help Groups                        | SHGs-Provisions under SHGs-Savings, Credit, Marketing & Insurance, Financial & Social Inclusion through SHGs, SHGs and entrepreneurship development, NABARD and SHGs - SHGS & Bank Linkages - SHGs and Training Programmes, SHGs and Economic Empowerment, Role of SHGs in Poverty alleviation- Cases related to Indian Context. | 8+1 |
| 5. | Issues, Trends and Strategic alliances in Microfinance | Emerging issues in Microfinance, Recent Trends in Microfinance, Microfinance & Sustainable Development, Role of Technology in Microfinance, Microfinance & Gender equality, Impact of Microfinance on Women empowerment.   | 8+2 |

#### Suggested Books:

1. Microfinance in India by K G Karmakar, March 2008Sage Publication Private Ltd.
2. Macro Dynamic of Micro Finance Daniel Lazar P. Natarajan MalabikaDeo Excels Books 2010
3. The Economics of Microfinance by Jonathan Morduch and Beatriz Armendariz
4. Micro Finance and Poverty eradication - Indian and global experiences Dr. Daniel Lazar Prof. P. Palanichany New Century Publication, New Delhi 2008
5. A.N. Agarwal and KundanaLal: - Rural Economy of India – Vikas publishing House Ltd. – New Delhi-110014, 1990
6. Vasant Desai- A Study of Rural Economy
7. Johns Hopkins School of Advanced International Studies: Microfinance and Development 1, taught by Elissa McCarter and Kate Druschel Griffin.
8. Rudradath and K.P.M.Sundaram-Indian Economy—S.Cand& Co. Limited, New Delhi110055, 2008
9. S.K.Mistra& V.K.Puri – Indian Economy- Himalaya Publishing House, Mumbai- 400004, 2008

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|--|-------------------|---------------------|
| <b>Course Name: Current Trends &amp; Cases in Finance</b>  |                   | <b>Semester: IV</b> |
| <b>Course Code: SE - FIN – 14</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>   |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEFIN14.01: REMEMBERING – DESCRIBE the concepts related to emerging areas of Microfinance, Small finance banks, Payment Banks, Start-Ups, SHG and Digitization and analytics</p> <p>COSEFIN14.02: UNDERSTANDING-EXPLAIN in detail, all the theoretical concepts taught through the syllabus</p> <p>COSEFIN14.03: APPLYING - APPLY the various theories and models of financial management in the case.</p> |                   |                     |

COSEFIN14.04: ANALYSING –ANALYZE the linkages in the Financial Markets.  
 COSEFIN14.05: EVALUATING - ANALYSE the situation and decide the key financial as well as non-financial elements involved in the situation.  
 COSEFIN14.06: CREATING EVALUATE the financial impact of the alternative on the given case.

| Module No. | Module Name         | Details  | No. of Hours (L+T+P) |
|------------|---------------------|--|----------------------|
| 1.         | Microfinance        | Meaning, definition and conceptual framework and its history– Models of microfinance – Microcredit Vs Micro-savings Vs Microfinance – Microfinance institutions (MFI) Development of microfinance in India – GOI, RBI and NABARD initiatives for development of microfinance in India – Innovative microfinance models in India – Issues faced by microfinance in India – case study of SKS MFI and Grameen Bank. Value chain financing – Rural finance – need for rural finance | 4+2+2                |
| 2.         | Small Finance Banks | Operating guidelines of Reserve Bank of India for small finance banks – Small finance banks and financial inclusion – History and list of small finance banks –functions of small finance banks – Business model of small finance banks. Self Help Group Approach: The Concept, Why Self-Help Groups?  | 8+2+6                |
| 3.         | Retail Banking      | Alternate delivery channels – Customer Relationship management vs. Customer Interaction management (CIM)-Technology as a differentiator- International Trends and Tools. Payment banks - Operating guidelines of Reserve Bank of India for payment banks –Payment banks and financial inclusion – History and list of payment banks – functions of payment banks – Business model of payment banks.  | 5+2+2                |
| 4.         | Startups in India   | Fund raising norms for startups - SEBI regulations on startup listing and fund raising – Angel funding – Origin of angel funding – SEBI regulations on angel funding – Financial Technology –Fintech companies in India - Prepaid payment mechanism in India – Prepaid payment   | 5+2+4                |

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|    |  | mechanisms – Smart cards, magnetic stripe cards, internet accounts, online or e-wallets, mobile accounts, mobile wallets and paper vouchers – Types of ewallets<br>– RBI regulations on prepaid payment mechanism – Growth of prepaid payment mechanism in India. |       |
| 5. | Implications and usage of Current trends | Cases based on current trends in finance in relation to above topics.   | 8+3+3 |

### Text Books:

1. Buzzard, Shirley and Elaine Edgcomb. 1987. Monitoring and Evaluating Small Business Projects: A Step by Step

Guide for Private Development Organizations. PACT, New York (an electronic copy of this book is posted at

Blackboard).

2. Kindervatter, Suzanne. 1987. Doing a Feasibility Study: Training Activities for Starting or Reviewing a Small

Business. OEF International, Washington, D.C. (an electronic copy of this book is posted at Blackboard).

3. Ledgerwood, Joanna. 2001. Microfinance Handbook: An Institutional and Financial Perspective. World Bank

Publications, Washington, D.C.

### Reference Books:

1. Collins, Daryl, Jonathan Morduch, Stuart Rutherford and Orlanda Ruthven. 2009. Portfolios of the Poor: How the World's Poor Live on \$2 a Day. Princeton University Press, Princeton, New Jersey.

2. <https://www.rbi.org.in/>

3. <https://www.nabard.org/english/home.aspx>

4. <https://www.startupindia.gov.in/>

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|--|-------------------|---------------------|
| <b>Course Name: Financial Modelling</b>  |                   | <b>Semester: IV</b> |
| <b>Course Code: SE - FIN – 15</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>   |
| COURSE OUTCOMES: After completion of this course the students will be able to<br>COSEFIN15.01: REMEMBERING – Remember the concepts, terminologies, frameworks, tools and techniques of financial modelling<br>COSEFIN15.02: UNDERSTANDING-UNDERSTAND the applications and use of MS Excel in financial modelling and its different techniques. |                   |                     |

| COSEFIN15.03: APPLYING - DEVELOP, APPLY and use core functionality of MS Excel in decision framework to solve managerial problems<br>COSEFIN15.04: ANALYSING –ANALYSE different financial models in order to eliminate substantial risk of poor spreadsheet coding.<br>COSEFIN15.05: EVALUATING - FORMULATE an idea and acceptable solutions to solve different problems in the area of financial management<br>COSEFIN15.06: CREATING BUILD financial models by making appropriate assumptions on financial factors relevant to the situation. |                              |   |                      |
|---|------------------------------|---|----------------------|
| Module No.  | Module Name                  | Details   | No. of Hours (L+T+P) |
| 1.  | Introduction                 | Meaning, Benefits and Uses of Financial Modelling. Basic Excel for Financial Modelling: Formatting of Excel Sheets, Use of Excel Formula Function, Advanced Modelling Techniques, Data Filter and Sort, Charts and Graphs, Table formula and Scenario building              | 4+2+2                |
| 2.  | Financial Statement Analysis | Introduction to Financial Statement Analysis, Financial Reporting Mechanics, Understanding Income Statement, Balance Sheet, Cash Flow Statement, Financial Analysis Techniques, Inventories, Long Lived Assets, Non-Current Liabilities, Application of Financial Statement | 8+2+6                |
| 3.  | Financial Ratios             | Ratio analysis of industries, Du point Analysis, Peer to peer analysis, Preparation of Financial Analysis report on an industry.  | 5+2+2                |
| 4.  | Equity Research Modeling     | Preparation of equity research model with the help of financial statements  | 5+2+4                |

#### Suggested Books:

- 1) Business Data Analysis using Excel – David Whigham – Oxford University Press
- 2) Mastering Financial Modeling in Microsoft Excel – Alastair L. Day
- 3) Practical Financial Modeling – Jonathoan Swan

#### Reference Books:

- 1) Financial Modelling Using Excel and VBA by Chandan Sengupta, John Wiley & Sons
- 2) Building Financial Models with Microsoft Excel: A Guide for Business Professionals, K. Scott Proctor, 2nd Edition, John Wiley & Sons

- 3) Advanced Modeling in Finance using Excel and VBA By Mary Jackson, Mike Staunton, John Wiley & Sons
- 4) Next Generation Excel: Modeling in Excel for Analysts and MBAs By Isaac Gottlieb, John Wiley & Sons
- 5) Financial Modeling Module, NSE Academy

| <b>Course Name: Fixed Income Securities</b>   |   |  | <b>Semester: IV</b>  |
|---|---|--|----------------------|
| <b>Course Code: SE - FIN – 16</b>   |   | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p>COSEFIN16.01: REMEMBERING – Remember the concepts, terminologies, frameworks, tools and techniques of financial modelling</p> <p>COSEFIN16.02: UNDERSTANDING-UNDERSTAND the applications and use of MS Excel in financial modelling and its different techniques.</p> <p>COSEFIN16.03: APPLYING - DEVELOP, APPLY and use core functionality of MS Excel in decision framework to solve managerial problems</p> <p>COSEFIN16.04: ANALYSING –ANALYSE different financial models in order to eliminate substantial risk of poor spreadsheet coding.</p> <p>COSEFIN16.05: EVALUATING - FORMULATE an idea and acceptable solutions to solve different problems in the area of financial management</p> <p>COSEFIN16.06: CREATING BUILD financial models by making appropriate assumptions on financial factors relevant to the situation.</p> |   |  |                      |
| Module No.  | Module Name   | Details  | No. of Hours (L+T+P) |
| 1.  | Introduction of Fixed Income Security and its Markets     | Overview of Fixed Income Securities, Fixed Income Instruments, Government Securities, Treasury Bills, Money Market Instruments, Corporate Bonds, and Asset Backed Securities, Market Conventions, Market Regulation and the Role of regulator. Sectoral Reforms and contemporary issues. | 4+2+2                |
| 2.  | Returns, Valuation and Pricing of Fixed Income Securities | Current yield, realized yield, Yield to maturity, Valuation & pricing of Plain Vanilla Bond on coupon date, Valuation & pricing of Plain Vanilla Bond in between coupon dates, Valuation of a zero-coupon Bond,  | 8+2+6                |
| 3.  | Risk Identification in Bonds                              | Volatility associated with Bond Market, Duration, Macaulay's Duration, Modified Duration, Effective Duration, Convexity, and Immunization  | 5+2+2                |
| 4.  | Investment Strategies for FI Securities                   | Optimizing Portfolio Returns, Laddered   | 5+2+4                |



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|   |   | Maturity Portfolio, Barbell Investing, Matched Asset Program, Discount Bond Investing, Premium Bond Investing.   |       |
| 5 | Yield Concepts and Term Structure Theories: | Price Yield Relationship, Term Structure of Interest rates & Yield Curve, Shape of the yield curve, Term Structure Theories, Analysis of the Yield curve | 5+1+3 |

### Textbooks:

1. Investment Trends and Turning Points - Martin J. Pring.
2. Valuation, Risk Management and Portfolio Strategies (The Wiley Finance Series) – Lionel Martelline, Philippe Priaulet, Stephane Priaulet.
3. The Handbook of Fixed Income Securities - Frank J. Fabozzi, Steven V. Mann
4. Fixed Income Securities- Dr Varsha Nerlekar (Himalaya Publication)

### Suggested Reference Book:

1. Choudhry, M. (2010). Introduction to Bond Markets. UK: John Wiley & Sons.
2. Fabozzi, F. J. (2016). Bond Markets, Analysis, and Strategies. USA: Pearson Education.
3. National Stock Exchange of India. (2009). FIMMDA-NSE Debt Market (Basic) Module. Mumbai: NSE.
4. Sen, J. & Apte, A. (2013). Fixed Income Markets in India: Investment Opportunities for You. India: Shroff Publishers & Distributors.

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|---|-------------|-------------------|----------------------|
| <b>Course Name: Project Finance and Trade Finance</b>   |             |                   | <b>Semester: IV</b>  |
| <b>Course Code: SE-FIN-17</b>   |             | <b>Credits: 3</b> | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>CO SE-FIN-17.1 REMEMBERING DESCRIBE the concepts of Project Finance and Trade Finance.</p> <p>CO SE-FIN-17.2 UNDERSTANDING SUMMARIZE the key aspects in context with Project Finance and Trade Finance.</p> <p>CO SE-FIN-17.3 APPLYING IDENTIFY the applicability of Project Finance and Trade Finance in modern business era.</p> <p>CO SE-FIN-17.4 ANALYSING EXAMINE the risks involved in Project Finance and Trade Finance.</p> <p>CO SE-FIN-17.5 EVALUATING EVALUATE the proposal of securing finance by considering the capital structure and documentation involved.</p> |             |                   |                      |
| Module No.  | Module Name | Details           | No. of Hours (L+T+P) |

|    |  |   |     |
|----|--|---|-----|
| 1. | Project & Trade Finance overview                   | Project Finance & Trade Finance Overview: Definition & Characteristics of Project Finance, Pre-requisites, Typical PF examples. Trade Finance (TF): Importance of Trade Finance, Benefits of Trade Finance. Who benefits from trade finance, Challenges for SMEs in accessing trade finance. (5+1)  | 7+1 |
| 2. | Project Evaluation Criteria & Domestic Trade       | Project Evaluation Criteria & Domestic Trade – Steps Involved In Project Assessment, Introduction to Capital Budgeting tools & techniques for Project evaluation, Cash Flow Management, Measures used by Investors: Payback period, Net Present Value (NPV), Internal Rate of Return (IRR) Domestic trade-method of Financing - Working Capital - Appraisal and sanction - Deferred payment guarantee - Securitization - Factoring. (5+1) | 8+2 |
| 3. | Current Project Finance Market:                    | Current Project Finance Market: PF market expansion, Market highlights, PF market by sector, PF market by geography. Project Financing in India: Means of Finance, Norms and Policies of Financial Institutions, SEBI Guidelines, Sample Financing plans, Schemes of assistance, term Loans procedures, Project Appraisal by Financial Institutions. (5+1)  | 6+1 |
| 4. | Project & Trade Finance Risks                      | Project & Trade Finance Risks -Project Finance and Commercial Risks, Project Finance and Macroeconomic Risks, Regulatory and Political Risk, Risk Mitigation Methodologies for Projects, Risks involved in trade finance - country risk, currency risk, credit risk, counter party risk, exchange risk, legal risk. (5+1)   | 7+1 |
| 5. | Process & Documentation in Project & Trade Finance | Process & Documentation in Project & Trade Finance- Assess the appropriateness of the capital structure and features of the debt structure and its Documentation- Security and credit rights, Payment waterfall, Collateral and assignment of contract rights, Rights of the controlling classes, inter-creditor issues, Structural features, Debt service  | 7+2 |

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|  |  | covenants, Reserve accounts, cash sweeps, profit distribution controls, Refinancing risk Documents used in Trade - Bill of Exchange, Invoice, Bill of Lading, Airway Bill, Insurance Policy. (5+1) |  |
|--|--|--|--|

### **Suggested TextBooks:**

1. Project Management – Prasanna Chandra
2. Principles of Project Finance - Yescombe, E. R. (2002), Academic Press, California.
3. How to access trade finance, James Sinclair, Trade Finance Global.

### **Suggested Reference Books**

1. Advanced Project Management – Harrison F.L.
2. Project financing (7 ed.) - Nevitt, P.K. & Fabozzi, F. J. (2000), London, UK: Euromoney Books
3. Investment project design - A guide to financial and economic analysis with constraints, Kurowski, L. & Sussman, D (2011), New Jersey: John Wiley & Sons.
4. Project finance for construction and infrastructure: Principles and case studies - Pretorius, F., Lejot, P., McInnis, A., Arner, D. & Hsu, B. F.-C. (2008), Oxford: Blackwell Publishing.
5. Trade Finance Guide, A Quick Reference for U.S. Exporters
6. Comptroller's Handbook Trade Finance and Services, Version 1.0, April 2015

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| <b>Course Name: Strategic Cost Management</b>  |             |  | <b>Semester: IV</b>  |
| <b>Course Code: SE - FIN- 18</b>   |             | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p>CO SE FIN18.01: REMEMBERING – Remember the basic concepts, tools and techniques of cost management in the contemporary business environment and how it has influenced cost management.</p> <p>COSEFIN18.02: UNDERSTANDING – EXPLAIN in detail, all the theoretical concepts taught through the syllabus; differentiate between various costing techniques.</p> <p>COSEFIN18.03: APPLYING - ILLUSTRATE contemporary management techniques and how they are used in cost management to respond to the contemporary business environment.</p> <p>COSEFIN18.04: ANALYSING – ANALYSE the situation and decide the key cost factors / elements involved in the decision making.</p> <p>COSEFIN18.05: EVALUATING – FORMULATE new models and techniques for managing the cost strategically in any business organization.</p> |             |  |                      |
| Module No.   | Module Name | Details  | No. of Hours (L+T+P) |
|  |             | Meaning, conceptual framework, significance and objectives of SCM, , |                      |

|    |  |  |     |
|----|--|--|-----|
| 1. | Introduction to Strategic Cost Management          | Traditional Cost Management Vs Strategic Cost Management. Role of SCM in Strategic Positioning & Strategic position analysis, Cost Control and Cost Reduction in SCM, Cost of Quality                            | 8+2 |
| 2. | Strategic Cost Analysis and Decision making in SCM | Life Cycle costing, Target Costing, Value Analysis and Value Chain analysis, Value Engineering, Value management, Throughput Costing, Lean Accounting, Socio Economic Costing Business Process Outsourcing (BPO) | 8+1 |
| 3. | Activity Based Costing                             | Concept, Purpose, Benefits and Stages, Relevance in Decision Making and its Application in Budgeting. Traditional Vs. ABC System – Comparative Analysis, Application of ABC.                                     | 7+1 |
| 4. | Strategic Cost Management for Specific Sectors     | Agricultural Sector, Information Technology Sector, Power Sector, Automobile Sector, Healthcare sector, Hospitality Sector, Education Sector, etc.   | 6+1 |
| 5. | Target Costing and Kaizen Costing                  | Target Costing – Introduction, Key Principles, Methodology, Procedures, Advantages and Implementation. Kaizen Costing – Meaning, concepts, procedure for implementation, evaluation,                             | 7+1 |

#### **Suggested Text Books:**

1. Strategic Cost Management – Dr. Jawahar Lal, Himalaya Publishing House.
2. Cost Management – Kishore Ravi M., Taxmann

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

1. Strategic Cost Management the New Tool for Competitive Advantage – John K. Shank & Vijay Govindraj, The Free Press.
2. Cost Management a Strategic Emphasis – Edward Blocher, David Stout, Paul Juras & Steven Smith, McGraw Hill Education

|   |                   |                     |
|---|-------------------|---------------------|
| <b>Course Name: Corporate Financial Restructuring</b> |                   | <b>Semester: IV</b> |
| <b>Course Code: SE - FIN- 19</b>                      | <b>Credits: 3</b> | <b>Marks: 100</b>   |

**COURSE OUTCOMES:** After completion of this course the students will be able to

**COSEFIN19.01: REMEMBERING – DESCRIBE** the basic concepts related corporate restructuring, Mergers & Acquisitions, Valuation Aspects of Corporate Restructuring and Corporate Governance Aspects of Restructuring.

**COSEFIN19.02: UNDERSTANDING – EXPLAIN** the motivations, decision processes, transaction execution, and valuation consequences of financial, business, and organizational restructuring by corporate units.

**COSEFIN19.03: APPLYING - PERFORM** all the required calculations through relevant numerical problems.

**COSEFIN19.04: ANALYSING – ANALYZE** the situation by calculations of exchange ratio, financial returns, valuations and others.

**COSEFIN19.05: EVALUATING – EVALUATE** impact of corporate financial restructuring on all stakeholders

| Module No. | Module Name   | Details   | No. of Hours (L+T+P) |
|------------|---|---|----------------------|
| 1          | Basic concepts  | Meaning of Corporate Restructuring, Need, Scope, Concept of Internal & External Restructuring and motives, applications of corporate restructuring.   | 5+1                  |
| 2.         | Overview of Corporate Finance and Corporate restructuring | Financial Restructuring & Divestiture, Funding Options for M&A. Strategic Alliances & Joint Ventures, Employee Stock Ownership, Going Private & Leveraged Buyouts. Creating Value through Corporate Restructuring- Corporate Reorganization Strategies- Spin-Offs, Equity Carve-Outs, Target Stock and Divestitures, Financial perspective in restructuring, Reorganization strategies in corporate organizations, Financial Distress & Bankruptcy, Liquidation, Net Operating Losses, Sources of Funding & Problem of changing Capital Structure, Strategic and Financial Sponsors, Pros and Cons of different Sponsors, Capital Cash Flows Vs. Equity Cash Flows. | 8+2                  |
| 3.         | Dimensions of Mergers & Acquisitions                      | Mergers & acquisitions concept, types and process, Accounting for Mergers & Demergers, Regulatory framework of mergers and acquisitions. Due diligence for M&A, Cross-Border Mergers & Acquisitions. Take-over and Defence Tactics Structural Defences Vs. Non-Structural Defences, Contribution Analysis, Duties of Board of Directors, Market for Corporate Control.  | 5+1                  |
| 4.         | Valuation Aspects of Corporate Restructuring              | Methods of payment for M & A and Calculations of exchange ratio, Fundamental and methods of business valuation, Calculations of financial synergy and return, Different approaches of valuation – Comparable  | 8+2                  |

|    |   |   |     |
|----|---|---|-----|
|    |   | company & transaction analysis method, DCF, Real Option method, Equity/Residual Cash Flows, Adjusted Present Value, Capital / Leveraged Cash Flows, Relative Valuation Analysis, Sensitivity Analysis, Tables, Developing Break Up Analysis.  |     |
| 5. | Corporate Governance Aspects of Restructuring | Domestic & International trends relating to governance practices pertaining to Corporate Restructuring, Reference of Corporate Governance in Indian Companies Act (Amended) 2013, SEBI Regulations, Listing Agreement etc. Shareholder democracy in restructuring process, role of investors creditors, role of non-executive directors in restructuring process, Disclosures and Clarifications on the part of Board of Directors and Inclusion in the Auditors' Report. | 8+2 |

**Note:**

- To facilitate understanding of corporate merger and acquisition activity, restructurings and corporate governance relevant Cases should be incorporated in teaching pedagogy
- Numerical Problem will be asked on the following:**
  - Calculations of exchange ratio,
  - Calculations of financial synergy and return,
  - Different approaches of valuation – Comparable
  - Company & transaction analysis method, Discounted Cash Flow (DCF),
  - Real Option method,
  - Formula approach for valuation and other important methods of valuation.

**Suggested Text Books:**

- Corporate Restructuring, Bhagaban Das and Debdas Raskhit, Himalaya Publishing House
- Financial Management, R. P. Rustagi, Galgotia Publishing
- Strategic Financial Management, Ravi M. Kishor, Taxmann,
- Mergers, Acquisitions and Corporate Restructurings, Gaughan, P.A., John Wiley and Sons
- Financial Management, Prasanna Chandra, TATA McGraw Hill

**Suggested Text Books:**

- Corporate Restructuring, Bhagaban Das and Debdas Raskhit, Himalaya Publishing House
- Financial Management, R. P. Rustagi, Galgotia Publishing
- Strategic Financial Management, Ravi M. Kishor, Taxmann,
- Mergers, Acquisitions and Corporate Restructurings, Gaughan, P.A., John Wiley and Sons
- Financial Management, Prasanna Chandra, TATA McGraw Hill

**Supplementary Reading Material**

1. Case Studies in Mergers & Acquisitions – ICFAI University – ICFAI University Press,
2. Case Studies on Mergers & Acquisitions – R. Muthukumar – ICFAI University Press

**List of Journals / Periodicals / Magazines / Newspapers / Web resources, etc.**

1. Business Standard
2. The Economic Times
3. Financial Express
4. Journal of Applied Finance
5. CFA Reader
6. Business Today
7. Finance India

| <b>Course Name: Commodities Markets</b>   |   |  | <b>Semester: IV</b>  |
|---|---|--|----------------------|
| <b>Course Code: SE - FIN- 20</b>  |   | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEFIN20.01: REMEMBERING – DESCRIBE the key concepts of commodities market</p> <p>COSEFIN20.02: UNDERSTANDING – Understanding the pricing mechanism of commodity, regulatory framework and the difference between commodity and financial derivatives</p> <p>COSEFIN20.03: APPLYING - APPLY all the required strategies and calculations of commodities trading.</p> <p>COSEFIN20.04: ANALYSING – ANALYZE both the fundamental and technical factors that drive the commodity price movement</p> <p>COSEFIN20.05: EVALUATING – EVALUATE the various methods and tools to detect the pulse of the markets and determine the trend in which the prices are moving.</p> <p>COSEFIN20.06: CREATING - ADAPT the skills of commodity analysis and build their own trading strategies</p> |   |  |                      |
| Module No.  | Module Name                               | Details  | No. of Hours (L+T+P) |
| 1.  | Understanding Commodities and Derivatives | Definition of commodity, Kinds of commodity, importance of commodity, Commodities as a New Asset Class, Evolution of Commodity Exchange, FCR Act 1952 and Regulatory structure of Commodities Derivatives Markets in India, Definition of derivative, Types of Derivatives, Over the Counter Derivative , Exchange Traded Derivatives, Difference between commodity and financial derivatives, Physical settlement, Warehousing, Historical changes and growth of global and domestic Commodities derivatives markets, Global commodities derivatives exchanges : - Africa, Asia, Latin America, Commodities as an investment tool for investors, The Kabra committee report and Latest developments. Evolution of Commodity Exchange, NCDEX | 7+1                  |

|    |   |   |     |
|----|---|---|-----|
|    |   | Platform - Structure of NCDEX, commodities traded on NCDEX platform   |     |
| 2. | Product design and Instruments for trading and pricing of commodity derivatives | Issues Related to Product Design and contract specifications, Issues related to Spot price and present practices of commodities exchanges, Agricultural Commodities Markets & Non-Agricultural Commodities Markets: Issues in Agricultural Commodities Markets, Agricultural Commodity Futures trading pattern in Exchange – Case study , Issues in Non-Agricultural Commodities Markets, Commodities Derivative Exchanges and design of the markets, Non- Agricultural Commodity Futures trading pattern in Exchange – Case study. Basis Risk and its importance in pricing, Commodity Options on Futures and its mechanism. Instruments available for trading Forward contracts, Futures, Distinction between futures and forwards contracts, Options, Basic payoffs, Payoff for futures, Payoff for options, Pricing commodity futures, Investment assets versus consumption assets, The cost of carry model, Pricing futures contracts on investment commodities, Pricing futures contracts on consumption commodities. | 7+1 |
| 3. | Basic principles of hedging, speculation and arbitrage                          | Using commodity futures, Hedging: - Basic principles of hedging, short hedge, long hedge, Hedge ratio, Advantages of hedging, Limitation of hedging, Speculation: - Speculation: Bullish commodity, buy futures, Speculation: Bearish commodity, sell futures, Arbitrage: - Overpriced commodity futures: buy spot, sell futures, Underpriced commodity futures: buy futures, sell spot.  | 7+1 |
| 4. | Market Mechanism  | Trading- Futures trading system, Entities in the trading system, Guidelines for allotment of client code, Contract specifications for commodity futures, Commodity futures trading cycle, Order types and trading parameters, Margins for trading in futures, Charges. Clearing and settlement, clearing: - Clearing mechanism, clearing banks, Depository participants, Settlement: - Settlement mechanism, Settlement methods,  | 8+1 |



|    |                         |   |     |
|----|-------------------------|---|-----|
|    |                         | Entities involved in physical settlement, Risk management.  |     |
| 5. | Analysis of commodities | Introduction to Technical Analysis, Philosophy of Technical Analysis, Relationship between Price and Time, Volume and Open Interest, Basics of Dow Theory, Basic concepts of Trend, Lines Support & Resistances, Reversal and Continuation Patterns, Basics of Gap Theory, Introduction to Indicators and Oscillators. Fundamental Analysis in Commodity Market, Basic Significance of Fundamental Analysis, Classification of Commodities, Factors Affecting Commodities, Analytical Techniques, Commodity Baskets, Correlation Between Commodities, Interrelation between Other Asset Classes and Commodities | 8+1 |

#### **Suggested Text Books:**

1. Commodity Derivatives – IIBF
2. Futures & Options (equities & commodities) – A.N. Sridhar
3. Commodity Derivatives: Markets and Applications - Neil C. Schofield
4. Commodity Derivatives: Markets and Applications (The Wiley Finance Series) - Neil C. Schofield

#### **Suggested Reference Books**

1. Commodities and Commodity Derivatives: Modeling and Pricing for Agricultural, Metals and Energy – Helyette Geman
2. Risk Management in Commodity Markets: From Shipping to Agricultural and Energy (The Wiley Finance Series) – Helyette Geman
3. Guide to Indian Commodity Market: Ankit Gala & Jitendra Gala
4. Commodities Markets and Derivatives: B. Kulkarn

#### **Supplementary Reading Material**

NCFM Module on Commodity Derivatives

|   |                   |                     |
|---|-------------------|---------------------|
| <b>Course Name: Labour Welfare</b>  |                   | <b>Semester: IV</b> |
| <b>Course Code: SC- HR- 02</b>  | <b>Credits: 3</b> | <b>Marks: 100</b>   |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSCHR02.01: REMEMBERING – ENUMERATE the key concepts of the subject matter.</p> <p>COSCHR02.02: UNDERSTANDING - DESCRIBE the key aspects of the labour policy regulation in the country.</p> <p>COSCHR02.03: APPLYING - IDENTIFY the applicability of various legislations to variety of real-world organizations.</p> |                   |                     |

| COSCHR02.04: ANALYSING – EXAMINE the traditional concept of labour welfare in the industry.<br>COSCHR02.05: EVALUATING – EXPLAIN the conditions of labour and their welfare and social security needs in the country.<br>COSCHR02.06: CREATING - ELABORATE upon the perspective of labour problems and remedial measures in the country. |   |   |                      |
|--|---|---|----------------------|
| Module No.   | Module Name                               | Details   | No. of Hours (L+T+P) |
| 1.   | Introduction - Evolution of Labor Welfare | Origin and evolution of Labour Welfare-objectives of Labour Welfare need and importance of L.W, Classification of Labour Welfare, Work agencies of Labour Welfare, Scope of Labour Welfare Concepts, philosophy and principles of labour welfare, Plans and labour policy in India and Labour Welfare in India.                       | 4+2                  |
| 2.   | Labour Legislations in India:             | Statutory Welfare Amenities – as per Factories Act, 1948, Plantation Act, 1951, Motor Act 1952, Motor Transport Act. Non-statutory welfare Agencies – Role of Trade Unions, NGOs and Local-self Govt., National Commission on Labour and Labour Welfare, Labour Laws of the Elimination of Child Labour.                              | 4+2                  |
| 3.   | Agencies of Labour welfare                | Agencies of Labour welfare in India (Central Govt., State Govt., Employers & Trade- Unions), Labour Welfare Officer: Role, Qualifications, Functions, Duties, Labour Administration in India.   | 4+2                  |
| 4.   | Industrial Hygiene & Occupational Health  | Working condition and benefits, Working conditions in the factory- safety and accident prevention, Health and hygiene, Canteen organization and management, Organization of credit and consumer co-operative societies- recreational and educational actives- workers education in India, Functions of Labour welfare officers India. | 4+2                  |
| 5.   | Problems of Indian labour                 | Problems of Women Labour, Problems of Unorganized labour, Problems of Workers education   | 4+2                  |

**Suggested Text Books:**

1. Labour Problem and Social Welfare in India, Memoria, C. B., Kitab Mahal Allahabad
2. Labour Welfare, Trade Unionism and Industrial Relation, Punekar, S. D. , Himalaya Publishing House, Bombay.

3. Labour Welfare and Social security, Kohli, A. S. and Sarma S. R., Anmol Publications Pvt. Ltd., New Delhi.
4. Child Labour in India, Misra, L., Oxford University Press, New Delhi.
5. Personnel Problems and Labour Welfare, Mathur D. C., Mittal Publication. New Delhi.

#### Suggested Reference Books:

1. Female Labour in India, Sharma Usha, Mittal Publication New Delhi
2. Aspects of Labour Welfare and Social Security, A.M.Sharma
3. Labour Problems and Social Welfare, R.C. Saxena
4. Labour economics and social welfare, Dr. B.P. Tya

| <b>Course Name: Best Practices in HRM</b>   |  |   | <b>Semester: IV</b>  |
|---|--|---|----------------------|
| <b>Course Code: SC - HR - 13</b>  |  | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSCHR13.01: REMEMBERING – DEFINE dynamic approach towards Human Resource activities and practices.</p> <p>COSCHR13.02: UNDERSTANDING – EXPLAIN theoretical framework for best practices.</p> <p>COSCHR13.03: APPLYING - IDENTIFY &amp; CLASSIFY the practices according to the industry and sub sectors of the industry.</p> <p>COSCHR13.04: ANALYSING &amp; EVALUATING - COMPARE and DETERMINE various skill sets required at Human Resource Section.</p> <p>COSCHR13.05: CREATING - PLAN a survey of various industry and DEVELOP a trend analysis of Human Resource Best Practices.</p> |  |   |                      |
| Module No.  | Module Name  | Details   | No. of Hours (L+T+P) |
| 1.  | Introduction, Definition and Meaning of various concepts in Best Practices | Defining various terminologies related to best practices. Define Generic, Idealistic, Realistic, and Green Practices in Human Resource Management. Define and evaluate the environment for the Best Practices.  | 4+1                  |
| 2.  | Introduction to Eightfold Path   | <p>Eugene Bardach Theoretical Framework (policy analysis) for Best Practices.</p> <p><b>Eightfold Path:</b> Define the problem- Assemble the evidence-Construct the alternatives-Select the criteria- Project the outcomes-Confront the trade-offs- Decide-Tell your story.</p> <p><b>Describe Generic Vulnerabilities:</b> poor general management capacity and weaknesses inherent to the practice itself</p> | 5+1                  |
|   |  | Developing required knowledge and skills across the Human Resource Section. Classify the practices  |                      |

|    |   |  |     |
|----|---|--|-----|
| 3. | Identification and Classification of Best Practices | according to the industry and sub sectors of the industry.<br>To Categorize and identify the inconsistent approach with reference to best practices in the Human Resource Sub Sections. <b>Cases on recent practices in HRM</b>  | 5+1 |
| 4  | Skill Development                                   | Introduction, Concept and Definition of Knowledge, Skill, Competency. Difference between knowledge-skill-competency. Highlight and enumerate various skill sets required for Developing Best Practices in Human Resource Sections across various industry. Importance of Skills in implementation of any practices | 4+1 |
| 5. | Construct   | One mini projects in a group of 2-4 students on Emerging Trends and Best HR Practices in areas such as HR Procurement, Training and Skill Development, Reward & Recognition, All statutory provisions under the Factories Act 1948, Employee Engagement for any organizations.                                     | 7+1 |

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

1. A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving by Eugene Bardach
2. A handbook of Human Resource Management Practice by Michael Armstrong, Kogan Page
3. Handbook for Strategic HR: Best Practices in Organization Development from the OD Network by John Vogelsang, Maya Townsend, Matt Minahan et.al. Amacom Publishing
4. Developing Skills for Business Leadership by Gillian Watson, Stefanie Reissner. Second Edition Chartered Institute of Personnel Development
- 5.

#### **Supplementary Reading Material:**

1. Human Resource Management: Best Practices at Marriott International - K Prashanth ... IBS2003
2. Framework for developing skill standards for workplace literacy.....Eunice N. Askov. Literacy Leader Fellowship Program Reports.

#### **Websites:**

1. [www.digitalhrtech.com/human-resource-best-practices](http://www.digitalhrtech.com/human-resource-best-practices)
2. [www.process.st/hr-best-practices/](http://www.process.st/hr-best-practices/)
3. [www.thehrpractice.in](http://www.thehrpractice.in)
4. [www.hrmguide.in](http://www.hrmguide.in)
5. [www.business-standard.com](http://www.business-standard.com)

#### **Journals:**

1. International Journal of Human Resource Management.

## 2. Human Resource Management Journal

## 3. Human Resource Management

| <b>Course Name: Compensation and Reward Management</b>   |   |   | <b>Semester: IV</b>  |
|--|---|---|----------------------|
| <b>Course Code: SE - HR - 14</b>   |   | <b>Credits:3</b>  | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEHR14.01: REMEMBERING – DESCRIBE concept of compensation and cost</p> <p>COSEHR14.02: UNDERSTANDING - UNDERSTAND compensation and reward management process</p> <p>COSEHR14.03: APPLYING – COMPARE issues related to compensation and survey of wages &amp; salary administration in various industries</p> <p>COSEHR14.04: ANALYSING - EXPERIMENT to calculate various types of monetary and profit-sharing incentives</p> <p>COSEHR14.05: EVALUATING – CALCULATE income tax as per the current slabs for the employees under different salary brackets</p> <p>COSEHR14.06: CREATING - FORMULATE salary structure incorporating tax saving components.</p> |   |   |                      |
| Module No.   | Module Name   | Details   | No. of Hours (L+T+P) |
| 1.   | Compensation, costs and systems                           | Concept of compensation and cost, advantages of fair compensation system, compensation policy, elements of cost, cost associated with personnel functions & causes of labour turnover. Direct & Indirect labour, cost control techniques, role of various departments & types of workers. Compensation and reward management process, components of remuneration, aspects of reward management and merits and demerits of various compensation systems. | 4+2                  |
| 2.   | Wage and salary administration                            | Definition and concepts, wage surveys, components of wages, theories of wages, wage differentials, and executive compensation plans. Wage fixation methods and its norms, applicability as per various legislation and its provisions. Elements of management compensation, salary surveys, job evaluation & its objectives.  | 4+2                  |
| 3.   | Comparisons of compensation surveys in various industries | Issues related to compensation and survey of wages & salary administration in manufacturing industry.<br>Issues related to compensation & survey of wages & salary administration in banking & service sector.  | 4+2                  |

|    |   |  |     |
|----|---|--|-----|
|    |   | Issues related to compensation and survey of wages & salary administration in IT & ITES industry.<br>Issues related to compensation and survey of wages & salary administration in Infrastructure industry.  |     |
| 4. | Incentives, reward system & pay restructuring | Meaning and determinants of incentives, wage incentives, types & forms of profit sharing, non-monetary incentives & cafeteria-style compensation. Incentive calculation process, possible inputs and outputs of incentive process, preparation of payroll/wage sheets incorporating incentive payments, disbursement and internal checks, types of non-monitory incentives and rewards, retention bonus etc. designing salary structure for start up organizations incorporating rewards and incentives. | 4+2 |
| 5. | Tax planning and payroll components           | Income from salaries, deductions from salaries, meaning of salary for different purposes, perquisites, value of rent-free accommodation. Tax planning and pay structure of today and tomorrow, compensation structure, role of compensation and rewards in modern organization, tax planning and payroll components, how to save income tax.   | 4+2 |

#### **Suggested Text Books:**

1. Compensation & Reward Management, BD Singh, Excel Books
2. Compensation, Milkovich & Newman, Tata McGraw Hill

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

1. Strategic Compensation, Joseph J. Martocchio, 3rd Edition, Pearson Education
2. Compensation Management in a Knowledge based world, Richard I. Anderson, 10th edition, Pearson Education
3. Compensation Management, Er Soni Shyam Singh, Excel Books.

#### **Websites:**

[www.vtu.ac.in](http://www.vtu.ac.in)

| <b>Course Name: e-HRM</b>   |  |  | <b>Semester: IV</b>  |
|---|--|--|----------------------|
| <b>Course Code: SC - HR - 15</b>  |  | <b>Credits:3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEHR15.01: REMEMBERING – ENUMERATE fundamental concept of HRIS</p> <p>COSEHR15.02: UNDERSTANDING – UNDERSTAND various technology driven features that can be adapted for HRM functions</p> <p>COSEHR15.03: APPLYING – DETERMINE impact of technology on HRM functions.</p> <p>COSEHR15.04: ANALYSING - ANALYSE issues regarding technology in HRM functions</p> <p>COSEHR15.05: EVALUATING &amp; CREATING- DEVELOP competencies needed to adapt technology in HRM functions</p> |  |  |                      |
| Module No.  | Module Name  | Details  | No. of Hours (L+T+P) |
| 1.  | Foundation of Human Resource information system (HRIS) | HRIS- Evolution, The Role of Information Technology, Database Concepts and Applications in Human Resource Information Systems, Systems Considerations in the Design of an HRIS: Planning for Implementation, security and privacy in HRIS, emerging trend/shift of HRIS to HRMS                          | 4+2                  |
| 2.  | e-Talent Management                                    | Introduction recruitment and technology, online recruitment objectives, recruitment strategies and social networking, selection test and assessment, technology issues in selection.   | 3+2                  |
| 3.  | e-Training   | Introduction, Computer Based Training, developing effective online learning, Blended learning, Simulations, Mobile technology and training methods, technology for training administration, technologies for training support, learning management system, choosing new technology for training methods. | 5+2                  |
| 4.  | e-Performance Management                               | Performance management and payroll- typical data inputs, reports, decision support. Compensation and benefit - typical data inputs, reports, and decision support.   | 4+2                  |
| 5.  | Practical applications                                 | Cases - Videos related to HRMS, Case studies related to use of technology in various HRM functions; problems and prospects of HRMS (5 cases)   | 4+2                  |

#### Suggested Text Books

1. Human Resource Information Systems-Basics, Application, Future and Direction by Michael Kavanagh and
1. Mohan Thite, Richard D Johnson, Sage.
2. Training and Development, Raymond Noe Amitabh Kodwani Tata Mcgraw Hill
3. Human Resource Information System by P.K.Gupta and Sushil Chaabra

#### Reference Books:

1. e HRM: Digital Approaches Directions & Applications Dr. Mohan Thite, Routledge

| Course Name: Performance Management System   |  |  | Semester: IV         |
|--|--|--|----------------------|
| Course Code: SE - HR – 16  |  | Credits: 3   | Marks: 100           |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEHR16.01: REMEMBERING – DESCRIBE key components and applicability of theories of Performance Management System</p> <p>COSEHR16.02: UNDERSTANDING – DEMONSTRATE the communication skills required when managing achievement and underachievement</p> <p>COSEHR16.03: APPLYING - IDENTIFY factors affecting Performance Measurement</p> <p>COSEHR16.04: ANALYSING - ANALYZE various tools for performance assessment</p> <p>COSEHR16.05: EVALUATING – COMPARE various organizational performance management systems and best practices.</p> <p>COSEHR16.06: CREATING - DESIGN a performance management process for an organization.</p> |  |  |                      |
| Module No.   | Module Name                            | Details  | No. of Hours (L+T+P) |
| 1.   | Introduction and Theoretical Framework | Dimensions of Performance, Performance Appraisal & Potential Appraisal, Methods of Performance Appraisal: Traditional, Modern Methods, Components of PMS. Performance Management: Planning Performance for Role Clarity, Accountability and Effectiveness. Goal Theory and its Application in Performance Management, Control Theory and its Application in Performance Management, Social Cognitive Theory and its Application in Performance Management. | 6+3                  |
| 2.   |  | Overview and Importance of Performance Management Process, Performance Management planning process, Setting objectives - Organizational and  | 6+3                  |



|    |   |   |     |
|----|---|---|-----|
|    | Process of Performance Management                     | individual performance plans - Components of Manager's performance and development plan - setting mutual expectations and performance criteria. Mid-cycle Review Process and End-cycle Review Process.  |     |
| 3. | Performance Measurement                               | Determinants of performance measurement, performance dimensions, approaches to measuring performance, diagnosing the causes of poor performance, choosing a performance measurement approach. Measuring results and behaviours, gathering performance information, implementing performance management system.  | 5+3 |
| 4. | Performance Management & Reward Systems               | Performance linked remuneration system, Types of Rewards, Designing Reward System, Total Reward Strategies, Characteristics of an Effective Performance Reward Plan. Performance Analysis, Performance Review Discussion, Using Performance Management Systems Data for HR Decisions, Performance Improvements and Performance Management Skills.                                   | 6+3 |
| 5. | Performance Management and Personal Development Plans | 60-degree feedback as a developmental tool, performance linked career planning & promotion policy, Competency Mapping as a Performance Management Tool, Balanced Scorecard and its Applications, Mentoring System, Assessment Centres, role of technology in PMS, Performance Management Practices Of Different Companies (One example of National and International Company each). | 7+3 |

**Suggested Text Books:**

1. Performance Management: The New Realities by Michael Armstrong & Angela Baron, Jaico Publishing House, New Delhi, Latest Edition
2. Appraising and Developing Managerial Performance by TV Rao Learning Systems Pvt. Limited, Excel Books, Latest Edition
3. Performance Management, Systems and Strategies by Bhattacharyya, Dipak Kumar. 1/e; New Delhi: Pearson, Latest Edition

**Suggested Reference Books:**

1. Corporate Performance Management by David Wade and Ronad Recardo, Butter Heinemann, New Delhi, Latest Edition
2. Performance Management by A.S. Kolhi & T. Deb,
3. Performance Management Systems by A.M. Sharma
4. Performance Management: Toward Organizational Excellence by T. V. Rao Latest Edition
5. Prem Chadha (2011). Performance Management, 1/e; New Delhi: McMillan
6. Henderson : Compensation Management in a Knowledge Based World 9/e Pearson Education.

**Web links:**

1. [www.managementstudyguide.com](http://www.managementstudyguide.com)
2. [www.shrm.org](http://www.shrm.org)
3. [www.whatishumanresource.com](http://www.whatishumanresource.com)
4. [www.valamis.com](http://www.valamis.com)
5. [www.wayshrconsulting.co](http://www.wayshrconsulting.co)

| Course Name: Change Management & new technologies in HRM  |  |  | Semester: IV         |
|---|--|--|----------------------|
| Course Code: SE - HR – 17   |  | Credits: 3   | Marks: 100           |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEHR17.01: REMEMBERING - DEFINE Change Management and its significance</p> <p>COSEHR17.02: UNDERSTANDING – UNDERSTANDING change management model and practices</p> <p>COSEHR17.03: APPLYING - APPLY Change Management in context to digital transformation</p> <p>COSEHR17.04: ANALYSING &amp; EVALUATING - EXAMINE and DETERMINE various concepts in human resource information system</p> |  |  |                      |
| Module No.  | Module Name                                  | Details  | No. of Hours (L+T+P) |
| 1.  | Introduction to Change Management            | Definition- change, how people experience change? change as a natural process, seven phases of change, types of change, importance and causes of change- social, economic, technological, organizational, Change Management Process, strategies to implement change in organization. | 4+1                  |
| 2.  | Model of Change Management                   | ADKAR change management model, principle of change management, 7 Rs of change management, challenges in change management, best practices in change management, how to adapt change during disaster.   | 5+1                  |
| 3.  | Change Management and Digital Transformation | Meaning - digital transformation, elements of digital transformation, stages of digital change management, management strategies for digital transformation, current trends in change management in context to digital transformation.   | 5+1                  |

|    |                                    |  |     |
|----|------------------------------------|--|-----|
| 4  | Human Resource Information Systems | Information Security and Privacy in Human Resource Information Systems, The Future of Human Resource Information Systems: Emerging Trends in Human Resource Management and Information Technology. | 6+1 |
| 5. | Executing Change                   | Challenges of execution, why does change Succeed / Fail? Minimum two case studies one each of successful execution and one of failure.   | 5+1 |

### **Suggested Text Books:**

1. Change Management by Andrew Pettigrew and Richard Whipp Infinity Books
2. Human Resource Information Systems- Basics, Application, Future and Direction by Dr. Michael Kavanagh and Dr. Mohan Thite

### **Suggested Reference Books:**

3. Change and Knowledge Management by B. Janakiram, P. V. Ravendra, Shubha Murlidhar Published by biztantra
4. Change Management by Robert a Paton and James McCalman, Sage Publication, 3rd Edition
5. Human Resource Information System by P. K. Gupta and Sushil Chaabra

### **Websites:**

1. [www.changedynamix.com](http://www.changedynamix.com)
2. [www.oursouthwest.com/SusBus/mggchange.html](http://www.oursouthwest.com/SusBus/mggchange.html)
3. <http://smallbusiness.chron.com/advantages-disadvantages-human-resourceinformation-system-2107.html>
4. [www.cmswire.com/digital-workplace/change-management-the-key-to-successful-digital-transformations](http://www.cmswire.com/digital-workplace/change-management-the-key-to-successful-digital-transformations)
5. [www.a-connect.com/knowledge/change-management-in-times-of-disruption-and-digital-transformation](http://www.a-connect.com/knowledge/change-management-in-times-of-disruption-and-digital-transformation)

### **Journals:**

1. Journal of Organizational Change Management
2. International Journal of Human Resource Management
3. International Journal of Human Resource Management
4. Human Resource Management Journal
5. Human Resource Management

| <b>Course Name: Designing HR Policies</b>  |   |   | <b>Semester: IV</b>  |
|--|---|---|----------------------|
| <b>Course Code: SE - HR - 18</b>   |   | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEHR18.01: REMEMBERING - IDENTIFY important points to be incorporated in HR Manual</p> <p>COSEHR18.02: UNDERSTANDING –UNDERSTAND policy requirement for Recruitment &amp; Selection process</p> <p>COSEHR18.03: APPLYING - PREPARE policies on employee benefits for an organization of your choice</p> <p>COSEHR18.04: ANALYSING – ILLUSTRATE steps involved in better employee relations &amp; grievance handling</p> <p>COSEHR18.05: CREATING- CONSTRUCT various HR policies for an organization of your choice</p> |   |   |                      |
| Module No.   | Module Name                                       | Details   | No. of Hours (L+T+P) |
| 1.   | Introduction on the Content and Use of the Manual | Introduction of company (History, Vision, Mission, Organizational Hierarchy), Objectives and Significance of HR Policies, right to change or discontinue Statement of Commitment to Employees, Statement of Growth, profit a Policies, Confidentiality of Company Information, Steps in Designing HR Policies .and Business plan, Employment                    | 4+1                  |
| 2.   | Recruitment and Hiring Policies                   | Policies for Manpower Planning, Employment Contracts/Bonds, Drafting different forms (Letters, Bonds, Contract Form, Interview Guideline Sheet, Checklist), Procedures in Administering Contracts, Wage / Salary and Benefits, Administration Policy, Rules relating to Wages / Salary and Legal Compliances, Compensation and other Benefit Policies.          | 5+1                  |
| 3.   | Employee Operational Policies                     | Monetary and non-monetary benefits, Leave and vacation policy and administration with records, Policy for Employee Incurred Expenses and Reimbursement, Policy for Career Enhancement, Policy for Appraisals and Promotions, Policy for Succession Planning, Training and Development Corporate Policy, Training Contract, Training Evaluation (Related Forms). | 5+1                  |
|  |   | Employee Records and information (Profile, History of Employee i.e. Transfer, Promotion, Accountability, Performance, Upgradation of Skill  |                      |

|    |                             |   |     |
|----|-----------------------------|---|-----|
| 4. | Conduct and Safety Policies | etc.), Policy of Code of Conduct & Discipline and Rules & Administration Policies, Rules relating to company properties, Safety and Security Employee Grievances policies and procedure, Draft of Disciplinary action report, Related Provisions and Case Study (Any Grievance case). | 4+1 |
| 5. | Field study/ Desk Research  | Student are expected to design HR manual for any company and develop various statutory forms (Submit spiral bound copy as a project for 25 marks - Wherever Possible real time or model organization)   | 7+1 |

#### **Suggested Text Books:**

1. How to Develop Essential HR Policies and Procedures, by John H. McConnell Amacom, Div American Mgmt. Association, Volume 1 Human Resource Management, Deepak Bhattacharya, Sage Publishing Ltd.
2. Florida Employment Law Manual (HR Compliance Library) Paperback – Import, 22 Mar 2016 by Jennifer Saltz Bullock (Author), Jeff O'Connell (Editor)
3. The: An Indispensable Guide for Managers and Human Resources Professionals by S. Smith, R. Mazin
4. Human Resource Management: Gary Dessler
5. Guide on Labour & Human Resources, Management Forms & Precedents (Law Practice & Procedure), Snow White.
6. Human Resource Policies and Procedures for Nonprofit Organizations by Carol L. Barbeito, John Wiley & Sons, Latest Edition.

#### **Reference Books:**

1. How to Develop Essential HR Policies and Procedures, by John H. McConnell Amacom, Div American Mgmt. Association, Volume 1
2. Guide on Labour & Human Resources, Management Forms & Precedents (Law Practice & Procedure), Snow white
3. Human Resource Policies and Procedures for Non-profit Organizations by Carol L. Barbeito, John Wiley & Sons, Latest Edition

#### **Websites:**

1. [http://www.chillibreeze.com/articles\\_various/HR-policies-in-India.asp](http://www.chillibreeze.com/articles_various/HR-policies-in-India.asp).
2. <http://toostep.com/debate/are-hr-policies-of-indian-companies-employee-friendly>.
3. [https://en.wikipedia.org/wiki/Human\\_resource\\_policies#Development](https://en.wikipedia.org/wiki/Human_resource_policies#Development), human\_resource\_policies.pdf
4. <https://www.hrhelpboard.com/hr-policies.htm>
5. <https://vpssc.vic.gov.au/html-resources/how-positive-is-your-work-environment/6-human-resource-policies-and-strategies>

**Journals:**

1. International Journal of Human Resource Management
2. Human Resource Management Journal

| <b>Course Name: Mentoring and Coaching</b>   |   |   | <b>Semester: IV</b>  |
|--|---|---|----------------------|
| <b>Course Code: SE - HR - 19</b>   |   | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEHR19.01: REMEMBERING – ENUMERATE various concepts of Mentoring and Coaching.</p> <p>COSEHR19.02: UNDERSTANDING – UNDERSTAND techniques of Mentoring and Coaching.</p> <p>COSEHR19.03: APPLYING - APPLY models of Mentoring and Coaching to real world Scenarios.</p> <p>COSEHR19.04: ANALYSING - ANALYSE issues in Mentoring and Coaching.</p> <p>COSEHR19.05: EVALUTING &amp; CREATING - DEVELOP skills needed to become Mentor, Coach.</p> |   |   |                      |
| Module No.   | Module Name                                     | Details   | No. of Hours (L+T+P) |
| 1.   | Foundation of Mentoring                         | Meaning of mentoring, Need and benefit of mentoring, Characteristics of effective mentor, Process of mentoring, Ethical issues, and barriers in mentoring (Personal, Organization, and Environmental), Creating coaching mentoring culture  | 4+2                  |
| 2.   | Foundation of Coaching                          | Meaning of coaching, Need and benefit of coaching, Principles of Coaching, Process of coaching, Difference between coaching and mentoring, Ethical issues and barriers to coaching  | 3+2                  |
| 3.   | Models and Approaches                           | GROW model, CLEAR and PRACTICE model, FUEL Model, Kolbs experiential learning model. Types of Mentoring-Partner model/one to one mentoring, Distance/Virtual mentoring, Group mentoring, Approaches to coaching- Cognitive behavioral coaching, solution and goal focused coaching, Narrative coaching, Alignment coaching, Positive psychology and strength coaching, systems coaching, life coaching. | 5+2                  |
| 4.   | Skills and Techniques of Coaching and Mentoring | Core Skills- Trust, Rapport, Observation, Listening, Questioning, Supporting. Techniques- Building trust, Active listening, asking open-ended questions, Effective goal-setting, encouraging an outcome focus, giving   | 4+2                  |

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|    |                                       | constructive feedback, Strengths-spotting.   |     |
| 5. | Practical Application/ Implementation | Mentoring and coaching related Mini project by a team of 2-4 students and Case studies related to Mentoring and Coaching in Manufacturing sector and Service sector. (4 cases) | 4+2 |

### **Suggested Text Books:**

1. Coaching & Mentoring by Jane Renton, Profile Books Ltd.
2. Coaching, Mentoring and Managing, A coach guidebook by Micki Holliday, The Career Press, Inc.
3. Coaching and mentoring by Nigel MacLennan, Routledge
4. Coaching and Mentoring for Business by Grace McCarthy, Sage Publication
5. 5Techniques for Coaching and Mentoring by David Megginson & David Clutterbuck
6. 6.50 Activities for Coaching/Mentoring by Donna Berry, Charles Cadwell, Joe Fehrmann, HRD Press Inc

### **Reference Books:**

1. Coaching and Mentoring, Harvard Business School Press
2. Making Mentoring Happen by Kathy Lace, Business & Professional Publishing Pvt. Ltd.
3. Coaching, Counseling & Mentoring by Florence M. Stone, AMACOM, 1601 Broadway, New York.
4. Coaching and Mentoring Theory and Practice by Robert Garvey, Paul stokes, David Megginson, Sage Publication

### **Websites:**

[www.coachingnetwork.org.uk](http://www.coachingnetwork.org.uk)

<http://www.tobincls.com/mentoring.htm>

<http://www.coachingandmentoring.com/Articles/mentoring.html>

<https://positivepsychology.com/coaching-skills-techniques/>

<https://clevermemo.com/blog/en/effective-coaching-techniques/>

[http://www.ufba.org.nz/images/documents/2015\\_UFBA\\_Workshop\\_Coaching\\_and\\_Mentoring\\_Skills.pdf](http://www.ufba.org.nz/images/documents/2015_UFBA_Workshop_Coaching_and_Mentoring_Skills.pdf)

[https://my.lerner.udel.edu/wpcontent/uploads/Skills\\_for\\_Sucessful\\_Mentoring.pdf](https://my.lerner.udel.edu/wpcontent/uploads/Skills_for_Sucessful_Mentoring.pdf)

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|---|---------------------|
| <b>Course Name: Employee Engagement and Ownership</b> | <b>Semester: IV</b> |
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| Course Code: SE - HR - 20  |                                | Credits: 3   | Marks: 100           |
|--|--------------------------------|--|----------------------|
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEHR20.01: REMEMBERING – IDENTIFY the basic concepts of Employee Engagement and Employee Ownership.</p> <p>COSEHR20.02: UNDERSTANDING – UNDERSTANDING the various factors, models and metrics involved in Employee engagement.</p> <p>COSEHR20.03: APPLYING – DETERMINATION of various Employee Engagement Activities and types of Employee Ownership practiced in all scales of companies at various sectors.</p> <p>COSEHR20.04: ANALYSING - IMPLEMENTATION of Engagement strategies and BUILDING Engagement Culture in companies.</p> <p>COSEHR20.05: EVALUATING – EVALUATION of Employee engagement and Employee Ownership and its impact on the performance of businesses.</p> <p>COSEHR20.06: CREATING - APPLICATION of Employee engagement practices and Employee Ownership at various sectors of industry.</p> |                                |  |                      |
| Module No.   | Module Name                    | Details  | No. of Hours (L+T+P) |
| 1.   | Employee Engagement            | Concept and Evolution, Definition, Need, Importance, factors of employee engagement, Creating Collective Vision Mission and Goal, Advantages from Employee Engagement, Engagement Models – Fixed Price, Time Material, Dedicated Team, Building your own workspace model.  | 5+1                  |
| 2.   | Developing Employee Engagement | Understanding Self Determination Theory, identifying employee engagement outcomes, Elements in designing Employee Engagement Activities -Creating Well-Defined Job Roles, Educating Employees for Engagement, Fostering Personal Connections, Communicating Objectives and Activities for Employee Engagement, Levels of Engagement, Building Engagement-Engagement culture, Barriers to Employee Engagement - Ineffective Communication, Ineffective Leadership, Workplace frustration. | 6+1                  |
| 3.   | Measuring Employee Engagement  | Stages of Employee Engagement, Ways to measure Employee Engagement, Steps to measure Employee Engagement effectively, Critical Issues in measurement of Employee engagement, Myths about Employee Engagement, Metrics to measure Employee Engagement- Feedback from employees, Relationship with colleagues, Satisfaction & Happiness, Relationship with Leaders, Career Advancement, Rewards & Recognition, Goal Coalition, Welfare and Wellness, Employee as a Branding Agent.         | 5+1                  |



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| 4. | Employee Ownership                 | Significance of Employee Ownership, Traits of Employee Ownership, Impact of Employee Ownership, Relationship of Employee Ownership with Productivity, Organizational Commitment and Retention.   | 4+1 |
| 5. | Application of Employee Engagement | Through Job Design, Role Autonomy, Organizational Citizenship and Discretionary behaviour, Desk Research of various Engagement initiatives and Tools to measure Employee engagement in various sectors, Develop and Design Employee Engagement Plan. | 5+1 |

### Suggested Text Books:

1. Paul L. Marciano Latest Edition, Carrots and Sticks Don't Work: Build a Culture of Employee Engagement with ... by, McGraw Hills
2. Scott Carbonara Latest Edition, Manager's Guide to Employee Engagement, McGraw Hills.
3. Emma Bridger Latest Edition, Employee Engagement: A Practical Introduction, 2nd Edition, Kogan Page Limited.
4. Bob Kelleher Latest Edition, Employee Engagement for Dummies, John Wiley and sons Inc.
5. Robert Postlethwaite, Jeremy Gadd, The Employee Ownership Manual, Spiramus Press Ltd.

### Online References:

1. <https://www.achievers.com/blog/8-elements-employee-engagement>
2. <https://www.business2community.com/infographics/a-complete-guide-to-understanding-different-kinds-of-engagement-models-infographic-02156114>
3. <https://officevibe.com/employee-engagement-solution/guide>
4. <https://officevibe.com/blog/why-employee-engagement-is-hard-to-quantify>
5. <https://builtin.com/employee-engagement/how-to-measure-employee-engagement>
6. <https://snacknation.com/blog/measuring-employee-engagement/>
7. <https://www.zenefits.com/workest/how-small-businesses-give-employees-ownership>

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| <b>Course Name: - Supply Chain Management</b>  |                  | <b>Semester -IV</b> |
| <b>Course Code-SC - OPE – 02</b>   | <b>Credits-3</b> | <b>Marks-100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p><b>COSCOPE 02.01: REMEMBERING – DESCRIBE</b> the key concepts of Supply Chain Management and the – driving forces in contemporary Supply Chain Management.</p> <p><b>COSCOPE 02.02: UNDERSTANDING – EXPLAIN</b> the structure of modern-day supply chains.</p> <p><b>COSCOPE 02.03: APPLYING – IDENTIFY</b> the various flows in real world supply chains.</p> <p><b>CO SCOPE 02.04: ANALYSING - COMPARE and CONTRAST</b> push and pull strategies in Supply Chain Management.</p> <p><b>COSCOPE 02.05: EVALUATING – EXPLAIN</b> the key Operational Aspects in Supply Chain Management.</p> |                  |                     |

**COSCOPE 02.06: CREATING - DISCUSS** the relationship between Customer Value and Supply Chain Management.

| <b>Module No.</b> | <b>Module Name</b>            | <b>Details</b>  | <b>No. of Hours (L+T+P)</b> |
|-------------------|-------------------------------|---|-----------------------------|
| 1.                | <b>Supply Chain Structure</b> | Shift from enterprise to network, Structure of a SC, Push based SC, Pull based SC, Tradeoff between Push & Pull, Identifying appropriate Push & Pull Strategy for SC, Commodity & cost centric SC, Agile SC   | (7+2)                       |
| 2.                | <b>Flows in SC</b>            | Forward & Reverse SC, Product, Services, Information, Funds, Demand, Forecast flows in Upstream & Downstream direction.   | (7+2)                       |
| 3.                | <b>Total SCM</b>              | Changing business landscape – driving forces: Shift from Operations to Services, Impact of globalization & technological revolution, Shift from linear SC to collaborative networks, power shifts in the SC- demands for flexibility of partnerships, core competencies, growth in outsourcing, Increased complexity of processes.  | (7+2)                       |
| 4.                | <b>SCM Building Blocks</b>    | Overview of customer focus & demand, resources & capacity management, procurement & supplier focus, inventory management, operations management, distribution management in SCM. Key Operational Aspects in SC: Creating the Lean SC – JIT Purchasing, JIT Transportation and JIT Production. Kanban, VMI.  | (7+2)                       |
| 5.                | <b>Customer Value</b>         | Empowered consumer, Customer focused Marketing & SC service outputs, customer service – availability, operational performance, reliability. Customer satisfaction – customer expectations, enhancing customer satisfactions, limitations of customer satisfaction. Customer success – achieving customer success, value added services customer value requirement mapping, CRM. | (7+2)                       |

**Suggested Textbooks:**

1. Supply Chain & Logistics Management, Bowersox, Closs & Cooper, Tata McGraw Hill
2. Designing & Managing the SC – Concepts, Strategies & Case studies, Levi, Kaminsky et. al., Tata McGraw Hill
3. Supply Chain Management: Strategy Planning & Operations, Sunil Chopra, Peter Meindl,

**Suggested Reference Books:**

1. Supply Chain Management Process, System & Practice, N.Chadraseskaran, Oxford
2. Total Supply Chain Management, Basu & Wright, Elsevier
3. Logistics Management & Strategy, Harrison and van Hoek, Prentice Hall
4. Supply Chain Management, Mentzer, Response Books.
5. Logistics Management: The Supply Chain Imperative, Vindo Sople, Pearson Education.

| <b>Course Name: Industry 4.0</b>   |   |  | <b>Semester: IV</b>  |
|--|---|--|----------------------|
| <b>Course Code: SE-OPE-13</b>  |   | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <b>COURSE OUTCOMES: After completion of this course the students will be able to</b><br><b>COSEOPE13.01: REMEMBERING – DEFINE</b> industrial revolutions and its different aspects.<br><b>COSEOPE13.02: UNDERSTANDING – EXPLAIN</b> the role of technology pillars of Industry 4.0<br><b>COSEOPE13.03: APPLYING – DEMONSTRATE</b> the use of data in effective decision making.<br><b>COSEOPE13.04: ANALYSING - ILLUSTRATE</b> the need of cyber physical system for sustainable competitive advantage.<br><b>COSEOPE13.05: EVALUATING – EXPLAIN</b> the challenges faced by various industries in full fledge implementation of Industry 4.0<br><b>COSEOPE13.06: CREATING - DEVELOP</b> a framework for any organization using base of Smart Industry Readiness Index Proposed by Singapore EDB |   |  |                      |
| Module No.   | Module Name   | Details  | No. of Hours (L+T+P) |
| 1.   | <b>Decoding Various Aspects of Industrial Revolutions</b> | The 4th Industrial Revolution: The Various Industrial Revolutions, Japanese vs. Western approach for manufacturing excellence, Introduction to Industry 4.0, Overview on Mechatronics, Sensing and Actuation, Communication and Networking, Digitalization and the Networked Economy, Drivers, Enablers, Compelling Forces and Challenges for Industry 4.0, The Journey so far: Developments of Industry 4.0 in developed countries. Comparison of Industry 4.0 Factory and Today's Factory, Developments in Industrial revolution, its impact on governments, businesses, civil society and individuals, and offers bold ideas. | 7+1                  |
| 2.   | <b>Way to Fourth Industrial Revolution:</b>               | Features and uniqueness of the Cyber-physical Systems, Introduction to Pillars of Industry 4.0, Collaborative Platform and Product Lifecycle Management, Manufacturing as a Administration, Horizontal and Vertical Integration. Smart Factory, Smart Manufacturing, Smart Devices and Products, Smart Logistics, Smart Cities. Internet of Things (IoT) & Industrial Internet of Things (IIoT) and Introduction to IIoT layers, Overview oF   | 8+2                  |

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|    |   | Reference Architectural Model Industrie 4.0 (RAMI 4.0), Internet of Services.  |     |
| 3. | <b>Data and Analytics</b>                     | Resource-based view of a firm and importance of data as a new resource for organizations, Big data analytics (BDA) and significance of V's of big data. Overview of Software Defined Network (SDN), Harnessing and sharing knowledge in organizations, Four types of Analytics: Descriptive, Diagnostics, Predictive, and Prescriptive Analytics, Artificial Intelligence, Cloud Computing Basics.   | 7+2 |
| 4. | <b>Ecosystems for Industry 4.0</b>            | Robots and Cobots, Mobile Computing, Supporting Systems and related disciplines for I4.0 such as Augmented Reality, Virtual Reality and Mixed Reality, Additive Manufacturing, Automated Guided Vehicle (AGV), Cyber Security  | 7+2 |
| 5. | <b>Challenges, Preparedness and Use Cases</b> | Opportunities and Challenges, Future of Work system and skill requirements, Leadership for Industry 4.0, Strategies for competing in an Industry 4.0 era, Introduction to Smart Industry Readiness Index (SIRI), Overview of Society 5.0. Other Applications and Case Studies Industry 4.0 laboratories (CII 4.0), IIoT case studies across world: Sector-wise and/or Function-wise e.g. Healthcare, Automobile, Banking, Power etc. or Inventory Management, Quality Control, Plant Safety and Security, Facility Management etc. (Minimum 1) | 7+2 |

#### **Suggested Text Books:**

1. The Fourth Industrial Revolution, by Klaus Schwab, Portfolio Penguin
2. Industry 4.0: The Industrial Internet of Things, by Alasdair Gilchrist
3. Industry 4.0: Entrepreneurship and Structural Change in the New Digital Landscape (Studies on Entrepreneurship,
1. Structural Change and Industrial Dynamics), by Tesseleno Devezas, Joao Leitao, Askar Sarygulov, Springer International Publishing
4. "Industrial Internet of Things: Cyber manufacturing Systems" by Sabina Jeschke, Christian Brecher, Houbing Song, Danda B. Rawat (Springer)

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

1. Analysing the Impacts of Industry 4.0 in Modern Business Environments, by Richard Brunet-Thornton and Felipe Martinez, IGI Global

2. The 4th Industrial Revolution: Responding to the Impact of Artificial Intelligence on Business, Book by Felix Hovsepian and Mark Skilton
3. Industry X.0: Realizing Digital Value in Industrial Sectors, by Eric Schaeffer, Kogan Page
4. Analysing the Impacts of Industry 4.0 in Modern Business Environments, Felipe Martinez; Richard Brunet-Thornton IGI Global

| <b>Course Name: Six Sigma for Operations</b>   |   |  | <b>Semester: III</b> |
|--|---|--|----------------------|
| <b>Course Code: SE-OPE-14</b>  |   | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <b>COURSE OUTCOMES: After completion of this course the students will be able to</b><br><b>COSEOPE14.01: REMEMBERING</b> – DESCRIBE the Key Concepts and Definitions associated with Quality Management, Six Sigma and Process of Six Sigma<br><b>COSEOPE14.02: UNDERSTANDING</b> – SUMMARIZE the six-sigma philosophy along with understanding of 7 QC Tools.<br><b>COSEOPE14.03: APPLYING</b> – PREDICT the change due to Six Sigma Implementation and Application of Six Sigma tools in new settings<br><b>COSEOPE14.04: ANALYSING</b> - APPRECIATE use of Six Sigma for services performance improvement and strengthening the Organizational Structures<br><b>COSEOPE14.05: EVALUATING</b> –DECIDE control chart to use for given set of data and ROSS (Return on Six Sigma)<br><b>COSEOPE14.06: CREATING</b> - CREATING a Case for Business Models in Different Industries/Proposing a Strategy by Studying the cases of Successful Six Sigma Implementation |   |  |                      |
| Module No.   | Module Name                               | Details  | No. of Hours (L+T+P) |
| 1.   | <b>Introduction to Lean Six Sigma</b>     | History of Quality (Key Concepts by Quality Guru- Deming, Juran, Crosby Ishikawa, Taguchi etc.), History of Continuous Improvement, Evolution of Six Sigma, Defining Six Sigma – philosophy and objectives, Six Sigma Principles and Focus Area, Value of Six Sigma. DMAIC Process   | 5+1                  |
| 2.   | <b>DEFINE and MEASURE PHASE: DEFINE -</b> | Six Sigma Project Identification, Selection and Definition, Project Charter and Monitoring, Process characteristics and analysis, Process Mapping: SIPOC- Suppliers – Inputs – Process – Outputs – Customers. MEASURE - Data Collection and Summarization, Measurement systems: Fundamentals, Accuracy, Precision, Discrimination, R&R Studies, Linearity, Process Stability, Fundamentals of statistics: Probability theory. Process capability analysis: Key Concepts, Measures and Indices, Non-normal process capability analysis, | 5+1                  |
|  |   | Hypothesis testing: Fundamentals, Single Population Test, Two Population Test. Correlation and Regression  | 5+1                  |

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| 3. | <b>ANALYZE and IMPROVE PHASE: ANALYZE</b>   | Analysis, Regression Analysis: Model Validation. Introduction to One-Way ANOVA, Two-Way ANOVA, Multi-vari Analysis, Failure Mode Effect Analysis (FMEA) IMPROVE - Introduction to Design of Experiment, Randomized Block Design, Factorial Design, Fractional Factorial Design, Taguchi Method: Key Concepts and Illustrative Application.  |     |
| 4. | <b>CONTROL PHASE</b>                        | Seven QC Tools, Statistical Process Control: Key Concepts, Control Charts for Variables, Operating Characteristic (OC) Curve for Variable Control charts. Statistical Process Control: Control Charts for Attributes, Operating Characteristic (OC) Curve for Attribute Control charts. Acceptance Sampling: Key Concepts, Design of Acceptance Sampling Plans for Attributes, Design of Acceptance Sampling Plans for Variables, Return on Six Sigma – ROSS. | 5+1 |
| 5. | <b>Six Sigma Implementation Challenges:</b> | Design for Six Sigma (DFSS): DMADV, DMADOV, DFX Six Sigma Team Management: Composition and Layers, Six Sigma: Case study and Applications, Overview of Lean Six Sigma, Critical Success Factors in Implementation of Six Sigma.   | 5+1 |

**Suggested Text Books:**

1. Daniel J. Zrymiak Govindarajan Ramu Roderick A. Munro, The Certified Six Sigma Green Belt Handbook
2. Hemant Urdhwarsh, Six Sigma for Business Excellence: Approach, Tools and Applications, Pearson Education
3. Mitra, Amitava, Fundamentals of Quality Control and Improvement, Wiley India Pvt Ltd

**Suggested Reference Books:**

1. T. M. Kubiak and Donald W. Benbow, The Certified Six Sigma Black Belt Handbook, Pearson Publication.
2. Montgomery, D C. Statistical Quality Control: A modern introduction, Wiley.
3. Forrest W. Breyfogle III, Implementing Six Sigma, John Wiley & Sons.
4. Evans, J R and W M Lindsay, An Introduction to Six Sigma and Process Improvement, CENGAGE Learning.
5. Howard S. Gitlow and David M. Levine, Six Sigma for Green Belts and Champions, Pearson Education, Inc. Montgomery, D C. Design and Analysis of Experiments, Wiley. Larson, Alan, Demystifying Six Sigma: A Company–Wide Approach to Continuous Improvement, American Management Associat

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|---|--|--|----------------------|
| <b>Course Name: Toyota Production System</b>  |  | <b>Semester: III</b>   |                      |
| <b>Course Code: SE-OPE-15</b>   | <b>Credits: 3</b>                          | <b>Marks: 100</b>  |                      |
| COURSE OUTCOMES: After completion of this course the students will be able to   |  |  |                      |
| <b>COSEOPE15.01:</b> REMEMBERING – DESCRIBE 14 principles of the Toyota Way.  |  |  |                      |
| <b>COSEOPE15.02:</b> UNDERSTANDING – RELATE the TPS with other business situations.   |  |  |                      |
| <b>COSEOPE15.03:</b> APPLYING - IMPLEMENT TPS principles to a real-life situation.  |  |  |                      |
| <b>COSEOPE15.04:</b> ANALYSING - EXAMINE the application of TPS principles in a service or manufacturing unit/ organization |  |  |                      |
| <b>COSEOPE15.05:</b> EVALUATING – DESIGN a process for executing Improvement Initiatives at workplace.                      |  |  |                      |
| <b>COSEOPE15.06:</b> CREATING - BUILD an organization culture to foster continuous improvement                              |  |  |                      |
| Module No.  | Module Name                                | Details  | No. of Hours (L+T+P) |
| 1.  | <b>The Toyota Way</b>                      | Using Operational Excellence as a Strategic Weapon. Toyota Production System Vs Lean Production, what does it actually mean by getting Lean, The Heart of the Toyota Production System - Eliminating Waste, Production, what does it actually mean by getting Lean, The Heart of the Toyota Production System - Eliminating Waste, | 5+1                  |
| 2.  | <b>The 14 Principles of the Toyota Way</b> | An executive summary of the culture behind TPS, Toyota Way in action, Long Term Philosophy, creating continuous process flow, Pull system to avoid over production.  | 5+1                  |
| 3.  |  | Levelling Workload (Heijunka), Getting quality right the first time, Standardization of the task, Use of Visual Control, Use of reliable technology.   | 5+1                  |
| 4.  | <b>Leadership</b>                          | Role of Leaders in Manufacturing Philosophy, Development of Exceptional Teams, Challenging and respecting extended networks, see yourself to understand the situation, Developing decisions with consensus.  | 5+1                  |
| 5.  | <b>Organizational Aspects:</b>             | Become a learning organization, Continuous Improvement, Using the Toyota Way to transform organizations, Lean Manufacturing, Lean, Agile and Sustainable Manufacturing.  | 5+1                  |

**Suggested Text Books:**

1. The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer by Jeffrey K. Liker McGraw- Hill

**Suggested Reference Books:**

1. The Toyota Kaizen Continuum: A Practical Guide to Implementing Lean by John Stewart, Taylor and Francis Group
2. The Toyota Way Field Book A Practical Guide for Implementing Toyota's 4 Ps by Jeffrey K. Liker and David Meier, Tata McGraw-Hill Edition

| <b>Course Name: Supply Chain Strategy</b>   |   |   | <b>Semester: IV</b>  |
|---|---|---|----------------------|
| <b>Course Code: SE-OPE-16</b>   |   | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p><b>COSEOPE16.01: REMEMBERING – DEFINE</b> basic terms and concepts related to Strategy, Supply Chain</p> <p><b>COSEOPE16.02: UNDERSTANDING – EXPLAIN</b> the SC Components and Processes</p> <p><b>COSEOPE16.03: APPLYING - ILLUSTRATE</b> the importance of SC strategies on competitive advantage.</p> <p><b>COSEOPE16.04: ANALYSING - OUTLINE</b> a typical Supply Chain Model for a product / service and <b>ILLUSTRATE</b> the linkages of strategies with real time issues using Information Technology</p> <p><b>COSEOPE16.05: EVALUATING – EVALUATE</b> and <b>EXPLAIN</b> impact of strategic decisions on SC</p> <p><b>COSEOPE16.06: CREATING - FORMULATE</b> and <b>DISCUSS</b> a model for SCM strategies</p> |   |   |                      |
| Module No.  | Module Name   | Details   | No. of Hours (L+T+P) |
| 1.  | <b>SC and Business Strategy</b>                           | Understanding Strategy and SC, Objectives of SC, decision phases, process strategies Generic strategies in SC – Competitive & SC strategies, Strategies for SC--fit-demand based, commodity based, cost centric. Strategies to deal with uncertainty, Competitive advantage through SC Strategies.  | 5+1                  |
| 2.  | <b>Supply Chain Strategies -- Planning and scheduling</b> | Demand forecasting – Role of forecasting in SC, Components of forecasting, Forecasting models, Aggregate planning- Inventory, Transportation, Pricing, Information, Internal logistics, Transportation using LP (numerical). Sales and Operation planning – responsiveness of predictive variables, sales planning at real time. Scheduling in SC – impact, obstacles, tactics, importance. | 5+1                  |
| 3.  | <b>SC Strategy and Distribution Network</b>               | SC Strategy--Supplier Strategy, Operations Strategy, Logistics Strategy. Designing distribution networks – Factor affecting distribution, Framework, online sales, Omni-channel retailing, different network models for designing, identifying and allocating. Global SC networks – impact, importance, risk management in SC.  | 5+1                  |
|   |   | Financial measures - Cost of raw materials, Revenue from goods sold.,   |                      |



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| 4. | <b>Performance measures in SC Strategy:</b>   | Activity-based costs like the material handling, manufacturing, assembling rates etc. Inventory holding costs, Transportation costs, Cost of expired perishable goods, Penalties for incorrectly filled or late orders delivered to customers, Credits for incorrectly filled or late deliveries from suppliers, Cost of goods returned by customers, Credits for goods returned to suppliers. Non – Financial measures - Cycle Time, Customer Service Level, Inventory Levels. Resource Utilization. | 5+1 |
| 5. | <b>SC Strategy and Information Technology</b> | SC Strategies and Information Technology, Role of IT in SC, Application of strategies in retail and healthcare, Building SC models using Excel, Agile vs Lean strategies, LeAgile supply chain management strategy, Green SCM, Future trends in SC.   | 5+1 |

#### Suggested Text Books:

1. Supply Chain Management: Strategy Planning & Operations, Sunil Chopra, Peter Meindl, Pearson
2. Supply Chain & Logistics Management, Bowersox, Closs & Cooper, Tata McGraw Hill
3. Designing & Managing the SC – Concepts, Strategies & Case studies, Levi, Kaminsky et. al., Tata McGraw Hill

#### Suggested Reference Books:

1. Logistics Management & Strategy, Harrison and van Hoek, Prentice Hall
2. Total Supply Chain Management, Basu & Wright, Elsevier
3. Logistics Management: The Supply Chain Imperative, Vindo Sople, Pearson Education
4. Supply Chain Management, Mentzer, Response Books.

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|---|-------------------|---------------------|
| <b>Course Name: World Class Manufacturing</b>   |                   | <b>Semester: IV</b> |
| <b>Course Code: SE-OPE-17</b>   | <b>Credits: 3</b> | <b>Marks: 100</b>   |
| <p><b>COURSE OUTCOMES: After completion of this course the students will be able to</b></p> <p><b>CO SE OPE 17.01: REMEMBERING</b> - DEFINE the basic terms associated with Manufacturing Excellence and World Class Manufacturing.</p> <p><b>CO SE OPE 17.02: UNDERSTANDING</b> – SUMMARIZE the features of various frameworks used for World Class Manufacturing</p> <p><b>CO SE OPE 17.03: APPLYING</b> - IDENTIFY the challenges to manufacturing industry in the information age.</p> <p><b>COSEOPE17.04: ANALYSING</b> - ANALYZE the usage of Information management tools, Material processing and handling tools.</p> <p><b>COSEOPE17.05: EVALUATING</b> - EVALUATE the country's preparedness for World Class Manufacturing.</p> |                   |                     |

**COSEOPE17.06:** CREATING - ESTIMATE the performance of manufacturing firms with the measurement system to determine the readiness for World Class Manufacturing.

| Module No. | Module Name  | Details   | No. of Hours (L+T+P) |
|------------|--|---|----------------------|
| 1.         | <b>World Class Manufacturing and the Information Age</b>   | Information Age, Competing in the Information Age. Business challenges of the Information Age, Operating Environment of the Information Age. India's global Competitiveness and Manufacturing Excellence. World Class Manufacturing and the Information Age Competition, Manufacturing Challenges of the Information Age – Time based competition. Managing knowledge, Problems in the Manufacturing Industry – Coordination, Need for Control, Fragmented Information Infrastructure, Insufficient process ability of available information. | 5+1                  |
| 2.         | <b>World Class Manufacturing and Competitive Advantage</b> | Manufacturing Excellence and Competitiveness Concept of World Class Manufacturing. Hall's Framework of Value-added Engineering, Schonberg's framework of World Class Manufacturing, Gunn's model of World Class Manufacturing, Maskell's model of World Class Manufacturing. The Philosophy of World Class Manufacturing, The Evolution of World Class Manufacturing, The first principles of World Class Manufacturing, The Practices of World Class Manufacturing, Quality in World Class Manufacturing.                                    | 5+1                  |
| 3.         | <b>World Class Manufacturing - Systems and Tools</b>       | The integration imperative, Overview of systems and tools, Making sense of the manufacturing alphabet soup, Information management tools, Material processing and handling tools. Information management tools – Product and Process Design Tools, Bar Code Systems, Kanban, SQC, Business Integration and Decision Support Tools. Material processing and handling tools – Flexible Manufacturing Systems, Rapid Prototyping, Lean production tools, Poka Yoke, SMED. An assessment of Manufacturing systems and tools.                      | 5+1                  |
|            |  | Competitiveness of Indian Manufacturing, Manufacturing  |                      |

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| 4. | <b>World Class Manufacturing – Indian Scenario</b>     | Performance and planned strategies of Indian Manufacturing firms. Manufacturing readiness of Indian Firms, Manufacturing Objectives and strategy. Usage of management tools and technologies, Manufacturing Management Practices, The Manufacturing Strategic Intent Framework, Strategic use of IT in Indian Manufacturing, Classification by breadth of IT infrastructure and depth of manufacturing applications, Classification by breadth and integration of IT infrastructure, Manufacturing Strategy – World class Status and IT Use: Is India Ready for World Class Manufacturing?   | 5+1 |
| 5. | <b>Leading India towards World Class Manufacturing</b> | Business Strategy and Global Competitiveness. Generic Manufacturing Strategies for the Information Age. Developing strategic thinking in manufacturing, Issues in Strategic planning for World Class Manufacturing, Barriers to using IT strategically. Strategic Planning Methodology for World Class Manufacturing, Implementing the World Class Manufacturing Plan, Need for performance measurement –The PO-P System, The TOPP System, The AMBITE System, Quality Performance, Cycle Time, Delivery Performance and Customer Service, Financial Performance Measures, The Balanced Score Card, Human Resource Dimensions in World Class Manufacturing – Morale and Teamwork. | 5+1 |

#### **Suggested Text Books:**

1. World Class Manufacturing – A Strategic Perspective by B S Sahay, K B C Saxena, Ashish Kumar, Macmillan Publishers India Ltd.
2. World Class Manufacturing by K. Sridhara Bhat, Himalaya Publishing.

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

1. Making Common Sense Common Practice – Models for Manufacturing Excellence by Ron Moore, Elsevier Pub., 3<sup>rd</sup> Ed.
2. Competitive Manufacturing Management by John Nicholas, TMGH.

3. The Japanese Manufacturing Techniques by Richard Schonberger, The Free Press
4. Just in Time Manufacturing by M. G. Korgaonker, Macmillan Publishers India Ltd.

| Course Name: - Financial Perspectives in Operations Management  |                               |  | Semester -IV         |
|---|-------------------------------|--|----------------------|
| Course Code- SE - OPE- 18   |                               | Credits-3  | Marks-100            |
| <b>COURSE OUTCOMES: After completion of this course the students will be able to</b><br><b>COSEOPE18.01: (REMEMBERING) – REMEMBER</b> basic concepts used in cost management, Budgeting and activity-based costing.<br><b>COSEOPE18.02: (UNDERSTANDING) – UNDERSTAND</b> the importance of cost management as key to profitability.<br><b>COSEOPE18.03: (APPLYING) – CALCULATE</b> NPV, PI, IRR, BCR, NBCR, Project cost overruns and cost control with Microsoft Excel.<br><b>COSEOPE18.04: (ANALYSING) - Outline</b> capital budgeting techniques used in Operations.<br><b>COSEOPE18.05: (EVALUATING) – Explain</b> the role of Financial Institutions in project financing.<br><b>COSEOPE18.06: (CREATING)- Solve</b> the real time issues involved in Operations and Project Management using appropriate method in order to reduce the costs. |                               |  |                      |
| Module No.  | Module Name                   | Details  | No. of Hours (L+T+P) |
| 1.  | <b>Cost Management</b>        | Cost management tools-life cycle costing, target costing, kaizen costing, JIT & theory of constraints, BPR and bench marking. Working Capital Management –Concept, Components, Scope, Practical applicability. Make or buy, hire vs purchase (Numerical & Analysis)  | (5+1)                |
| 2.  | <b>Activity Based Costing</b> | Concept and basic knowledge, applicability, Limitations, Simple Numerical. Cost Concepts, behaviour, type, allocation, apportionment and absorption along with nature, applicability and limitations of Job & Process Costing.   | (5+1)                |
| 3.  | <b>Budgeting</b>              | Budgeting – nature, administration and effectiveness; budgeting cycle; activity-based budgeting; kaizen approach; ZBB; performance budgeting; human aspects of budgeting.  | (5+1)                |
| 4.  | <b>Capital Budgeting</b>      | The Capital Budgeting Concept & Process - An Overview, Generating Investment Project Proposals, Estimating Project, After Tax Incremental Operating Cash Flows, Capital Budgeting Techniques, Project Evaluation and Selection - Alternative Methods, Potential Difficulties, Project Monitoring – Progress Reviews and Post - Completion Audits, Problem of Project Risk, Total Project Risk, Capital | (5+1)                |

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|    |  | Rationing, Decision Tree.   |       |
| 5. | <b>Project Cost Estimate and Risk Analysis</b> | Cost of project, Components of capital cost of a project, Project Risk Analysis, Project Organization. Project Evaluation and Audit: Sources of financing, Role of Financial Institutions in project financing, Data required for calculation of NPV, PI, IRR, BCR, NBCR, Project cost overruns and cost control, Phases of post audit, Type of post audit, Project closure (Use of Microsoft Excel/MS Project is Recommended.) | (5+1) |

**Suggested Textbooks:**

1. Financial Management by I.M. Pandey, Vikas Publications.
2. Financial Management by M.Y.Khan & P.K.Jain, TMGH
3. Project Management by K. Nagarajan, New Age Publications

**Suggested Reference Books:**

1. Financial Management by Rajiv Shrivastava & Anil Mishra, Oxford Publication
2. Corporate Financial Management by Arnold Glen, Pearson Publication

| <b>Course Name: - Facilities Planning</b>   |  |  | <b>Semester -IV</b>         |
|---|--|--|-----------------------------|
| <b>Course Code-SE-OPE-19</b>  |  | <b>Credits-3</b>   | <b>Marks-100</b>            |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p><b>COSEOPE19.01:</b> (REMEMBERING) – DESCRIBE the concepts and principles of Facilities Planning.</p> <p><b>COSEOPE19.02:</b> (UNDERSTANDING) – EXPLAIN the key considerations in Facilities Planning.</p> <p><b>COSEOPE19.03:</b> (APPLYING) – ILLUSTRATE the use of the concepts and principles of Facilities Planning.</p> <p><b>COSEOPE19.04:</b> (ANALYSING) - EXAMINE the practical layouts in real world in light of the theoretical concepts and principles of Facilities Planning.</p> <p><b>COSEOPE19.05:</b> (EVALUATING) – EVALUATE various approaches to Facilities Planning.</p> <p><b>COSEOPE19.06:</b> (CREATING) - REARRANGE existing layouts for enhanced outcomes.</p> |  |  |                             |
| <b>Module No.</b>   | <b>Module Name</b>                         | <b>Details</b>   | <b>No. of Hours (L+T+P)</b> |
| 1.  | <b>Introduction to Facilities Planning</b> | Facilities planning defined, Significance of Facilities Planning, Objectives of Facilities Planning, Long Range Capacity Planning, Facilities Planning process, Strategic Facilities Planning, Developing Facilities Planning Strategies, Examples of Inadequate | (5+1)                       |

|    |  |  |       |
|----|--|--|-------|
|    |  | Planning. Impact of Environmental Issues on Facilities Planning Product, Process and Schedule Design: Introduction, Product Design, Process Design, Schedule Design, Facilities Design.  |       |
| 2. | <b>Logistics and Facilities Location</b>     | Logistics, Decisions related to Logistics, Issues in Facilities location – Market related factors, Cost-related factors, Regulatory and Policy Issues, Location Planning Methods – Location Factor rating Centre-of-gravity method, Load-distance method, Transportation Model. Locating Service Facilities, Relocation aspects  | (5+1) |
| 3. | <b>Layout Planning</b>                       | Concept of Layout, Basic Layout Types, Layout Procedures, Algorithmic approach, Department Shapes and Aisles, Multi-floor facility layout, Commercial Facility Layout, Impact of change, Developing alternative layouts. Introduction to ALDEP and CORELAP. Facilities design for various Facilities Functions: Warehouse operations – Functions of Warehouse, Receiving and Shipping Operations, Dock Locations, Storage Operations, Order Picking Operations.  | (5+1) |
| 4. | <b>Service Facilities Layout</b>             | Nature of Services, Operational Classification of services, Structuring the service encounter, Service blueprinting and fail-safing, Role of floor manager in service sectors such as – Hospital, Hotel, Airlines and airports   | (5+1) |
| 5. | <b>Flow Space and Activity Relationships</b> | Departmental Planning, Activity Relationships, Flow Patterns, Flow Planning, Measuring Flow, Space Requirements. Personnel Requirements: Employee-Facility Interface, Restrooms, Food Services, Health Services, Barrier-Free Compliance, Office Facility Planning. Material Handling: Scope and Definition of Material Handling, Material Handling Principles, Designing Material Handling Systems, Unit Load design, Material Handling Equipment, Estimating Material Handling costs, Safety Considerations. | (5+1) |

**Suggested Textbooks:**

1. Facilities Planning by Tompkins, White, Bozer and Tanchoco, Wiley India
2. Operations Management – Theory and Practice by B Mahadevan, Pearson
3. The Goal by E M Goldratt and Cox J, Great Barrington, North River

**Suggested Reference Books:**

1. Operations and Supply Management by Chase, Shankar, Jacobs and Aquilano
2. Operations Management by Terry Hill, Palgrave.
3. Operations Management – Quality and Competitiveness in a Global Environment by Russell and Taylor, Wiley India

| Course Name: - Sustainable Supply Chains  |                                  |  | Semester -IV         |
|---|----------------------------------|--|----------------------|
| Course Code-SE-OPE-20   |                                  | Credits-3  | Marks-100            |
| <p><b>COURSE OUTCOMES: After completion of this course the students will be able to</b></p> <p><b>COSEOPE20.01: (REMEMBERING)</b> – ENUMERATE the key concepts of Sustainable Supply Chains and Sustainable Supply Chain Management.</p> <p><b>COSEOPE20.02: (UNDERSTANDING)</b> – DESCRIBE and DISCUSS the role and importance of sustainability and sustainable development in different types of supply chains.</p> <p><b>COSEOPE20.03: (APPLYING)</b>– IDENTIFY and USE relevant established and emerging principles, frameworks and theories in sustainable logistics and supply chain management.</p> <p><b>COSEOPE20.04: (ANALYSING)</b> - INTEGRATE fundamental strategies, tools and techniques to analyze and design environmentally sustainable supply chain systems.</p> <p><b>COSEOPE20.05: (EVALUATING)</b> – DETERMINE the unsustainable impact of logistics activities, both individual, and in the wider context of the supply chain.</p> <p><b>COSEOPE20.06: (CREATING)</b> - COMPILE the managerial challenges, and FORMULATE a structured solution to these, with clear implications for relevant stakeholders.</p> |                                  |  |                      |
| Module No.  | Module Name                      | Details  | No. of Hours (L+T+P) |
| 1.  | <b>Introduction</b>              | Sustainable Supply Chain Concept, Supply Chain Sustainability Management, Need, Business imperatives. Leveraging Connections of the Consumer, Brand, and Environmental Sustainability, Overview of Green Supply Chain, Concept of Green Logistics, Green Logistics – Rhetoric & reality, Key drivers for greening of Logistics & Supply Chains, Benefits of Green Supply Chains. | (5+1)                |
| 2.  | <b>Closed Loop Supply chains</b> | Natural resource Management, Global warming, environment legislation, managing reverse logistics, recycling through lease and service agreements, Supply Chain Integration in View of Secondary Raw Materials, Sustainable supply chain products - from cradle to  | (5+1)                |

|    |   |   |       |
|----|---|---|-------|
|    |   | cradle.   |       |
| 3. | <b>Environmental Costs of Logistics</b>       | Arguments for and against internalizing environmental costs of logistics, Monetary calculation of environmental costs, Concept of Carbon Credits, Guidelines for carbon foot printing, Carbon foot printing process, success factors in carbon foot printing, Carbon Auditing of Supply Chains, Sustainable transportation, Greening transportation in the supply chain, Reverse channel design: Profitability VS Environmental benefits. New strategies to improve sustainability through supplier assessment. | (6+1) |
| 4. | <b>Monitoring Performance</b>                 | Measuring and Monitoring of Sustainable Supply Chain, Evaluating the impact of SC activities on Sustainability: Economic, Environmental and Social, Visible Supply Chain - Process, Product and Performance, Product oriented monitoring, Benefits and use of performance measurement, Problems with measuring performance, Stages of Supply Chain Performance Measurement.   | (5+1) |
| 5. | <b>Sustainable purchasing and procurement</b> | The role of procurement in the supply chain, Drivers and barriers for sustainable procurement, Procurement frameworks, Ecolabels, Lifecycle assessment, Comparing purchasing options. Managing future supply chain, International Supply Chain Management and Collaboration Practices.  | (4+1) |

#### **Suggested Textbooks:**

1. Strategy for Sustainability: A Business Manifesto by A. Werbach
2. Earth, Inc.: Using Nature's Rules to Build Sustainable Profits, G. Unruh
3. The Ecology of Commerce: A Declaration of Sustainability by P. Hawken, Harper Paperbacks
4. Greening of Industry Networks Studies, Behnam Fahimnia Michael G.H. BellDavid A. Hensher Joseph Sarkis Editors Green Logistics and Transportation A Sustainable Supply Chain Perspective
5. Environmental Issues in Logistics and Manufacturing Series editor Eco Production. Paulina Golinska, Poznan, Poland.

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



1. Sustainable Logistics and Supply Chain Management: David B Grant, Alexander Trautrim and Chee Yew Wong
2. Logistics Operations, Supply Chain Management and Sustainability: Paulina Golinska
3. Sustainable Fashion Supply Chain Management: From Sourcing to Retailing, edited by Tsan-Ming Choi, T. C. Edwin cheng

| Course Name: Artificial Intelligence in Business Applications  |  |  | Semester: IV         |
|--|--|--|----------------------|
| Course Code: SC BA- 02   |  | Credits: 3   | Marks: 100           |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSCBA02.01: REMEMBERING – IDENTIFY KNOWLEDGE associated and represent it by logical sequence and plan a strategy to solve given problem.</p> <p>COSCBA02.02: UNDERSTANDING – UNDERSTAND AI’s fundamental concepts and methods.</p> <p>COSCBA02.03: APPLYING - APPLY various machine learning algorithms on structured data to develop machine learning models.</p> <p>COSCBA02.04: ANALYSING – ACQUIRE advanced Data ANALYSIS SKILLS through algorithm and search processes.</p> <p>COSCBA02.05: EVALUATING – SELECT logical and functional process to develop the model</p> <p>COSCBA02.06: CREATING - CREATE SOLUTIONS for various business problems using AI techniques.</p> |  |  |                      |
| Module No.   | Module Name                              | Details  | No. of Hours (L+T+P) |
| 1.   | Introduction to AI and Programming Tools | Analytics Landscape, Complexity of Analytics, What Is Artificial Intelligence? Embedding AI into Business Processes, Basic Concepts of Artificial Intelligence Brain Science and Problem Solving, The History of AI, Benefits of AI Data Pyramid Property of Autonomy, The AI Revolution, Business Innovation with Big Data and Artificial Intelligence. AI and Predictive Analytics, Overlapping of Artificial Intelligence with Other Fields Ethics and Privacy Issues, Application Areas, AI and Society. Knowledge-Based Systems Knowledge Based Reasoning: Agents, Facets of Knowledge. | 6+1                  |
| 2.   | Logic and Inferences                     | Formal Logic, Propositional and First Order Logic, Resolution in Propositional and First Order Logic, Deductive Retrieval, Backward Chaining, Second order Logic. Knowledge Representation: Conceptual Dependency, Frames, Semantic nets. Reasoning Systems for Categories,  | 7+1                  |

|    |   |   |     |
|----|---|---|-----|
|    |   | Reasoning with Default Information. Propositional Logic & Predicate logic - Syntax., Semantics, Computability and Complexity Applications and Limitations, Logic for Problem solving, Logic Programming with PROLOG, PROLOG Systems and Implementations, Execution Control and Procedural Elements, Constraint Logic Programming, Simple Examples   |     |
| 3. | Problem Solving, Search and Game Techniques | Problem solving with AI, Study and analysis of various searching algorithms, Local Search in Continuous Spaces, Searching with Non-deterministic Actions General Problem Solver, Gelernter's Geometry Theorem, STRIPS, ABSTRIPS, Search - Overview, Problem representation State-space representation, Problem-reduction representation, Uninformed Search - Blind state-space search, Breadth-First Search, Uniform-cost search, Depth-First Search, Iterative Deepening, Heuristic Search, Greedy Search, A★-Search, IDA★-Search. Games with Opponents- Minimax Search, Alpha-Beta-Pruning Non-Deterministic Games. Heuristic Evaluation Functions Game trees, optimal search for an optimal solution. Conditions for optimality: Admissibility and consistency, Optimality of A*, Optimization Problems: Hill-climbing search Simulated annealing, Local beam search, Recursive Best First Search, Pruning the CLOSED and OPEN Lists | 9+1 |
| 4. | Machine Learning and Data Mining            | Introduction - What is machine learning? Supervised vs. unsupervised learning, Reinforcement Learning. Machine Learning Workflow, Learning Algorithms, Linear Regression k-Nearest Neighbour, Decision Trees, Feature Construction and Data Reduction, Random Forest, k-Means Algorithm, Gradient Boosting, Analysing Big Data Different Deep Learning Models, Auto encoders, Data Analysis, The Perceptron, a Linear Classifier, The Learning Rule, Optimization and Outlook, The Nearest Neighbour Method, Two Classes, Many Classes Approximation, Case-Based Reasoning, Decision Tree   | 9+1 |

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|----|---|---|-----|
|    |   | Learning, Entropy as a Metric for Information Content, Learning of Appendicitis Diagnosis, Cross-Validation and Over fitting, Learning of Bayesian Networks, Learning the Network Structure, The Naive Bayes Classifier, Clustering ,Hierarchical Clustering, Data Mining in Practice   |     |
| 5. | Natural language processing & Neural Networks | Introduction to Natural Language Processing, Stages in NLP, NLP Models, Morphological Processing - Syntax and Semantics, Text Analytics, Sentiment Analysis, Syntactic Analysis (Parsing) , Semantic interpretation, Discourse and pragmatic Processing, Text Classification, Implementation aspects of Syntactic Analysis (Parsing), Application of NLP in Machine Translation, Information Retrieval and Big Data Information Retrieval. Learning: Supervised, Unsupervised and Reinforcement learning. Use Cases of NLP, Applications of NLP in Business Customer Service, Reputation Monitoring. Market Intelligence, Sentiment Technology in Business. Artificial Neural Networks - Concept, Feed forward and Feedback ANNs, Error Back Propagation, Boltzmann Machine, Deep Neural Network and Tools, Hopfield Networks, Application to a Pattern Recognition Example, Neural Associative Memory, Linear Networks with Minimal Errors, Applications of Neural Network | 9+1 |

#### **Suggested Text Books:**

1. Introduction to Artificial Intelligence by Wolfgang Ertel, Springer, Translated by Nathanael Black
2. Artificial Intelligence by Elaine Rich, Kevin Knight and Nair, TMH
3. A First Course in Artificial Intelligence by Deepak Khemani, McGraw Hill Education (India)

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

1. Artificial Intelligence: A Modern Approach by Stuart Russell and Peter Norvig, Pearson
2. Artificial Intelligence by Saroj Kausik, Cengage Learning
3. Artificial Intelligence by Dan W Patterson, Prentice Hall of India

| <b>Course Name: Workforce Analytics</b>  |                                |   | <b>Semester: IV</b>  |
|--|--------------------------------|---|----------------------|
| <b>Course Code: SE - BA- 13</b>  |                                | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COURSE OUTCOMES: After completion of this course the students will be able to</p> <p>COSEBA13.01: REMEMBERING – ENUMERATE the use of Workforce Analytics</p> <p>COSEBA13.02: UNDERSTANDING – UNDERSTAND the process of creating and using HR analytics</p> <p>COSEBA13.03: APPLYING - USE dashboards, pivot tables for data driven decision making in HR.</p> <p>COSEBA13.04: ANALYSING – ILLUSTRATE the use of various tools and frameworks for predictive analytics.</p> <p>COSEBA13.05: EVALUATING – DERIVE a variety of metrics and quantify key outcomes in multiple areas of HR.</p> <p>COSEBA13.06: CREATING - BUILD value for HR departments by showing clear links between HR and Business outcomes.</p> |                                |   |                      |
| Module No.   | Module Name                    | Details   | No. of Hours (L+T+P) |
| 1.   | Workforce Analytics – Overview | Workforce Analytics: definition, evolution, function of Workforce analytics, Use of Workforce / People / HR metrics to measure results in HR - Process vs Outcome, Efficiency vs Effectiveness, Lead vs Lag, challenges in measuring human capital, HR Business Framework, Concept of Balanced Score Card, Identifying key workforce questions, Strategic Case for Workforce Analytics, Data Sources, Power of combining data sources, Good, Important & Key Metrics. | 2+1                  |
| 2.   | Recruitment Metrics            | Fill-up ratio, Time to hire, Cost per hire, Early turnover, Termination during probation, Channel efficiency mix in terms of Direct hires, Employee referral hires, Agency hires & Lateral hires, Offer reject and renege, Fulfilment ratio, Quality of hire, Recruitment to HR cost.   | 2+1                  |
| 3.   | Diversity Metrics              | Workforce diversity index, Gender mix, differently abled index, Implementation challenges.  | 2+1                  |
| 4.   | Talent Metrics                 | Retention index, Voluntary and involuntary turnover, Turnover by department, grades performance, and service tenure, Internal hired index.  | 2+1                  |

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| 5. | Learning & Development Metrics | Training need identification, Make or Buy Model, Training effectiveness evaluation, Percentage of employee trained, Internally and externally trained, Training hours and cost per employee, ROI calculation.  | 2+1 |
| 6. | Internal Mobility Metrics      | Career Progression Indices - Promotion index, Rotation index, Career path index, Level wise succession readiness index.  | 2+1 |
| 7  | People Deployment Metrics      | Employees per manager, Employee service profiling, Workforce age profiling, Workforce service profiling, Churn index, Separation clearance time.   | 2+1 |
| 8  | HR Cost Metrics                | Revenue per employee, Operating cost per employee, PBT per employee, HR cost per employee, HR to operating cost, Compensation to HR cost, HR budget variance, HR ROI.  | 2+1 |
| 9  | HR KPI Dashboard               | Calculating HR KPI, Scorecard based on recruitment, training and development, Calculating HR KPI, Scorecard based on employee retention, and turnover.   | 2+1 |
| 10 | HR Predictive Analytics        | Regional and country level differences in turnover data, predicting individual and team turnovers, Turnover costs for business implications, Selection decisions from previous performance data, Predictive modelling of individual and team performance, Identifying flight-risk candidates, Report generation. | 2+1 |

#### Suggested Text Books:

1. The Practical Guide to HR Analytics: Using Data to Inform, Transform, and Empower HR Decisions, Shonna D. Waters, Valerie N. Streets, Lindsay Mcfarlane, Rachael Johnson-Murray
2. HR Analytics: Understanding Theories and Applications, Dipak Kumar Bhattacharyya

Doing HR Analytics - A Practitioner's Handbook with R Examples Lyndon Sundmark

|   |                  |                     |
|---|------------------|---------------------|
| <b>Course Name: - Social media, Web &amp; Text Analytics</b>  |                  | <b>Semester -IV</b> |
| <b>Course Code-SE - BA – 014</b>  | <b>Credits-3</b> | <b>Marks-100</b>    |
| COURSE OUTCOMES: After completion of this course the students will be able to   |                  |                     |
| <b>CO SE - BA – 14.01:</b> REMEMBERING – DEFINE the key terms in Social Media Analytics, Web Analytics and Text Analytics |                  |                     |

CO SE - BA – 14.02: UNDERSTANDING – EXPLAIN the applications of Social Media Analytics, Web Analytics and Text Analytics in multiple business domains and scenarios  
 CO SE - BA – 14.03: APPLYING – DEVELOP a thought process to harness the power of social media analytics to improve website or business  
 CO SE - BA – 14.04: ANALYSING - ANALYSE Social Media Analytics and Web Analytics Tools  
 CO SE - BA – 14.05: EVALUATING – SELECT the right metrics for Social Media Analytics and Web Analytics  
 CO SE - BA – 14.06: CREATING - COMBINE various tools and metrics in building high impact dashboard in multiple business domains and scenarios

| Module No. | Module Name                                 | Details   | No. of Hours (L+T+P) |
|------------|---|---|----------------------|
| 1.         | <b>Social Media Overview</b>                | Social Media Introduction, definition, evolution, need of social media, Importance of Social Media, Social Media Data Sources, Use of social media in Business, Objective and KPIs, Measure, Content flow on Social Network, Challenges, Tools to analyse and measure social data (Facebook, Twitter, Instagram, LinkedIn, YouTube), Social Analytics and competitors, Strategy planning in Social Media Analytics  | (5+1)                |
| 2.         | <b>Social Analytics - Measuring Success</b> | Metric categories: Divide and Conquer, Selecting the best metrics for the job, Default and Custom Metrics, Elements of effective metrics, Metrics and Strategy. Estimated Metrics: Use and Common applications, Dashboards: Definition, Purpose, Objectives, default and custom dashboards, Reports: elements of reporting, good quality of reporting, 360 overview report, Data gathering in social Media Analytics, Types of Analytics in social media, Charts, Machine learning in social media. | (6+1)                |
| 3.         | <b>Web Analytics Overview</b>               | Introduction to Web Analytics, Web Analytics 2.0, Elements of Web Analytics 2.0: Clickstream, Multiple Outcomes, Experimentation and Testing, Voice of Customer, Competitive Intelligence, Choosing the right web analytic tool, Critical Web Metrics-Visits and Visitors, Time on Page and Time on Site, Bounce Rates, Exit Rates, Conversion Rates, and Engagement, Attributes of Great Metrics, Web Metrics Lifecycle Process.   | (5+1)                |
| 4.         | <b>Web Analytics - Measuring Success</b>    | Actionable Outcome KPIs-Task completion Rate, Share of Search, Visitor Loyalty and Recency, RSS/Feed Subscribers, % of Valuable Exits, Cart and Checkout Abandonment, Days and  | (6+1)                |

|    |                       |   |       |
|----|-----------------------|---|-------|
|    |                       | Visits to Purchase, Average Order Value, Identify the Convertible, Measuring Macro and Micro Conversions, Building the action Dashboard, Consolidated Dashboard, Rules for High-Impact Dashboards |       |
| 5. | <b>Text Analytics</b> | . Introduction to text Analytics, Processing and Understanding Text - Tokenization, Tagging Chunking, Stemming, Lemmatization, Applications of Text Analytics.                                    | (4+1) |

### Suggested Textbooks:

1. Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity by Avinash Kuashik
2. Web Analytics: An Hour a Day by Avinash Kuashik
3. Web Analytics Action Hero: Using Analysis to Gain Insight and Optimize Your Business by Brent Dykes
4. Practical Web Analytics for User Experience by Michael Beasley
5. Text Analytics with Python: A Practical Real-World Approach to Gaining Actionable Insights from your Data by Dipanjan Sarkar

### Suggested Reference Books:

1. Social Media Marketing Step by Step: The Guides to Instagram and Facebook Marketing- Bryan Bren
2. Social Media Analytics Strategy: Using data to optimize Business Performance – Alex Goncalves
3. Effective Advertising and Social Media: Strategy and Analytics – Gerard Tellis
4. Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics by Tom Tullis, Bill Albert, Morgan Kaufmann
5. Social Media Metrics: How to Measure and Optimize Your Marketing Investment by Jim Sterne, John Wiley & Sons
6. Advanced Web Metrics with Google Analytics by Brian Clifton, John Wiley & Son

|  |                  |                     |
|--|------------------|---------------------|
| <b>Course Name: - Scala &amp; Spark</b>  |                  | <b>Semester -IV</b> |
| <b>Course Code-SE - BA – 015</b>   | <b>Credits-3</b> | <b>Marks-100</b>    |
| COURSE OUTCOMES: After completion of this course the students will be able to  |                  |                     |
| <b>CO SE -BA–15.01:</b> REMEMBERING – DESCRIBE the ecosystem associated with SCALA and SPARK<br><b>CO SE -BA –15.02:</b> UNDERSTANDING – ILLUSTRATE the use of SPARK and SCALA.<br><b>CO SE -BA –15.03:</b> APPLYING – USE the core RDD and Data Frame APIs to perform analytics on datasets with Scala. |                  |                     |

**CO SE -BA –15.04: ANALYSING - EXAMINE** how and when it differs from familiar programming models.

**CO SE -BA –15.05: EVALUATING – READ** data from persistent storage and load it into Apache Spark.

**CO SE - BA –15.06: CREATING - MANIPULATE** data with Spark and Scala

| <b>Module No.</b> | <b>Module Name</b>     | <b>Details</b>  | <b>No. of Hours (L+T+P)</b> |
|-------------------|------------------------|---|-----------------------------|
| 1.                | <b>Scala</b>           | What is Scala? Why Scala for Spark? Scala in other frameworks Introduction to Scala REPL, Basic Scala operations, Variable Types in Scala, Control Structures in Scala, For each loop Functions, Procedures, Collections in Scala- Array, Array Buffer, Map, Tuples, Lists. Spark Core: Introduction, Introduction to big data, Challenges with big data, Batch Vs. Real Time big data analytics, Batch Analytics - Hadoop Ecosystem Overview, Real-time Analytics.   | (7+1)                       |
| 2.                | <b>Spark</b>           | Spark Ecosystem, Modes of Spark, Spark installation demo, Overview of Spark on a cluster, Spark Standalone cluster, Spark Web UI, Components of Spark Unified stack, Spark Streaming, MLlib, Core, Spark SQL, RDD - The core concept of Spark RDDs, Transformations in RDD, Actions in RDD. Loading data in RDD, Saving data through RDD, Key-Value Pair RDD, MapReduce and Pair RDD, Operations Scala and Python shell Word count, example Shared Variables with examples, Submitting jobs in cluster, Hands on examples | (5+1)                       |
| 3.                | <b>Spark SQL</b>       | Overview, Hive and Spark SQL architecture, sqlContext in spark sql, Dataframes API, understanding concept of data frame, Loading data in dataframe, Operations on dataframes. Interaction with Hive, Reading various data formats Hands on Examples   | (4+1)                       |
| 4.                | <b>Spark Streaming</b> | Overview of streaming, Spark Streaming Architecture, First Spark Streaming Program, Transformations in Spark Streaming, check pointing, Parallelism level, Introduction to queuing systems. Eg. Kafka, Hands on examples.   | (4+1)                       |
| 5.                | <b>Spark MLlib</b>     | Supervised Learning, Classification - logistic regression, decision trees, random forests, naive Bayes, Regression - linear   | (5+1)                       |



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|  |  | least squares, Lasso, ridge regression, decision trees, Unsupervised learning: Clustering - K-means, Gaussian Mixture, Dimensionality reduction – PCA, Hands on examples. |  |
|--|--|---|--|

#### Suggested Textbooks:

1. Scala and Spark for Big Data Analytics: Explore the Concepts of Functional Programming, Data Streaming, and Machine Learning by Md. Rezaul Karim and Sridhar Alla
2. Programming in Scala by Bill Venners and Martin Odersky

#### Suggested Reference Books:

1. Scala Cookbook: Recipes for Object-Oriented and Functional Programming by Alvin Alexander
2. Scala in Depth by Josh Suereth

| <b>Course Name: E Commerce Analytics-II</b>   |   |   | <b>Semester: IV</b>  |
|---|---|---|----------------------|
| <b>Course Code: SE - BA- 16</b>   |   | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p>COSEBA16.01: REMEMBERING- DESCRIBE the key concepts in e-commerce analytics.</p> <p>COSEBA16.02: UNDERSTANDING- DEMONSTRATE the use of analytics to drive profitability throughout the organization, and across the entire customer experience and lifecycle.</p> <p>COSEBA16.03: APPLYING SOLVE the unique problems in e-commerce, and transform data into better decisions and customer experiences.</p> <p>COSEBA16.04: ANALYSING- DISCOVER high-value insights via dashboards and visualization.</p> <p>COSEBA16.05: EVALUATING- DEVELOP analytical approaches to improve ecommerce marketing and advertising, understand customer behavior, increase conversion rates, strengthen loyalty, optimize merchandising and product mix, streamline transactions, optimize product mix, and accurately attribute sales.</p> <p>COSEBA16.06: CREATING- FORMULATE the right analytics driven strategy for ecommerce businesses.</p> |   |   |                      |
| Module No.  | Module Name   | Details   | No. of Hours (L+T+P) |
| 1.  | Optimizing for Ecommerce Conversion and User Experience | The Importance of the Value Proposition in Conversion Optimization, Basics of Conversion Optimization: Persuasion, Psychology, Information Architecture, and Copywriting, Conversion Optimization Process: Ideation to Hypothesis to Post-Optimization Analysis, Data for Conversion Optimization: Analytics, Visualization, Research, Usability, Customer, and Technical Data, Science Behind Conversion Optimization, | 8+2                  |

|    |  |   |     |
|----|--|---|-----|
|    |  | Succeeding with Conversion Optimization.  |     |
| 2. | Analyzing Ecommerce Customers              | Customer Record in Ecommerce, Types of Customer Data to Analyze. Questioning Customer Data with Analytical Thought, Ecommerce Customer Analytics Lifecycle. Defining the Types of Customers, Reviewing Types of Customer Analytics. Segmenting Customers, Performing Cohort Analysis. Calculating Customer Lifetime Value, Determining the Cost of Customer Acquisition, Analyzing Customer Churn. Understanding Voice-of-the-Customer Analytics - Doing Recency, Frequency, and Monetary Analysis. Determining Share of Wallet, Scoring Customers, Predicting Customer Behavior, Clustering Customers, Predicting Customer Propensities, Personalizing Customer Experiences.   | 7+2 |
| 3. | Analyzing Products and Orders in Ecommerce | Ecommerce Orders, Order Data to Analyze, Metrics and Key Performance Indicators Relevant for Ecommerce Orders. Approaches to Analyzing Orders and Products. - Financial Analysis, Product and Item Analysis, Promotional Analysis, Category and Brand Analysis, Event and Goal Analysis, Path to-Purchase Analysis, Funnel Analysis, Cluster Analysis, Up-Sell and Cross-Sell Analysis, Next-Best-Action Analysis. Analyzing Products in Ecommerce, Useful Types of Product Analysis for Ecommerce - Product Brand Analysis, Product Category Analysis, Customer Service Analysis, Product Returns Analysis, Social Media Product Analysis. Analyzing Merchandising in Ecommerce - Testing Merchandising Creative, Performing Inventory Analysis, Analyzing Product Offers, Determining the Optimal Price via Pricing Analysis, Understanding the Sales Impact of Merchandising, Analyzing Suppliers and the Supply Chain, Determining Effective and Profitable Markdowns, Promotions, and Discounts. | 7+2 |
| 4. | Attribution Ecommerce Analytics in         | Attributing Sources of Buyers, Conversion, Revenue, and Profit, Understanding Engagement Mapping  |     |

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|    |   | and the Types of Attribution, The Difference between Top-Down and Bottom-Up Approaches to Attribution, A Framework for Assessing Attribution Software.  | 6+2 |
| 5. | Integrating Data and Analysis to Drive Ecommerce Strategy | Defining the Types of Data. Single-Channel to Omnichannel, Integrating Data from a Technical Perspective. Agile Versus Waterfall Delivery, Integration with Operational Data Stores, Integration with On-Premises Enterprise Data Warehouses. Integration with Cloud Data Sources, Integration with Data Lakes, Integration with Data Federation, Integration with Data Virtualization, Integrating Analytics Applications, Integrating Data from a Business Perspective. | 7+2 |

**Suggested Textbooks:**

1. Ecommerce Analytics: Analyze and Improve the Impact of Your Digital Strategy by Judah Phillips
2. Building a Digital Analytics Organization: Create Value by Integrating Analytical Processes, Technology, and People into Business Operations by Judah Phillips

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|---|-------------------|---------------------|
| <b>Course Name: Healthcare Analytics</b>  |                   | <b>Semester: IV</b> |
| <b>Course Code: SE - BA- 17</b>   | <b>Credits: 3</b> | <b>Marks: 100</b>   |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p>COSEBA17.01: REMEMBERING- DESCRIBE the key terms in healthcare data analytics</p> <p>COSEBA17.02: UNDERSTANDING- EXPLAIN the fundamental concepts in Health Care Analytics</p> <p>COSEBA17.03: APPLYING ILLUSTRATE the use of specific tools and techniques to design effective ways of handling, retrieving, analyzing, and making use of healthcare data</p> <p>COSEBA17.04: ANALYSING- EXAMINE the issues associated with the applications of intelligent data acquisition, processing, and analysis of healthcare data</p> <p>COSEBA17.05: EVALUATING- EXPLAIN the perspectives of healthcare related opportunities for developing new analytical approaches.</p> <p>COSEBA17.06: CREATING- ADAPT healthcare data analytics for improving the health and well-being of people.</p> |                   |                     |

| Module No. | Module Name                               | Details  | No. of Hours<br>(L+T+P) |
|------------|---|--|-------------------------|
| 1.         | Introduction to Healthcare Data Analytics | Introduction, Healthcare Data Sources and Basic Analytics, Electronic Health Records, Biomedical Image Analysis, Sensor Data Analysis, Biomedical Signal Analysis, Genomic Data Analysis, Clinical Text Mining. Mining Biomedical Literature, Social Media Analysis, Advanced Data Analytics for Healthcare, Clinical Prediction Models, Temporal Data Mining, Visual Analytics, Clinico-Genomic Data Integration, Information Retrieval, Privacy-Preserving Data Publishing. Applications and Practical Systems for Healthcare, Data Analytics for Pervasive Health, Healthcare Fraud Detection, Data Analytics for Pharmaceutical Discoveries, Clinical Decision Support Systems, Computer-Aided Diagnosis, Mobile Imaging for Biomedical, Resources for Healthcare Data Analytics.  | 8+2                     |
| 2.         | Electronic Health Records                 | History of EHR, Components of EHR, Administrative System Components, Laboratory System Components & Vital Signs, Radiology System Components, Pharmacy System Components, Computerized Physician Order Entry (CPOE). Clinical Documentation, Coding Systems, International Classification of Diseases (ICD), Current Procedural Terminology (CPT), Systematized Nomenclature of Medicine Clinical Terms (SNOMED-CT), Logical Observation Identifiers Names and Codes (LOINC), RxNorm, International Classification of Functioning, Disability, and Health (ICF), Diagnosis-Related Groups (DRG), Unified Medical Language System (UMLS). Digital Imaging and Communications in Medicine (DICOM), Benefits of EHR - Enhanced Revenue, Averted Costs, Additional Benefits, Barriers to Adopting HER, Challenges of Using EHR Data. | 7+2                     |
| 3.         | Social Media Analytics for Healthcare     | Social Media Analysis for Detection and Tracking of Infectious Disease Outbreaks, Outbreak Detection, Using Search Query and Website Access Logs, Using Twitter and Blogs, Analyzing and Tracking Outbreaks, Syndromic   | 7+2                     |

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|    |                                 | Surveillance Systems Based on Social Media, Social Media Analysis for Public Health Research. Topic Models for Analyzing Health-Related Content, Detecting Reports of Adverse Medical Events and Drug Reactions, Characterizing Life Style and Well-Being, Analysis of Social Media Use in Healthcare, Social Media as a Source of Public Health Information, Analysis of Data from Online Doctor and Patient Communities.  |     |
| 4. | Visual Analytics for Healthcare | Introduction to Visual Analytics and Medical Data Visualization, Clinical Data Types, Standard Techniques to Visualize Medical Data, High-Dimensional Data Visualization, Visualization of Imaging Data,. Visual Analytics in Healthcare, Visual Analytics in Public Health and Population Research, Geospatial Analysis, Temporal Analysis, Beyond Spatio-Temporal Visualization, Visual Analytics for Clinical Workflow, Visual Analytics for Clinicians, Temporal Analysis, Patient Progress and Guidelines, Other Clinical Methods, Visual Analytics for Patients, Assisting Comprehension, Condition Management, Integration into Healthcare Contexts.   | 6+2 |
| 5. | Fraud Detection in Healthcare   | Understanding Fraud in the Healthcare System, Definition and Types of Healthcare Fraud, Identifying Healthcare Fraud from Data. Types of Data, Challenges, Knowledge Discovery-Based Solutions for Identifying Fraud, Identifying Fraudulent Episodes, Identifying Fraudulent Claims - Bayesian Approach & Non-Bayesian Approaches to Identifying Fraudulent Claims. Identifying Fraudulent Providers, Analyzing Networks for Identifying Coordinated Frauds, constructing a Provider Social Network, Relevance for Identifying Fraud, Temporal Modeling for Identifying Fraudulent Behavior, Change-Point Detection with Statistical Process Control Techniques, Anomaly Detection Using the CUSUM Statistic, Supervised Learning for Classifying Provider Profiles. | 7+2 |

**Suggested Textbooks:**

1. Healthcare Data Analytics Edited by Chandan K. Reddy & Charu C. Aggarwal, CRC press.
2. Healthcare Analytics Made Simple by Vikas Kumar, Packt Publishing
3. Healthcare Analytics: From Data to Knowledge to Healthcare Improvement by Hui Yang & Eva K. Lee
4. Healthcare Management and Administration, S.L. Goel, Deep & Deep Publications Pvt. Ltd. New Delhi.
5. Introduction To Health Care Management, Sharon B. Buchbinder, Nancy H. Shanks, Malloy Incorporation.

| <b>Course Name: Predictive Modelling using SPSS Modeler</b>   |   |   | <b>Semester: IV</b>  |
|---|---|---|----------------------|
| <b>Course Code: SE - BA- 18</b>   |   | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p><b>COURSE OUTCOMES:</b> After completion of this course the students will be able to</p> <p>COSEBA18.01: REMEMBERING- DESCRIBE what Predictive Modelling is all about and know why you would want to use it</p> <p>COSEBA18.02: UNDERSTANDING- EXPLAIN the CRISP-DM methodology and the IBM SPSS Modeler Workbench</p> <p>COSEBA18.03: APPLYING Explore, Prepare, Model and Evaluate your data using IBM SPSS Modeler</p> <p>COSEBA18.04: ANALYSING- ILLUSTRATE how to use modelling skills to make decisions.</p> <p>COSEBA18.05: EVALUATING- FORMULATE models based on trained data, test the model with historical data, and use qualifying models on live data or other historical untested data.</p> <p>COSEBA18.06: CREATING- SOLVE real world problems using predictive modelling techniques on a real-world data</p> |   |   |                      |
| Module No.  | Module Name                             | Details   | No. of Hours (L+T+P) |
| 1.  | SPSS Modeler Professional Functionality | SPSS Overview, SPSS Modeler Overview, Palette, purpose and use, use of Super Nodes, advantages of SPSS Modeler scripting, Business Understanding and Planning, CRISP-DM process, mapping business objectives to data mining goals.  | 8+2                  |
| 2.  | Data Understanding                      | Appropriate nodes for summary statistics, distributions, and visualizations, graph nodes, output nodes, data quality issues, outliers and missing data.   | 7+2                  |
| 3.  | Data Preparation                        | Methods for data transformation, derive node, Auto Data Prep node, Data Audit node and Filler node, how to integrate data - Merge node and Append node, sampling, partitioning, and balancing data - Sample node, Balance node and Partition node, methods for refining data - Select node, Filter node and Aggregate node. | 7+2                  |

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| 4. | Modelling               | Classification models - GLM and regression, segmentation models, association models, auto modelling nodes, how to combine models using the Ensemble node.   | 6+2 |
| 5. | Evaluation and Analysis | How to interpret SPSS Modeler results - using Evaluation node, Analysis node, and data visualizations, how to use model nugget interfaces, Deployment-how to use Export nodes - tools for exporting data, how to score new data using models, SPSS Modeler reporting methods. | 7+2 |

### Suggested Textbooks:

1. IBM SPSS Modeler Essentials: Effective techniques for building powerful data mining and predictive analytics solutions by. Jesus Salcedo, Keith McCormick

| <b>Course Name: Marketing Analytics</b>  |                        |   | <b>Semester: IV</b>  |
|--|------------------------|---|----------------------|
| <b>Course Code: SE - BA- 19</b>  |                        | <b>Credits: 3</b>   | <b>Marks: 100</b>    |
| <p>COSEBA19.1 REMEMBERING DESCRIBE the use of Voice of the Customer data in making data driven marketing decisions.</p> <p>COSEBA19.2 UNDERSTANDING DEMONSTRATE an understanding of utility theory to measure customer preferences and choices.</p> <p>COSEBA19.3 APPLYING IDENTIFY what customers' value in a product, and assess what they are willing to pay for it.</p> <p>COSEBA19.4 ANALYSING ILLUSTRATE the use of various tools and frameworks to solve strategic marketing problems using marketing data.</p> <p>COSEBA19.5 EVALUATING DETERMINE the most effective target markets.</p> <p>COSEBA19.6 CREATING DESIGN a study that incorporates the key tools of Marketing Analytics.</p> |                        |   |                      |
| Module No.   | Module Name            | Details   | No. of Hours (L+T+P) |
| 1.   | Segmentation Analytics | Market Segmentation Variables, Market Segmentation Types, Marketing Data Landscape, Data for Segmentation, Analytics for Need Based Segmentation - Voice of the Customer, Managing "Voice | 5+1                  |

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|    |   | of the Customer” Data, Customer Co-Creation, RFM Analysis, Life Cycle Segmentation, Cross Tabulation Segmentation, Regression based segmentation, Clustering, Conjoint Analysis Segmentation, The Cluster Analysis + Discriminant Analysis Approach,   |       |
| 2. | Approaches to Choosing Target Segment/s:    | Rationale for Segment Targeting, Analytics for Perceptual Mapping and Product Positioning, Product Positioning, Multi-Dimensional Scaling (MDS) and Factor Analysis, Relevance of Mapping for Product Positioning, Preference Mapping, Incorporating Preferences in Perceptual Mapping. (5+1)<br>3. Analytics for Product/Service Design: The Relevance of Trade-off Approaches, Conjoint Analysis, Approaches to Conjoint Analysis, Interpreting Conjoint Results, Optimizing Design using Conjoint Results.  | 5+1   |
| 3. | Analytics for Tracking Customer Growth:     | Rationale for Customer Analytics, Customer acquisition cost, Customer Churn, Customer Attrition models, Customer lifetime value, Net promoter score, Calculating the number of new customers, calculating average customer age & Days to convert, Calculating customer acquisition cost & Average purchases, calculating touch points & Lead conversion, Analyzing age demographics, First contact with customer, Customer satisfaction, Understanding customer engagement, Diffusion Models - The Bass Model. | 5+1   |
| 4. | Modeling New Marketing Initiatives:         | Introduction to modeling, Evaluating new ad channels, Modeling tips and best practices, Projecting ad revenue, projecting organic follower revenue, projecting expenses, Calculating net profit and breakeven, Understanding ROI, calculating returns, creating a single-variable sensitivity table, Creating a multi-variable sensitivity table.  | 5+1   |
| 5  | Yield Concepts and Term Structure Theories: | Price Yield Relationship, Term Structure of Interest rates & Yield Curve, Shape of the yield curve, Term Structure   | 5+1+3 |



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|  |  | Theories, Analysis of the Yield curve |  |
|--|--|---------------------------------------|--|

**Suggested Text Books:**

1. Marketing Analytics: Data-Driven Techniques with Microsoft Excel, Wayne L. Winston
2. Marketing Analytics: Strategic Models and Metrics, Stephan Sorger
3. Marketing Analytics: A Practical Guide to Improving Consumer Insights Using Data Techniques, Mike Grigsby
4. Cutting-edge Marketing Analytics: Real World Cases and Data Sets for Hands on Learning, Paul Farris, Rajkumar

Venkatesan, and Ronald T. Wilcox

| <b>Course Name: Retailing Analytics</b>   |                               |  | <b>Semester: IV</b>  |
|---|-------------------------------|--|----------------------|
| <b>Course Code: SE - BA- 20</b>   |                               | <b>Credits: 3</b>  | <b>Marks: 100</b>    |
| <p>COSEBA20.1 REMEMBERING ENUMERATE the characteristics, opportunities and challenges of New Age Retailing and Digital Consumers. COSEBA20.2 UNDERSTANDING UNDERSTAND Consumer Buying Behavior and Trends in new age retailing.</p> <p>COSEBA20.3 APPLYING USE various kinds of data for performing Retailing Analytics.</p> <p>COSEBA20.4 ANALYSING ILLUSTRATE the use of various tools and frameworks for predictive retail analytics.</p> <p>COSEBA20.5 EVALUATING DERIVE a variety of metrics and quantify key outcomes in multiple areas of Retail.</p> <p>COSEBA20.6 CREATING BUILD value for Retail and Marketing by deriving Marketing ROI metrics.</p> |                               |  |                      |
| Module No.  | Module Name                   | Details  | No. of Hours (L+T+P) |
| 1.  | Retailing in the Digital Era: | New Age Retailing, Digital Consumers Characteristics – interconnected, involved, interconnected, co-creation, collaboration, Customer Data – Big Data, Business Analytics, Customer Insights, Data Characteristics - Variety, Volume, Velocity, Veracity. Critical issues in Modern day Retail, The Digital organization, Retail analytics for decision making, Informed and Risk-Aware Decisions, Benefits of Retail Analytics – Informed Decisions, Risk mitigation, Gaining visibility, Retail Analytics for Strategic – Tactical and Operational decisions | 3                    |

|    |                                     |   |   |
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| 2. | Marketing in a Consumer-Driven Era: | Understanding Consumer Buying Behavior and Trends, Leveraging customer data, putting information in context, clicking with consumer communities, Keeping content in mind, From personalization to commerce.   | 3 |
| 3. | Key Questions:                      | What they are buying, who they are, how they are buying, where else they are buying?  | 3 |
| 4. | Data sources:                       | Customer, Retailer, Supplier, Market, Web, Mobile, Social, Call Centres,...   | 3 |
| 5  | Looking at Unstructured Data:       | The unstructured data challenge, Recognizing the untapped analytics opportunity, Customer-Driven Decision Making, Content Analytics in Action, Understanding Affinities between Products and Customers, Advanced affinity analysis, Market basket analysis, understanding customer preferences, Anticipating the customer's next move, Improving Retail Promotions. | 3 |
| 6  | Merchandising Analytics:            | Assortment planning, GeoSpatial Analytics, Product placement, Space Optimisation, Product adjacency, aligning store-level assortment with demand, Category Intelligence, Developing dynamic retail assortments, Prioritization of Product categories.   | 3 |
| 7  | Marketing Analytics:                | Marketing Mix ROI, Promotions – Promotional Maturity Curves, Pricing – Price per segment, Margin, Profitability, Personalisation, Campaigns, Marketing Return Curves, Scenario Analysis, Driving better P&L analyses, Managing Incentive Compensation.  | 3 |
| 8  | Supply Chain Analytics:             | Creating a Demand-Driven Supply Chain, Gaining Visibility across the Supply Chain, Resolving Operations Problems Proactively, Logistics, Inventory, Supplier performance, Demand forecasting, Vendor Intelligence, Vendor Rankings, Fulfillment Intelligence, Inventory Diagnostics, Shrinkage, Optimization opportunities.   | 3 |

|    |                             |   |   |
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| 9  | Store operations analytics: | Using Analytics to Optimize Staffing Plans, Drilling into HR analytics, Customer Traffic, Store Performance Dashboards, Local Market Analytics, Online Offline Analytics, Sales Trends, Brand Performance, Account Performance Forecasts. | 3 |
| 10 | Customer View:              | Customer Insights, Omni channel insights, Personalization, merchandise Data sources, including operations and supplier.   | 3 |

### **Suggested Text Books:**

1. Retail Analytics – The Secret Weapon, Emmett Cox
2. Behaviour Analytics in Retail, Ronny Max
3. The Little Book on Big Data: Understand Retail Analytics Through Use Cases and Optimize Your Business, Mahogany Beckford
4. The New Science of Retailing: How Analytics are Transforming the Supply Chain and Improving Performance, Fisher and Raman
5. The Strategy and Tactics of Pricing: A Guide to Growing More Profitably, Nagle, Hogan and Zale, Prentice-Hall
6. Competing on Analytics, Davenport, Harris
7. The New Rules of Retail: Competing in the World's Toughest Marketplace, Lewis and Dart
8. Sales Promotions, Neslin, Marketing Science Institute.

**BOS Chairman**

**Dean Academics**

**Principal**