DAYANANDA SAGAR
UNIVERSITY

PROGRAMME PROJECT REPORT (PPR)

FOR

MASTER OF BUSINESS ADMINISTRATION (MBA)

Mode: ONLINE

CENTRE FOR DISTANCE AND ONLINE EDUCATION (CDOE)

DAYANANDA SAGAR UNIVERSITY

BENGALURU

Registrar 29/8/25

Dayananda Sagar University Bangalore

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PROGRAMME PROJECT REPORT

Introduction

Business, Industry, and Society have converged like never before. Today's ethos is to do business, generate wealth in an ethical space, and not degrade the environment further. At Dayananda Sagar University (DSU), we recognize the significance of this convergence and have designed our programs to equip students with the skills and knowledge to navigate this complex landscape.

The Online MBA Programme offered from the Centre for Distance and Online Education (CDOE), Dayananda Sagar University imparts knowledge and skill sets to students to achieve this, and face real world challenges. It teaches application of innovative practices to current business situations. It incorporates analysis of contemporary issues besides providing a strong theoretical foundation. It provides a collaborative learning environment with dedicated faculty to ensure students achieve their full potential. The online MBA Programme teaches one to work smartly, take the lead in critical situations, and influence business decisions more effectively. It teaches one to not only work efficiently, but also shape the business environment and create opportunities for further growth.

The Online Master of Business Administration (MBA) Programme is a two-year Programme. With inclusion of various electives, the Programme aims at developing focused managers with a strong understanding of their area of elective, even as the core subjects equip the students with fundamental management theories and concepts along with less tangible, but equally important soft skills. The Electives are offered in Artificial Intelligence, Business Analytics, Entrepreneurship, Finance, Marketing, Supply Chain Management, IT Systems Management and Human Resource. These help the student to emerge into a well-rounded professional ready to take up challenges in the industry in diverse areas from the manufacturing to service sector. The combination of papers is designed to instil a multidisciplinary approach in them and thus train them to take up the mantle in global businesses by also providing dual functional electives.

The programme's ethos is to craft superior managers who can problem solve and make data-driven decisions, allowing students to develop excellent skills in various management areas. In a world that has turned increasingly digital, our programme equips young managers with the skills and knowledge needed to succeed in the digital age. Our online MBA Programme will give students the perfect start to an outstanding career.

1. Programme's Mission and Objectives

The mission of the online MBA Programme from CDOE, DSU emphasizes creating value through education that integrates intellectual leadership and practical management skills. It focuses on advancing management science, fostering innovation, and empowering students to become good leaders. By addressing the data-driven, technology-focused world, the programme aims to develop leaders who drive meaningful change for businesses and society.

Mission

To create value for students, business and society by providing intellectual leadership, advancing the science and practice of management, and developing confident leaders to be the agents of change in a world driven by data, technology and innovation.

Objectives

- To create a platform of learning opportunities for students and to enable them to take careers in the corporate sector, public and social fields, research and academics.
- To effectively impart to the students the management concepts and principles.
- To enhance the students' life skills, critical thinking skills and implementation of the reasoning and problem-solving models.

The objectives of the online MBA programme focus on providing diverse learning opportunities to prepare students for careers across the corporate sector, public & social sectors and also in research and education. The programme emphasizes imparting management principles, fostering critical thinking, life skills and problem-solving abilities for professional and personal growth.

The programme equips students with a comprehensive understanding of local and global business environments, fostering entrepreneurial orientations and strategic decision-making. It emphasizes individual development through reflective learning from projects and internships, builds analytical expertise in key business functions, and prepares students for leadership roles. By integrating business acumen, management skills, and digital fluency, the programme nurtures industry-ready professionals capable of driving sustainable development and leading teams across organizational boundaries.

The outcomes from the programme focus on developing leadership and management skills, equipping students to thrive in a global environment with the right attitude and expertise. Graduates are trained to

evaluate business environments, devise strategies for challenges and adapt to technological changes. The programme emphasizes ethical principles, teamwork, and professional responsibility, alongside effective communication with diverse stakeholders. It nurtures entrepreneurship and project management abilities, fostering a comprehensive understanding of business principles and preparing students to manage challenges and opportunities effectively.

2. Relevance of Programme with Dayananda Sagar University Mission and Goals

The Vision of Dayananda Sagar University emphasizes on becoming a leading institution excelling in education, research, innovation, and entrepreneurship. It aims to nurture individuals with exceptional leadership skills, empowering them to address national and global challenges, driving positive change, and contributing to societal development. The focus is on excellence and holistic development to shape future leaders.

The mission statement of Dayananda Sagar University highlights fostering a supportive environment that encourages creativity, innovation, and academic excellence. By aligning all efforts with the institution's vision, it aims to achieve its goals while nurturing intellectual growth, inspiring new ideas, and maintaining a commitment to excellence in every pursuit.

Vision

To be a centre of excellence in education, research & training, innovation & entrepreneurship and to produce citizens with exceptional leadership qualities to serve national and global needs.

Mission

To achieve our objectives in an environment that enhances creativity, innovation and scholarly pursuits while adhering to our vision.

DSU's online MBA programme supports the vision by providing a dynamic learning environment that encourages creativity and innovation. It integrates cutting-edge research, scholarly activities, and practical training to develop leaders and entrepreneurs who excel in addressing national and global challenges. The programme fosters excellence and aligns with the broader institutional aspirations. The programme also reflects the mission of the University by promoting an ecosystem of intellectual growth and innovation. It enables students to achieve their goals through a curriculum that emphasizes creativity and problem-solving while cultivating leadership and expertise required to meet the evolving societal and industry needs.

3. Nature of Prospective Target Group of Learners

This Online MBA programme from CDOE has been designed for learners who may be working professionals, entrepreneurs, graduates, mid-career executives and professionals seeking to update their knowledge and transition into managerial and leadership roles. The programme will offer flexibility, accessibility, and affordability for students to balance their studies along with professional and personal commitments.

The programme is designed such that prospective can get the opportunity to access high value learning anytime from anywhere and pursue the programme at one's own pace. The programme also fosters professional networking and eliminates the need for relocation or commuting thus making it ideal for diverse student groups. Delivery of the programme through the online mode also contributes towards the aim of India's National Education Policy to achieve a Gross Enrolment Ratio (GER) of 50% by the year 2035.

4. Appropriateness of programme to be conducted in Online mode to acquire specific skills and competence

To enable the students of the online MBA programme to learn, the courses in the programme are delivered through Self-Learning e-Modules, offering a structured and engaging approach to e-learning. These modules are designed to be self-explanatory, providing clear instructions and content to facilitate independent learning. They are self-contained, encompassing all necessary resources within a single unit, and self-directed, allowing learners to progress at their own pace. The modules include self-evaluation components to enable learners to assess their understanding and progress. This approach ensures learners can effectively acquire the prescribed knowledge and skills while enjoying flexibility, accessibility, and a personalized learning experience tailored to their needs. The course study material for the online programme include are made available through the four-quadrant approach which will be uploaded on the University's Learning Management System (LMS). The components of the four quadrants are:

(i) e-Tutorial: in the form of recorded faculty lecture videos.

(ii) e-Content: Text Materials – e-SLM and access to online library for additional reading materials.

(iii) Discussion forum: For raising of doubts and clarifying the same by the Course Coordinators/Course Mentors assigned to students

(iv) Assessments: Self-Assessments in the form of quizzes, fill in the blanks, matching questions, short answer questions, internal assessments in the form of assignments to reinforce learning.

The online MBA programme from CDOE is thus designed to align perfectly with the online learning format, ensuring effective delivery and engagement. Its structure and content cater to the needs of students learning in the online mode hence making it a suitable choice for those seeking a flexible and accessible higher education opportunity.

5. Instructional Design

5.1 Programme Curriculum

The curriculum of the online MBA Programme has been crafted by management experts, that thoughtfully incorporates contemporary business and management topics alongside courses fostering contemporary business awareness. The balanced approach in the curriculum design has been done to ensure that students gain modern insights while developing a sense of responsibility toward sustainable business practices while equipping them with the knowledge and values essential for navigating the contemporary dynamic business landscape. The curriculum and syllabus are approved by the Board of Studies as per University norms. This ensures the programme meets high-quality standards and aligns with current academic and professional requirements.

MBA				
SEM	**SN.**	**Course Code**	**TITLE OF THE COURSE**	**CREDITS**
1	1	MBAOL101	ACCOUNTING FOR MANAGERS	4
1	2	MBAOL102	MARKETING MANAGEMENT	3
1	3	MBAOL103	HUMAN RESOURCE MANAGEMENT	3
1	4	MBAOL104	ORGANIZATIONAL BEHAVIOUR	3
1	5	MBAOL105	INFORMATION SYSTEMS	3
1	6	MBAOL106	STATISTICS FOR MANAGERS	2
1	7	MBAOL107	BUSINESS ECONOMICS AND POLICY	3
1	8	MBAOL108	BUSINESS COMMUNICATION – I	2

SEM	**SN.**	**Course Code**	**TITLE OF THE COURSE**	**CREDITS**
2	9	MBAOL201	FINANCIAL MANAGEMENT	4
2	10	MBAOL202	OPERATIONS MANAGEMENT	4
2	11	MBAOL203	INTERNATIONAL BUSINESS	3
2	12	MBAOL204	CORPORATE GOVERNANCE & BUSINESS LAW	3
2	13	MBAOL205	ESSENTIALS OF ENTREPRENEURSHIP	3
2	14	MBAOL206	BUSINESS COMMUNICATION – II	2
2	15	MBAOL207	BUSINESS RESEARCH METHODS	3
2	16	MBAOL208	INTRODUCTION TO BUSINESS ANALYTICS	4
				26

SEM	**SN.**	**Course Code**	**TITLE OF THE COURSE**	**CREDITS**
3	17	MBAOL301	STRATEGIC MANAGEMENT	3
3	18	MBAOLXY1	MAJOR - ELECTIVE - 1	4
3	19	MBAOLXY2	MAJOR - ELECTIVE - 2	4
3	20	MBAOLXY3	MAJOR - ELECTIVE - 3	4
3	21	MBAOLXY4	MAJOR - ELECTIVE - 4	4
3	22	MBAOLYZ1	MINOR- ELECTIVE - 1	4
3	23	MBAOLYZ2	MINOR - ELECTIVE - 2	4

SEM	**SN.**	**Course Code**	**TITLE OF THE COURSE**	**CREDITS**
4	24	MBAOLXY5	MAJOR - ELECTIVE - 5	4
4	25	MBAOLYZ3	MINOR - ELECTIVE - 3	4
4	26	MBAOL401	INTERNSHIP	6
4	27	MBAOL402	PROJECT WORK	12
				26
			Total Program Credits	**102**

	MAJOR ELECTIVES	
	ELECTIVE - FINANCIAL MANAGEMENT (FM)	**CREDITS**
MBAOLFM1	FINANCIAL MARKETS AND SERVICES	4
MBAOLFM2	MERGERS, ACQUISITIONS & RESTRUCTURING	4
MBAOLFM3	SECURITY ANALYSIS & PORTFOLIO MANAGEMENT	4
MBAOLFM4	FINANCIAL DERIVATIVES	4
MBAOLFM5	INTERNATIONAL FINANCIAL MANAGEMENT	4

	ELECTIVE - HUMAN RESOURCE (HR)	**CREDITS**
MBAOLHR1	EMPLOYEE RELATIONS AND LABOUR LAW	4
MBAOLHR2	PERFORMANCE MANAGEMENT & COMPENSATION MANAGEMENT	4
MBAOLHR3	HIRING & PSYCHOMETRIC ASSESSMENT	4
MBAOLHR4	STRATEGIC HR & CHANGE MANAGEMENT	4
MBAOLHR5	INTERNATIONAL HRM AND CROSS-CULTURAL MANAGEMENT	4

	ELECTIVE - MARKETING MANAGEMENT (MM)	**CREDITS**
MBAOLMM1	MODERN MARKETING MANAGEMENT	4
MBAOLMM2	RURAL MARKETING MANAGEMENT	4
MBAOLMM3	DIGITAL MARKETING	4
MBAOLMM4	INTEGRATED MARKETING COMMUNICATIONS	4
MBAOLMM5	GLOBAL MARKETING AND DISTRIBUTION MANAGEMENT	4

	ELECTIVE - IT & SYSTEMS MANAGEMENT (IS)	**CREDITS**
MBAOLIS1	ENTERPRISE IT SYSTEMS AND APPLICATIONS	4
MBAOLIS2	BUSINESS TECHNOLOGIES	4
MBAOLIS3	PROGRAM AND PROJECT MANAGEMENT, CUSTOMER SERVICEMANAGEMENT	4
MBAOLIS4	STARTUP AND PRODUCT DEVELOPMENT	4
MBAOLIS5	FUNDAMENTALS OF AI & RPA	4

	ELECTIVE - SUPPLY CHAIN MANAGEMENT (SC)	CREDITS
MBAOLSC1	INTERNATIONAL SUPPLY CHAIN OPERATIONS PLANNING	4
MBAOLSC2	TRANSPORTATION, INVENTORY & WAREHOUSE MANAGEMENT	4
MBAOLSC3	PROCUREMENT, FACTORY PLANNING & SCHEDULING	4
MBAOLSC4	DEMAND MANAGEMENT &PROCUREMENT	4
MBAOLSC5	SCM FOR BUSINESS IMPACT	4

	ELECTIVE - ENTREPRENEURSHIP MANAGEMENT (EM)	CREDITS
MBAOLEM1	ENTREPRENEURSHIP & INNOVATION	4
MBAOLEM2	BUSINESS PLAN DEVELOPMENT	4
MBAOLEM3	ENTREPRENEURIAL FINANCE	4
MBAOLEM4	NEW VENTURE CREATION	4
MBAOLEM5	SOCIAL ENTREPRENEURSHIP	4

	ELECTIVE - BUSINESSS ANALYTICS (BA)	CREDITS
MBAOLBA1	DATA MANAGEMENT SYSTEMS	4
MBAOLBA2	APPLIED ANALYTICS	4
MBAOLBA3	DATA VISUALIZATION FOR DECISION MAKING	4
MBAOLBA4	PREDICTIVE ANALYTICS USING R	4
MBAOLBA5	EDA USING PYTHON	4

	ELECTIVE - ARTIFICIAL INTELLIGENCE (AI)	CREDITS
MBAOLAI1	DATA SCIENCE FUNDAMENTALS	4
MBAOLAI2	AI BASICS	4
MBAOLAI3	PYTHON PROGRAMMING & PYTORCH	4
MBAOLAI4	MANAGING AI PROJECTS & TRENDS IN AI	4
MBAOLAI5	INDUSTRY APPLICATIONS OF AI	4

5.3 Programme Detailed syllabus
Semester: 1

Course Name: ACCOUNTING FOR MANAGERS

Credits:4

Course Description:

This course explores the fundamentals of accounting, bookkeeping, double-entry systems, Indian GAAP, Ind AS, IFRS, and cost accounting. Important topics include financial statements, depreciation methods, adjusting entries, corporate reporting, cost classification, ratio analysis, and account reconciliation, along with developments such as fair market value accounting.

Course Objectives:

- State the meaning and scope of accounting including GAAP, Ind AS, and IFRS.
- Illustrate formats & preparation of Income Statements and Balance Sheets.
- Describe internal controls, corporate reporting and corporate governance reports.
- Discuss about cost accounting systems including reconciliation and integration of financial & cost accounts.
- Learn about financial statements & ratio analysis including recent developments in the area of accounting.

Course Outcomes:

- Describe important accounting concepts including GAAP, Ind AS, and IFRS.
- Analyse and interpret Income Statements and Balance Sheets.
- Demonstrate the use of internal controls, corporate reporting and corporate governance reports.
- Apply concepts of cost accounting systems including reconciliation and integration of financial & cost accounts.
- Interpret financial ratios for decision-making and performance analysis.

Unit 1	Meaning & Scope of Accounting: Meaning of Accountancy, book-keeping and Accounting, Accounting Process, Objectives for accounting, Differences between book-keeping and accounting, Limitations of Accounting, Basic terminologies, users and uses of accounting Information, Introduction to Indian GAAP, Ind AS and IFRS Accounting Principles: accounting concepts, assumptions and conventions

Unit 2	Accounting process: Double Entry Accounting, Classification of accounts under Traditional approach, Classification of accounts under Accounting Equation approach, Comparison of traditional approach with Modern approach, equal approach, Accounting Trail, Transactions and events, Meaning and roles of debit and credit, accounting equation. Books of Accounts, Journal, Ledger, Cash book, preparation of trial balance.
Unit 3	Depreciation: Meaning and Concept of Depreciation, Factors affecting depreciation Methods of Depreciation, Accounting Treatment for Depreciation
Unit 4	Capital & Revenue- Capital & Revenue Expenditure, Key Difference between capital and revenue Expenditure, Deferred Revenue Expenditure and Capital And Revenue Receipts, Capital and Revenue: Profit and Loss, Contingent Assets and Liabilities
Unit 5	Preparation of Financial statements: Income Statement, Balance Sheet, Cash Flow Statement (Simple problems only) - Formats and preparation of Income Statement & Balance Sheet and Cash Flow Statement.
Unit 6	Adjustment Entries: Outstanding expenses, Bad Debts, Depreciation, Treatment of closing stock, prepaid expense, tax provision, dividend, and reserves, finding EPS
Unit 7	Corporate Governance and Internal Controls: Reporting on internal controls, internal financial controls, related party transactions and similar corporate governance-based reports. Sarbanes-Oxley Act (USA) and Indian interpretation and implementation on internal controls.
Unit 8	Introduction to Cost and Management Accounting-Meaning, scope, objectives, importance, difference between cost and financial accounting, basic concepts of cost, costing & cost accounting classification of cost, elements of cost, cost centre, cost units & cost object, cost reduction and saving, introduction to prime cost & overheads:
Unit 9	Material cost: purchasing, receiving, storage, issues, inventory valuation & inventory control
Unit 10	Labor Cost: Basic Concepts & labour turnover, latest trends
Unit 11	Overheads: "Meaning and treatment of overheads, Identification of overhead with cost centre, Allocation, apportionment and absorption of overheads."
Unit 12	Reconciliation and Integration: Reconciliation and integration between financial and cost accounts

Unit 13	Financial Statement Analysis-Introduction to FSA-Meaning Need and Scope of FSA, Ratio Analysis-types of ratios, liquidity, solvency, activity, profitability and market test ratios. Analysis of Statement of P&L and balance sheet-Trend Analysis, Comparative balance sheet and profit & loss account, Common size financial statement, etc.
Unit 14	Recent Development: Recent developments in the area of accounting like Comprehensive Income, Fair Market Value, etc. (General mention)

Textbooks

- Dr. S. N. Maheshwari, Dr. S. K. Maheshwari, Sharad K. Maheshwari, Accounting for Management, Vikas Publishing House
- Colin Drury, Cost & Management Accounting, Cengage Learning

Reference books

- Narayanaswamy R., Financial Accounting – A Managerial Perspective, PHI Learning
- Charles T. Horngren Cost Accounting- A Managerial Emphasis, Pearson
- Bhattacharya, A.B. Financial Accounting for Business Managers. New Delhi: Prentice Hall of India

Course Name: MARKETING MANAGEMENT

Credits:3

Course Description:

The course examines the importance and conceptual background of marketing management, including market identification, segmentation, and consumer behaviour. The syllabus provides information regarding product concepts, lifecycle management, brand management and pricing strategies. Strategic marketing planning tools and techniques are also explored in the course like Porter's Five Forces, SWOT, Ansoff's Matrix, BCG Matrix etc. The course also highlights the role of marketing analytics and the implications of social media marketing. and emerging marketing trends. Finally, students get an exposure regarding the emerging issues in marketing.

Course Objectives:

- Describe the core concepts used in marketing management including variables used for STP for effective marketing management.
- Explain the need for marketing information system, market research, consumer behaviour and CRM.
- Elaborate product management, branding & and pricing strategies
- Highlight the relevance of strategic marketing and planning.

Course Outcomes:

- Demonstrate the relevance of using marketing management processes and STP for effective marketing management.
- Articulate the need for marketing information system, market research, consumer behaviour and CRM for effective marketing.
- Create marketing plans using concepts of product management, branding and pricing strategies.
- Apply strategic marketing concepts using frameworks like SWOT, Porter's Five Forces and BCG Matrix for marketing planning.

Unit 1	Meaning, Importance, Core Concept, Marketing Management Process.
Unit 2	Marketing Environment- Environmental Scanning, Micro Environment, Macro Environment.

Unit 3	Identification of market, Market Segmentation, Market Segmentation Levels - Importance & Procedure, Bases of segmenting consumer markets, Targeting, Positioning Strategies.
Unit 4	Marketing Information System, Market Research- Meaning, Definition, Characteristics and Benefits, Types and Components of MIS, Marketing Research.
Unit 5	Consumer Behaviour and Demand Forecasting- Characteristics & factors of consumer behavior, CB Process and Buyer Decision for New Products, Buying Motives and Buying Behavior Models, Demand Forecasting.
Unit 6	Customer Relationship Management- Steps and Challenges in CRM Implementation- Types of Marketing, Technology in CRM.
Unit 7	Product Concepts and PLC-Introduction, Classification, Product hierarchy, Product Line Strategies, New Product Development, PLC, Branding, Brand Name and identity – Brand Strategies.
Unit 8	Sales and Marketing Channels- Marketing Communication, Process- Integrated Marketing Communications- Developing effective advertising programs- Channel Levels – Channel Design Decisions – Channel Management.
Unit 9	Pricing-Introduction, Pricing Methods, Price Change Strategies.
Unit 10	Strategic Marketing and Planning: Fundamentals of strategic marketing. Marketing organization, Consultative marketing. Strategic GAP Analysis, Porter Five Forces Framework, PESTEL Analysis, SWOT, GE 9 Cell Model, BCG Matrix, and Ansoff‘s Matrix etc. Marketing Analytics, Implications of social media marketing.

Textbook

- Philip Kotler, Kevin Lane Kellar, Abraham Koshy and Mithileswar Jha, Marketing Management – A South Asian Perspective, Pearson.
- Dawn Iacobucci, Marketing Management, Cengage

Reference books

- Zikmund D Amico, Marketing, Thomson South Western.
- V S Ramaswamy and S Namakumari, Marketing Management Planning Implementation and Control – The Indian context, Macmillan India.

- O‘Guinn, Allen and Semenik, Advertising and Brand Promotion, Thomson South Western.
- Philip Kotler: Marketing Management, Prentice Hall of India Ltd, New Delhi.
- Marchand & B: Vardharajan: An introduction to Marketing, Vikas Publishing House, New Delhi.
- Maurice & Modell & Larry Rosenberg: Marketing: Prentice Hall of India Ltd. New Delhi.
- Mohammad Amanatullah: Principles of Modern Marketing, Kalyani Publications New Delhi.
- Dr. C. N. Sontakki: Marketing Management, Kalyani Publications, New Delhi.

Course Name: HUMAN RESOURCE MANAGEMENT

Credits:3

Course Description:

The course provides information regarding the evolution of HRM including its important concepts & functions. Topics in the syllabus include human resource planning, recruitment, selection, training, performance appraisal, career development, compensation and rewards management. The course also explores issues pertaining to employee empowerment, grievance handling, discipline management procedures and the issues regarding Unions and Associations thus equipping students with essential HRM skills for effective workforce management.

Course Objectives:

- Discuss the evolution of HRM including important concepts and functions.
- Explain the importance of recruitment, selection, training and development in HRM.
- Highlight the role of performance appraisal and career development including compensation and rewards management.
- Illustrate the role of Unions and Associations in HRM.

Course Outcomes:

- Summarize the evolution, concepts, functions and environment of HRM.
- Develop strategies for recruitment, selection, training and development.
- Design performance management and compensation strategies.
- Articulate the importance of Unions and Associations in HRM.

Unit 1	Concept and Evolution of Human Resource Management- Definition, Features of HRM, Scope of HRM, Objectives of HRM, Importance of HRM, Evolution of HRM - From Personnel Management to HRM, The Strategic Shift in HR Practices; The Influence of Technology on HRM, Role of HRM in Organizations - HRM as a Strategic Partner, HRM's Contribution to Organizational Success.

Unit 2	Functions of Human Resource Management - Introduction, Managerial Functions of - Planning, Organizing, Directing, Controlling; Core Functions - Recruitment and Selection, Training and Development, Performance Management, Compensation and Benefits, Employee Relations; Operative Functions of Human Resource Management - Workforce Planning, Job Analysis and Job Design, Recruitment and Induction, Training and Development, Performance Appraisal and Career Development, Maintenance of Employee Records, Employee Welfare; Strategic HR Functions - Talent Management, Succession Planning, Employee Engagement, Aligning HR Practices with Corporate Strategy, Leadership Development, Operational Functions of Human Resource Management - Compliance with Labor Laws, Health and Safety, Diversity and Inclusion
Unit 3	Environment and HRM - Introduction, Definition - Role of Environment in Formulation of HRM Policies, Factors Influencing HRM - External environment, Internal environment; HRM Strategies for Environmental Adaptation, HRM and Environmental Sustainability - Green HRM Practices, Role of HR in CSR, Measuring Environmental Impact, Challenges in Aligning HRM with Environmental Dynamics, Future Trends in HRM and Environmental Interaction.
Unit 4	Human Resource Planning Job Analysis, Design and Evaluation - Human Resource Planning - Steps in human resource planning, Need for human resource planning, HR Forecasting Techniques, Barriers to Human resource planning, Successful Human Resource Planning; Concept of Job Analysis and Design - Process of Job Analysis, Methods of Job Analysis, Concept of Job Design; Concept of Job Evaluation, Objectives of Job Evaluation, Techniques of Job Evaluation, Advantages and Limitations of Job Evaluation.
Unit 5	Recruitment and Selection, Socialisation and Mobility - Introduction - Concept of Recruitment - Factors affecting Recruitment, Sources of Recruitment, Recruitment Policy; Selection - Selection Process; Selection Test, Interviews, Evaluation, Placement, Induction; Socialization - The Socialization Process for New Employees, Types of Socialization, Common Challenges in Employee Socialization; Employee Mobility - Factors Influencing Employee Mobility, Future Trends in Socialization and Mobility - The Role of AI and Automation.

Unit 6	Effective Training and Development - Scope and Differentiation of education, Training and development; Training needs assessment methods and procedure; selection of usage of effective training methods in conducting T&D; on-the job and off-the-job training, Different kinds of training, Continuous Learning process
Unit 7	Training Evaluation and Talent Management - Introduction to the Kirkpatrick Model - Overview of the Four Levels of Evaluation, Historical Background and Development of the Kirkpatrick Model; Assessing the Impact of Training on Organizational Goals - Key Performance Indicators (KPIs) and Metrics; Understanding Talent Development - Definition and Importance, Talent Development vs. Training: Key Differences. The Role of HR in Talent Development; Employee Retention and Organizational Success - Factors Influencing Talent Retention, Compensation and Benefits as a Retention Tool
Unit 8	Performance Appraisal & Career Development, Compensation and Rewards Management - Overview of Performance Appraisal, Need for Performance Appraisal, Types of Appraisal Methods; Performance Management System (PMS), appraisal including 360 degree and online assessment, MBO Career Planning & Development, Elements of a Career Planning Programme, Succession Planning; Compensation Management - Components; Rewards Management - Types of rewards.
Unit 9	Employee Empowerment & Grievance Handling and Discipline Management Procedures - Employee Empowerment - Empowerment Strategies, Grievance Handling - Definition and Types of Employee Grievances, The Grievance Redressal Process; Discipline Management Procedures -Industrial Peace and Harmony: Transparent and proactive IR policies and practices, Grievance Handling. Definition and Importance of Discipline in the Workplace, Types of Employee Misconduct and Disciplinary Actions.
Unit 10	Unions and Associations - Introduction to Unions and Associations - Definition of Trade Unions and Employee Associations, New Labor law codes and implication on both employees and employer; POSH Act Historical Evolution of Labor Unions, Types and Structure of Trade Unions, Collective Bargaining.

Textbook

- DeNisi/Griffin/Sarkar; HR South Asian Perspective; Cengage publishers (9788131524466)

- Bohlander; Principles of Human Resources Management; Cengage Publishers (9788131532492)

Reference books

- Diane, Arthur, Recruiting, interviewing, selection & orienting new employees (4th ed.).
- Fisher, Schoenfiled. Shaw. (2008). Human resource management. Biztantra print.
- Snell, Bohlander. (2009). Human resource management. Cengage Learning print.
- Robert, Half. (2007). Finding, hiring and keeping the best employees. Wiley
- Harper, Sally. (1997). Personnel management handbook. Gower publication.
- Walker, James. W. (2007). Human resource planning. Tata Mcgraw hill.
- Cherrington, David. J. The management of human resources (4th ed.).
- Timple, Dale. The art & science of business management; Managing people, Vol.5.
- Artificial Intelligence and Human Resource Management, Edited by Dr. Nisha Sharma and Dr. Vishal Dattana

Course Name: ORGANIZATIONAL BEHAVIOUR

Credits:3

Course Description:

The course introduces students to organizational theory, structure and effectiveness. Important theories and concepts pertaining to motivation, organizational behaviour, group dynamics, team building, leadership, organizational culture, organizational leadership are also detailed in the syllabus. Students will gain insights into organizational change management, organizational development intervention and organizational structures.

Course Objectives

- Define key concepts of organisation theory and structure.
- Explain motivation, individual behaviour, and group dynamics.
- Describe organisational culture, change, and development.
- Highlight leadership and change management strategies.

Course Outcomes

- Identify key organisational theories and structures.
- Articulate the importance and application of motivation, individual behaviour, and group dynamics.
- Articulate the role of organisational culture, change, and development processes for organisational behaviour.
- Summarize leadership and change management strategies.

Unit 1	Introduction to Organisation - Definition and Concept of an Organisation - Importance of Organisation, Organisational Process - General, Vision and Mission, Strategy, Structure, System, Process, Jobs, and Tasks.
Unit 2	Organisation Theory - Foundations of Organisation Theory - Core Concepts and Terminology, Classical Theories, Modern Theories; Key Perspectives in Organisation Theory, Organisational Change and Innovation; Emerging Trends in Organisational Theory.

Unit 3	Organisation Structure and Effectiveness - Organisational Structure, Organisational Effectiveness, Relationship Between Organisational Structure and Effectiveness; Challenges in Organisational Structure and Effectiveness, Strategies to Improve Organisational Structure and Effectiveness.
Unit 4	Motivation, Personality and Attitude - Concept Need and Importance of Motivation, Theories of Motivation, Personality and Emotions, Theories of Personality, Emotions and Their Role in Motivation, Problems in Motivation, Stress Management, Motivational Strategies, Values and Attitudes, Components and Functions of Attitudes, Locus of Control.
Unit 5	Overview of Organisational Behaviour - Overview of Organisational Behaviour, Historical Evolution of Organisational Behaviour, Key elements of Organisational Behaviour, Contributing Disciplines to OB (Psychology, Sociology, Anthropology, Economics, Political Science), Individual Behaviour in organisations, Learning and Perception in Organisational Settings.
Unit 6	Group Dynamics - Understanding Groups, Group Formation and Structure, Communication, Group Decision-Making, Conflict and Cooperation in Groups, Structural Approach to Conflict Management, Resolving Conflict through Negotiation
Unit 7	Team Building and Leadership - Team Building - Introduction, Stages, Characteristics of Effective teams, Tuckman's Stages of Team Development, Belbin's Team Roles; Leadership - Theories, Leadership Styles, Qualities of a Leader, Bases of Power, Power Dynamics; Politics - Factors Influencing Organisational Politics, Political Tactics & Strategies.
Unit 8	Organisational Culture and Climate, Organisational Change - Introduction To Organisational Culture And Climate – Definitions, Importance, And Key Differences, Types And Models Of Organisational Culture – Schein's Model, Cameron & Quinn's Framework, Organisational Climate - Dimensions, Measurement, And Influence On Employee Behaviour; Organisational Change - Definition, Types, And Drivers Of Change, Models Of Change – Lewin's Three-Step Model, Kotter's 8-Step Model, Resistance To Change - Causes And Strategies To Overcome Resistance.

Unit 9	Organisational Development - Introduction To Organisational Development (OD) - Definition, Scope, Objectives, And Importance, Theories And Models Of OD - Lewin's Change Model, Action Research Model, And Burke-Litwin Model, OD Interventions – Types (Team Building, Process Consultation, Survey Feedback) and Their Applications, Role Of OD Practitioners – Competencies, Ethical Responsibilities, And Consulting Processes, Challenges In OD – Resistance To Change, Cultural Issues, And Sustaining Development, Emerging Trends In OD – Technology-Driven OD, Agile Organisations and Focus On Diversity And Inclusion.
Unit 10	Organizational Change Management - Organisational Change – Forces For Change, Resistance To Change, Overcoming Resistance To Change, Change Agents, Organisational Development, And Organisational Development Intervention. Organisation Structure.

Textbook

- Organization Behaviour by Stephan Robbins, Timothy Judge & Niharika Vohra 18 E by Pearson Education ISBN No 978-9353067038
- Organizational Behaviour: Managing People and Organizations, by Ricky W. Griffin,
- Jean M. Phillips, & Stanley M. Gully 13E by Cengage ISBN: 9781337680691

Reference books

- Organization Behaviour by Fred Luthans 12 E by McGraw Hill
- Extreme Ownership – How US Seals Lead and Win by St. Martin‘s Press
- On becoming a leader – Warren Bennis
- Team Of Teams – Stanley Mcchrystal

Course Name: INFORMATION SYSTEMS

Credits:3

Course Description:

This course provides an overview of information systems, covering management support systems, computing platforms, functional business systems, ERP, BPR, CRM, data management, e-commerce, and system development. It focuses on the strategic use of technology, data management, and business process optimisation.

Course Objectives:

- Describe components and types of information systems.
- Explain management support systems, ERP, and e-commerce concepts.
- Illustrate data management systems and business processes.
- Highlight ERP implementation and IT solutions.

Course Outcomes:

- Enumerate the key components and types of information systems.
- Examine management support systems, ERP, and e-commerce concepts.
- Apply data management systems and business processes for business contexts.
- Develop information systems using ERP implementation and IT solutions.

Unit 1	Introduction to Information Systems: Components of Information Systems, Resources and Activities, Types of Information Systems.
Unit 2	Management Support Systems: Management Support Systems, Strategic Information Systems & Other Classifications, Strategic Uses of Information Technology.
Unit 3	Computing Platforms and Operating Systems: Computing Platforms, Operating Systems, Functions of Operating Systems.
Unit 4	Functional Business Systems: Functional Business Systems, Marketing Systems, Manufacturing Systems, Human Resources Systems, Accounting Systems, Financial Management Systems.

Unit 5	Management Support Systems: Decision Support Systems (DSS), Executive Information Systems (EIS), Knowledge Management Systems, Artificial Intelligence, Guidelines for Designing a Management Support System.
Unit 6	Enterprise Resource Planning (ERP): ERP Evolution, Commercial ERP Systems, ERP Modules, Selection of ERP Vendors, Implementation and Costs, Process Modelling.
Unit 7	BPR and Customer Relationship Management: Business Process Reengineering (BPR), Supply Chain Management (SCM), Customer Relationship Management (CRM).
Unit 8	Data Management Systems: Technical Foundation of Database Management, Database Structures, Database Development, Data Resource Management, Types of Databases, Database Management Approaches.
Unit 9	E-Commerce: Concepts and Scope of E-Commerce, E-Commerce Framework, Business Models, Payments, Security, Cyber Laws, IT Acts.
Unit 10	Developing Business Systems: System Development Life Cycle (SDLC), Prototyping, System Analysis & Design, Implementation, Agile Development Methodologies, Software Testing, Protecting Information Resources.

Textbook

- Management Information System- Hossein Bidgoli and Nilanjan Chattopadhyay-CENGAGE Learning
- Management Information Systems- James O'Brien, George M Marakas and Ramesh Behl

Reference books

- MIS: Managing Information Systems in Business, Government and Society by Rahul De – Wiley Publications
- Management Information System – Managing the digital firm by Kenneth C Laudon and Jane P. Laudon – Pearson
- Using MIS by David M Kroenke by Pearson

Course Name: STATISTICS FOR MANAGERS

Credits:2

Course Description:

The course introduces key statistical concepts, probability distributions, correlation, regression analysis, sampling distributions, and hypothesis testing. It focuses on methods like t-tests, Z-tests, ANOVA, and Chi-Square, providing practical tools for data analysis and decision-making.

Course Objectives:

- Define key statistical concepts and methods.
- Illustrate use of probability distributions and regression analysis.
- Enumerate hypothesis testing and interpret results.

Course Outcomes:

- Describe important statistical concepts and methods.
- Compute probability distributions and conduct data analysis using regression techniques.
- Use hypothesis testing and interpret results.

Unit 1	Introduction and Descriptive Statistics: Key Statistical Concept, Uses of Statistics, Types of Data, Graphical Representation, Measures of Central Tendency, Measures of Variability, Measures of Shape.
Unit 2	Probability & Probability Distribution I: Assigning Probability to events, joints, marginal and conditional probability, probability rules and trees, Bayes Theorem.
Unit 3	Probability & Probability Distribution II: Discrete and continuous random Variables; Bivariate, distributions, Binomial Distribution, Poisson Distribution, Continuous Probability Distributions, Probability Destiny Functions, Normal Distributions, Exponential Distribution
Unit 4	Correlation and Regression Analysis I: Correlation Analysis Significance; Correlation and Causation; Types of Correlation; Methods of Correlation Analysis.
Unit 5	Correlation and Regression Analysis II: Simple Linear Regression; Regression Model; Estimating Coefficients; Error Variable: Required Conditions; Assessing the Model; Using

	the Regression Equation; Multiple Regression Model; Estimating the Coefficients and Assessing the Model; Regression Diagnostics
Unit 6	Sampling Distributions, Estimation Theory: Sampling Distributions, Estimation Theory and Central Limit Theorem, Sampling Distributions of Mean & Proportions, Point & Interval Estimation, Difference between two means.
Unit 7	Concept of Hypothesis Testing: Introduction and Procedure to Hypothesis Testing; One-tail and Two-tail Tests; Type-I and Type-II Errors; Significance Level and p-Value.
Unit 8	Hypothesis Testing for Means, Proportions and Variations: t-Test, Z-Test and ANOVA, Proportion tests (z-test and Chi-Square Test) and Variances (F-Test).

Textbook

- Statistics for Management and Economics, Gerald Keller, Cengage Learning, 2014.

Reference books

- Business Statistics, Sharma J K, Pearson Education, New Delhi, First Impression, 2006
- Statistics for Business and Economics, Chandan J S, Vikas Publishing House Pvt Ltd, 1st Edition, 1998
- Statistics for Managers Using Microsoft Excel, Levine, Stephan, Krehbiel and Berenson, 5th Edition, Prentice Hall, 2009

Course Name: BUSINESS ECONOMICS AND POLICY

Credits:3

Course Description:

The course provides an introduction to economics, market structures, and macroeconomic concepts. It covers demand and supply, market equilibrium, national income measurement, inflation, unemployment, and Indian economic development. Focus is on understanding market types, government roles, and economic policies for growth and well-being.

Course Objectives

- Define key economic concepts and principles.
- Illustrate market structures, supply and demand dynamics.
- Describe the impact of macroeconomic policies on growth.
- Explain Indian economy's development and reforms.

Course Outcomes

- Describe economic principles and market structures.
- Articulate market structures, supply and demand dynamics.
- Correlate the impact of macroeconomic policies on economic growth.
- Interpret the effects of Indian economic reforms and development.

Unit 1	Introduction to Markets: Introduction to economics—economic systems, principles, economic efficiency, opportunity cost and profit maximization, Law of demand, determinants, exceptions, movements along the demand curve, shift in demand curve, law of supply, determinants, movements and shift in supply curve. Market equilibrium, elasticity, of demand and supply, practical implications, demand forecasting.
Unit 2	Market Structures and Decision Making- Part 1: Market types—perfect competition, monopoly, monopolistic, oligopoly.
Unit 3	Market Structures and Decision Making- Part 2: features and price determination, non-price competition, price discrimination.

Unit 4	Economic Well-being: Measurement of National Income, GNP, GDP, Gross Value Added, per-capita income, alternate approaches to measurement of well- being, human development index, economic policies for productivity and inclusive growth.
Unit 5	Public policy: Public policy: market failure, and the role of government; markets with symmetric information; externalities and public goods.
Unit 6	Macroeconomics Part 1: Measurement of inflation & unemployment rate, prices and wages, business cycle and macroeconomic stabilization policies.
Unit 7	Macroeconomics Part 2: monetary and fiscal policies, budget deficit and surplus; FDI and FII.
Unit 8	Indian Economy Part 1: Development strategy in historical perspective – ascendancy and decline of socialism.
Unit 9	Indian Economy Part 2: reforms and their impact on growth, poverty, inequality, health and education; track I and track II reforms for inclusive growth.

Textbook

- Principles of Economics by N. Gregory Mankiw, Cengage
- U. N. Dwivedi, ―Macroeconomics Theory and Policy, New Delhi, Tata McGraw Hill.

Reference books

- Managerial Economics by Geetika, Piyali Ghosh and Purba Roy Choudhary, New Economics Delhi, Tata McGraw-Hill.
- Economics by Paul A. Samuelson and William D. Nordhaus, Tata McGraw-Hill.
- Richard G Lipsey and K.Alex Chrystal, ―Economics , New Delhi, Oxford.
- Feldman, Mark L / Spratt, Michael Frederick., Five Frogs on A Log: A CEO's Field Guide to Accelerating the Transition in Mergers, Acquisitions, and Gut-Wrenching Change. 1st edition, New York: Harper Business

Course Name: BUSINESS COMMUNICATION – I

Credits:2

Course Description:

The course provides insights on the fundamentals of communication, including models, business English, body language, and etiquette. It explores principles of effective communication, business documents, and evaluation techniques. Exposure is also given on modern communication channels like social media.

Course Objectives:

- Explain communication models, principles, and fundamentals of business English.
- Highlight effective body language and etiquettes for effective communication.
- Describe different business documents used in business contexts and understand the new-age communication channels.

Course Outcomes:

- Articulate use of communication models, principles, and business English concepts.
- Show the effective use of body language and business etiquettes.
- Create different business documents and plan for using new age communication channels for business communication.

Unit 1	Nature & Scope: Nature & Scope, History & Evolution, Definition & Process architecture Nature & Classification, Models of Communication process.
Unit 2	Business English & Linguistic appropriateness: Business English & Linguistic appropriateness, Revisiting school grammar, Subject-Verb-Object agreement, Punctuation, Sentence & Paragraph Formation, Hedging and ambiguity, Brevity v/s length"
Unit 3	Principles of effective communication: Business Communication, Communication Flow, Communication Channels Networks, 7 Cs, 4Ss of Communication.
Unit 4	Body Language and Etiquettes: Definitions and Features of Body Language, Positive vs. Negative Body Language, Concept and Need for Etiquettes, Business Etiquettes.
Unit 5	Business Documents: Letters, Agenda, Minutes, Memos, Proposal & RFPs.

Unit 6	Effectiveness Evaluation: Organizational Communication, Listening, Reading, Writing Protocol, Receiver/ target perspective, Common Barriers.
Unit 7	New Age Communication Channels: Introduction to New age communication, Types of New age communication channels, Social Networking Sites.

Textbook / Reference books

- Business Communication: 2nd edition, Excel Books: MK Sehgal, Vandana Khetarpal
- Business Communication: 2nd edition, OUP: Meenakshi Raman, Prakash Singh

Semester: 2

Course Name: Financial Management

Credits:**4**

Course Description:

This course covers the Indian financial system, functions of financial management, time value of money, capital budgeting, financing decisions, capital structure, and dividend policies. Topics include cost of capital, risk analysis, working capital management, and sources of financing, equipping learners with tools for effective financial decision-making.

Course Objectives

- Define key concepts of financial systems and management functions.
- Explain time value of money and capital budgeting processes.
- Illustrate calculations for cost of capital and optimal capital structure.
- Indicate financing sources, dividend policies, and leverage effects.
- Summarize the need for working capital and strategies in investment decisions.

Course Outcomes

- Identify fundamental concepts of financial systems and financial management functions.
- Describe time value of money and capital budgeting techniques.
- Calculate cost of capital and analyse capital structure decisions.
- Evaluate financing options, dividend policies, and leverage impacts.
- Assess working capital needs and devise investment strategies.

Unit 1	Financial Management – Overview, Finance Functions, Goals and Objectives of FM.
Unit 2	Role of Financial Management: Interface of finance functions with other department functions Organisation of finance functions, Changing role of Financial Managers, Strategy and Finance Functions.
Unit 3	Time Value of Money Compounding Techniques-Present value and single cash flow and annuity, - Simple Interest and Compound interest, Multi period compounding - Annual percentage rates and effective interest rates; Discounting Techniques-future value of single cash flow and annuity, Practical Applications of TVM- Capital recovery and Loan Amortisation, Sinking fund, application of TV of money.

Unit 4	Sourcing of Financing - Equity Source of Financing- Shares, Venture Capital, Angel Investing and Private Equity; Debt Source of Financing- Debentures, Term Loans, Lease Financing, Hybrid Source of Financing- Convertible Preference Shares, Warrants and convertibles (Theory Only).
Unit 5	Cost of Capital – Introduction, Meaning, features and factors affecting Cost of Capital
Unit 6	Cost of specific capital-Cost of debenture- Pre-tax and post- tax; Cost of preference share- cost of Equity Shares-Cost of retained earnings: WACC, WMCC.
Unit 7	Capital budgeting-Introduction to capital budgeting- Meaning, Capital budgeting process, Non- Discounted Investment evaluation techniques-Payback period, accounting rate of return Problem, Discounted Investment evaluation techniques-Net present value, Internal rate of return, Modified internal rate of return, Profitability index, discounted payback period.
Unit 8	Risk analysis in capital budgeting-Case Study on replacement of capital project. (Numerical problems)
Unit 9	Capital structure decision – Introduction to Capital Structure Decisions-Overview of financing choices; internal and external financing, Operational and financial leverage, Business risk and its effect on the use of financial leverage.
Unit 10	Optimal Capital Structure: Determination of the optimal capital structure, Factors affecting Capital Structure, EBIT-EPS Approach; NI and NOI Approach.
Unit 11	Dividend Policy: Introduction to Dividend policy, Factors affecting dividend Policy, Dividend policies- stable dividend, stable payout.
Unit 12	Theories of dividend policy: relevance and irrelevance dividend decision. Theories of dividend policy: Walter's and Gordon's model, Modigliani and Miller approach. (Theory only).
Unit 13	Introduction to Working Capital Management: Factors affecting Working capital requirements; types of Working capital; operating cycle and cash cycle:
Unit 14	Estimation of Working Capital Management - Practical Problems.

Textbook

- Financial Management by Khan and Jain, Mc Graw Hill
- Financial Management- Theory and Practice, 15e, by Eugene F. Brigham, Michael C. Ehrhardt, Cengage

Reference books

- Financial Management by IM Pandey, Vikas
- Financial Management by Prasanna Chandra, Mc Graw Hill
- Fundamentals of Financial Management by Van Horne and Wachowicz, Prentice Hall

Course Name: Operations Management

Credits:4

Course Description:

The course introduces key concepts in Operations Management, including process strategy, forecasting, inventory management, quality control, and supply chain management. It also covers project management techniques, resource organisation, lean systems, and waiting-line models, providing tools to optimise operations and improve organisational efficiency.

Course Objectives

- Define key concepts and scope of Operations Management.
- Explain forecasting, inventory models, and quality management techniques.
- Illustrate the use of project management tools like CPM, PERT and scheduling methods.
- Describe facility layouts, process strategies, and supply chain decisions.
- Highlight solutions for lean operations and resource optimisation challenges.

Course Outcomes

- Identify key concepts, scope, and evolution of Operations Management.
- Apply forecasting techniques, inventory models, and quality management tools.
- Utilise project management methods for effective planning and scheduling.
- Assess facility layouts, supply chain processes, and operational strategies.
- Evaluate solutions to optimise resources and implement lean operations.

Unit 1	Introduction: Introduction to Operations Management - Goods vs Services - Process Management - Scope of OM - OM and Decision Making.
Unit 2	Historical Evolution of OM; Competitiveness; Operations Strategy
Unit 3	Elements of a good Forecast; Approaches and Techniques for Forecasting; Forecasting Accuracy.
Unit 4	Strategic Capacity Planning – Strategic Capacity Planning for Products and Services.
Unit 5	Location Decisions - Need, Nature and Procedure; Types of Locations; Service and Retail Locations; Evaluation Location Alternatives; Process Selection; Process Strategy.
Unit 6	Strategic Resource Organization: Facilities Layout; Designing Product Layouts - Designing Process Layouts.
Unit 7	Inventory Management: Introduction to Inventory Management; Nature and Importance of Inventories; Requirements of Effective Inventory Management; Inventory Ordering Policies - EOQ Model, FOI Model and SP Model.
Unit 8	JIT: Introduction to Supply Chain Management; Trends in Supply Chain Management; Global Supply Chains; ERP and Supply Chain Management; Procurement; Supplier management; Logistics.

Unit 9	Introduction to Supply Chain Management; Trends in Supply Chain Management; Global Supply Chains; ERP and Supply Chain Management; Procurement; Supplier management; Logistics.
Unit 10	Quality Management – Introduction, Evolution, and Insights; The Quality Gurus; Quality and Performance Excellence Awards; Quality Certifications.
Unit 11	Total Quality Management; Problem Solving and Process Improvement; Quality Tools; Introduction to Quality Control; Quality Inspection; Statistical Process Control; Process Capability.
Unit 12	Introduction to Project Management; Project Life Cycle; Work Breakdown Structure; Gantt Charts; CPM and PERT.
Unit 13	Techniques for Project Management - Techniques for Project Management; Time-Cost Trade-offs; Scheduling Operations; Scheduling in Low-Volume Systems; Scheduling Services.
Unit 14	Introduction to Waiting Lines - Managerial Implications of Waiting Lines; Goal of Waiting-Line Management; Characteristics of Waiting Lines; Measures of Waiting-Line Performance; Queuing Models – Infinite Source and Finite Source.

Textbook

- Operations Management by William J. Stevenson, 14th Edition, McGraw-Hill Publications, 2021.

Reference books

- Operations Management: Sustainability and Supply Chain Management by Jay Heizer, Barry Render, and Chuck Munson, Pearson Publications, 2020
- Operations and Supply Chain Management by David Alan Collier and James R. Evans, Cengage Publications, 2020.

Course Name: **International Business**

Credits:**3**

Course Description:

This course offers a comprehensive understanding of globalization, trade and investment theories, trade policies, and financial mechanisms. It explores global trade institutions, regional integrations, and strategies for market entry. Students gain insights into export-import finance, international trade processes, and managing global competition through alliances, acquisitions, and multinational strategies.

Course Objectives

- Describe the fundamentals of international business, including globalization, international trade, and investment theories.
- Discuss global trade policies, trade processes, and regional economic integration frameworks.
- Explain the strategies and challenges faced by firms in global markets, including sourcing, foreign market entry, and managing global competitive dynamics.
- Examine global trade institutions, trade agreements, and financial techniques to solve real-world international business challenges.

Course Outcomes

- Articulate concepts pertaining to international business, including globalization, trade theories and investment theories.
- Critically analyse the implications of trade policies, regional economic integration, and trade agreements on global business operations.
- Assess various modes of foreign market entry, multinational strategies, and the performance of alliances and acquisitions in global competitive environments.
- Develop international business plans benchmarking global trade strategies and applying knowledge of export promotion schemes and trade documentation processes to facilitate international business.

Unit 1	An overview of International Business: Introduction, Definition of International Business, Changing Environment of International Business, Elements of International Business.
Unit 2	Globalization of Markets: Trends in Globalization, Foreign Direct Investments, Effects and Benefits of Globalization.
Unit 3	Theories of International trade: Why do nations trade? Theories of International trade-mercantilism, Mercantilism – Absolute Cost theory, Comparative Cost theory, Opportunity Cost theory, factor endowment theory, and International Product life Cycles.
Unit 4	Investment Theories – Theory of Capital Movements, Market Imperfections theory; Internationalization Theory; Location Specific Advantage Theory.

Unit 5	Instruments of Trade Policy: Tariffs, Subsidies, Import Quotas, Anti-dumping Policy.
Unit 6	International Trade Process: Understanding payment mechanism, Documentation in International Trade, Financing Techniques, Export Promotion Schemes.
Unit 7	Export and Import Finance Basic: Concepts Relating to Foreign Exchange, Various types of Exchange Rate Regimes– Floating Rate Regimes, Managed Fixed Rate Regime and Purchasing Power Parity. Global sourcing, Reasons for global sourcing, advantages and disadvantages, Challenges for Indian Businesses.
Unit 8	Global Trade Institutions and Trade Agreements: WTO, Role and Advantages of WTO. Levels of Economic Integration, Regional Economic Integration in Europe, Regional Economic Forums, ASEAN, SAARC, Strategic orientations – Ethnocentric, Polycentric and Geocentric Approach, Overview of Regional Integration, Types of Integration, Regional Trading Arrangements, India and Trade Agreements
Unit 9	Global strategies for a business firm -I: Entrepreneurship and entrepreneurial firms, internationalizing the entrepreneurial firm, entering foreign markets, modes of entry.
Unit 10	Global strategies for a business firm -II: Overcoming the liability of foreignness, managing global competitive dynamics, alliances & acquisitions, defining alliances and acquisitions, formation of alliances, evolution & performance of alliances, motives and performance of acquisitions, multinational structure and strategies

Textbook

1. Global business by Mike W Peng & Deepak K Srivastava – Cengage India 2nd Edition– ISBN No - 978-9353500399
2. Global business by Mike Peng – Cengage India - ISBN No: 978-1337406826

Reference books

1. Jaiswal, International Business, Himalaya Publication.
2. Agarwal Raj, International Trade, Excel Books.
3. Albaum Duerr, International Marketing and Export management, Pearson.
4. Cherunilam F, International Trade and Export Management, Himalaya Publishing.
5. Kumar R and Goel, International Business, UDH Publications.

Course Name: Corporate Governance & Business Laws

Credits:3

Course Description

The course explores principles of corporate governance, ethical practices, and corporate social responsibility, alongside key laws such as the Indian Contract Act, Sale of Goods Act, Companies Act, IPR, and Consumer Protection Act. It includes frameworks, case studies, insolvency processes, competition law, and legal remedies in business contexts.

Course Objectives:

- Explain key principles of corporate governance and legal frameworks.
- Highlight ethical practices, CSR, and regulatory compliance in businesses.
- Present business laws, including IPR, contracts, and insolvency processes.
- Outline consumer protection laws and dispute resolution mechanisms.

Course Outcomes:

- Describe corporate governance principles, models, and committee recommendations.
- Summarize ethical practices, CSR initiatives, and sustainable development goals.
- Assess the application of legal frameworks including contracts, IPR, and insolvency processes.
- Articulate the use of consumer protection laws and dispute resolution mechanisms to resolve trade and service disputes.

Unit 1	Corporate Governance: Definitions and Importance of Corporate Governance, Models of global corporate Governance, CII recommendations, Birla committee, Mr. Narayana Murthy committee recommendations based on SEBI.
Unit 2	Corporate Ethics, and Corporate Social Responsibility: Corporate Ethics, and corporate social Responsibility, NGRBC and SDG.
Unit 3	Corporate Governance Framework: Shareholder Rights, Responsibilities of Shareholders, Structure and Independence of the Board, Responsibilities and Duties of the Board, Executive and Non-Executive Director, Independent Director ; Audit Committee, Responsibilities of the Audit Committee.
Unit 4	Corporate Governance - Best Practices and Scandals: Practices: Case Study: Infosys Technologies; Scandal: Case Study: Sathyam Computers.
Unit 5	Indian Contract Act 1872: Agreements, kinds of Agreements, Contract- kinds of contracts: Valid, Void, Voidable, Contingent and Quasi Contract and e-Contract.
Unit 6	The Sale of Goods Act 1930, Competition Act, 2002: The Sale of Goods Act 1930: Formalities of the Contract of Sale, Sale and Hire- Purchase Agreement‘, Competition Act,

	2002: Competition Act, 2002 Objectives of the Act, Salient features, and Competition Commission of India.
Unit 7	Indian Companies Act, 2013: Company and its formation, Definition and Nature of Company, Lifting of Corporate Veil with cases Insolvency and Bankruptcy Code: Key features of the Insolvency and Bankruptcy Code, Insolvency regulator (NCLT), Insolvency professionals.
Unit 8	Negotiable instruments Act 1881: Meaning, Characteristics and Classification of Negotiable Instrument, Promissory Notes and Bills of Exchange, Types of Cheques and Penalties in case of dishonour of cheques.
Unit 9	Intellectual Property Rights: Patents: Meaning and Types of Patents, Salient features of Patent, Procedure for Obtaining a Patent, Infringement of Patent Rights and remedies; Copyrights: Meaning, Copy right Board and registration of Copy right, Infringement of Copy rights and remedies; Trademarks: Meaning Concept, functions of Trade mark, Types of Trade Marks, Procedure for Registration of Trademarks, Infringement and remedies.
Unit 10	Consumer Protection Act, 1986: Definitions: Consumer, Defect, Deficiency and Unfair trade practices: Consumer Councils. Consumer Protection Redressal Agencies, Consumer Protection Act.

Textbook

- Corporate Social Responsibility, Prabhakaran Paleri, CL India 2020, Cengage
- Mercantile Law - N.D. Kapur, Sultan Chand.

Reference books

- Business Law by P.R. Chandha, Golgotia.
- Corporate Governance by Indian Institute of Corporate Affairs, Taxmann.
- Business Laws by Sujit Kumar Das and Pankaj Kumar Roy, Oxford Press.
- The Essential Book of Corporate Governance by G.N. Bajpai, SAGE Publications.
- Relevant websites, journals, newspaper articles.

Course Name: Essentials of Entrepreneurship

Credits:3

Course Description

This course covers the concept of entrepreneurship, including its role in the Indian and developing economies. It explores women entrepreneurs, government support, social enterprises, and the impact of digital business opportunities. Students will learn how to identify business ideas, develop business plans, and analyse financing options, business models, and emerging technologies.

Course Objectives

- Introduce key concepts of entrepreneurship and entrepreneurial roles in developing economies.
- Highlight social enterprise and social entrepreneurship opportunities.
- Examine the importance of creativity, generating business idea and business planning process.
- Discuss sources of financing, the role of technology in business, business models and strategies.

Course Outcomes

- Identify key entrepreneurial concepts and characteristics.
- Summarise the role of social enterprise and opportunities in social entrepreneurship.
- Assess the role of creativity in generating business idea and necessity for using business planning process.
- Evaluate financing sources, the role of technology in business and business models and strategies for use in Entrepreneurship.

Unit 1	Introduction – Concept of Entrepreneur, Entrepreneurship and Enterprise, Entrepreneur, Women Entrepreneur Attributes and Characteristics of a Successful Entrepreneur.
Unit 2	Role of entrepreneur in Indian Economy: Role of entrepreneur in Indian Economy and Developing economies, Entrepreneurial Culture. Government support to entrepreneurs.
Unit 3	Social Enterprise and Social Entrepreneurship: Digital Business opportunity, Risk and challenges. Social Enterprise and Social Entrepreneurship, Social Entrepreneurs.
Unit 4	Creativity and business idea: Identifying and analysing domestic and international opportunities-Protecting the idea and other legal issues.
Unit 5	Business Plan: Developing a Business Plan – the Importance of Business Planning, Components of Business Plan. Business Planning Process, Environmental Analysis.
Unit 6	Business Planning Process: Components of Business Plan. Business Planning Process, Environmental Analysis.

Unit 7	Sources of Financing: What Lenders and Investors Look for in a Business Plan, Planning for Capital Needs, Equity Capital Versus Debt Capital, Sources of Equity Financing, The Nature of Debt Financing.
Unit 8	Technology and Business: How AI is influencing business and new technologies are affecting industries like insurance and healthcare.
Unit 9	Business models and Strategies: Accessing resources for growth from external resources
Unit 10	Business model: Business Model Canvas.

Textbook

- Entrepreneurship: Theory, Process, Practice by Donald Kuratko Cengage India. ISBN No 978-0357033890

Reference books

- Hirsch, D. Robert, Peters, P. Michael, and Shepherd, A. Dean (2017). Entrepreneurship, 9/e; New Delhi: McGraw Hill Education ISBN Number: 13-978-93-392-0538-6.
- The Psychology of Selling by Brian Tracy
- Who Moved My Cheese? An Amazing Way to Deal with Change in Your Work and in Your Life by Spencer Johnson

Course Name: Business Communication - II

Credits:2

Course Description

The course focuses on advanced business writing, report writing, and effective communication using electronic and social media. It covers presentation design, storytelling techniques, argument formation, negotiation, and overcoming communication barriers. Practical assignments enhance skills in persuasive communication and negotiating strategies.

Course Objectives

- Illustrate advanced business writing fundamentals including report writing using electronic and social media.
- Describe effective presentation design elements, importance of storytelling and composing effective arguments.
- Explain the strategies for negotiation, persuasion and overcoming barriers of communication.

Course Outcomes

- Write clear, structured advanced business reports.
- Deliver impactful presentations using storytelling techniques.
- Apply negotiation and persuasion strategies with the ability to overcome communication barriers for real-world scenarios.

Unit 1	Advanced Business Writing: A, B, C & Considerations for Audience, Message, Word Choice, Developing & Preparing documents, Finalizing Formal / Informal Document.
Unit 2	Report Writing, Electronic & Social Media Communication - Report Writing, Communication Using Electronic and social media, How to Review a Book (and Assignment).
Unit 3	Effective Presentation Design - Managing Stage fright, Nuance of Structuring the talk / Presentation
Unit 4	Storytelling - Storytelling Essentials, Getting into Someone's Head, Pechakucha, Avoiding the Three Traps, Communication Styles, Uncertainty to Create Interest, Belly Button, Area 47, Goal Opportunity Setting, Picture Superiority Effect, AV Presentation Assignment
Unit 5	Argument: Defining an argument, Composition of argument, Spotting/understanding an argument, Markers, Argumentative moves, Assuring, Guarding, Discounting, Evaluation.

Unit 6	Negotiation & Persuasion: Nature of Negotiation, Situations requiring Negotiations, Factors affecting negotiations, The four Ps & Negotiation process, Phases of negotiation, Bargaining Strategies (Group Assignment).
Unit 7	Barriers of Communication: Types of barriers (Technological – Socio-Psychological), Overcoming barriers, Types of listening.

Textbook

- Business Communication by M.K. Sehgal and Vandana Khetarpal, 2nd Edition, Excel Books.
- Business Communication by Meenakshi Raman and Prakash Singh, 2nd Edition, Oxford University Press.

Course Name: Business Research Methods

Credits:3

Course Description:

The course equips students with essential research skills, focusing on identifying research problems, designing research processes, sampling techniques, data collection methods, and statistical analysis. Students will learn to conduct rigorous research, interpret data, and develop research reports aligned with publication ethics.

Course Objectives

- Highlight the fundamentals of research methodology, including types, objectives, and ethical considerations in business research.
- Introduce research designs, sampling techniques, and data collection methods.
- Discuss data analysis using statistical tools to interpret results for business decision-making.
- Illustrate professional research report formats, referencing styles and academic integrity requirements.

Course Outcomes

- State the meaning, types, and importance of business research and its role in effective decision-making.
- Develop research designs, sampling techniques, and data collection methods for business research purposes.
- Apply advanced statistical techniques, including regression, ANOVA, and multivariate analysis, to interpret business research data effectively.
- Create research reports with appropriate visual aids, plagiarism-free content, and adherence to ethical publication practices.

Unit 1	Introduction: Meaning, Need, Objective and Types of Research - Importance of Business research in business decision making. Research & publication ethics.
Unit 2	Business Research Process: Stages in Business Research Process
Unit 3	Identifying the Research Problem: Identifying research problems, formulating research objectives, criteria for choosing research problems. Criteria for Choosing Research Problems, Review of Sample Research Articles Use of E-resources.

Unit 4	Nature of and Classification of research design: Steps in research design – Types of Research Design (Exploratory, Descriptive and Causal).
Unit 5	Sampling Techniques, Statistical Terms in sampling, Probabilistic and Non-Probabilistic Sampling, Sampling Process, Sampling Size Determination, Sampling & Non-Sampling Errors.
Unit 6	Data Collection & Preparation-Data Collection Methods, Advantages and Disadvantages. Data Editing, Coding, Classification & Tabulation for analysis.
Unit 7	Measurement & Scaling techniques, Scales of measurement- Types of Scales, Validity and Reliability.
Unit 8	Methods of Data Collection: Designing Interview schedules/Questionnaires/Survey, Types of Questions (Construct, Content, Response Formats), Telephone, Mail, E-mail, Online Surveys.
Unit 9	Data Analysis & Interpretation: Descriptive and Inferential Statistics-Univariate, Bivariate and multivariate data analysis methods, Hypothesis testing. Applications of Correlation & regression, ANOVA, Chi-square, Factor Analysis, Cluster Analysis and Conjoint Analysis, Discriminant Analysis.
Unit 10	Research Report Writing, Presentation & Plagiarism Checking: Guidelines & Components for writing research reports/Synopsis/Executive Summary/Abstract, Formatting and Referencing Styles. Plagiarism checking tools, Presentation Techniques (Visual Aids, Handling Questions).

Textbook

- Kothari C. R. and Gaurav Garg (2019), Research Methodology: Methods and Techniques, New Age International Publishers, New Delhi.
- Donald R Cooper and Pamela S Schindler, Business Research Methods, McGraw- Hill, Publishing Company Limited.
- H. K. Dangi and Shruti Dewan, Business Research Methods, Cengage Learning.

Reference books

- William G. Zikmund, Thomson SW, Business Research Methods, 7th Edition, 2003. Cengage Learning.
- Rajendra Nargundkar, Marketing Research, Texts & Cases, Tata McGraw Hill Publishing Co. Ltd.
- Naresh K Malhotra, Marketing Research: An Applied Orientation, 5th Edition, Pearson Education, 2007.
- Uma Sekaran, Research Methods for Business, Wiley India.

Course Name: Introduction to Business Analytics

Credits:4

Course Description:

The course equips MBA students with essential skills in data-driven decision-making. Covering descriptive analytics, regression techniques, logistic regression, forecasting, and prescriptive analytics, students will learn to analyse complex data, build predictive models, and apply advanced analytical methods to solve real-world business problems.

Course Objectives

- Describe the fundamentals of business analytics, its types, and applications in making data-driven decisions.
- Show descriptive and regression techniques to analyse business data and build predictive models.
- Correlate complex data relationships using regression, forecasting, and time series models to make informed business decisions.
- Introduce Prescriptive Analysis using Linear Programming.
- Explain Sensitivity Analysis & Dual Linear Programming.

Course Outcomes

- Explain the role of business analytics and describe key data types and scales used in analytics.
- Apply simple and multiple regression techniques to build predictive models and interpret regression coefficients.
- Construct data relationships using regression, forecasting, and time series models to make informed business decisions.
- Predict business metrics using Linear Programming.
- Conduct Sensitivity Analysis and use Dual Linear Programming for business analytics.

Unit 1	Introduction to Business Analytics, Analytics Capability.
Unit 2	Descriptive Analytics: Introduction to Descriptive Analytics, Data Types and Scales
Unit 3	Descriptive Measures: Central Tendencies, Variation, Shape
Unit 4	Simple Regression I: Introduction to Simple Regression, Simple Regression Model Building, Estimation of Parameters.
Unit 5	Simple Regression-II: Interpretation of Regression Coefficients, Validation of Simple Linear Regression Model, Outlier Analysis.

Unit 6	Multiple Regression I: Introduction to Multiple Regression, Multiple Regression Model Building, Interpretation of MLR Coefficients.
Unit 7	Multiple Regression-II: Validation of MLR Model, Coefficient of Determination (R-Square) and Adjusted R-Square, Residual Analysis
Unit 8	Logistic Regression I: Introduction to Classification Problems, Introduction to Logistic Regression, Estimation of Parameters
Unit 9	Logistic Regression II: Model Diagnostics, Classification Table, Sensitivity and Specificity
Unit 10	Logistic Regression III: Optimal Cut-Off Probability, Variable Selection, Application of Logistic Regression, Gain Chart and Lift Chart.
Unit 11	Introduction to Forecasting: Forecasting Techniques, Forecasting Accuracy.
Unit 12	Time Series Analysis: Time Series Data and Its Components, Moving Average, Smoothing, Regression, AR, ARMA, and ARIMA Models.
Unit 13	Introduction to Prescriptive Analytics: Linear Programming.
Unit 14	Advanced Prescriptive Analytics: Sensitivity Analysis in Linear Programming, Optimality Range, Dual Linear Programming.

Textbook

- U. Dinesh Kumar, Business Analytics – The Science of Data-Driven Decision Making, Wiley.
- S. Christian Albright | Wayne L. Winston, Business Analytics: Data Analysis and Decision Making, Cengage Learning.

Reference books

- Jeffrey D. Camm, James J. Cochran, Michael J. Fry, Jeffrey W. Ohlmann, David R. Anderson, Dennis J. Sweeney, Thomas A. Williams - Business Analytics- CENGAGE (2019)
- Jeffrey D. Camm, James J. Cochran, Michael J. Fry, Jeffrey W. Ohlmann, David R. Anderson - Essentials of Business Analytics-Cengage Learning (2014)
- Wayne Winston, Microsoft Excel Data Analysis and Business Modelling, 5th Edition, Microsoft Press.

Semester III

Course Name: Strategic Management
Credits:3

Course Description

This course explores core concepts of strategy, competitive analysis, and strategic management processes. Learn frameworks like Porter's Five Forces, PESTLE, SWOT, and BCG Matrix, alongside corporate and functional strategies, global and technology-driven approaches, and Blue Ocean Strategy. Gain expertise in strategic tools, leadership, and implementation to align organisational goals, drive innovation, and adapt to dynamic industry environments.

Course Objectives

- To understand strategic thinking and to use it in all areas of management.
- Plan strategically by scanning the environment and using the right models
- Use modern strategic management models to devise an effective corporate strategy
- Indicate the various alternatives available for a company using analytical tools to develop and choose the best alternatives.

Course Outcomes

- Analyse and evaluate a business/industry using appropriate analytical processes, models and techniques to identify, recommend solutions to business problems.
- Identify, describe, analyse and communicate key business strategic management techniques, concepts and theories and use them to solve business problems
- Formulate a strategic plan that operationalizes the goals and objectives of the firm
- Devise a technology strategy and use digital tools to ensure competitive advantage

Unit 1	Introduction to Strategic Management The concepts of strategy The strategic management processes
Unit 2	Identification of an industry's opportunities and threats Porter's Five Forces Model of competitiveness
Unit 3	Competitive advantage, value chain and value creation Growth - Share Matrix – BCG PESTLE model and SWOT
Unit 4	Functional level Strategy Competitive positioning Strategic groups and business-level strategy

Unit 5	Blue Ocean Strategy Strategies for fragmented, embryonic, mature, decline and high-tech industries
Unit 6	Corporate strategy, Horizontal and vertical integration & diversification Overview of strategy in global environment
Unit 7	Technology Strategy Introduction to tech strategy and its importance, Creating, capturing and delivering value using technology
Unit 8	Digital business models, Tech based business transformation Disruptive Innovation Model - Christensen, Raynor & McDonald
Unit 9	Strategy Implementation Organizational structure and design, Strategic control systems, culture and rewards systems, Alignment of strategy and structure
Unit 10	Strategic leadership, Stakeholders, corporate governance and business ethics, Strategic for entrepreneurship, Strategic Audit and Value Chain Analysis
Unit 11	Strategic Tools McKinsey 7S Framework, Balanced Scorecard, Competitive Profile Matrix (CPM), SPACE Matrix, BCG Matrix

Textbook

1. Strategic Management: Competitiveness and Globalization: Concepts and Cases, 12E by Michael A. Hitt R. Duane Ireland , Robert E. Hoskisson by Cengage India. ISBN No.- 978-9391566258

Reference books

1. Strategic Management: An Integrated Approach 9th Edition by Charles.W.L.Hill & Gareth.R.Jones published by Cengage India. ISBN No: 978-8131518373
2. HBR's 10 Must Reads on Technology and Strategy Collection published by Harvard Business review press. ASIN : B08KTNJ5FW
3. Competitive strategy – Michael Porter published by Simon & Schuster ISBN No - 9780743260886
4. Competitive Advantage – Michael Porter published by Free press ISBN No - 0684841460

FINANCE ELECTIVES

COURSE NAME: FINANCIAL MARKETS AND SERVICES\

SEMESTER: 3

CREDITS: 4

Course Description

This course delves into India's financial system, covering banking evolution, financial markets, and regulatory frameworks. Explore RBI's role, commercial banking products, BASEL norms, NPA management, and SARFESI Act. Understand merchant banking, IPO management, SEBI's functions, fund- and fee-based financial services, and emerging trends like fintech, AI, and digitisation. Case studies offer insights into major banking failures and innovations shaping the industry.

Course Objectives

- Understand the role and functions of financial system in India
- Identify the various services offered and risks faced by the commercial banks
- Explain the functions of SEBI and identify the role of merchant banks in pre and post issue management
- Categorize the fund and fee-based services offered by financial institutions
- Apply subject knowledge to develop the understanding of the recent trends in the financial system

Course Objectives

Upon successful completion of this course, the student will have reliably demonstrated ability to:

- Recognize the need and importance of robust financial system in the country
- Comprehend the broad functioning of a bank both at the macro and at micro levels
- Examine the issues involved in providing merchant banking and financial services.
- Analyse and describe the characteristics of different financial services
- Discuss the recent trends and developments in financial markets

Unit 1	Introduction to Financial System in India, Financial System in India, Financial markets: Primary & Secondary Market; Capital Market and Money Market; Debt and Equity Market; Financial Instruments
Unit 2	Indian Banking System: Evolution of Banking System; Nationalization of Banks; Need, Objectives; Classification of financial institutions: Classification of Banks: Differences, Features; Functions performed by Banks; banks and non-banks (NBFCs),
Unit 3	RBI and Its Role in Indian Banking System: Role of RBI as regulator, Functions of RBI
Unit 4	Introduction to Commercial Banking Commercial Banking: Banking Products: Consumer Loan, Agricultural Loan, Industrial Loan, Project Financing, MSME & Priority Sector Financing; Loan Appraisal.
Unit 5	BASEL Norms; Asset Liability Management, CAR (Tier 1 and Tier 2 Capital). NPA Management; Reasons for NPA, SARFESI Act. Recent banking failures, Reasons for banking failures
Unit 6	Merchant Banking Merchant Banking: Meaning, Functions, Need IPO and Merchant Bankers: Pre and Post Issue Management Different roles performed by Merchant Banker and Functions;
Unit 7	Financial Services Role of Registrars –Bankers to the Issue, Underwriters, and Brokers, Treasurer, Lead Manager
Unit 8	Offer for sale – Book- Building – Green Shoe Option –E –IPO Private Placement- Bought out Deals Placement with FIs, MFs, FIIs, etc. off- Shore Issues.
Unit 9	SEBI as a regulator: Functions, Roles and Responsibilities of SEBI
Unit 10	Fund and Fee Based Financial Services Fund Based Services: Leasing and Hire Purchasing – Basics of Leasing and Hire purchasing (Theory Only),
Unit 11	Consumer Credit – Credit Cards – Real Estate Financing – Bills Discounting – Factoring and Forfaiting, types, Differences: differences between bills discounting and factoring

Unit 12	Venture Capital Fee Based Financial Services: Mergers and Acquisitions: Recent mergers and acquisition in banking sector – Portfolio Management Services – Credit Syndication – Credit Rating – Mutual Funds
Unit 13	Recent changes in Banking system: Digital Banking, Neo banking, Banking Innovations, Case Studies on Major banking failures and their impact on Banking System.
Unit 14	Recent trends in Financial Services: Fintech: Introduction; The evolution and impact to the Financial Services industry: A basic overview of the key technologies that are driving the changes- Digitization of banking, payments; Cloud computing and big data analytics; Automation, AI/ML

Textbook

1. Financial Institutions and Markets, Jeff Madura, 10th Edition, Cengage
2. M.Y.Khan, Financial Services, McGraw-Hill, 10th Edition, 2019

Reference books

1. Fundamentals of Modern Banking, N C Majumdar, NCBA, Kolkata
2. Commercial Banking Operations, IIBF, Mc Milan Publications, NewDelhi
3. Banking Products and Services, IIBF, Mc Milan India Ltd
4. Legal and Regulatory Aspects of Banking, IIBF, Mc Milan India Ltd
5. https://www.infosys.com/about/knowledge-institute/documents/banking-industry-2020.pdf

COURSE NAME : MERGERS, ACQUISITIONS & RESTRUCTURING

SEMESTER: 3

CREDITS: 4

Course Description

This course explores corporate restructuring, including mergers, acquisitions, and their distinctions. Study M & A theories, takeover tactics, cross-border deals, and legal frameworks under Indian laws. Learn valuation methods, accounting practices, and deal structuring strategies. Gain insights into post-merger integration challenges, cultural alignment, and success factors. Case studies on Indian and global mergers provide practical perspectives on creating value and managing change.

Course Objectives

- Develop an understanding of corporate mergers and acquisitions activity and restructurings
- Describe the process of mergers and regulatory framework related to mergers and acquisitions
- Analyse the alternate valuation frameworks like free cash flow to firm, adjusted present value, and relative valuation
- Evaluate the M&A issues, deal structures and the need for a value proposition
- Identify and explain the critical success factors and challenges in post- merger integration

Course Outcomes

- Compare the various forms of corporate restructuring
- Comprehend the regulatory framework for mergers and acquisition in India
- Apply and interpret the various valuation methods of mergers and acquisitions in a deal
- Determine the value acquisition targets and evaluate the long-term potential of a partnership
- Conclude the complexities of the merger process and provide the solution to manage it

Unit I	Introduction to Corporate Restructuring- Meaning, objectives, motives, types and forms of corporate restructuring, types and distinction between mergers and acquisitions,
Unit 2	Mergers and Acquisitions Theories of merger, difference between demerger and reverse merger, takeover tactics and takeover defences, cross border mergers and acquisitions
Unit II	Legal Aspects of Mergers and Acquisitions Merger and acquisition process, success and failure of merger & acquisition, regulatory framework for mergers and acquisitions—
Unit 3	Compliance with Indian Companies Act, Competition Act 2002, Income Tax Act, Securities and Exchange Board of India-substantial acquisition of shares and takeovers regulations, 2011,
Unit 4	Due diligence – types, screening, due diligence, challenges and checklist
Unit 5	Valuation and Accounting (Theory) Concepts of value, methods of enterprise and equity valuation, Goodwill valuation,
Unit 6	Valuation and Accounting (Problems) Concepts of value, methods of enterprise and equity valuation, Goodwill valuation,
Unit 7	Merger and Acquisition Cash flow valuation basics, relative valuation, business valuation approaches-asset based, market based and income-based approaches-exchange ratio (Swap Ratio). (Theory).
Unit 8	Merger and Acquisition Cash flow valuation basics, relative valuation, business valuation approaches-asset based, market based and income-based approaches-exchange ratio (Swap Ratio Practical Problems Valuation)
Unit 10	Accounting for mergers and acquisitions- amalgamation in the nature of merger and amalgamation in the nature of purchase-pooling of interest method, purchase method
Unit 11	Problems on Accounting for mergers and acquisitions

Unit 12	Deal Structuring and Financing Strategies Creating value with mergers and acquisitions—synergy- valuation methods
Unit 13	Negotiation, deal structuring and methods of payments in mergers and acquisitions
Unit 14	Post- Merger Integration Post-merger integration—critical success factors for post-merger integration, ingredients of integration, approaches to integration, challenges in integration, cultural integration. Recent Cases on Mergers and Acquisitions: Indian and International context

Textbook

1. I Prasad and G. Godbole, Mergers, Acquisitions and Corporate Restructuring, Vikas Publishing House
2. Chandrashekar Krishnamurti and Vishwanath S.R., Mergers, Acquisitions and Corporate Restructuring, SAGE Publications
3. M Y Khan and P K Jain, Financial Management, McGraw Hill
4. I.M. Pandey, Financial Management. Vikas Publishing House Pvt Limited

Reference books

1. Robert F. Bruner, Applied Mergers and Acquisitions, Wiley Finance
2. Donald M. DePamphilis , Mergers, Acquisitions, and Other Restructuring Activities: An Integrated Approach to Process, Tools, Cases, and Solutions, Academic Press Advanced Finance Series
3. Weston., Fred, Mergers & Acquisitions. McGraw Hill.

COURSE NAME: SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

SEMESTER: 3

CREDITS: 4

Course Description

This course introduces investment fundamentals, stock markets, financial markets, and risk-return analysis. Explore valuation techniques, fundamental and technical analysis, and modern portfolio theory. Learn portfolio management strategies, mutual fund performance, and behavioural finance insights. Practical case studies, portfolio evaluation metrics, and key theories like CAPM and Arbitrage Pricing provide tools to navigate complex investment environments and optimise financial decisions.

Course Objectives

- Understand the concepts of basics of investment and the stock markets.
- Describe portfolios in terms of risks and returns.
- Explain the significance of fundamental and technical analysis.
- Appraise various theories of portfolio management.
- Highlight decision making skills in analysing markets for effective portfolio management.

Course Outcomes

- Identify the framework of securities market and its functioning.
- Develop a conceptual and analytical understanding of the framework of evaluating a bond and equity.
- Apply the concepts of fundamental analysis in investment decision making.
- Use portfolio construction theories, its management techniques and strategies.
- Assess investment portfolios to plan for optimal returns.

Unit I	**Introduction** Characteristics of Investments, need for investment, Attributes of Investments; Features of Investments; investment, gambling & speculation, the investment process, various investment avenues, objectives and constraints,
Unit 2	Stock market: BSE, NSE; Major Stock Markets of the world; Participants in Stock Market; Features and Characteristics of Stock Market
Unit 3	Financial markets: primary & secondary, money & capital; equity & debt, commodities, derivatives
Unit 4	**Risk and Return** Security returns, types of risk, risk in contemporary mode, using beta to estimate return, calculating expected return and risk—of individual securities; Calculation of portfolio risk and return
Unit 5	**Fundamental & Technical Analysis** Fundamental Analysis and Valuation of Stocks a. Economic analysis– economic forecasting and stock investment decisions – forecasting techniques. b. Industry analysis--industry classification, industry life cycle c. Company analysis--quantitative and qualitative analysis—
Unit 6	**Valuation**: Bond Returns: Yield to call, Yield to maturity, Bond Price Equity Shares-Concept, Valuation, Dividend Valuation Models, P/E Ratio valuation model. (Theory & Problems).
Unit 7	Fundamental Analysis of three companies as a case analysis Technical Analysis: The Dow Theory, Eliot Wave Theory, Charts: Types; Mathematical Indicators: Moving Averages, RSI. Support and Resistance
Unit 8	**Modern Portfolio Theory** Markowitz Model- Diversification, Portfolio Return, Portfolio Risk, Efficient Frontier. Sharpe‘s Single Index Model, Capital Asset Pricing Model: Assumptions, CAPM Equation,
Unit 9	Market Line: Capital Market Line, Security Market Line, CML V/s SML. Sharpe‘s Optimum Portfolio Construction. Arbitrage Pricing Theory: Equation, Assumption, CAPM V/s APT (Theory & Problems).

Unit 10	**Portfolio Analysis** Portfolio Management Strategies: Active and Passive Portfolio Management strategy. Portfolio Revision: Portfolio Revision Strategies – Objectives, Performance plans.
Unit 11	**Mutual Funds**: Concept of Mutual Funds, Participants in Mutual Funds, Advantages of Investment in Mutual Fund, Measure of Mutual Fund Performance
Unit 12	**Portfolio performance** Evaluation: Measures of portfolio performance (Theory & Problems).
Unit 13	**Behavioural Finance:** Introduction, Prospect Theory, Investor Sentiments; Investor Biases

Textbook

1. Investment Analysis and Portfolio Management by Prasanna Chandra, Mc Graw Hill
2. Analysis of Investments and Management of Portfolios, Frank Reilly | Keith Brown, 11th Edition, Cengage

Reference books

1. Investment science- David G. Luenberger
2. Modern Investment Theory- Robert A Haugen
3. A random Walk Down the Wall street- Burton G M

COURSE NAME : FINANCIAL DERIVATIVES

CREDITS: 4

SEMESTER: 3

Course Description

This course explores derivatives, including forwards, futures, options, and swaps, covering OTC and exchange-traded markets. Study time value of money, forward rate agreements, and margin calculations. Delve into option pricing using binomial and Black-Scholes models, exploring American and European options. Gain practical insights into hedging, arbitrage, and risk management through problem-solving and real-world applications of derivative strategies.

Course Objectives

- Understand the basics of derivatives and identify how derivative instruments can be used to hedge the risk
- Explain the Forward market and Forward rate agreements
- Comprehend the Futures and Swaps and their uses in risk management
- Identify the basic risk management and trading strategies using Futures and Options
- Highlight various pricing models of stock prices, trading, hedging of options

Course Outcomes

- Articulate various types of derivatives including options, futures, and swaps.
- Discuss the fundamentals of forward and futures contracts.
- Demonstrate the use of swaps in risk management.
- Analyse the option trading strategies to hedge the risk.
- Critically evaluate the techniques used to value options and the factors that determine valuation.

Unit I	Introduction to Derivatives and its types Overview of OTC and Exchange trade markets Overview of Derivative contracts (Forwards, futures, options and swaps)
Unit 2	Time value of money-Problems on Time value
Unit 3	Derivative's - Forward markets and contracts Introduction, Delivery and settlement of a forward contract, Default risk and forward contracts,

Unit 4	FRA-Forward Rate Agreement (Arbitrager and Hedgers)-Problems on FRA contracts
Unit 5	Futures & Swaps Overview of Futures & swaps market: trading and Margin Calculation-Problems on margins accounts, Types of margins, Swap markets and contracts: Interest rate swaps- Problems on IRS, Currency swaps
Unit 6	Options Markets and Contracts, Introduction: basic definitions and illustrations of options contracts, Basic characteristics of options, Some examples of options
Unit 7	The concept of moneyless of an option, Types of options, financial options, Greeks of options the concept of moneyless of an option, Types of options, financial options, Greeks of options
Unit 8	Option price sensitivities Discrete-time option pricing: the binomial model, Risk Neutral Probability approach, Risk free portfolio approach, Replicating portfolio approach,
Unit 9	The one-period binomial model, the two- period binomial model, Binomial put option pricing, American options, European options –Problems on Binomial model
Unit 10	Continuous-time Option Pricing The black-Scholes-Merton model, Assumptions of the model, Normal distribution calculations, The black-Scholes- formula, The effect of cash flows on the underlying, The critical role of volatility- Problems on Black-Scholes model

Textbook

1. Financial Derivates by S.S.S Kumar (PHI Publications)
2. An Introduction to Derivatives and Risk Management – Chance, 9th Edition – Cengage Learning

Reference books

1. Options, Futures & Other Derivatives; John C. Hull; Pearson Education
2. Financial Derivatives-Text and Cases; Prakash Yaragol; Vikas Publishing House Pvt. Ltd; 1/e, 2019
3. Options & Futures; Vohra & Bagri; TMH; 2/e

HR ELECTIVES

COURSE NAME: EMPLOYEE RELATIONS AND LABOUR LAWS
SEMESTER: 3

Credits:4

Course Description

This course examines employment relationships, industrial disputes, and labour laws, focusing on rights, social security, and compliance. Topics include conflict resolution, union management, collective bargaining, and adjudication under the Industrial Disputes Act. Gain insights into grievance mechanisms, industrial harmony strategies, and case studies, including the Maruti Manesar Plant, to foster peaceful and sustainable workplace environments.

Course Objectives:

- Highlight the need to have Industrial peace and harmony for productivity.
- Explain the importance of employment relationships with reciprocal rights, duties and obligations.
- Inform regarding labour laws and the new labour codes along with the system of compliance.
- Explain grievance redressal procedures and the legal appeal system to resolve the Industrial disputes by both employees and employers in various courts.
- Elucidate the concept of workers participation, suggestion scheme and other best practices towards

Course Outcomes:

- Articulate the employment relationship and the possible employee and employer related issues, confrontation and disputes that are likely to arise during the employment period.
- Analyse in a critical manner the concepts, process and framework to handle industrial dispute and promote Industrial peace.
- Explain the knowledge of major labour laws & Labour codes and comply to avoid non-compliance related penalties
- Plan an action programme to implement workers participation in management, suggestion scheme and grievance handling process.
- Present a disciplinary action, charge sheet & enquiry procedure as per the requirement of natural justice in a transparent and legal manner.

Unit 1	Employment Relationship and Disputes, Employment relationship during the employment period; disputes arising on employment terms between employees, employers, and unions. Learning from industrial disputes in India, including the Maruti Manesar Plant. Conceptual framework to understand, approach, and handle industrial disputes to maintain industrial peace.
Unit 2	Labour Law Framework, Labour laws on employees' rights, social security, and wages. Overview of the overarching labour law framework, followed by brief discussions on different laws and their latest amendments.
Unit 3	Regulation and Compliance Acts Discussion on acts such as the Factories Act, Industrial Disputes Act, Contract labourAct, Wages Act, Trade Unions Act, Shops and Establishments Act, and Industrial Employment (Standing Orders) Act.
Unit 4	Social Security and Benefits Acts Examination of social security and benefits acts, including PF, Bonus, Gratuity, ESI, Workmen Compensation, Maternity Benefit Act, and Sexual Harassment at Workplace Act. Compliances related to returns and forms for all labour legislations.
Unit 5	Workers' Participation and Industrial Peace Workers' participation in management, suggestion schemes, transparent grievance handling procedures, and works committee formation. Best practices to create and maintain industrial peace and harmony.
Unit 6	Conflict Management in Industrial Relations Management of conflicts related to industrial relations and different methods of resolving conflicts.

Unit 7	Union Recognition and Collective Bargaining Union recognition, conditions for effective collective bargaining, and the process of collective bargaining.
Unit 8	Adjudication under Industrial Disputes Act Adjudicating and proceedings under the Industrial Disputes Act, with the role of government, the structure of labour courts, and appropriate authorities.
Unit 9	Case Law Studies Analysis of case law related to industrial disputes, labour legislation, and industrial relations.
Unit 10	Collective Bargaining and Trade Union Management Management of trade unions, productivity-linked union agreements, and their implications on organizational harmony.
Unit 11	Charge Sheets and Inquiry Procedures Charge sheet preparation and inquiry conduction procedures to comply with the principles of natural justice.
Unit 12	Transparent Grievance Mechanisms In-depth exploration of transparent grievance handling mechanisms and their significance in maintaining industrial peace.
Unit 13	Best Practices for Industrial Harmony Strategies for implementing best practices to foster a peaceful industrial environment and ensure sustainable industrial growth.
Unit 14	Learning from Industrial Case Studies Comprehensive study of industrial disputes and their resolutions, with emphasis on key learnings from the Maruti Manesar Plant and similar cases.

Textbook

1. Legal aspects of business; Ravindra Kumar, CL India. 2020 Cengage

2. Industrial Relations: C.S. Venkata Ratnam: Oxford University Press: ISBN-10: 0199456550

Reference books

1. Industrial Relations and Labour Laws: Piyali Ghosh & Shefali Nandan: McGraw Hill Education: ISBN-10: 9339203046

2. Bare Acts of the relevant Legislations

COURSE NAME: PERFORMANCE & COMPENSATION MANAGEMENT

SEMESTER: 3

Credits:4

Course Description

This course explores performance management, planning, appraisal, and organisational development. Topics include performance indicators, frameworks like the Balanced Scorecard, and compensation strategies. Learn about pay-for-performance models, equity in pay structures, and effective incentive plans. Emphasis is placed on feedback, mentoring, and aligning performance systems with organisational strategy to enhance development, motivation, and overall success.

Course Objectives:

- Highlight the concept of organisational performance and how it is related to business strategy and people performance.
- Teach the concepts of performance management as a process, performance planning, performance appraisal and performance monitoring.
- Show how a good performance management system in an organisation can contribute towards good organisational performance.
- Explain the importance of an effective performance management system in helping organisations define and achieve long term and short- term goals vital to its overall success.
- Comprehend the concepts of compensation management and related concepts such as pay models, pay structures and pay ranges and how they are applied to real life scenarios.

Course Outcomes:

- Present the concept of organisational performance and link it to performance of human resource.
- Design, Develop and implement a performance management system.
- Plan for appropriate performance appraisal methods and tools to link individual goals and performance to company's strategy.
- Apply contemporary performance management frameworks for the effective roll out of performance management practices.
- Create effective pay plans and link performance with merit increases and incentive awards.

Unit 1	Concept of Performance Management and Reward Systems Concept of performance management and reward systems. Organisational strategy and organisational performance management. Why is performance management an HR discipline?
Unit 2	Performance Management Process and Benefits Performance management process. Benefits of PMS from the perspective of the organisation, line managers, and employees.
Unit 3	Performance Planning and Definitions Performance planning, defining performance, performance definitions, and approaches
Unit 4	Critical Success Factors and Performance Indicators Critical Success Factors, KRA, KPA, and KPIs. Leading and lagging indicators. Approaches to identify KRA, KPA, and KPIs.
Unit 5	Measuring Performance and Implementing PMS Measuring results and behaviour, gathering performance information, and implementing a PMS. Performance management and employee development.
Unit 6	Performance Management Frameworks What are performance management frameworks and their needs? Hierarchical and process-driven frameworks, Balanced Scorecard, DuPont Framework, and Porter's Value Chain Framework.
Unit 7	Performance Management and Organisational Development Performance management and organisational development in existing domains. Organisational development through performance management in new markets and domains, Ansoff’s Framework, and benchmarking processes.
Unit 8	Performance Appraisal and Feedback Design of performance appraisal and various approaches, 360-degree appraisal and feedback, and other modern feedback strategies.
Unit 9	Performance Review and Accuracy Issues

	Performance assessment, performance review, and feedback. Employee response mechanisms to feedback and issues of accuracy and bias in performance management.
Unit 10	Performance Monitoring and Mentoring Performance monitoring frameworks. Mentoring and protégé development, internal and external mentorship programs, and DSMC/ATI Performance Improvement Model.
Unit 11	Performance-Based Pay Concepts Basis for pay for performance, business strategy, and reward strategy. Individual, group, and organisational plans for performance-based pay, including the Scanlon Plan.
Unit 12	Compensation Management Basics of compensation, job-based structures, and job evaluation. Introduction to pay models, including policy, techniques, and objectives.
Unit 13	Pay Structures and Equity Pay structures, salary breakdowns, salary ranges, and pay grades based on market data and job roles. Internal and external equity of compensation packages.
Unit 14	Pay and Benefits Determining individual pay, understanding employee benefits, pay for performance, performance appraisals, and wage components. Examples of good incentive plans and analysis of their impact on employee performance.

Textbook

1. Compensation, 10th Edition, by Milkovich, Newman and Gerhart

2. Performance Management, Soumendranath Bagchi, Cengage Publishers, Latest Edition

Reference books

1. T.V. Rao: _Performance Management Skills Workbook

2. T.V Rao Learning Systems; Latest Edition.

3. Peter F. Drucker: _People and Performance‘; Elsevier; Latest Edition.

4. Robert Cardy, Performance Management, Prentice Hall India, New Delhi, 2004

COURSE NAME: HIRING & PSYCHOMETRIC ASSESSMENT

SEMESTER: 3

Credits:4

Course Description

This course examines staffing strategies, job analysis, and competency modelling. Explore forecasting, sourcing methods, and recruitment practices, with a focus on the role of technology in hiring. Delve into psychological assessments, including types of tests and their applications in modern workplaces. Gain insights into effective hiring strategies, induction processes, and the use of psychometric tests in decision-making.

Course Objectives:

- Teach theories and practices of Manpower Staffing.
- Describe different types of Sourcing, Recruitment and Selection process and familiarise oneself with the concepts of Staffing.
- Highlight the role of outsourced staffing and the role of the Staffing consultant and learn to engage with industry professionals in this field.
- Describe how psychometric assessment works in organisations.
- Explain the science of staffing

Course Outcomes:

- Present the importance for organisations to staff successfully.
- Articulate the legal and ethical aspects of staffing
- Evaluate Staffing strategies for strategically achieving competitive advantage.
- Plan to deploy psychometric tests in organisations.
- Compare and contrast the skills and knowledge needed to conduct full and fair recruitment and selection.

Unit 1	Staffing Strategies, Staffing strategies and their business implications.
Unit 2	Job Analysis and Competency Modelling, Job analysis and competency modelling in the context of staffing strategies
Unit 3	Forecasting and Planning, Forecasting and planning as part of effective recruitment processes.

Unit 4	Sourcing Methods and Processes, Different types of sourcing, the sourcing process, and social media hiring.
Unit 5	Recruiting and Hiring, Overview of recruiting practices and hiring strategies.
Unit 6	Technology in Hiring, Role of technology in hiring, including HRIS (Human Resource Information Systems), scorecards, the Balanced Scorecard, and dashboards.
Unit 7	Internal and External Candidates, The hiring process for internal and external candidates.
Unit 8	Induction and Placement, Induction processes and placement strategies, focusing on outcomes.
Unit 9	Managing Workflow Understanding workflow management, key components, and best practices.
Unit 10	Historical Antecedents of Psychometric Assessments Exploration of historical antecedents of psychological testing, testing potential versus skill, and psychological testing in hiring.
Unit 11	Types of Psychological Tests, Discussion of types of psychological tests, including projective tests, pen-and-paper tests, and self-report inventories.
Unit 12	Constructs and Advances in Testing, Test constructs and current advances in psychological testing.
Unit 13	Modern Applications of Psychometric Testing, Applications of psychometric assessments in modern workplaces and industry-specific methods of hiring.
Unit 14	Familiarisation with Common Psychometric Tests. Familiarisation with common psychometric tests such as Eysenck, 16 PF, and FIRO-B, and their use in hiring decisions.

Textbook

1. Phillips, J.M. and Gully, S.M. (2009) Strategic Staffing: Pearson Prentice Hall; 013357176
2. Introduction to Psychology: Atkinson & Hilgard: Cengage Learning; 16 edition (12 November 2015): ISBN-10: 8131528995

Reference books

1. The Definitive Guide to Recruiting in Good Times and Bad: Claudio FernÃ¡ndezArÃ¡oz, Boris Groysberg, Nitin Nohria: HBS
2. Globalization, Robots, and the Future of Work: Jeffrey A. Joerres, Amy Bernstein: HBS
3. A Note on a Standardized Approach to Hiring Decisions: David Dodson: HBS

COURSE NAME: STRATEGIC HUMAN RESOURCE & CHANGE

SEMESTER: 3

CREDITS:4

Course Description

This course explores HRD from a strategic perspective, focusing on HRM and HRD alignment with business goals. It covers HRD practices, needs assessment, coaching, counselling, organisational change, and workforce diversity. Key topics include hybrid work systems, stress management, global talent management, and the role of HRD professionals.

Course Objectives:

- Identify and evaluate the alignment of human resource management with business strategy and the role of the HR professional in this process.
- Integrate the various functional areas of human resource management with business strategy considering both the theoretical and practical application of issues associated with HR practices.
- Describe the evolution of HRM with technology and develop appropriate coaching strategies for change management
- Appraise regarding talent, providing talent solutions that reduce friction and enhance the flow of the business
- Explain the challenges posed by contemporary issues in organizational contexts.

Course Outcomes:

- Present Strategic HRM Framework and perspectives of Human resource Development.
- Evaluate the major factors influencing the development of SHRM as a field of study and practice and describe the key concepts relating to formulation and implementation of business strategies.
- Analyse the contributions of HRM to strategy and to illustrate the ways in which key human resource functions may be performed with a strategic orientation, possible constraints as well as prospects.
- Present coaching/ counselling skills to align HR Strategy with Business Strategy.
- Apply Organisational Development and Change strategies in an organisation

Unit 1	Strategic Human Resource Development

	Strategic Human Resource Development (HRD) from an investment perspective of HR management. Meaning and strategic framework for HRM and HRD, including vision, mission, and values. Importance of HRD, challenges to organisations, and roles of HRD professionals. HRD needs assessment, practices, performance measures, and links to HR strategy and business goals. Implementation and evaluation of HRD programs, strategic capability, benchmarking, HRD audit, and recent trends.
Unit 2	Changing Work Systems and New Paradigms Discussion on new paradigms in work systems caused by COVID-19. Leveraging technology to deepen human connections, building a positive and caring organisational culture, and attracting and managing global talent. Managing hybrid teams and addressing challenges like work-from-home (WFM).
Unit 3	HR Strategy, Coaching, and Counselling The need for coaching and the role of HR in coaching and performance. Skills for effective coaching and evaluating coaching effectiveness. Importance of counselling, components of counselling programs, and HR's role in counselling. Employee health and welfare programs, work stress, sources and consequences, and stress management techniques, including Eastern and Western practices.
Unit 4	Organisational Change and Development Concept and significance of organisational change and development. Definitions and characteristics of Organisational Development (OD), its relevance for managers, and assumptions of OD. Future of OD, including globalisation, emerging trends, expanding the use of OD, and creating whole-system change. Role of OD practitioners, required competencies, and scope of their roles. Process of OD, including program components, phases, and steps like entry, developing contracts, launches, situational evaluation, and closure.
Unit 5	Diagnosing Organizations and Designing Interventions Diagnosis levels in organisations, factors affecting intervention success, and OD map. Characteristics of OD interventions, including human process interventions like team and interpersonal development. HR interventions include goal setting, performance appraisal, reward systems, career planning, workforce diversity management, and employee wellness.

Unit 6	Strategic Framework for HRM and HRD Detailed exploration of the strategic framework linking HRM and HRD to business objectives, with a focus on the importance of aligning HR strategy with organisational vision and values.
Unit 7	HRD Audit and Benchmarking The role of HRD audits and benchmarking in assessing the effectiveness of HRD initiatives. Techniques and methods for evaluating strategic HRD capabilities.
Unit 8	Hybrid Work Management Deep dive into managing hybrid teams and the role of technology in enhancing productivity and employee engagement in hybrid work environments.
Unit 9	Employee Wellness and Stress Management Comprehensive study of employee wellness programs, identifying stress sources, and exploring advanced stress management techniques.
Unit 10	Global Talent Management Strategies for attracting, managing, and retaining global talent while building culturally inclusive organisations.
Unit 11	Organisational Development Trends Emerging trends in organisational development, such as integrating business competencies with OD, creating partnerships and alliances, and enhancing organisational learning.
Unit 12	OD Practitioner's Role and Competencies Exploration of the competencies required for OD practitioners and the evolving scope of their roles in modern organisations.
Unit 13	Designing OD Programs Comprehensive view of designing OD programs, including planning phases, situational analysis, and aligning interventions with organisational goals.
Unit 14	Workforce Diversity and Career Development Focus on workforce diversity, career planning, and systems to promote inclusivity and career growth within the organisation.

Textbook

1. Jeffrey A Mello, Strategic Human Resource Management, 4 e Cengage

2. Organization Development and Change by T. G. Cummings and C. G. Worley. South Western College Publishing

Readings

1. How to Manage a Hybrid Team: Rebecca Knight: HBR: 2020

2. The Post-Pandemic Rules of Talent Management: B.Frankiewicz & T.ChamorroPremuzic: HBR:2020

3. Coca-Cola: Preparing for the Next 100 Years: Cynthia Montgomery & James Weber: HBS: 2021

4. Digital Transformation at L&T (B): Ramnarayan & Sunita Mehta: ISB: 2021

COURSE NAME: MODERN MARKETING MANAGEMENT

SEMESTER: 3

CREDITS:4

Course Description

This course explores modern marketing concepts, focusing on the evolution of marketing, green marketing, and its ethical considerations. It covers key elements of the marketing mix, including product decisions, pricing strategies, marketing channels, and logistics management. Additionally, the course examines branding, packaging, product life cycle, and the strategic implications of marketing decisions in today's dynamic business environment.

Course Objectives:

- Inform regarding modern marketing techniques.
- Explain sustainable relationships and analyse buying behaviour.
- Describe importance of planning for STP in targeting customers.
- Highlight modern marketing concepts used in retailing.
- optimise benefits that can be accrued by Branding.

Course Outcomes:

- Understand critical functions involved in modern marketing management principles and its applications.
- Identify and examine the key issues or gaps in the performance of the Product or Services marketing of a business firm.
- Solve the problems pertaining to key performance areas in marketing management and provide conclusions through collecting and evaluating, market and environmental data.
- Analyse the retailing strategies that are essential to enhance the performance of the organised retailing and ideate new opportunities in that space
- Apply contemporary brand management theories and concepts to enhance marketing ability of the business firm.

Unit 1	Framework of Modern Marketing and Marketing Mix Overview of Modern Marketing: Concept, nature, scope, and importance of modern marketing; Marketing concept and its evolution; Marketing

	Environment – macro and micro components and their impact on marketing decisions. Meaning of Green Marketing, stakeholders of green marketing, ethics and social responsibility for green marketing, environmental concerns of green marketing, and approaches to green marketing. Marketing Mix: Concept of a product; Classification of products; Major product decisions. Product line and product mix: Branding; Packaging and labelling; Product life cycle – strategic implications; New product development, Product Life Cycle (PLC). Factors affecting price decisions: Cost-Based Pricing, Value-Based and Competition-Based Pricing, Product Mix Pricing Strategies. Need for Marketing Channels, Decisions Involved in Setting up the Channel, Channel Management Strategies, Introduction to Logistics Management, Introduction to Retailing and Wholesaling.
Unit 2	Consumer Behaviour and its Applications in Marketing Consumer Research Process, Needs and Goals, Motivational Conflict, Types of Consumer Behaviour, Cognitive Response Model, Elaboration Likelihood Model, Social Judgment Theory. Consumer Decision-making Process – Problem Recognition, Information Search, and Evaluation of Alternatives: Introduction, Problem Recognition, Purchase and Post Purchase Behaviour.
Unit 3	Marketing Segmentation and Positioning Requirements for Effective Segmentation, Bases for Segmentation, Determining How Many Segments to Enter. Product Positioning: An Introduction, Positioning Strategy, Positioning Approaches, and Positioning Errors.
Unit 4	Marketing Research Meaning and scope of marketing research; Marketing research process. Meaning of Research, Research Characteristics, Various Types of Research, Marketing Research in the 21st Century (Indian Scenario), Consumer Market Research, Business-to-Business Market Research, Product Research, Pricing Research, Motivational Research, Distribution Research, Online Marketing Research, and Recent Trends in Marketing Research.
Unit 5	Services Marketing – Overview Definition – Service Economy – Evolution and Growth of Service Sector –

	Nature and Scope of Services – Unique Characteristics of Services – Challenges and Issues in Services Marketing.
Unit 6	Service Design and Development Service Life Cycle – New Service Development – Service Blue Printing – GAP Model of Service Quality – Measuring Service Quality – SERVQUAL – Service Quality Function Development.
Unit 7	Service Delivery and Promotion Positioning of Services – Designing Service Delivery System, Service Channel – Pricing Services, Methods – Service Marketing Triangle – Integrated Service Marketing Communication.
Unit 8	Service Strategies Service Marketing Strategies for health, hospitality, tourism, financial, logistics, educational, entertainment, and public utility information technique services.
Unit 9	Retailing Management – Overview Functions of retailing, building and sustaining relationships; strategic planning; structural change; types of Retail Outlets.
Unit 10	Forms of Retail Institutions Retail institutions by ownership; retail institutions by store-based strategy mix; Web, non-store-based, and other forms of non-traditional retailing.
Unit 11	Store Location and Pricing Choosing a store location; Trading Area Analysis; Site Selection; Store Design and Layout; Display. Delivering the product, pricing strategies – Price adjustments – Using price to stimulate retail sales.

Unit 12	Brand Management – Overview Storytelling and Branding, The Internationalisation of Brands, The Importance of Consumer Perception and Behaviour in Branding, Tools for Marketing and Branding Strategy.
Unit 13	Brand Elements and Strategies Brand Image, Brand Equity, Brand Loyalty, Brand Identity System, Branding Architecture, Brand Association, Brand Extension.
Unit 14	Branding and Ethics Building a Corporate Social Responsibility Image, Branding and Ethics, Internet and Social Media Branding.

Textbook

1. Philip Kotler, Kevin Lane Kellar, Abraham Koshy and Mithileswar Jha, Marketing Management – A South Asian Perspective, Pearson.

2. Dawn Iacobucci, Marketing Management,Cengage

Reference books

1. Marchand & B: Vardharajan: An introduction to Marketing, Vikas Publishing House, New Delhi.

2. Maurice & Modell & Larry Rosenberg: Marketing: Prentice Hall of India Ltd. New Delhi.

3. Philip Kotler, Kevin Lane Kellar, Abraham Koshy and Mithileswar Jha, Marketing Management – A South Asian Perspective, Pearson

4. Mohammad Amanatullah: Principles of Modern Marketing, Kalyani Publications New Delhi.

COURSE NAME: RURAL MARKETING MANAGEMENT

SEMESTER: 3

Credits:4

Course Description

The course is regarding the nature, scope, and classification of rural markets, highlighting key differences between rural and urban markets. It explores rural consumer behaviour, the rural marketing environment, and challenges faced in rural marketing. Additionally, it examines research methods for rural markets, distribution models, and the impact of government initiatives on agricultural marketing and rural development.

Course Objectives:

- Explain the nature and characteristics of rural markets
- Highlight the challenges involved in marketing different products in rural markets.
- Describe strategic issues facing rural markets.
- Show marketing strategies for agricultural products.
- Discuss the strategies that are not working and correct the same

Course Outcomes:

- Articulate the micro and macro economies of rural marketing.
- Critically analyse consumerism with respect to rural institutions and from the emerging rural retail perspective.
- Apply situation analysis to evaluate market opportunities and develop marketing plans for rural retailers.
- Evaluate various rural market-oriented schemes that support the development of rural economy.
- Develop marketing strategies for various agricultural products.

Unit 1	Introduction to Indian Rural Marketing, Nature and scope of rural marketing; concepts and classification of rural markets; rural vs. urban markets.
Unit 2	Rural Marketing Environment, Rural marketing environment, rural retail outlets, rural demand, and problems in rural marketing.

Unit 3	Rural Consumer Behaviour, Consumer buying behaviour in rural markets, factors affecting consumer behaviour: social factors, technological factors, economic factors, political factors; characteristics of rural consumers.
Unit 4	Researching Rural Markets, Researching rural markets: Sensitising rural market, PRA approach (Participatory Rural Appraisal), and the need for PRA.
Unit 5	Distribution in Rural Markets, Channel dynamics and rural channel members; rural retail environment; channel behaviour in rural areas.
Unit 6	Distribution Models in Rural Markets, Distribution models in rural markets: FMCGs, durables, agri-inputs. Haats, Mandis, PDS, cooperative societies.
Unit 7	Marketing of Agricultural Produce, Profiling of Indian agricultural produce marketing, challenges in marketing agricultural produce, and strategies to promote agricultural marketing.
Unit 8	Government Initiatives and Support, Government initiatives and support; challenges for the rural artisan sector, government policy towards the handicrafts sector, and marketing strategies for the development of the rural artisan sector.
Unit 9	Indian Agrochemical Market, Indian agrochemical market: Marketing environment and strategies for agrochemicals.
Unit 10	Recent Trends in Rural Marketing-Rapid growth in service industries; rise in consumers' demands: The rising purchasing power in rural India and the increase in rural literacy.
Unit 11	Rural India Goes Mobile and Online, Rural India goes mobile and online – Internet reach – case studies of new trends – rural banking thrust – Kisan Credit Cards – insurance reach – rural credit institutions.
Unit 12	Agricultural Marketing – Overview, Agricultural marketing: Concept, nature, and types of agricultural produce.
Unit 13	Agricultural Markets and Channels, Concept and types of agricultural markets, marketing channels, methods of sales, agro-market functions.
Unit 14	Government Schemes and Support for Agriculture, Concept of minimum support price for direct agricultural produce, agricultural inputs and costs, various government schemes to develop an agro-based rural economy.

Textbook

1. Rural Marketing-Challenges and Opportunities, Dinesh Kumar and Punam Gupta, SAGE Publications Pvt. Ltd
2. Dawn Iacobucci, Marketing Management, Cengage

Reference books

1. Rural marketing Text & Cases: CSG Krishnamacharyulu and Lalitha, **Ramkrishnan**
2. Rural Marketing: Pradeep Kashyap Don‘t flirt with Rural Marketing: RV Rajan
3. Cases in Rural Marketing An Integrated Approach: CSG Krishnamacharyulu and Lalitha Ramkrishnan

COURSE NAME: DIGITAL MARKETING

SEMESTER: 3

CREDITS:4

Course Description

This unit introduces digital marketing, highlighting its key distinctions from traditional marketing, including web presence, the POEM framework, and the consumer decision journey. It provides foundational knowledge of e-commerce models, SEO, content marketing, and social media strategies to enhance product and service promotion in the digital space.

Course Objectives:

- Impart specialised learning towards enhancing digital marketing skills.
- Highlight the implications of content marketing and its various uses in promoting products and services.
- Comprehend the effective use of Search Engines in optimising the promotional aspects.
- Explain social media platforms that impact digital marketing.
- Describe emerging trends in digital marketing.

Course Outcomes:

- Identify the importance of the digital marketing functions for enabling businesses to supplement their offline marketing activities with online campaigns.
- Articulate the importance of content marketing on digital platforms.
- Analyse the role played by search engines in deriving greater market visibility and successful promotions.
- Assess the implications of social media in effective marketing.
- Plan to leverage the use of emerging trends in digital marketing.

Unit 1	Introduction to Digital Marketing Concepts Introduction to marketing in the digital environment and its comparison with traditional marketing, types of web presence, the POEM framework, consumer decision journey.
Unit 2	E-commerce Models and Strategies

	Common e-commerce business models, pure play and omnichannel options, fulfilment options and strategies, introduction to payment gateways.
Unit 3	Fundamentals of Content Marketing Content Marketing – Definition, Idea and Design – Implications of Content Marketing in Promotions. Content Marketing as a comprehensive strategy to attract or retain a target audience.
Unit 4	Content Creation and Value Generation Creating and sharing relevant and valuable content to gain a profitable action. Content marketing and its importance in digital marketing of products and services. Various types of content and how to capitalise on trending topics.
Unit 5	Content Strategy and Management Content bucketing and how to create a social media content calendar for a brand.
Unit 6	Fundamentals of Search Engine Optimization (SEO) Search and display advertising, online pricing models, introduction to page rankings, Google Ad Words tool for marketing campaigns and its native analytics functionalities. Paid versus natural search (the ad auction model), search engine optimization (SEO) process and methodology.
Unit 7	Keyword and SEM Strategies Long tail and short tail keywords, backlink building, keyword analysis, process and optimization, SEM landscape, landing pages and their importance in conversion analysis, search methodology.
Unit 8	Campaigns and Emerging Platforms

	Email campaign creation and management, mobile marketing, and video marketing.
Unit 9	Social Media Platforms and Strategies Social media strategy steps, using Facebook, LinkedIn, Twitter, YouTube, Instagram, and other popular platforms from a marketer's perspective.
Unit 10	Social Media Content and Monitoring Content guideline for online communications, social media measuring, monitoring and reporting, tracking and monitoring platforms, content seeding, how to use blogs, forums, communities, and discussion boards.
Unit 11	Viral Campaigns and Stakeholder Relationships Viral campaigns and the social graph, building relationships with different stakeholders online.
Unit 12	Online Reputation Management and Trends Online reputation management, Emerging trends and issues in digital marketing.
Unit 13	Technological Trends in Digital Marketing Voice search, AI in marketing, Micro-moment marketing.
Unit 14	Advanced Technologies in Marketing Cross-device marketing, Blockchain, VR/AR.

Textbook

1. Digital Marketing, Seema Gupta, McGraw Hill, 2 nd Ed. | ISBN-10 : 935316978X ISBN-13 : 978-9353169787

2. Digital Marketing: From Fundamentals to Future | Author(s): Swaminathan T. N. | Karthik Kumar | ISBN: 9789353501532 | Edition: 1 st | Cengage Publications

Reference books

1. Marketing 4.0 - Moving from Traditional to Digital, Philip Kotler, Hermawan Kartajaya, Iwan Setiawan, John Wiley & Sons, 2019

2. Understanding Digital Marketing- Marketing Strategies for Engaging the Digital Generation, Damian Ryan

3. Digital Marketing: From Fundamentals to Future, Swaminathan T. N., Karthik Kumar

4. Fundamentals of Digital Marketing, Puneet Bhatia , Pearson Publications

COURSE NAME: INTEGRATED MARKETING COMMUNICATIONS (IMC)

CREDITS:4

SEMESTER: 3

Course Description

The course introduces the fundamentals of advertising, including its meaning, objectives, and role within the marketing mix. It explores the communication system, media planning, ethical considerations, and legal regulations governing advertising practices. Additionally, it delves into brand management, positioning, and the importance of integrated marketing communication (IMC) in creating strong, consistent brand strategies.

Course Objectives:

- Discuss about concepts & tools in the field of Integrated Marketing Communication.
- Explain the regulations and mechanisms in place to govern Advertising Ethics in India
- Highlight various brand management concepts.
- Describe Integrated Marketing Communication features.
- Examine various Brand strategies.

Course Outcomes:

- Articulate various concepts and applications of Integrated Marketing Communication.
- Present implementation guidelines for Integrated Marketing Communications.
- Design plans to implement various brand concepts.
- Analyse the effectiveness of various Integrated Marketing Communication programmes.
- Design brand strategies and implement with the use of Integrated Marketing Communications.

Unit 1	Overview and Framework of Advertising, Meaning, Concept and Framework of Advertising; Defining Advertising; Objectives of advertising, Advertising to Persuade the Buyer; Importance of Advertising in Marketing; Role of Advertising in Marketing Mix and Positioning; Factors that Affect Marketing and Advertising.
Unit 2	The Advertising Communication System, The Advertising Communication System and communication process. Advertisers and Advertising Agencies; Choosing an Advertising Agency.

Unit 3	Media Planning and Budgeting, Advertising Budget, Media Planning; Introduction, Media Objectives; Media Options; Measuring Media Audiences; Determining Media Weight; Media Schedule Decisions; Space and Time Buying; Cost Considerations.
Unit 4	Perceived Role of Advertising; The Advertising Standards Council of India (ASCI); Forms of Ethical Violations; Misleading advertising; Advertising to children, Product endorsements, Stereotyping, Cultural, religious and racial sensitivity in advertising, Obscenity in advertising.
Unit 5	Laws and Regulations in Advertising, Introduction to Civil and Penal Codes Applicable to Advertising; Regulation Governing Broadcast Media Advertising.
Unit 6	Brands and Branding Concepts, Brands versus Products – Branding Challenges and Opportunities – Building a Strong Brand – Creating Customer Value.
Unit 7	Brand Positioning and Repositioning, Establishing Brand Positioning – Positioning Guidelines – Brand Repositioning, Brand Mantras.
Unit 8	Brand Management Framework, Brand Identity & Personality, David Aaker's Model, Kapferer's Model, CBBE Pyramid, Brand Report Card, Brand Management Framework.
Unit 9	Introduction to Integrated Marketing Communication (IMC), An Introduction to Integrated Marketing Communication (IMC): Meaning and role of IMC in the marketing process.
Unit 10	One Voice Communication vs IMC
Unit 11	IMC Tools and Models, Introduction to IMC tools – Advertising, sales promotion, publicity, public relations, and event sponsorship – DAGMAR/AIDA model.
Unit 12	Measuring and Managing Brand Equity, Measuring and managing brand equity, leveraging secondary brand associations – outcomes of brand equity.
Unit 13	Brand Architecture and Brand Product Matrix, Brand architectures, brand product matrix, brand hierarchy.
Unit 14	Brand Extensions and New Product Introductions, Brand extensions and new product introductions.

Textbook

1. Keller, K. L., Parameswaran, M. G., & Jacob, I. (2011). Strategic brand management: Building, measuring, and managing brand equity. Pearson Education India.

2. Terence A Shimp, Advertising Promotion and other Aspects of Integrated Marketing Communications, Cengage

Reference books

1. Aaker, David A. etc., Advertising Management, PHI.

2. Belch, George E. and Belch, Michael A, Advertising and promotion, Tata McGraw Hill, New Delhi.

3. Ogilvy David, Ogilvy on Advertising, London, Longman

ELECIVE: ARTIFICIAL INTELLIGENCE

COURSE NAME: DATA SCIENCE FUNDAMENTALS

SEMESTER: 3

Credits:4

Course Description

This course offers a comprehensive introduction to Data Science, covering its key concepts, lifecycle, and applications. It explores data collection, cleaning, analysis, visualization, and machine learning, using tools like Tableau, Power BI, and Python libraries. The syllabus also addresses ethical considerations, big data, and real-world project implementation, equipping participants with the knowledge to apply data science principles effectively.

Course Objectives

- Equip learners with a foundational knowledge of data science principles and their applications in solving business problems.
- Develop skills to collect, pre-process, and analyse data effectively.
- Enable learners to interpret statistical results and apply data visualisation techniques for decision-making.
- Provide an understanding of machine learning concepts and their use in predictive modelling.
- Foster awareness of ethical considerations and responsible practices in data science.

Course Outcomes

- Comprehend the lifecycle and core methodologies of data science.
- Implement data collection, cleaning, and pre-processing techniques.
- Use statistical and visualisation tools to derive meaningful insights from data.
- Apply basic machine learning algorithms to real-world problems.
- Address ethical and privacy concerns while handling and analysing data.

Units	Syllabus

Unit 1	Overview of Data Science: Definition of Data Science, Evolution, Applications, Key concepts of Data Science
Unit 2	Data Science Lifecycle: Phases of Data Science: Data Collection, Cleaning, Analysis, Visualization, Deployment
Unit 3	Data Types and Sources: Structured vs. Unstructured Data, Primary and Secondary Data Sources, Data Formats
Unit 4	Data Collection Techniques: Surveys, Web Scraping, APIs, Data Warehousing, Real-Time Data Streams
Unit 5	Data Cleaning and Pre-processing: Handling Missing Data, Outlier Detection, Data Transformation, Encoding Categorical Variables
Unit 6	Descriptive Statistics: Measures of Central Tendency, Dispersion, Data Visualisation Techniques
Unit 7	Inferential Statistics: Hypothesis Testing, Confidence Intervals, p-Values
Unit 8	Principles of Data Visualisation: Importance, Best Practices, Common Pitfalls
Unit 9	Tools for Visualisation: Overview of Tableau, Power BI, Python Libraries (Matplotlib, Seaborn)
Unit 10	Introduction to Machine Learning: Types of ML (Supervised, Unsupervised, Reinforcement), Applications
Unit 11	Algorithms and Models: Linear Regression, Logistic Regression, Clustering, Decision Trees

Unit 12	Introduction to Big Data: Characteristics of Big Data (Volume, Velocity, Variety), Overview of Tools
Unit 13	Ethics and Privacy in Data Science: Data Security, Bias in Data, Responsible AI, Legal Regulations
Unit 14	Capstone Project and Ethical Practices: Application of knowledge in real-world scenarios, Discussion on ethical best practices

Textbooks

1. James, G., Witten, D., Hastie, T., & Tibshirani, R. (2021). An Introduction to Statistical Learning: With Applications in R (2nd ed.). Springer. https://doi.org/10.1007/978-1-0716-1418-1
2. Han, J., Kamber, M., & Pei, J. (2022). Data Mining: Concepts and Techniques (4th ed.). Morgan Kaufmann.

References

1. McKinney, W. (2022). Python for Data Analysis: Data Wrangling with Pandas, NumPy, and Jupyter (3rd ed.). O'Reilly Media.
2. Provost, F., & Fawcett, T. (2013). Data Science for Business: What You Need to Know About Data Mining and Data-Analytic Thinking. O'Reilly Media.
3. Mayer-Schönberger, V., & Cukier, K. (2017). Big Data: A Revolution That Will Transform How We Live, Work, and Think. Eamon Dolan/Houghton Mifflin Harcourt.

SEMESTER: 3

COURSE NAME: AI BASICS

CREDITS: 4

Course Description

This course provides a comprehensive overview of AI for business users, covering AI fundamentals, data analytics, machine learning, and deep learning. It explores practical AI applications, ethical considerations, and governance frameworks, while focusing on AI-driven innovation and strategic decision-making. Participants will gain the skills to apply AI solutions to real-world business challenges and develop AI strategies for effective decision-making.

Course Objectives

- Equip learners with fundamental knowledge of AI concepts and applications relevant to business environments.
- Enable learners to apply data warehousing, analytics, and visualisation techniques in AI workflows.
- Develop skills in machine learning and deep learning to address real-world business challenges.
- Highlight strategic decision-making abilities using AI-driven tools and frameworks.
- Ensure awareness of ethical considerations, governance, and risk management in AI projects.

Course Outcomes

By the end of the course, students will be able to:

- Discuss AI principles and their practical applications in business.
- Apply data management and visualisation techniques to extract actionable insights.
- Build and implement machine learning and deep learning models for business problems.
- Make strategic decisions using AI-based tools and evaluate their outcomes.
- Address ethical and governance issues while managing AI-related risks effectively.

Units	Syllabus
Unit 1	Introduction to AI for Business Users: AI terminology (neural networks, machine learning, deep learning, data science); collaborating with IT teams for AI integration.
Unit 2	Practical Limitations and Capabilities of AI: Defining AI roadmaps; practical examples of AI in industries; analysing capabilities and limitations of AI technologies.
Unit 3	Data Warehousing Basics: Data collection, quality assessment, schema design; OLTP and ETL processes; dimensions, views, partitioning, and parallelism; change data capture techniques.
Unit 4	Understanding Data Analytics: Probability and statistics for Data Analysis; regression analysis; predictive modelling; simulation and optimisation techniques.
Unit 5	Predictive and Prescriptive Analytics: Time series forecasting; prescriptive modelling; deriving insights from predictive tools.
Unit 6	Data Visualisation Techniques: Creating dashboards; deriving insights using visualisation tools; generating meaningful reports and inferences.
Unit 7	Machine Learning Foundations: Supervised vs. unsupervised learning; data pre-processing; feature selection methods.
Unit 8	Deep Learning Essentials: Neural network architectures; layers and activation functions; practical frameworks for deep learning applications.
Unit 9	Applied AI and ML for Business Problems: Addressing business challenges with AI/ML; developing ML models for real-world problems.
Unit 10	AI for Strategic Decision-Making: Role of AI in decision-making; AI tools for strategic planning; analysing decision outcomes using AI.
Unit 11	AI-Driven Innovation: Identifying opportunities for AI-driven innovation; developing innovation strategies using AI.

Unit 12	AI Ethics and Governance: Ethical considerations in AI; responsible AI practices; governance frameworks for AI implementation.
Unit 13	AI Risks and Challenges: Identifying risks in AI projects; overcoming technical and operational challenges.
Unit 14	Case Study: Develop a business case for AI; designing and presenting AI solutions for business challenges.

Textbooks Russell, S., & Norvig, P. (2021). Artificial Intelligence: A Modern Approach (4th ed.). Pearson Education.

1. Goodfellow, I., Bengio, Y., & Courville, A. (2016). Deep Learning. MIT Press.
2. Géron, A. (2019). Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow (2nd ed.). O'Reilly Media.

References

1. Sharda, R., Delen, D., & Turban, E. (2020). Business Intelligence, Analytics, and Data Science: A Managerial Perspective (5th ed.). Pearson.
2. Davenport, T. H., & Kirby, J. (2016). Only Humans Need Apply: Winners and Losers in the Age of Smart Machines. Harper Business.

SEMESTER: 3

COURSE NAME: PYTHON PROGRAMMING & PYTORCH

CREDITS: 4

Course Description

This course covers essential Python programming concepts, focusing on data structures, functions, and object-oriented programming. It introduces PyTorch for building and deploying neural networks, emphasizing practical applications in business, such as data analysis, automation, and predictive modelling. Participants will gain hands-on experience with PyTorch, enabling them to apply Python and AI solutions to real-world business problems.

Course Objectives

- Develop foundational skills in Python programming and its application in data manipulation and automation.
- Introduce PyTorch for building, training, and optimising neural networks in machine learning workflows.
- Enable learners to design object-oriented solutions and manage real-world data efficiently.
- Provide insights into advanced PyTorch techniques, including transfer learning and fine-tuning.
- Facilitate the application of Python and PyTorch to solve business-specific problems through hands-on projects.

Course Outcomes

- Write Python programs to automate tasks, handle files, and manage errors effectively.
- Apply Python's data structures and object-oriented concepts to develop modular solutions.
- Use PyTorch for building and training neural networks for predictive modelling and business applications.
- Implement advanced PyTorch techniques to optimise and customise models for specific use cases.
- Develop and execute a complete business solution using Python and PyTorch.

Units	Syllabus
Unit 1	Introduction to Python: History and Evolution of Python; Key Features; Installing Python; Writing and Running Python Programs.
Unit 2	Python Basics: Variables, Data Types, Operators, Control Structures (if, loops); Input and Output Functions.
Unit 3	Functions and Modules in Python: Defining Functions; Scope of Variables; Lambda Functions; Creating and Using Modules; Python Standard Library.
Unit 4	Working with Data Structures: Lists, Tuples, Sets, Dictionaries; List Comprehensions; Iterators and Generators.
Unit 5	Introduction to Object-Oriented Programming: Classes and Objects; Methods; Constructors; Inheritance; Polymorphism; Encapsulation.
Unit 6	File Handling: Reading/Writing Files; Working with CSV and JSON Files; File Permissions; Directory Management.
Unit 7	Error and Exception Handling: Types of Errors; Try, Except, finally; Raising Exceptions; Custom Exceptions.
Unit 8	Getting Started with PyTorch: Installing PyTorch; Basics of Tensors; Tensor Operations; Broadcasting; GPU Acceleration.
Unit 9	PyTorch Data Handling: Data Loading and Pre-processing with Datasets and DataLoaders; Custom Data Loading.
Unit 10	Building Neural Networks: Introduction to Neural Networks; Creating Models in PyTorch; Forward and Backward Propagation; Optimisation Techniques.
Unit 11	Advanced PyTorch Techniques: Transfer Learning; Fine-Tuning Pretrained Models; Custom Layers and Modules.

Unit 12	Applications of Python in Business: Automation using Python (web scraping, reporting); Data Analysis with Pandas and NumPy; Visualization with Matplotlib and Seaborn.
Unit 13	PyTorch Use Cases in Business: Time Series Forecasting; Recommendation Systems; Predictive Modelling.
Unit 14	Case Study: Design and Implement a Python and PyTorch-Based Business Solution; End-to-End Project Execution.

Textbooks:

- Géron, A. (2019). Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow (2nd ed.). O'Reilly Media.
- Rao, D. (2023). PyTorch recipes: A problem-solution approach to build, train and deploy neural network models (2nd ed.). Apress. https://doi.org/10.1007/978-1-4842-8925-9

References

- Lutz, M. (2021). Learning Python (5th ed.). O'Reilly Media.
- McKinney, W. (2022). Python for Data Analysis: Data Wrangling with Pandas, NumPy, and Jupyter (3rd ed.). O'Reilly Media.
- Paszke, A., Gross, S., Chintala, S., & Others. (n.d.). Deep learning with PyTorch. Retrieved November 25, 2024, from https://isip.piconepress.com/courses/temple/ece_4822/resources/books/Deep-Learning-with-PyTorch.pdf

SEMESTER: 3

COURSE NAME: MANAGING AI PROJECTS & TRENDS IN AI

CREDITS: 4

Course Description

This course explores the role of AI in project management, focusing on AI project lifecycle, objectives, and feasibility analysis. Participants will gain insight into data collection, privacy, and security, as well as AI tools and team collaboration. Key strategies, including Agile methodologies and performance evaluation, are covered to ensure successful AI project implementation.

Course Objectives

- Equip learners with an understanding of AI's role and applications in project management.
- Enable learners to plan, initiate, and execute AI projects effectively, focusing on aligning them with business goals.
- Develop skills to manage data, tools, and technologies essential for AI project success.
- Foster the ability to build and manage high-performing AI project teams and address ethical challenges.
- Prepare learners to identify emerging trends in AI and apply them to solve real-world challenges through comprehensive project management practices.

Course Outcomes

- Discuss the unique lifecycle and management principles of AI projects.
- Evaluate and address risks, ethical issues, and legal considerations in AI projects.
- Apply data management techniques and select suitable AI tools for specific project requirements.
- Build and manage AI teams while ensuring continuous learning and adaptation to AI trends.
- Plan, execute, and present a comprehensive AI project addressing business and technological challenges.

Units	Syllabus
Unit 1	Overview of AI in Project Management: Definition and Evolution of AI; Importance of AI in Project Management; Current Trends and Applications in Various Industries.
Unit 2	AI Project Lifecycle: Phases of AI Projects: Initiation, Planning, Execution, Monitoring, and Closure; Differences from Traditional Projects.
Unit 3	Defining AI Project Objectives: Setting Clear Objectives; Aligning AI Projects with Business Goals; Stakeholder Identification and Engagement.
Unit 4	Feasibility Analysis and Risk Assessment: Assessing Technical and Financial Feasibility; Identifying and Mitigating Risks; Ethical Considerations in AI Projects.
Unit 5	Data Collection and Preparation: Identifying Data Sources; Data Cleaning and Pre-processing; Ensuring Data Quality and Integrity.
Unit 6	Data Privacy and Security: Legal and Ethical Aspects; Data Protection Regulations; Implementing Security Measures.
Unit 7	Overview of AI Technologies: Machine Learning, Deep Learning, Natural Language Processing; Tools and Platforms for AI Development.
Unit 8	Selecting Appropriate AI Tools: Criteria for Tool Selection; Evaluating Open-Source vs. Commercial Tools; Integration with Existing Systems.
Unit 9	Assembling an AI Project Team: Roles and Responsibilities; Required Skill Sets; Team Dynamics and Collaboration.
Unit 10	Training and Development: Upskilling Team Members; Continuous Learning; Keeping Abreast with AI Trends.
Unit 11	Project Execution Strategies: Agile Methodologies in AI Projects; Resource Allocation; Time Management.

Unit 12	Monitoring and Evaluation: Key Performance Indicators (KPIs); Performance Metrics; Continuous Improvement.
Unit 13	Emerging Trends in AI: Generative AI; AI Ethics; AI in Project Management; Future Outlook.
Unit 14	Capstone Project: Developing a Comprehensive AI Project Plan; Addressing Real-World Challenges; Presenting Findings.

Textbooks

- Project Management Institute. (n.d.). AI in project management. Retrieved November 25, 2024, from https://www.pmi.org/learning/ai-in-project-management
- Marr, B. (2020). Artificial Intelligence in Practice: How 50 Successful Companies Used AI and Machine Learning to Solve Problems. Wiley.

References

- Russell, S., & Norvig, P. (2021). Artificial Intelligence: A Modern Approach (4th ed.). Pearson.
- Daugherty, P. R., & Wilson, H. J. (2018). Human + Machine: Reimagining Work in the Age of AI. Harvard Business Review Press.

SEMESTER: 3

COURSE NAME: ENTERPRISE IT SYSTEMS AND APPLICATIONS

CREDITS: 4

Course Description

This course provides an in-depth understanding of Enterprise Resource Planning (ERP) systems, focusing on business functions, processes, and their integration. It covers ERP implementation, evolution, key ERP systems like SAP R/3, Oracle, and Peoplesoft, as well as ERP for small and medium enterprises. Key topics include CRM systems, sales order processes, and relevant case studies, equipping participants with the knowledge to optimise business operations through ERP solutions.

Course Objectives

- Highlight Enterprise Resource Planning and related Functional Systems and Processes in a digital economy
- Explain the need to choose the right solutions to meet the IT specific Functional needs of a modern Business Enterprise.
- Examine the importance of the applications of ERP in terms of Sales, Marketing, Finance & Accounting, Customer Relationship Management, Human Resource Management and Supply Chain Management.
- Discuss implementation needs for ERP.
- Describe the steps involved in the process of implementation.

Course Outcomes

- Articulate the critical role of enterprise applications in a Business Enterprise.
- Analyse the different solutions available and select and use the right solution.
- Apply various functional modules of an ERP viz. Sales & Marketing, Finance & Accounting, CRM, SCM, HR etc. and their implementation strategies
- Assess the context of readiness of an Enterprise for implementation of an ERP
- Interpret the implementation methodology of ERP applications.

Units	Syllabus Details
Unit I	Business Functions and Business Processes-Functional Architecture of an Enterprise, Business Functions and Business Processes.
Unit 2	Introduction to ERPs ERP, Introduction – integrated management information; Post implementation options.
Unit 3	ERP implementation.
Unit 4	Scope and Benefits; Evolution; ERP
Unit 5	ERP- Post implementation options.
Unit 6	The Development of Enterprise Resource Planning Systems Evolution of Information Systems, Bespoke and Commercial Off the Shelf (COTS) Systems, ERPs.
Unit 7	Key EPR Systems and their evolution, SAP R/3, Peoplesoft, Oracle.
Unit 8	ERPs for small and medium Enterprises
Unit 9	Choosing and ERP and Consulting Partner
Unit 10	Relevant case studies of implementation of SAP R/3, Peoplesoft, Oracle.
Unit 11	Marketing Information Systems and Sales Order Process, Customer Relationship Management
Unit 12	Unintegrated Marketing and Sales processes – Problems with Fitter Snackers‘ Sales Processes
Unit 13	Sales & Distribution Processes in an ERP – Presales Activities, Sales Order Processing, Inventory Sourcing, Delivery, Billing and Payment
Unit 14	A Standard Order in SAP ERP Customer Relationship Management: Core CRM activities, SAP‘s CRM Software and Benefits of CRM systems

Textbook

1. Concepts in Enterprise Resource Planning (Fourth Edition),Ellen F. Monk, Bret J. Wagner, Cengage Learning‘s
2. Accounting Information Systems (11th Edition), lric J. Gelinas, Richard B. Dull,

Patrick Wheeler, Mary Callahan Hill, Cengage

Reference books

1. Enterprise Resource Planning by Alexis Leon, Tata McGraw-Hill
2. Marketing Information System by C Gotlagunta, Neha Publishers
3. Human resource Information Systems by Michael J Kavanagh, Mohan Thite, Richard D Johnson, SAGE SOUTH ASIA EDITION

Semester: 3

Course Name: BUSINESS TECHNOLOGIES

Credits: 4

Course Description

Successful Business Models in the current times are based on the IT strategy of an organization. Some of the most successful new age enterprises have their Business Strategy entirely driven by Information Technology. New-Age Business Technologies have rapidly transformed the business landscape and competition. Businesses, which do not adapt to rapidly transformation in technology, lag behind or cease to exist. Therefore, it is imperative that new age Business Management professionals have a conceptual understanding and know-how of some of the new age technologies which are transforming the Business Landscape in the current.

Course Objectives

- Explain the contemporary technologies those are transforming the business landscape.
- Discuss the business applications of contemporary technologies.
- Highlight the tools and platforms used in the implementation of new age technologies
- Discuss the associated risks and mitigation in the implementation of new technologies
- Explain the future applications of the new technologies

Course Outcomes

- Analyse contemporary technologies in solving business problems.
- Apply business applications in solving problems.
- Plan to use new age technologies that are transforming businesses using real life case studies
- Analyse the risks involved in use of new age technologies and their mitigation
- Propose an appropriate technology solution for the given situation.

Units	Syllabus Details
Unit I	Introduction to Business technologies Introduction to following technologies: Cloud computing, Block chain, Robotic Process Automation (RPA), Internet of Things (IoT),
Unit 2	Cyber Security, Virtual and Augmented Reality (AR/ VR), Artificial Intelligence and Machine Learning (AI/ ML)

Unit 3	Evolution of technologies, the need in the industry for these technologies, future landscape and core theoretical concepts related to each technology.
Unit 4	Augmented Reality and Virtual Reality, Concept of AR and VR, the difference between the two, underlying concepts, business application.
Unit 5	Cloud Computing, Cyber Security-Introduction to Cloud Computing and the need Cloud Computing Concepts: Containers, Micro services, Big data and analytics, Cloud Security, Cloud Migration, Public and Private Cloud.
Unit 6	Cloud computing on Amazon Web Services (AWS) Cloud computing on Azure (Microsoft Cloud)
Unit 7	Google Cloud Platform Cyber security: Introduction to Information Security, Protecting Computer Systems and Network, Identification of threats, attacks, intrusion etc.
Unit 8	Malware, phishing, denial-of-service, password attacks Ransom ware and its prevention Tools and technology for Cyber security, Introduction to Cryptography and its application in securing data
Unit 9	Block chain, Internet of Things(IoT)-What is Block chain, difference between Database and Block chain, Concept of Distributed Ledger, Architecture of a Block chain, Cryptography and Hashing, Intermediaries
Unit 10	Block chain Transaction Mechanism, Crypto currencies – an application of Block chain, Internet of Things (IoT), Core concepts, benefits, future of IoT, Business Application
Unit 11	Robotic process Automation-Robotic Process Automation, underlying concepts, popular tools & platforms (Ui path), benefits of RPA
Unit 12	Issues in implementation, business application, RPA assignment using Ui Path
Unit 13	Machine Learning & Artificial Intelligence-Artificial Intelligence and Machine Learning, Core concepts, benefits.
Unit 14	Future of AI, Business Applications.

Textbook

1. Principles of Information Security, Michael E Whitman, Herbert J

Mattord, Pronciples of information Security, Cengage Learning
2. An introduction to Internet of Things: Connecting Devices, Edge Gateway, and Cloud with Applications, Cengage Learning

Reference books

1. The Robotic Process Automation Handbook, Tom Taulli, Apress
2. The management of technological innovation, Mark Dodgson, David Gann and Ammon Salter, Oxford
3. Management Technology, Hans J Thamhain, Wiley

SEMESTER: 3
COURSE NAME: PROGRAM AND PROJECT MANAGEMENT, CUSTOMER SERVICES MANAGEMENT

CREDITS: 4

Course Description

While it is well understood that information technology systems are the backbone of modern enterprises, how to effectively deploy these IT solutions is a generally overlooked area. The key elements of an exercise to deploy these IT solutions are centred around aligning the solution with the business needs, effective project management, synchronizing Project management activity with the complexities of software development, Process redesign, etc. This course prepares the managers/entrepreneurs to be the key players in deployment of IT solutions in businesses.

Course Objectives

- Explain the principles and techniques used in information systems development
- Inform regarding tools and techniques of Project management with special focus on Software services.
- Describe the tools and techniques used in customer services management.
- Introduce different methods and techniques used for Project Management.
- Discuss trends and adoption of these tools to meet the unique challenges of modern enterprises and digital economy.

Course Outcomes

- Plan for use of software development methods and strategies.
- Identify tools and techniques of software project management required for the entrepreneurs in the digital economy
- Apply project management applications effectively
- Examine inputs to the roles of effective managers for small and medium enterprises
- Plan for Project Management utilising the tools and techniques learnt.

Units	**Syllabus Details**
Unit I	Introduction to Software Development-Introduction to software, Software Processes,
Unit 2	Software Framework, Software Development Life Cycle (SDLC) Models

Unit 3	Software development Models- Waterfall model, Evolutionary software development, Software prototyping
Unit 4	Incremental Model, Re-use oriented development
Unit 5	Software Development Methodology and Estimation Techniques-Requirement Engineering, Documentation, Software Configuration and Change Management
Unit 6	Structured Analysis & Design, Software Architecture, Use Case User interface and User Experience design
Unit 7	Software Testing and Implementation
Unit 8	Software Cost Estimation, Function Point Analysis, COCOMO Model, Quality Management, Software Metrics
Unit 9	Software Project Management-Values, Manifesto, Methodologies
Unit 10	Scrum Framework, Team Management
Unit 11	ITSM-IT Services Management framework and concepts
Unit 12	Cyber Law-Software and Hardware Procurement, Installation, UI Testing, Training
Unit 13	Cyber Crime- Technical issues, Legal issues, Penalty under IT Act
Unit 14	Digital Signatures: Certificates, E-Governance in India; Contract in the Information Technology world, IT Act 2000, Jurisdiction under IT act 2000

Textbook

- Software Project Management – Dr Sanjay Mohapatra, Cengage Learning
- Software Management – A Practitioner‘s Approach by Roger S Pressman - McGraw- Hill

Reference books

- Succeeding with agile software development using SCRUM by Mike Cohn- Pearson India
- Project Management – Process, Technology and Practices- - Ganesh Vaidyanathan, Pearson
- Cyber Law and IT Protection, Harish Chander- PHI

SEMESTER: 3
COURSE NAME: STARTUP AND PRODUCT DEVELOPMENT

CREDITS: 4

Course Description

This course is intended to enable students to understand how software products are conceptualized, designed, brought to market and scaled. The role of innovation in new product development is critical and there are informal and formal practices that are prevalent in the industry to approach innovation. Innovation in start-ups follows a different path vs. an established corporation. This course teaches the basics of ideation, innovation, product development and productization. The course also teaches basics of intellectual property protection: legal means available and legal means compared with other more viable approaches.

Course Objectives

- Learn the basics of new software product creation.
- Gain basic understanding of techniques used by highly innovative software companies today.
- Understand how to create a business model, minimum viable products and launching products in markets.
- Understand the role of managing funds, securing funds in running a successful new product company.
- Understand intellectual property rights related to software products.

Course Outcomes

- Explain new software product creation basics
- Ideate and conceptualize a new product for a given market situation in a systematic manner
- Build a business plan, model, go-to-market strategy and MVP
- Prepare product P&Ls, Venture funding models, acquisition and merger
- Interpret IP protection claims: PATENT or copyright applications

Units	Syllabus Details
Unit I	Market Dynamics and Opportunities for Innovation- Introduction, Changing Market Dynamics in India
Unit 2	Alternative Business Models, Opportunities for Small New Businesses

Unit 3	Introduction to Innovation & Fundamentals of New Business Creation-Terminology and Key Definitions of Innovation
Unit 4	Successful Innovative Companies, Models of Innovation
Unit 5	Success Factors for Innovation, Game changing Innovations in the Software Industry
Unit 6	Typical Software Product Lifecycle - Ideation, Market Opportunity Identification
Unit 7	Business Model Canvas, MVP and MDE
Unit 8	Productization, Customer Acquisition and Scaling the Business
Unit 9	Product Decline and New Product Creation
Unit 10	Intellectual property Protection - Importance of Intellectual Property Protection
Unit 11	Intellectual Property Law, Practical Approaches
Unit 12	Building Your Company - Essential Team Composition, Securing Funding and Managing Cash Flows
Unit 13	Mergers and Acquisitions
Unit 14	Surviving Downturns and Changing Market Dynamics

Textbook

1. The Management of Technology and Innovation, Cengage eBook White, Bruton
2. Intellectual property Rights, Nithyananda K V, CENGAGE

Reference books

1. Grabbing Lightning: Building a Capability for Breakthrough Innovation, Gina O'Connor, 2008 WILEY Publications.
2. The Lean Startup: How Constant Innovation Creates Radically Successful Businesses, by Eric Ries, October 2011, Penguin UK.
3. Managing innovation: Integrating Technological, Market and Organizational Change, Joe Tedd, John R Beasant , Wiley Publications

SEMESTER: 4
COURSE NAME: INTERNATIONAL FINANCIAL MANAGEMENT
CREDITS: 4
Course Description

This course explores financial management in a global context, covering international monetary systems, foreign exchange markets, risk management, and capital markets. Study topics include exchange rate behaviour, derivatives, international capital budgeting, and parity conditions. Gain insights into funding decisions, working capital management, and portfolio investment. Explore emerging trends in international finance and strategies for navigating global financial challenges.

Course Objectives

- Understand the functioning of international markets and Balance of Payments
- Analyse the nature and structure of FOREX markets and Convert currencies using spot, future and cross rates and identify arbitrage opportunities.
- Explain different exposures to exchange rate changes and apply knowledge of derivatives to international risk management
- Identify the instruments used in the financing of international trade.
- Describe and forecast exchange rates based on the parity conditions

Course Outcome

- Summarize the international finance and its implication on international business.
- Describe the background and corporate use of different international financial markets.
- Comprehend the derivative instruments and strategies used by multinational corporations to hedge financial risks.
- Categorize the long term and short-term sources of finance in international markets.
- Apply critical thinking skills in identifying and evaluating international financial issues and information.

Unit 1	Overview of Financial Management in International Context Introduction: multinational enterprise and multinational financial management,
Unit 2	International Monetary System, Exposure to international risk- Country & political risk, exchange rate risk, interest rate risk, inflation rate risk, Multilateral Financial institutions, factors affecting international trade and capital flow,
Unit3	Balance of Payments, BOP Equilibrium & Disequilibrium, Trade deficits, Capital account convertibility (problems on BOP).
Unit 4	Foreign Exchange Market Foreign exchange markets—functions and structure of Forex market, participants, types of transactions, exchange rate quotations, determination of exchange rate in spot market and forward market,
Unit 5	Exchange rate behaviour -Cross Rates- - Arbitrage profit in foreign exchange markets, swift mechanism, triangular and locational arbitrage, Forecasting exchange rates determination
Unit 6	Foreign Exchange Risk Management Exposure management- economic, transaction and translation, hedging & speculation, managing exposure to exchange rate fluctuation, management of interest rate exposure FRA, interest rate caps and floors
Unit 7	Financial swaps and currency derivatives—currency forwards, options, futures, swaps—interest rate risk management
Unit 8	International Capital Market International capital and money markets, bond market, equity market, international sources of finance—bond financing--fixed and floating rate notes, loan financing, syndicated loans, securitized financing, Euro note
Unit 9	Equity financing-GDR and ADR, loan agreements international capital budgeting, cost of capital of a foreign investment,
Unit 10	international financing decision- issues in overseas funding choices, economic circumstances and overall funding choices, funding and risk management aspects, international working capital & short-term financial management
Unit 11	International Parity Relationship and Global Asset Management

	Arbitrage parity conditions in international finance-purchasing power parity, covered interest parity, real interest parity, parity conditions and managerial implications
Unit 12	Current asset management, international portfolio investment, foreign direct investment strategy, multinational capital expenditure analysis,
Unit 13	Emerging trends in International Finance

Textbook

1. International Financial Management: Madura Jeff, Cengage Learning.
2. International Financial Management. Vij Madhu. New Delhi: Excel Books.

Reference books

1. Multinational Financial Management. Allen Shapiro, Wiley India Pvt Ltd
2. Options, Futures and other Derivatives. John C Hull, Prentice-Hall of India, New Delhi
3. International Financial Management. Apte P G, New Delhi: Tata McGraw Hills Publications.

SEMESTER: 4

COURSE NAME: GLOBAL MARKETING AND DISTRIBUTION

CREDITS:4

Course Description

This course explores global distribution strategies, focusing on the design, management, and optimisation of distribution channels in international markets. It examines key concepts such as supply chain management, logistics, and the role of technology in global distribution. Topics include channel selection, cross-border logistics, inventory management, and the impact of cultural, economic, and regulatory factors on distribution strategies across various regions. The course also highlights strategies for enhancing efficiency, reducing costs, and improving customer satisfaction in global supply chains.

Course Objectives:

- Describe strategic planning of global marketing.
- Highlight strategic international marketing from a sales perspective.
- Describe distribution processes in global organisations.
- Explain concepts, approaches and the practices using key decision variables in logistics and distribution management.
- Discuss global distribution strategies.

Course Outcomes:

- Articulate various global marketing perspectives.
- Evaluate the global consumer market and strategic planning
- Analyse the procedures and processes involved in global sales management
- Elaborate the distribution management and analyse the right distribution strategy for the organisation
- Apply the elements of international distribution and logistics planning

Unit 1	Overview of International Marketing Scope of International Marketing, International Marketing vs. Domestic Marketing, Principles of International Marketing, Customer value and the value equation, Competitive or differential advantage, Management Orientations, MNCs and TNCs, Benefits of international marketing, impact of e-commerce.
Unit 2	International Product and Service Markets

	International Product and Service Markets: Products: National and International, the new Product Development, International Product Planning, Product Adoption and Standardization.
Unit 3	Marketing Strategies in International Context International Market Segmentation, Influences on Marketing Plan and Budget, International Product Marketing, Marketing of Services.
Unit 4	Drivers and Influences on the Global Market Drivers of the global consumer, the global consumer, influences on the global consumer, country of origin effects.
Unit 5	The Global Buyer and Marketing Strategies The global buyer, marketing to global customers, global marketing.
Unit 6	Globalisation and Strategic Planning Globalisation drivers, the strategic planning process, the local company in the global environment.
Unit 7	Sales Management in the Global Environment Sales management in the global environment: Culture and sales, global personal selling.
Unit 8	Cross-Cultural Negotiation and Global Selling Cross-cultural negotiation and global selling process, relationship building in the global scenario.
Unit 9	Structuring Global Sales Operations Global sales organisation.
Unit 10	Introduction to Distribution Channel Management

	Management of Distribution Channel – Meaning & Need, Channel Partners – Wholesalers, Distributors and Retailers & their functions in Distribution Channel.
Unit 11	Types of Channel Partners Difference between a Distributor and a Wholesaler, Choice of Distribution System – Intensive, Selective, Exclusive.
Unit 12	Distribution Strategy Factors Affecting Distribution Strategy.
Unit 13	International Distribution and Logistics Overview International Logistics Planning, Distribution – Definition and Importance, Direct and Indirect Channels, Factors Involved in Distribution Systems, Modes of Transportation, International Packaging.
Unit 14	Global Distribution Strategy Selection of global distribution partners, Integrating global supply and marketing chains.

Textbook

1. International marketing by Micheal Czinkota, Ilkka Ronkainen& Annie Cui 11 e by Cengage learning. ISBN no - 978-0357445129

Reference books

1. Krishna K. Havaldar, Vasant M. Cavale, Sales and Distribution Management – Text & Cases, Mcgraw Hill Education.

2. Nag A., Sales and Distribution Management, McGraw Hill.

3. Richard R. Still, Edward W. Cundiff, Norman A.P. Govoni, Sales Management, Pearson education.

SEMESTER:4

COURSE NAME: INTERNATIONAL HUMAN RESOURCE MANAGEMENT & CROSS-CULTURAL MANAGEMENT

Credits:4

Course Description

This course examines IHRM, distinguishing it from domestic HRM and exploring models such as geocentric and ethnocentric approaches. It covers international assignments, expatriate management, performance management, and compensation strategies. The course also addresses global workforce issues, cultural impacts, and emerging trends in IHRM, preparing learners to navigate the complexities of HR practices in multinational enterprises.

Course Objectives:

- Disseminate the theory and practice of International Human Resource Management.
- Highlight various types of Sourcing, Recruitment and Selection process and familiarise oneself with the concepts of Staffing with regard to expatriates
- Differentiate the HR activities and practices of IHRM form HRM
- Sensitise the importance of diverse national cultures in IHRM
- Explain the broader Industrial relation perspectives including Terrorism etc.

Course Outcomes:

- Appreciate IHRM as different from HRM in terms of getting involved in employees and their family's personal life in a much broader way
- Evaluate the multicultural issues and aspects from the research studies and understand the implications in effectively managing human resources
- Relate the classification of employees in terms of PCN,HCN,TCN and also the various staffing models adopted by MNCs in managing human resources
- Understand the HR processes and practices adopted in recruiting and selecting expatriates, undertaking customised Training & development, PMS and compensation management.
- Analyse the success and failure factors relating to expatriate and taking adequate interventions to ensure expatriates success

Unit 1	Introduction to International Human Resource Management (IHRM), Defining IHRM and distinguishing it from domestic HRM. Models and approaches of IHRM, including cultural and organisational contexts. Analysis of employee and expatriate classifications such as PCN (Parent Country Nationals), HCN (Host Country Nationals), and TCN (Third Country Nationals). Study of IHRM approaches: geocentric, ethnocentric, polycentric, and regiocentric. Examination of intercultural comparative research like Hofstede's research and the GLOBE study. Challenges of standardisation and localization in international growth, structural responses, control mechanisms, and their effects on HRM approaches.
Unit 2	IHRM in International Business Structures, The role of international mergers, acquisitions, joint ventures, and SMEs in shaping IHRM practices. Understanding the formation processes of cross-border collaborations and differences in HRM approaches across these contexts.
Unit 3	International Assignments and Expatriate Management, Staffing approaches for foreign operations and reasons for international assignments: position filling, management development, and organisational development. Types of international assignments, including standard and nonstandard arrangements like commuter, rotator, contractual, and virtual roles. Expatriate and non-expatriate contributions to international business, selection criteria for assignments, and gender considerations in IHRM. Role of training in expatriate adjustment, pre-departure programs, and training for international management teams.
Unit 4	Performance Management and Compensation in IHRM, Multinational performance management at global and local levels, considering factors like non-comparable data, distance effects, and subsidiary maturity. Expatriate performance factors, including compensation, roles, headquarters support, and cultural adjustment. Approaches to international compensation (going rate, balance sheet, and Local Plus), and complexities like taxation. Performance management for nonstandard assignments and expatriates.
Unit 5	International Industrial Relations and Global Workforce Issues, Key issues in international industrial relations and MNE (Multinational Enterprise) policies. Trade union constraints on MNEs and concerns regarding their activities. Trends in the global workforce, regional economic zones (e.g., European Union), opposition to globalisation, codes of conduct, NGO roles, and HR implications of offshoring strategies.

Unit 6	Cultural Contexts in IHRM Exploration of cultural impacts on IHRM practices, including comparative research findings. Role of cultural awareness in managing global talent.
Unit 7	Structural Responses to International Growth Understanding structural adjustments organisations make to manage international growth and their impact on HR strategies.
Unit 8	Coordination and Control Mechanisms, Mechanisms like cultural control, their significance, and implications for HR practices in multinational settings.
Unit 9	Expatriate Selection and Gender Perspectives, Gender considerations in expatriate management, dual-career issues, and female expatriate challenges in international assignments.
Unit 10	Pre-Departure Training and Support, Components of pre-departure training programs, including cultural awareness, language skills, and relocation assistance, and their role in expatriate success.
Unit 11	International Compensation Approaches, In-depth analysis of the going rate, balance sheet, and Local Plus approaches to international compensation, including advantages, disadvantages, and taxation challenges.
Unit 12	Non-Standard Work and Performance Management, Managing non-standard work arrangements (e.g., virtual, commuter roles) and their unique challenges in performance management and compensation.
Unit 13	Trade Unions and MNEs, Role of trade unions in influencing MNE policies, addressing their concerns, and strategies for collaboration.
Unit 14	Emerging Trends in Global Workforce Management, Exploring regional economic zones, global opposition to globalisation, offshoring HR implications, and new trends in the global workforce.

Textbook

1. International Human Resource Management: Managing People in a multinational context: 5th Ed: Peter J Dowling, Marion Festing & Alan D. Engle, SR. Cengage

2. International Management: Culture, Strategy & Behaviours- Hodgetts, Luthan‘s & Doh: Tata McGraw Hill- 6th Ed.

Reference books

1. Briscoe/Schuler/Tarique (2012). International Human Resource Management, 4th Edition, London, UK: Routledge.

2. Cross Cultural Management in Work organisations- Ray French. Universities Press.

SEMESTER: 4

COURSE NAME: INDUSTRY APPLICATIONS OF AI

CREDITS: 4

Course Description

This course explores the applications of AI across various industries, including sales, marketing, e-commerce, manufacturing, healthcare, and logistics. It covers AI-driven strategies for optimising operations, enhancing customer experiences, and addressing complex challenges. Key focus areas include predictive analytics, automation, scenario analysis, and emerging trends like AI ethics and quantum AI. The course aims to equip students with practical knowledge to apply AI in real-world business contexts.

Course Objectives

- Discuss the role of AI in revolutionising various industries.
- Explore practical applications of AI in optimising operations and decision-making.
- Equip learners with the knowledge of AI tools used across domains.
- Foster analytical skills to solve real-world problems with AI.
- Investigate ethical considerations and future directions in AI development.

Course Outcomes

- Articulate AI applications in diverse fields.
- Develop AI-driven solutions for operational and strategic challenges.
- Build practical knowledge of implementing AI techniques in real-world scenarios.
- Present the ethical and emerging AI trends.
- Apply scenario analysis to select suitable AI methods for specific use cases.

Units	**Syllabus**
Unit 1	AI in Sales and Marketing: How AI enhances marketing strategies, improves the customer journey, and optimises lifecycle stages (React, Act, Convert, Engage). Applications in customer nurturing and prospect conversion.

Unit 2	AI in e-Commerce: Role of AI in understanding consumer behaviour, personalised recommendations, voice/chatbots, fake review filtering, and forecasting for e-commerce.
Unit 3	AI in Manufacturing: Use of AI for optimising supply chains, anticipating market changes, improving inventory, staffing, energy consumption, and raw material supply.
Unit 4	AI in Retail: Leveraging AI for inventory optimisation, customer analytics, personalisation, fraud prevention, and enhancing in-store and online shopping experiences.
Unit 5	AI in Healthcare Systems: Diagnostic insights, treatment variability analysis, patient outcome predictions, and care process improvements using AI.
Unit 6	AI in Pharma: Drug discovery, clinical trial simulations, supply chain optimisation, and patient compliance monitoring through AI.
Unit 7	AI for SCM Analytics: Predictive analytics, demand forecasting, transportation optimisation, and warehousing efficiency using AI.
Unit 8	AI for Logistics Automation: Role of AI in route optimisation, automated vehicle tracking, and logistics simulations.
Unit 9	Scenario Analysis Techniques: Understanding scenarios, sub-problem identification, case studies on AI techniques for similar scenarios, use-case breakdown.
Unit 10	AI in Learning Management Systems: Personalised education paths, AI tutoring systems, content recommendation, and learning analytics.
Unit 11	AI in Academic Administration: Applications in resource scheduling, admissions, and financial management using AI.

Unit 12	AI for Risk Management: Risk modelling, fraud detection, and predictive analysis in cross-domain contexts like BFSI and legal sectors.
Unit 13	AI for Sustainability: Applications in energy management, waste reduction, and climate impact analysis.
Unit 14	AI Trends and Future Directions: Advances in AI ethics, generative AI models, quantum AI, and emerging frameworks.

Textbooks

1. Russell, S., & Norvig, P. (2021). Artificial Intelligence: A Modern Approach (4th ed.). Pearson.
2. Davenport, T. H., & Ronanki, R. (2018). The AI Advantage: How to Put the Artificial Intelligence Revolution to Work. MIT Press.

References

1. Mishra, N., & Kumar, A. V. S. (Eds.). (2025). Artificial intelligence and machine learning for business. CRC Press. https://doi.org/10.1201/9781003535850
2. Chui, M., Manyika, J., & Bughin, J. (2022). AI Transformed Industries. McKinsey & Company.

SEMESTER: 4

COURSE NAME: FUNDAMENTALS OF AI & RPA

CREDITS: 4

Course Description

This course provides a comprehensive introduction to AI and RPA, focusing on their practical applications in business settings. It covers AI fundamentals, machine learning, data analytics, and deep learning, along with RPA tools and techniques for process automation. The syllabus explores AI ethics, governance, and emerging trends, helping participants understand how to apply AI and RPA to solve real-world business challenges.

Course Objectives:

- Familiarise students with foundational concepts in Artificial Intelligence (AI), Machine Learning (ML), and Robotic Process Automation (RPA).
- Equip students with the skills to design and implement data management and analysis techniques, including data warehousing and visualisation.
- Povide a strong theoretical understanding of predictive and prescriptive analytics for decision-making.
- Enable students to explore and apply machine learning and deep learning models to solve business challenges.
- Introduce students to ethical considerations and emerging trends in AI and RPA, fostering responsible innovation.

Course Outcomes:

- Articulate AI terminologies and their applications in business contexts.
- Design and manage data warehouses, and apply analytical techniques to derive meaningful insights.
- Develop and evaluate machine learning and deep learning models for practical use cases.
- Implement RPA workflows using industry-standard tools to automate business processes.
- Analyse the ethical implications and future advancements of AI and RPA technologies.

Units	Syllabus Details
Unit 1	Introduction to AI for Business Users: AI terminology (neural networks, machine learning, deep learning, data science); collaborating with IT teams for AI integration.
Unit 2	Practical Limitations and Capabilities of AI: Defining AI roadmaps; practical examples of AI in industries; analysing capabilities and limitations of AI technologies.
Unit 3	Data Warehousing Basics: Data collection, quality assessment, schema design; OLTP and ETL processes; dimensions, views, partitioning, and parallelism; change data capture techniques.
Unit 4	Understanding Data Analytics: Probability and statistics; regression analysis; predictive modelling; simulation and optimisation techniques.
Unit 5	Predictive and Prescriptive Analytics: Time series forecasting; prescriptive modelling; deriving insights from predictive tools.
Unit 6	Data Visualisation Techniques: Creating dashboards; deriving insights using visualisation tools; generating meaningful reports and inferences.
Unit 7	Machine Learning Foundations: Supervised vs. unsupervised learning; data pre-processing; feature selection methods.
Unit 8	Deep Learning Essentials: Neural network architectures; layers and activation functions; practical frameworks for deep learning applications.
Unit 9	Applied AI and ML for Business Problems: Addressing business challenges with AI/ML; developing ML models for real-world problems.
Unit 10	Introduction to RPA: Overview of RPA; identifying use cases; commonly solved problems and benefits.
Unit 11	Implementing RPA Solutions: Identifying workflows for automation; designing RPA implementation strategies; common tools for RPA.

Unit 12	Hands-On RPA Tools: Practical exercises using RPA platforms; end-to-end process automation; performance evaluation.
Unit 13	AI Ethics and Governance: Responsible AI practices; ethical considerations in AI development and deployment; governance strategies for AI technologies.
Unit 14	Emerging Trends in AI and RPA: Future AI technologies and advancements; implications of AI and RPA trends on industries and businesses.

Textbooks

1. Goodfellow, I., Bengio, Y., & Courville, A. (2016). Deep Learning. MIT Press.
2. Alpaydin, E. (2021). Introduction to Machine Learning (4th ed.). MIT Press.
3. Marr, B. (2019). Artificial Intelligence in Practice: How 50 Successful Companies Used AI and Machine Learning to Solve Problems. Wiley.
4. Buxmann, P., & Schmidt, H. (2020). AI in Business: Applications and Risks. Springer.

Reference books

1. Mohri, M., Rostamizadeh, A., & Talwalkar, A. (2018). Foundations of Machine Learning (2nd ed.). MIT Press.
2. McKinney, W. (2022). Python for Data Analysis: Data Wrangling with Pandas, NumPy, and Jupyter (3rd ed.). O'Reilly Media.
3. Daugherty, P. R., & Wilson, H. J. (2018). Human + Machine: Reimagining Work in the Age of AI. Harvard Business Review Press.

ELECTIVE: SUPPLY CHAIN MANAGEMENT
SEMESTER: 3

COURSE NAME: INTERNATIONAL SUPPLY CHAIN OPERATIONS PLANNING

CREDITS: 4

Course Description

This course has been designed to give the students a holistic view of planning and operations of supply chains. It has been compiled with the users and service providers in international logistics in mind. It covers all the concepts that are important to personnel who are involved in export/import operations. All relevant issues are explained at length, this includes documentation, terms of payment, INCOTERMs, insurance & claims, risk management & currencies, and a lot more.

Course Objectives

- Explain the principles and functions of International Supply Chain Operations Planning (ISCOP)
- Describe various technical aspects of International Supply Chain Management
- Develop an understanding of documentation related to international trade, transportation, insurance etc.
- Summarize various aspects of international terminal operations like customs clearance, storage and handling
- Describe the elements of data collection, demand and supply planning, pre-executive and executive meetings as part of S&OP process

Course Outcomes

- Plan international movement of goods
- Interpret various aspects & nuances of international procurement
- Demonstrate the understanding of Terms of Trade and Terms of Payment
- Create claim for compensation in case of damage or loss of goods
- Apply the learnings from S&OP process into production, distribution and inventory plans and take data driven decisions

Units	Syllabus Details
Unit I	Basic Concepts of International Trade & Markets -International Trade Concepts, The Place of Supply Chains in International Trade

Unit 2	International Logistics Infrastructure Methods of Entry into International Markets
Unit 3	International Transport Planning-Modes of Transport and the Role of Intermediaries
Unit 4	Contracts & Agreements in International Trade-INCOTERMs
Unit 5	Terms of Payment/Currencies & Managing Transaction Risks
Unit 6	Documentation, Packaging & Security-Trade & Transportation Documents,
Unit 7	Insurance & Risk Management
Unit 8	Packaging for International Trade, International Logistics Security
Unit 9	Customs Clearance, Storage & Handling, Cross-border Trade
Unit 10	Customs Clearance, International Terminal Operations
Unit 11	Storage & Handling
Unit 12	Sales & Operations Planning (S&OP)-Contrast to Traditional & Siloed Approach to Distribution Planning, Key drivers for Master Planning
Unit 13	Conducting Pre-S&OP & S&OP Meetings
Unit 14	Understanding S&OP, Implementing S&OP

Textbook

1. Concepts in International Supply Chain Management – Archie D'Souza
2. Sales and Operations Planning, Shroff Publishing and Distributors, Co-published with APICS – Colleen Crum & George Palmatier

Reference books

1. International Logistics – The Management of International Trade Operations ~ Pierre David
2. Contemporary Logistics – Paul R Murphy, Jr & Donald F Wood
3. Logistical Management – The Integrated Supply Chain Process ~ Donald J Bowersox & David J Closs
4. The Handbook of Logistics & Distribution Management – Alan Ruston & others

ELECTIVE: SUPPLY CHAIN MANAGEMENT

SEMESTER: 3

COURSE NAME: TRANSPORTATION, INVENTORY & WAREHOUSE MANAGEMENT

Credits: 4

Course Description

This course covers the commonly used methodology for optimizing inventory levels. Transportation management and planning is an important function in supply chain management in order to meet delivery commitments on time and optimize transportation costs. Complex supply chains benefit from the use of optimization software tools to achieve these objectives. The course will provide hands-on experience on these tools. The execution aspects of transportation such as freight bill, packaging and various modes of transportation will be covered in the course.

Course Objectives

- Explain key terminology and concepts in inventory management and the mathematics of calculating various key parameters.
- Use industry standard inventory control and planning tools.
- Review the different modes of transportation, trade-offs and the resulting pricing and service implications
- Describe planning and management scenarios, business logics used in large scale planning of distribution and delivery.
- Identify the challenges of setting up a distribution network, size and location of the warehouse and warehouse management practices

Course Outcomes

- Describe inventory management and control techniques
- Evaluate the critical parameters related to inventory management and use ABC classification to optimize inventory levels
- Solve the challenges in transportation planning involving factors like weight, density, freight costs and taxes
- Use the tools/techniques used to optimize large scale distribution scenarios
- Devise plans to select warehouse location, perform space calculation and layout design; manage warehouse operations and do performance measurement

Units	Syllabus Details
Unit I	Inventory Control and Management-Types and classification of inventory
Unit 2	Importance of inventory management and challenges involved in it including conflicting goals
Unit 3	Cost of carrying inventory, shelf-life challenges and storage costs, Inventory related costs and economic order quantity
Unit 4	Uncertainties in material supply from vendors, Inventory Performance Management-Variability in demand and supply and impact on inventory
Unit 5	Popular inventory management methods-ABC Classification Inventory Performance Management
Unit 6	Unit fill rate, line fill rate and Order fill rate
Unit 7	Transportation planning concepts-Terminology in transportation management such as freight bills, economics and pricing
Unit 8	Various modes of transportation and applications, Economics, costing, pricing in transportation
Unit 9	Transportation planning in an enterprise-What tools are used in execution of transportation and distribution
Unit 10	Transportation planning and management
Unit 11	Considerations and trade-offs in transportation decisions, Large scale distribution planning, and the challenges involved
Unit 12	Mathematical modelling of distribution and transportation scenarios
Unit 13	Distribution and Warehouse Management-Design of distribution network, Size and location of warehouse
Unit 14	Automation and mechanical handling system in warehouse Role of optimization in distribution planning and popular tools available

Textbook

1. Spend Analysis: The Window into Strategic Sourcing by Kirit Pandit, H. Marmanis, J. Ross Publishing; 1st edition, 2008
2. Supply Chain Management: A Logistics Perspective by John J. Coyle, C.

John Langley, Jr., Robert A. Novack, Brian J. Gibson, Cengage Publishing; 10th edition, 2017

Reference books

1. Procurement, Principles & Management by Peter Baily, David Farmer, Barry Crocker, David Jessop, David Jones; Pearson 11th Edition, 2015.
2. Essentials of Inventory Management by Max Muller; Amacom Publishing
3. Best Practice in Inventory Management by Tony Wild; published by Routledge

ELECTIVE: SUPPLY CHAIN MANAGEMENT

SEMESTER: 3

COURSE NAME: PROCUREMENT, FACTORY PLANNING & SCHEDULING

CREDITS: 4

Course Description

The course is designed to provide students an understanding of Sourcing, Procuring, Manufacturing planning and execution at scale. The complexity of planning the production of a mix of products within a given time horizon with limited machines and labour resources is a daunting task. Modern software systems provide these capabilities. The course will help students appreciate these complexities, use excel based planning to gain a hands-on understanding of planning an entire factory and re-plan based on changes in requirements. Students will understand various methods of load balancing, capacity utilization and planning orders under constraints and resolving conflicting scenarios to meet delivery commitments.

Course Objectives

- Identify the challenges in dealing with complex factory planning and scheduling scenarios; Understand factory lines, capacity and resource balancing and offloading of work orders
- Explain the different types of manufacturing processes and their implication on planning and material movement
- Develop an understanding of the mathematical methods and techniques used in factory planning software used in the industry today
- Review purchase, procurement and strategic sourcing at a conceptual level; Understand the importance of inventory management including cost and service level
- Describe the objectives of the purchase department in terms of minimizing Total Cost of Ownership, maintaining optimum inventory levels and managing vendor relations

Course Outcomes

- Define the logics used in factory planning and scheduling tools, their functionalities and perform planning operations

- Plan resources for work orders optimally to meet lead time commitments and utilize capacity effectively
- Examine the planning and scheduling tools, techniques to resolve complex order and resource planning scenarios
- Understand the complexities involved in managing the sourcing of several thousand components and make day-to-day buying decisions
- Analyze data to make strategic vendor selection methods and evaluate their performance

Units	Syllabus Details
Unit I	Overview of complex factory planning and scheduling: challenges, approaches and importance in business, Overview of manufacturing operations including planning and scheduling
Unit 2	Difference between master planning, factory planning and detailed job scheduling
Unit 3	Role of manufacturing in business growth, customer satisfaction and retention
Unit 4	Manufacturing Industries, Processes, Plant Layouts, Understanding of different types of industries and their manufacturing operations
Unit 5	Discrete v/s continuous manufacturing processes and their implication on approach to planning
Unit 6	Variety of plant layouts and implications on material movement and its efficiency
Unit 7	Hands-on factory planning and scheduling, Setup and use of industry standard factory planning, scheduling tools
Unit 8	Handling of large-scale planning, data and analysis of planning scenarios
Unit 9	Detailed scheduling of factory lines, Resolution of infeasible planning scenarios based on prioritization with the help of tools
Unit 10	Key goals of the purchase department, the importance of lowering the total cost of ownership and managing parts availability at minimum cost
Unit 11	Selection and rationalization of vendors on an ongoing basis, Managing delivery commitments to production divisions within the enterprise

Unit 12	Procurement operations, Strategic sourcing and Contracting, Vendor performance assessment, Criterion used in selection of vendors
Unit 13	Day-to-day procedures used in procurement including order placement, management under budget and honouring supplier commitments. Selection of vendors based on performance parameters and allocation of budgets to vendors,
Unit 14	Contracting, negotiation and contract management, gathering data related to vendor performance, Analysis of data on key parameters on prior agreed metrics.

Textbook

1. Advanced Planning and Scheduling in Manufacturing and Supply Chains, by Yuri Mauergauz, 1st edition. 2016, SPRINGER.
2. Sourcing and Supply Chain Management by Robert B Handfield | Larry C Giunipero | James L Patterson | Robert M. Monczka published by Cengage

Reference books

1. Scheduling: Theory, Algorithms and Systems by Michael L. Pinedo,5th edition 2016, SPRINGER.
2. Procurement, Principles & Management by Peter Baily, David Farmer, Barry Crocker, David Jessop, David Jones, Pearson; 11th Edition, 2015.
3. Manufacturing Planning and Control Systems for Supply Chain Management by Vollmann Thomas published by McGraw-Hill.

ELECTIVE: SUPPLY CHAIN MANAGEMENT

SEMESTER: 3

COURSE NAME: DEMAND MANAGEMENT

CREDITS: 4

Course Description

This course is intended to enable students to understand the standard industry practices used in Demand Management. The course covers another very critical aspect of demand management, i.e., demand forecasting techniques and the mathematics behind them. Traditional methods of forecasting are covered including Static, Adaptive, and Auto- Regressive Techniques, Various measures of error and how to choose the right forecasting method is also covered. Students will learn current trends in forecasting methods including the use of Artificial Intelligence techniques such as Machine Learning, and Artificial Neural Network to augment statistical methods. The course will also provide an overview of Demand planning and techniques like Linear Programming that is used for resource allocation problems.

Course Objectives

- Learn the basics of demand management processes in large organizations.
- Understand mathematical underpinnings of forecasting.
- Highlight the recent advances in forecasting.
- Learn practical usage of demand forecasting software tools.
- Describe the Demand Planning Process.

Course Outcomes

- Be ready to perform a job role as a demand planner in an organization.
- Understand the difference between demand management in practice and forecasting.
- Be able to analyse data using standard tools and techniques to build forecasting models.
- Work collaboratively with other departments to manage demand effectively for a given product or geography.
- Be conversant with the trends in forecasting including AI.

Units	Syllabus Details
Unit I	Demand Forecasting in A Supply Chain Using Time Series Understand the role of forecasting for both an enterprise and a supply chain.
Unit 2	Introduction to Time Series Data. Components of time series data, measurement of trend, seasonality and cycles.
Unit 3	Using moving averages and smoothing techniques for making a forecast. Holt‘s and Winter‘s smoothing model for forecasting.
Unit 4	Various methods to measure Forecast Error. The Role of IT in Forecasting. Risk Management in Forecasting.
Unit 5	Multivariate Time Series Analysis and Forecasting, Vector error correction, vector autoregressive (VAR) models, their advantages and disadvantages.
Unit 6	Estimation and forecasting with VAR, Johansen Co-integration test on VAR , Granger causality test
Unit 7	Forecasting Using Regression Models, Demand forecasting using simple linear regression, Auto Regressive Moving Average [ARMA]
Unit 8	Auto Regressive Integrated Moving Average [ARIMA], Seasonal Auto Regressive Moving Average [SARIMA], Auto Regressive Moving Average with Explanatory variable [ARMAX]
Unit 9	Modern Demand Forecasting Using Machine Learning-Introduction to Machine Learning and Natural Language Processing.
Unit 10	New methods in forecasting using Artificial Intelligence to supplement the mathematical forecast. Use of Neural Network for demand forecasting. Short term demand, sensing and forecasting.
Unit 11	Enterprise Demand Planning-Demand management and forecasting in an enterprise. Implementing Demand Planning in an enterprise in practice. Various job functions related to demand management in a company.
Unit 12	Annual demand planning process for the entire geography. Enterprise response to variability in demand.
Unit 13	Understanding working with various parts of an organization in the demand planning process. Collaborating with sales, manufacturing and distribution.
Unit 14	Manual override of the mathematical forecasts, rolling forecast revision and correction process

Textbook

1. Demand Management Best Practices: Process, Principles, and Collaboration (J. Ross Publishing Integrated Business Management Series), Colleen Crum and George Palmatier, 2003

Reference books

1. Demand-Driven Forecasting: A Structured Approach to Forecasting, Charles W. Chase, 2013
2. Next Generation Demand Management: People, Process, Analytics, and Technology by Chrles W.Chase published by Wiley
3. Sales Forecasting Management: A Demand Management Approach by John T. Mentzer & Mark A. Moon published by Sage Publications

ELECTIVE: SUPPLY CHAIN MANAGEMENT

SEMESTER: 4

COURSE NAME: SCM FOR BUSINESS IMPACT

CREDITS: 4

Course Description

Efficient supply chain management can lead to impact on key business success parameters: profitability, customer satisfaction and revenue. As a result, Supply Chain Management is key not only for operational completeness but adds tangible value to any business. In order to achieve this, it is important to set appropriate KRAs and identify the right metrics, collect data and analyse the performance of the company on these parameters. This course will provide students an understanding of common metrics that are used in assessing the performance of a supply chain and tools used to analyse the data. Presentation of the right data, dashboard creation, measurement of performance and analytics at the correct level in the organization is covered in the course.

Course Objectives

- Recognize and understand the importance of measurement of SC parameters.
- Use data analytics tools to gather, present and make sense of historical data of the company supply chain
- Apply mathematics, statistics and techniques to find meaningful patterns and knowledge in order, shipment, inventory, procurement and transactional data
- Create reports and perform data mining to extract useful information
- Describe the characteristics of supply chains in various types of industries including e- commerce

Course Outcomes

- Define key supply chain success parameters for a given company scenario
- Identify and define the data to be gathered over a period of time in order to successfully control, track and monitor the company supply chain performance
- Demonstrate the mathematical underpinnings of SCM analytics
- Install, configure, use tools used in SCM analytics effectively: gather data, develop reports and take data driven decisions
- Develop an understanding of the working knowledge of strategies used in supply chains across

industries.

Units	Syllabus Details
Unit I	Overview of Supply Chain Performance and its Business Impact, Basic understanding of supply chain performance parameters.
Unit 2	Direct connection and dependency of revenue, profitability and customer satisfaction on these parameters and KRAs.
Unit 3	Overview of Analytics Tools, Overview of commonly used tools in Data Analytics: R, Tableau, Excel.
Unit 4	Basics of building a data warehouse, ETL and reporting. Dashboard creation and insights using out-of-the-box reports.
Unit 5	Deeper insights into supply chain metrics using customized reports and dashboards.
Unit 6	Introduction to R programming and Tableau.
Unit 7	Mathematical models for SCM Analytics, Overview of Predictive and Prescriptive analytics.
Unit 8	Introductory probability and decision analysis to model uncertainty.
Unit 9	Basic statistics and regression.
Unit 10	Optimization modelling: unconstrained to linear programming, non-linear, and mixed integer linear programming. Introduction to probabilistic optimization.
Unit 11	Reporting, dash boarding and data mining, Standard reports used by organizations for measurement and tracking of supply chain performance.
Unit 12	Creation of these reports using R and excel.
Unit 13	Analysis of historical data to discover trends and patterns that enable strategic decisions such as vendor selection.
Unit 14	Use of simple data mining techniques in R.

Textbook

1. Analytics in Operations/Supply Chain Management, 30 March 2016, Muthu Mathirajan, Chandrasekharan Rajendran, Sowmyanarayanan Sadagopan, Arunachalam Ravindran, Parasuram Balasubramanian.

Reference books

1. The Applied Business Analytics Casebook: Applications in Supply Chain Management, Operations Management, and Operations Research, by Matthew J. Drake, 1st edition 2013, FT Pearson Press.
2. Supply Chain Analytics: using data to optimize Supply Chain Processes by Peter W. Robertson published by Routledge
3. Supply Chain Analytics by T.A.S.Vijayaraghavan published by Wiley

DAYANANDA SAGAR UNIVERSITY

SEMESTER: 3

COURSE NAME: ENTREPRENEURSHIP & INNOVATION

CREDITS: 4

Course Description

This course is designed to enable the students to analyse the business environment to recognise the business opportunity and generation of business ideas and also to imbibe the concept and spirit of entrepreneurship. At the end of this course the students will be able to do the self-analysis, apply the elements of entrepreneurship in their real life and develop a feasible business plan and develop knowledge to start the venture.

Course Objectives

- Comprehend the self
- Describe the importance and contribution of Entrepreneurship towards the economy.
- Explain the business model development.
- Highlight the process of operating the venture.
- Describe how to manage the venture.

Course Outcomes

- Conduct Self-Analysis.
- Apply the elements of entrepreneurship in real life.
- Develop a feasible business plan.
- Apply knowledge to start the venture.
- Compose plans to manage the venture.

Units	Syllabus Details
Unit I	The Entrepreneurial Perspective-The Nature and Importance of Entrepreneurs
Unit 2	Entrepreneurship and the Entrepreneurial Mind-set.
Unit 3	The Individual Entrepreneur.

Unit 4	International Entrepreneurship Opportunities- Entrepreneurial strategy
Unit 5	Creating and Starting the Venture-Creativity and the Business Idea.
Unit 6	Identifying and Analysing Domestic and International Opportunities
Unit 7	Protecting the Idea - legal Issues for the Entrepreneur
Unit 8	Opportunity to the Business Plan-The Business Plan
Unit 9	The Marketing Plan – The Organisational Plan – The Financial Plan
Unit 10	Business Plan to Funding the Venture-Sources of Funds
Unit 11	Informal Risk Capital - Venture Capital and Going Public
Unit 12	Funding the Venture to Launching, Growing and Ending the New Venture - Strategies for Growth and Managing the Implications of Growth
Unit 13	Accessing Resources for Growth from External Sources
Unit 14	Strategies for Harvesting and Ending the Venture

Textbook

1. Hisrich, D. Robert, Peters, P. Michael, and Shepherd, A. Dean (2017).

Entrepreneurship, 9/e; New Delhi: McGraw Hill Education. ISBN - 9789353163457

Reference books

1. Zimmerer, W. Thomas and Scarborough, M. Norman and Doug Wilson (2009). *Essentials of Entrepreneurship and Small Business Management,* 5/e; New Delhi: Prentice Hall India. ISBN - 9780132294386
2. Desai, Vasant (2009). *Dynamics of Entrepreneurial Development and Management,* 4/e; Mumbai: Himalaya Publishing. ISBN 9350244543

SEMESTER: 3

COURSE NAME: BUSINESS PLAN DEVELOPMENT

CREDITS: 4

Course Description

To enable students to understand the importance and various components of a business plan and lead them through a step-by-step process of developing, preparing and presenting a comprehensive and effective business plan. After completing this course, the students will be able to develop a business plan and write an executive summary, identify the target market and competition, develop an exit plan and address the business and strategic aspects of internet business activities, as well as give a structure to outline the technology needs when planning an _E – Business or adding an internet component to their business.

Course Objectives

- Learn to develop a business plan.
- Understand how to identify the market.
- Explain operational aspects of business plan.
- Discuss financing options in business plan.
- Describe the influence of technology towards business.

Course Outcomes

- Develop a Business Plan and write an executive summary.
- Identify the target market and competition.
- Illustrate a business plan and address the business and strategic aspects of internet business activities
- To structure the outline of technology needs when planning an _E – Business or adding an internet component to the business.
- To understand how will a real time plan be made and delivered from end to end.

Units	Syllabus Details
Unit I	Starting the Process of business plan.
Unit 2	The Successful Business – Getting Your Plan Started

Unit 3	Making Your Plan Compelling.
Unit 4	Business Plan Components-The Executive Summary
Unit 5	Company Description – Industry Analysis and Trends
Unit 6	Target Market – Competition – Strategic Position and Risk Assessment
Unit 7	Marketing Plan and Sales Strategy
Unit 8	Operations – Technology Plan – Management and Organisation.
Unit 9	Community Involvement and Social Responsibility-Development Milestones and Exit Plan
Unit 10	The Financials of business plan – Appendices and other enclosures.
Unit 11	Putting the Plan to Work-Preparing – Presenting and Sending Out Your Plan – Looking for Money
Unit 12	Using Your Plan for Class and Competitions – Internal Planning for Existing Business and Corporations – Time Saving Tips.
Unit 13	Special Considerations-Considerations for Internet, E- Business'– Considerations for Retailers – Considerations for Manufacturers
Unit 14	Considerations for Service Businesses – Business Planning in a Weak or Strong Economy.

Textbook

1. Kleiner, Eugene, Abrams , Rhonda (2014). The Successful Business Plan: Secrets & Strategies, 6/e; New Delhi: Prentice Hall - ISBN - 0966963563

Reference books

1. Chandra, Prasanna (2014). Projects - Planning, Analysis, Selection, Financing, Implementation and Review, 8/e; New Delhi: McGraw Hill Education – ISBN - 978- 9332902572
2. Barringer, R. Bruce (2014). Preparing Effective Business Plans: An Entrepreneurial Approach, 2/e; New Delhi: Pearson Education -ISBN - 9780133506976

Semester: 3

Course Name: ENTREPRENEURIAL FINANCE

Credits: 4

Course Description

This course enables the student to build their skill and knowledge in entrepreneurial finance by recognizing and valuing the opportunity, various sources of finance, venture capital, various financing techniques and strategic partnering. At the end of this course, they would be able to learn the financial management practices and were able to find the various sources of financial capital and the related investment process.

Course Objectives

- Explain the practices of financial management.
- Discuss regarding the various sources of capital.
- Preparing financial statements.
- Highlight the investment process.
- Describe business sustainability.

Course Outcomes

- Articulate Financial Management Practices
- Plan for sourcing financial capital.
- Interpret financial statements and the investment process
- Construct investment plans.
- Assess contingency plans and exit strategies.

Units	Syllabus
Unit I	The Entrepreneurial Environment-Introduction to finance for entrepreneurs
Unit 2	Developing the business idea
Unit 3	Organizing and Operating the venture- Organizing and financing a new venture
Unit 4	Preparing and using financial statements

Unit 5	Evaluating operating and financial performance
Unit 6	Planning for the Future-Managing cash flow
Unit 7	Types and costs of financial capital
Unit 8	securities law considerations when obtaining venture financing
Unit 9	Creating and Recognizing Venture Value-Projecting financial statements
Unit 10	Valuing early-stage ventures
Unit 11	Venture capital valuation methods
Unit 12	Structuring Financing for the growing venture-Professional venture capital – other financing alternatives
Unit 13	Security structures and determining enterprise values
Unit 14	Exit and Turnaround Strategies-Harvesting the business venture investment- Financially troubled ventures, Turnaround opportunities

Textbook

1. Leach J. Chris, Melicher W. Ronald (2016). Entrepreneurial Finance, (5/e); New Delhi: Cengage Learning .ISBN 13- 978-0357442043

Reference books

1. Alhabeeb, M. J, (2015). Entrepreneurial Finance: Fundamentals of Financial Planning and Management for Small Business, New Jersy: John Wiley & Sons. ISBN: 978-1-118-69151-9
2. Steven, Rogers and Roza, Makonnen (2014). Entrepreneurial Finance - Finance and Business Strategies for the Serious Entrepreneur, (3/e); New Delhi: McGraw Hill Education. ISBN-10 : 9780071825399

DAYANANDA SAGAR UNIVERSITY

SEMESTER: 3

COURSE NAME: NEW VENTURE CREATION

CREDITS: 4

Course Description

This course enables the students to understand and appreciate the benefits and risk associated with the new venture creation and learns how to create different forms of new ventures by overcoming various risks involved in the existing environment. At the end of this course the students will be able to understand the process of planning, financing, leading, managing and evaluating the new venture.

Course Objectives

- Understand the process of Establishing the new venture.
- Highlight the process for leading the venture.
- Learn the process of managing the venture.
- Identify financing options.
- Explain the process of evaluating the venture.

Course Outcomes

- Articulate the importance of entrepreneurship and new venture opportunities.
- Plan for financing new ventures.
- Apply leadership strategies for the new venture.
- Plan for managing new ventures.
- Evaluating new ventures.

Units	Syllabus
Unit I	Entrepreneurship and New Venture Opportunities
Unit 2	Entrepreneurship and Innovation Small Business and Corporate Entrepreneurship – Contrasting enterprise
Unit 3	A Model for New Ventures – Feasibility Planning.
Unit 4	The Product Concept and Commercial Opportunities.

Unit 5	Product Protection- patents.
Unit 6	Trademarks – Copyrights – Services – The Human Side of Entrepreneurship
Unit 7	Marketing Research for New Ventures.
Unit 8	Marketing – Functions and Strategies.
Unit 9	International Markets – New Venture Opportunities.
Unit 10	The Entrepreneurial Team and Business Formation – Business Acquisitions and Franchising
Unit 11	Financial Resources for New Ventures – Managing Growth and Transition
Unit 12	The Rise of the Startup Economy – The Six Forces of Change
Unit 13	The Big Idea – Creating Great Customer Experiences.
Unit 14	The New Brand Order - Scaling to New Heights - Creating the Adventure- Choose your Own Adventure

Textbook

1. Holt H., David (2017). *Entrepreneurship: New Venture Creation,* New Delhi: Pearson Education. ISBN-10 : 9789332568730

Reference books

1. Kumar Arya (2017). *Entrepreneurship: Creating and Leading an Entrepreneurial Organisation*, New Delhi: Pearson Education. ISBN 8131765784
2. Barringer R., Bruce, Ireland R., Duane (2017). *Entrepreneurship: Successfully Launching New Ventures*, 4/e; New Delhi: Pearson Education. ISBN 978- 0132555524

DAYANANDA SAGAR UNIVERSITY

SEMESTER: 4

Course Name: SOCIAL ENTREPRENEURSHIP

Credits: 4

Course Description

This course prepares the students for innovatively approaching public needs with a combination of entrepreneurial practices and social purposes with the vision of developing social enterprises. This course also provides a working knowledge of the concepts, opportunities and challenges of social entrepreneurship. At the end of this course the students will be able to identify the contemporary issues in management of social sector and also to create the social enterprises through collaborative learning with social enterprises.

Course Objectives

- Highlight the system and process of a social enterprise.
- Explain the procedures for setting up of a social venture.
- State the process involved in managing social ventures.
- Describe importance of financing strategies.
- Show some examples of best practices of sustaining the social venture.

Course Outcomes

- Articulate the contemporary issues in management of social sector.
- Plan for creating social enterprises.
- Develop plans for collaborative learning with social enterprises.
- Devise strategies for managing the social entrepreneurship ventures.
- Evaluate leadership strategies for leading social entrepreneurships.

Units	Syllabus
Unit I	Social Entrepreneurship - Introduction - Social Entrepreneurship definition
Unit 2	theories and models of social entrepreneurship –
Unit 3	describing the social entrepreneur
Unit 4	Key Elements of Social Entrepreneurship-Value Creation
Unit 5	entrepreneur and perspectives of stakeholders–global context

Unit 6	the role of culture in forming social ventures
Unit 7	Process and Management in Social Ventures-Overview
Unit 8	The process of social entrepreneurship –
Unit 9	the founding team in the social venture –
Unit 10	managing the social venture – financing non-profit social ventures
Unit 11	financing for profit social ventures
Unit 12	Creating a Sustainable Change -Measuring success
Unit 13	scaling the social venture
Unit 14	creating an impact and sharing best practices in social entrepreneurship

Textbook

1. Coleman, Susan, Kariv, Dafna (2015). Creating the Social Venture, New York: Routledge

Reference books

1. Bornstein, David (2007). How to Change the World: Social Entrepreneurs and the Power of New Ideas, New Delhi: Oxford University Press. ASIN : B003U2T7JA
2. Keohane, Georgia Levenson (2013). Social Entrepreneurship for the 21st Century: Innovation Across the Nonprofit, Private, and Public Sectors, USA: McGraw Hill Education. ISBN-10 : 0071801677
3. Wei-Skillern, J., Austin, J., Leonard, H., & Stevenson, H. (2007). Entrepreneurship in the Social Sector (ESS), Sage Publications. ISBN-13: 978-1412951371

DAYANANDA SAGAR UNIVERSITY

SEMESTER: 3

COURSE NAME: DATA MANAGEMENT SYSTEMS

CREDITS: 4

Course Description

This course introduces data fundamentals, relational database systems, and SQL for data extraction and reporting. It explores data warehousing, data lakes, and their business applications, alongside big data concepts and NoSQL databases. Covering data mining techniques and practical use cases, the course equips participants with skills to manage, analyse, and secure data for strategic decision-making.

Course Objectives

- Discuss data requirements for business.
- Highlight Data and Data Management Systems in relation to any business domain by a systematic process based on Goal Setting and Performance Management as the factors that lead to success.
- Describe data sources, data capture & storage.
- Explain data models, Master Data, MDM, Schema, Relational and No-SQL databases, Data Warehouse and Data Lake.
- Teach data organisation from speed of response, and information security.

Course Outcomes

- Define data requirements for business from the understanding of business, business entities and how they relate to each other and Business Value of Data.
- Apply Data Sources such as ERP systems, Big Data, Database, Data Warehouse, No-SQL databases, ETL, IoT, Data Streams in their organisation to facilitate business use.
- Use Master Data, Organisation Data Dictionary, One Truth Database.
- Develop plans using Data Centre – Inhouse & Co- located, Cloud Computing, Private-Public-Hybrid cloud.
- Frame data security requirements and policy framing.

Units	Syllabus
Unit I	Data Fundamentals-Data, Types of Data, information, derived insights from Analysis, Meta Data. Data Structures.
Unit 2	Decision Making in Management - Strategic, Tactical and Operational decisions. Decision Support with Management Information Systems.
Unit 3	Data Sources & Defining Data Need Internal Data. Transaction data structured and unstructured data. External Data. PESTEL, Competition, Porters 5 Forces. Physical Records, Flat Files, Spreadsheet, Databases, social media.
Unit 4	Data Models Retails marketing as a case study to exemplify definition of data requirements. Information Security.
Unit 5	Data Base Systems, Relational Databases (RDBMS) in Particular. Entity Relations and ER Diagram.
Unit 6	Database Schema. Data base Organisation, Primary key, and foreign Key.
Unit 7	Stored Procedures and Referential Integrity. Data Base Replication. Introduction to SQL for query and reporting with examples. Popular RDBMS with relative merits.
Unit 8	Using SQL for extracting information from RDBMS. Introduction to Entity and Entity Relations. Attributes.
Unit 9	Entity – Primary and foreign keys. SQL commands. Using MS-SQL Express to work on creating, modifying, querying, reporting.
Unit 10	Data Warehouse, Data Lakes and their Applications. Data Warehouse and Data Mart.
Unit 11	Datawarehouse Schema, star, snowflake, star- Operational Data Store.
Unit 12	ETL,OLAP. Limitations of Data Warehouse. Data Lake, concepts, Business Purpose. Well known Data Warehouse and Data Lake Products
Unit 13	Data, Unstructured Databases aka No SQL Databases, Data Mining. Big Data, concepts and uses. Introduction and the need for unstructured data bases. Organisation of No SQL Databases.
Unit 14	Top Rated No-SQL Databases. Extracting Information from No-SQL Databases. Introduction to Data Mining, business purpose served, Data structures for Data Mining.

Textbook

1. C. Laudon Kenneth and P. Laudon Jane Pub: Pearson
2. Secondary (Optional) Master Data Management and Data Governance Auth: Alex Berson and Larry Dubov Pub: McGraw Hill.

Reference books

1. DAMA-DMBOK: Data Management Body of Knowledge Paperback – Illustrated, 4 July 2017 Publisher: Technics Publications LLC.
2. E-Business and E-Commerce Management – Author, Dave Chaffey, Publisher – Pearson Education.
3. Management Information Systems – Authors, James A. O'Brien, George M. Marakas, Ramesh Behl – McGraw Hill Education (India)

DAYANANDA SAGAR UNIVERSITY

SEMESTER: 3

COURSE NAME: APPLIED ANALYTICS

CREDITS: 4

Course Description

The Applied Analytics course is designed not only to explain what each model does or functions but also explores how businesses use them, whether it is to gather insights, solve problems, or predict outcomes.

Course Objectives

- Explain quantitative modelling and data analysis techniques to the solution of real-world business problems, communicate findings, and effectively present results.
- Demonstrate knowledge of statistical data analysis techniques utilized in business decision making.
- Discuss principles of Data Science to the analysis of business problems.
- Highlight data mining software to solve real-world problems.
- Appraise modern tools and technologies to analyse (Big) Data.

Course Outcomes

- Devise Plans to collect and prepare data for analyses.
- Analyse data using analytics tools and gather business insights.
- Use data-driven decision-making to make more informed business decisions
- Conduct hypothesis testing.
- Plan to apply ML techniques in work environment to solve business problems

Units	Syllabus
Unit I	Spreadsheet Modelling Concepts and Best Practices, Relative & Absolute Addresses, Range Names, Auditing Formulas - SUM, AVERAGE, PRODUCT, COUNT, COUNTA
Unit 2	COUNTBLANK, COUNTIF, SUMIF, AVERAGEIF, COUNTIFS, SUMIFS, AVERAGEIFS, SUMPRODUCT, IF
Unit 3	VLOOKUP, RAND, RANDBETWEEN, Pivot Tables, Data Tables, Goal Seek
Unit 4	Marketing - Predicting customer churn

Unit 5	Marketing - Sales forecasting
Unit 6	Marketing - Customer segmentation
Unit 7	Human Resource- Predictive HR analytics in recruitment and selection
Unit 8	Predictive HR analytics in turnover and separation
Unit 9	Predictive HR analytics in learning and development
Unit 10	Finance - Predicting stock market returns
Unit 11	Predicting bank loan defaults - Detecting fraudulent transactions
Unit 12	Supply Chain-Monte Carlo simulation modelling (Harry‘s Auto Tire)
Unit 13	Transportation problem (Executive Furniture Corporation)
Unit 14	Waiting line problem (Three Rivers Shipping Company)

Textbook

- Spreadsheet Modelling and Decision Analysis: A Practical Introduction to Business Analytics Author: Cliff Ragsdale, Edition: 8th, Year: 2018, ISBN: 9789353502225, Publisher: Cengage India
- XLMiner & Solver Platform for Education (add-ins to Microsoft Excel).

Reference books

- Shmueli, G., P. C. Bruce, and N. R. Patel, Data Mining for Business Analytics: Concepts, Techniques, and Applications with XLMiner, New Jersey, John Wiley & Sons, 2016.

DAYANANDA SAGAR UNIVERSITY

SEMESTER: 3

COURSE NAME: DATA VISUALIZATION FOR DECISION MAKING

CREDITS: 4

Course Description

In this course, students will learn the basics of visualization principles. How to convert data into powerful visualizations leading to actionable insights? Tableau is a Business Intelligence tool for visually analysing the data. Users can create and distribute an interactive and shareable dashboard, which depict the trends, variations, and density of the data in the form of graphs and charts.

Course Objectives

- Explain tools and techniques to communicate analytical insights.
- Discuss appropriate data visualization techniques.
- Highlight data blending options across data sources and bring them to life using visualizations.
- Demonstrate creation of impactful dashboards for business problems.
- Explain storytelling for non-technical audience using data visualization.

Course Outcomes

- Develop plans for communicating analytical insights using appropriate visualizations.
- Plan for appropriate data visualization for the task in hand.
- Plan for appropriate data visualizations.
- Create impactful dashboards for the problem in hand
- Present analytical insights using Tableau Story

Units	Syllabus
Unit I	Data Visualization Principles: Univariate Categorical Data
Unit 2	Univariate Numerical Data, 1 Categorical Data & 1 Numerical Data
Unit 3	Bivariate Categorical Data, Bivariate Numerical Data
Unit 4	Introduction to Tableau: Installing Tableau Public

Unit 5	Getting Started with Tableau, Saving Tableau Public, Navigation Design Flow,
Unit 6	File Types, Data Types, Show Me, Terminology
Unit 7	Data Sources: Data Sources, Fields Operation: Adding, Combining, Searching, Reordering, Editing Metadata
Unit 8	Data Joining, Data Blending
Unit 9	Connecting to Google Sheets Connecting to PDFs
Unit 10	Tableau Features: Drill Down, Swapping Dimensions.
Unit 11	Calculations, Sort & Filters, Tableau Parameter,
Unit 12	Action URL, Actions Filter
Unit 13	Storytelling with Tableau: Tableau Charts: Bar, Line, Pie, Crosstab, Scatterplot, Bubble, Boxplot, Histogram, Tree Map Dashboards, Story, Formatting, Forecasting, Trend Lines, Storytelling Guidelines
Unit 14	Story, Formatting, Forecasting, Trend Lines, Storytelling Guidelines

Textbook

- Communicating Data with Tableau (O'Reilly Publishers), Ben Jones

Reference books

- Storytelling with Data (Wiley), Cole Nussbaumer Knaflic

DAYANANDA SAGAR UNIVERSITY

SEMESTER: 3

COURSE NAME: PREDICTIVE ANALYTICS USING R

CREDITS: 4

Course Description

In this course, students will learn the basics of machine learning using R programming. Students will get a perspective about Machine Learning and analytics landscape, types of Machine Learning algorithms, data science process from data collection till model evaluation. The course will refer to usage of R and R Studio and mini projects exemplifying different algorithm types.

Course Objectives

- Learn R Data Structures
- Describe Exploratory Data Analysis and its significance
- Explain Supervised Machine Learning algorithms using R in a business application
- Highlight Unsupervised Machine Learning algorithms using R in a business application
- Calculate Time Series using R

Course Outcomes

- Develop a business problem into a Machine Learning model
- Implement R to perform EDA and Machine Learning processes
- Evaluate Model Performance using appropriate performance measures
- Design to Improve Model Performance
- Compare different ML algorithms and know which one is appropriate for the situation

Units	Syllabus
Unit I	**Introduction to ML,** Types of Analytics: Descriptive, Diagnostic, Predictive, Prescriptive Statistics Basics
Unit 2	Types of Data: Structured, Semi Structured, Unstructured, Structured Data using RDBMS. Table, Columns, Rows, what is ML; ML Use Cases; Algorithm Types: Supervised, Unsupervised; Supervised, Reinforced; Regression Vs. Classification;
Unit 3	Managing and Understanding Data: Vectors, Factors, Lists, Data frames, Matrixes and Arrays, Importing and Saving Data from CSV files,

	Exploring and Understanding Data: Exploring the structure of Data, Exploring Numeric Variables, Exploring Categorical Variables, Exploring Relationships between Variables
Unit 4	**Supervised Machine Learning** KNN Algorithm: How does it work? Example - Diagnosing breast cancer with KNN
Unit 5	Decision Trees: How does it work? Gini Index, Chi Square to choose decision node, Parameters to control overfitting
Unit 6	Example – identifying risky bank loans Neural Networks: How do they work? Example - Modelling the strength of concrete with ANNs
Unit 7	Multiple Linear Regressions Example – predicting medical expenses using linear regression
Unit 8	**Unsupervised Machine Learning** Market Basket using Apriori algorithm, Support, Confidence, Lift Example – identifying frequently purchased groceries with association rules
Unit 9	K Means algorithm Example - Finding teen market segments using k-means clustering
Unit 10	**Evaluating Model Performance** Measuring performance for classification Working with classification prediction data Using Confusion Matrix to measure performance
Unit 11	Measures other than accuracy: kappa, sensitivity, specificity, precision and recall, F ratio, ROC Estimating future performance: holdout, cross validation, bootstrap sampling
Unit 12	**Time Series Introduction** Data Types and formats Components and Objectives
Unit 13	Reading, plotting and decomposing time series data in R
Unit 14	Forecasts using exponential smoothing in R ARIMA models in R

Textbook

1. Machine Learning using R (Packt Publishing), Brett Lantz 2013
2. A little book of R for time series, Avril Coghlan

Reference books

1. Data Analytics with R, Dr Bharti Motwani, Wiley

DAYANANDA SAGAR UNIVERSITY

SEMESTER: 4

COURSE NAME: EDA USING PYTHON

CREDITS: 4

Course Description

The programming requirements of data science demand a very versatile yet flexible language which is simple to write the code but can handle highly complex mathematical processing. Python is most suited for such requirements as it has already established itself both as a language for general computing as well as scientific computing. Moreover, it is being continuously upgraded in form of new addition to its plethora of libraries aimed at different programming requirements

Course Objectives

- Highlight the features of Python language and different IDEs Like Jupyter Notebook and Spyder.
- Describe the features and functions of Python Packages: Numpy, Pandas
- Learn to apply and leverage on Pandas and Numpy functionalities in Performing data handling, data manipulation and data management tasks.
- Discuss how to leverage on Matplotlib Library to perform data visualizations and descriptive Data Analysis
- Explain machine learning models using python language

Course Outcomes

- Articulate the features and applications of Python Programming Language.
- Apply Python Library Numpy for Data handling and Data Manipulation tasks and understand the power of Pandas Library.
- Use Numpy and Pandas Libraries for advanced Data management tasks along with Databases.
- Use Descriptive Statistics and Visualization tasks with Python Libraries
- Apply different machine learning algorithms with python language.

Units	Syllabus
Unit I	Introduction to the Data Analysis and Python World - Data Analysis Process; Quantitative and Qualitative Data Analysis Python Introduction;
Unit 2	Python Interpreter; Python Distributions; Anaconda Environment; Jupyter Notebook; IDEs for Python; Built-in Python Libraries;
Unit 3	Built-In Functions; Data types; Libraries and Modules

Unit 4	Programs on applications of Data Types methods and Bulletin functions.
Unit 5	Introduction To Numpy and Pandas Libraries NUMPY: Creation of an Array; Operators; Functions; Indexing, Slicing, and Iterating; Shape Manipulation; Array Manipulation; Structured Arrays; Reading and Writing Array Data on Files.
Unit 6	PANDAS: Introduction to Pandas Data Structures; Reindexing, Dropping, Arithmetic and Data Alignment; Operations Between Data Structures; Function Application and Mapping; Sorting and Ranking; —Not a Number Data; Hierarchical Indexing and Levelling.
Unit 7	Data Handling with Pandas Reading Data in CSV or Text Files; Reading and Writing HTML Files; Reading Data from XML; JSON Data; Pickle—Python Object Serialization; Reading and Writing Data on Microsoft Excel Files
Unit 8	Interacting with Databases; Data Preparation; Concatenating; Data Transformation; Discretization and Binning; Permutation; String Manipulation; Data Aggregation; Group Iteration; Advanced Data Aggregation.
Unit 9	Descriptive Statistics and Data Visualization-Descriptive Statistics: Distribution Functions; Measures of Central tendencies; Measures of Variations; Measures of Shape.
Unit 10	Visualizations: Visualization with Pandas Library; Visualization with Matplotlib Library.
Unit 11	Model Development and Evaluation, Hypothesis Testing; p-hacking; Correlation and Regression
Unit 12	Constructing and Implementing Linear Models; Descriptive; Supervised Machine Learning
Unit 13	Unsupervised Machine Learning; Reinforcement Learning; Statistics: Unified machine Learning Workflow
Unit 14	Exploratory Data Analysis on a Sample Dataset.

Textbook

1. Python Data Analytics with Pandas, Numpy and Matplotlib (Apress), Fabio Nelli 2018
2. Hands-On Exploratory Data Analysis with Python (Packt Publishing),

Suresh Kumar Mukhiya and Usman Ahmed 2020

Reference books

1. Python for Marketing Research and Analytics (Springer International Publishing), Jason S. Schwarz, Chris Chapman, Elea McDonnell Feit (2020)

5.3 Duration of the programme

Programme	Level	Duration	Maximum duration For completion	Credits
MBA	Master's Degree	2 years	(2+ 2) years (As per UGC Notification on Specification of Degree, 2014)	102 Credits

5.4 Faculty and support staff requirement

Academic Staff	Number available to meet the required delivery norms
Programme Coordinator	1 member
Course Coordinator	1 member
Course Mentor	1 member per batch of 250 students

5.5 Instructional delivery mechanisms

The instructional delivery mechanisms for the online MBA programme from CDOE, DSU has been designed to ensure an engaging and effective learning experience for students. The CDOE has a team of qualified and experienced faculty and staff for the programme. The proficiency of the faculty team ensures that programs are thoughtfully designed and executed to meet high academic standards. This commitment to quality provides students with a seamless, engaging, and enriching learning experience, specifically tailored to the unique needs and challenges of online education. CDOE creates an environment that supports academic excellence and professional growth, empowering students to succeed in a flexible and accessible educational setting.

CDOE will be having an academic calendar outlining important dates for major events in the semester. This academic calendar will be shared with students at the start of each semester, ensuring clear communication and effective planning for all academic activities.

In addition to providing content through Self-Learning Materials (SLMs), students will have access to a wide range of e-learning resources, including audio and video content, to enhance their understanding of the course material. To ensure student engagement in the programme, various activities will be organized in the form of the following:

- **Webinars and Online Lectures:** Live sessions will be conducted to offer students the opportunity to learn directly from faculty members and engage in real-time discussions. These sessions will cover key topics and provide clarity on different concepts.

- **Discussion Forums:** Students will be encouraged to actively participate in discussion forums designed to stimulate critical thinking and foster open communication. These forums will provide a platform for students to share their perspectives and express their ideas without hesitation. Such forums encourage participation from all students and provide an opportunity for discussion and gaining insights while maintaining a professional decorum.

  Thus, students remain actively involved in the learning process, fostering a collaborative and enriching educational experience that aligns with the objectives of online learning.

- **Assessments:** Continuous Internal Assessments are conducted to support ongoing learning and development. Self-Assessment Questions included in the e-SLMs and quizzes available on the LMS provide regular opportunities for students to conduct periodic evaluations. These quizzes can be taken multiple times, allowing students to refine their understanding and work toward achieving correct answers. This iterative process promotes a deeper understanding of key concepts and strengthens learning outcomes. The flexibility of this approach encourages active participation, helping learners identify and address knowledge gaps while building confidence in applying their knowledge effectively. By regularly monitoring progress, students can engage more thoroughly with the course material, ensuring continuous improvement and mastery of the subject matter. The case study pedagogy in the online MBA programme aims to enhance critical thinking, decision-making, and problem-solving skills among students. It encourages real-world application of theoretical concepts, fostering deeper understanding. Students can use the opportunity to analyse complex business scenarios, develop strategic insights, and improve their ability to navigate challenges. Case studies help in cultivating practical knowledge and prepares students for leadership roles.

  Students will be provided access to national portals such as SWAYAM and NPTEL, along with the University's digital library, which will be integrated into the LMS for supplementary reading material. This allows students to explore additional resources beyond the prescribed syllabus. Such access will encourage students to complement the core curriculum but also supports lifelong learning, empowering students to stay updated with the latest developments in their field of study.

5.6 Media Resources - Print, Audio or Video, Online, Computer Aided:

Students will be getting access to a wide range of e-learning materials, including audio and video content, faculty-led video sessions, virtual classrooms and discussion boards through the LMS. This will enable students to track their progress in real-time through a personalized dashboard, allowing them to monitor their learning journey.

Students will also be informed about upcoming academic events. Regular notifications will be sent to remind students about upcoming webinars, virtual classes, assignments, and discussion forums. Such notifications will help students to manage their schedules and academic responsibilities.

Additionally, the LMS will facilitate direct communication between students and Course Coordinators/Mentors. Students will be able to raise queries, seek clarification, and receive responses from faculty members. This will foster a supportive learning environment and ensures that students have the necessary guidance and resources to succeed in their studies. The LMS will be a platform to maintain an interactive and engaging online learning experience, enabling students to actively participate in their education while receiving the support they need.

5.7 Student Support Services

Student Support services of the CDOE, DSU will be providing pre-admission student support like counselling about the programme including curriculum design, mode of delivery,fee structure and evaluation methods. Post-admission student support services include providing guidance to students to access LMS portal, Academic Calendar and regarding academic delivery. The support services team shall provide support/training in attending the online proctored semester end examination. The support team shall answer to the queries pertaining to conduct of end-semester examinations, evaluation and issue of certificates.

6. Procedure for Admission, Curriculum Transaction and Evaluation

The purpose of Online education by CDOE, DSU is to provide flexible learning opportunities to students to attain qualification, wherever learners are not able to attend the regular classroom teaching. Academic programmes offered for such candidates under Online Learning mode will be conducted by CDOE, DSU The programmes/courses are termed Online mode for award of Degree.

Eligibility criteria, programme/course structure, curriculum, evaluation criteria and duration of programme shall be approved by Board of Studies and Academic Council which are based on UGC guidelines.

Candidates seeking admissions in any programme offered by CDOE, DSU shall fill up online application form available informed on the website. Before applying, candidates must check eligibility criteria for the programme. Details about eligibility criteria, programme structure, curriculum, duration, and fee structure are available on the University website.

6.1. Procedure for Admission

6.1.1 Minimum Eligibility Criteria for admission

- A candidate who has passed in a Bachelor's Degree of minimum three years duration recognized by this University or who have passed any other examination recognized by this University as equivalent thereto. The candidate shall have passed the prescribed qualifying examinations with not less than 50% of the marks in the aggregate (45% in case of candidate belonging to SC/ST & OBC category) of all the years of the degree examinations.

Important Instructions:

- All candidates who are offered provisional admission will be required to produce the proof of having passed the qualifying examination (as mentioned in the aforesaid paragraph) to the University as per dates notified, failing which the provisional admission shall stand, cancelled.
- If a candidate is found ineligible at a later date, even after admission to DSU Online Programs, their admission will be cancelled. All admissions will be subject to verification of facts from the original testimonials/certificates/documents of the candidates. The decision of the competent authority at DSU regarding eligibility of any candidate shall be final.
- Admission granted by the University to the Programme shall be confirmed only for the candidates who fulfil the Admission Eligibility requirement by submitting all the requisite documents and has paid the semester fees.
- All other Admissions granted by the University to the Programme shall be Provisional until the candidate meet the eligibility criteria
- Provisional Admission shall stand cancelled if the candidate does not fulfil Programme eligible criteria within the stipulated time given by the CDOE, DSU.
- The University has the right to make necessary changes from time to time as deemed fit in Eligibility criteria, programme/course structure, curriculum, duration, fee structure and programme announcement dates. All changes will be notified on the website.
- Prior to applying for admissions, candidates are advised to go through the details provided on the University website & the Programme prospectus.

6.1.2. Fee Structure and Financial assistance policy

Suggested Fee for MBA programme is INR 1,20,000/- (One Lakh Twenty Thousand only). Overseas students need to remit the programme fees equivalent in USD to the University.

A scholarship of up to 10% on tuition fees will be provided to Merit students and to students who belong different special categories as defined in the University Policy.

6.2. Curriculum Transactions

6.2.1. Programme Delivery

DSU utilizes modern technology to deliver online programs, ensuring students receive a high standard of education. The faculty at DSU is dedicated to providing expert guidance that promotes the overall development of students. They do more than facilitate learning—they serve as mentors, fostering an engaging environment that enhances student retention and academic growth. The programme is designed with the goal of equipping students with specialized expertise, helping them excel in their chosen fields. Some of the important features are:

- Online academic delivery, ensuring flexibility and accessibility for all students.
- Regular updates and reviews of the curriculum and study materials to keep content current and relevant.
- Live, interactive lectures conducted by CDOE, DSU faculty members and course coordinators, ensuring engagement with students to support them in their learning journey.
- Continuous academic and technical support to assist students throughout in their online learning journey.
- Guidance and mentoring from Course coordinators to help students to navigate any academic challenges.
- Dedicated learning and delivery support from Course mentors.

This approach guarantees a comprehensive and supportive learning experience, where students can focus on their academic outcomes for better professional outcomes. Through these well-structured delivery methods, DSU ensures that each student receives the tools and guidance they need to succeed in their studies and future careers.

6.2.2. Norms for Delivery of Courses in Online Mode

Sl. No.	Credit value of the course	No. of Weeks	No. of Interactive Sessions		Hours of Study Material		Self- Study hours including Assessment etc.	Total Hours of Study (based on 30 hours per credit)
			Synchronouss Online Counselling/ Webinars/ Interactive Live Lectures (1 hour per week)	Discussion Forum/ asynchronous Mentoring(2 hours per week)	e-Tutorial in hours	e-Content hours		
1.	2 Credits	6 weeks	6 hours	12 hours	10	10	22	60
2.	3 credits	9 weeks	9 hours	18 hours	15	15	33	90
3.	4 Credits	12 weeks	12 hours	24 hours	20	20	44	120

6.2.3. Learning Management System to support Online mode of Course delivery

The LMS platform for the online MBA programme has been specifically designed to help learners maximize their potential in their chosen field. It offers a secure and reliable learning environment, accessible on both web and mobile devices, ensuring a consistent and seamless experience. With a user-friendly interface, the platform makes it easy for instructors to design courses, create content, and grade assignments efficiently. Its responsive design delivers an excellent mobile experience, allowing students to access course materials anytime, anywhere.

The LMS platform prioritizes accessibility, ensuring all tools are standards-compliant and easy to navigate, including support for assistive technologies. This ensures an inclusive learning environment for all students at all times such that students have the flexibility to study at their own pace and on their own schedule. The availability of LMS for the online MBA programme encourages students to develop a self-directed approach to learning in the programme.

6.2.4. Course Design

The course content has been carefully designed in accordance with the SWAYAM guidelines, employing the 4-quadrant approach to ensure a seamless and engaging learning experience. This structured approach includes four key components, each crafted to support various aspects of student learning and engagement:

(a) Quadrant-I i.e. e-Tutorial, that contains – Faculty led Video and Audio Contents. These provide visual and auditory explanations of key concepts, offering clear and comprehensive coverage of course topics. The use of video content enhances understanding and helps students grasp complex subjects more easily. Simulations, video demonstrations, Virtual Labs etc.

(b) Quadrant-II i.e. e-Content to contain illustrations, video demonstrations, documents as required. Curated reading resources, such as articles, case studies, and textbooks, allow students to explore topics in greater detail. These materials complement video lectures and encourage deeper exploration of the subject matter.

(c) Quadrant-III i.e. Discussion forums to raise and clarify doubts on real time basis bythe Course Coordinator(s) and their team. Interactive online discussion platforms enable students to engage with their peers and instructors. These forums foster collaboration, allowing learners to share insights, ask questions, and discuss ideas, creating a rich, supportive learning environment.

(d) Quadrant-IV i.e. Self-Assessment, that contains MCQs, Problems, Quizzes, Assignments with solutions and Discussion forum topics. Quizzes, assignments, and tests are integrated throughout the course to help students gauge their understanding and track their progress. These self-assessment tools encourage active learning and allow students to identify areas for improvement.

By utilizing the 4-quadrant approach, the course content ensures a balanced and holistic learning experience that promotes both theoretical knowledge and practical application.

6.2.5. Academic Calendar

The Academic Calendar indicates the timelines for the different academic activity for the Programme in the semester:

Sl. No.	Week	Event(s)
1	Week 1	Induction to the Programme.
2	Week 2-14	Commencement of live lecture sessions.
3	Week 3	Opening of Continuous Internal Assessments (CIA).
4	Week 4	Internal Assignment(s) submission.
5	Week 2-11	Discussion Forums.
6	Week 12	Closure of Internal Assignment(s) submissions.
7	Week 13	Semester End Examination (SEE) - Time Table.
8	Week 13-14	Semester End Examination (SEE) - Registration.
9	Week 15	Exam Admit Card download.
10	Week 16 onwards	Semester End Examination (SEE).
11	Week 17 onwards	Registration for next higher semester.

6.3 Evaluation

Every student shall be assessed for a course through Continuous Internal Assessment (CIA) and Semester End Examination (SEE) as prescribed. CIA and SEE shall respectively have 30:70 percent weightage.

Continuous Internal Assessment (CIA) for Theory Courses shall be conducted for 30 marks in the form of assignments. CIA for Internship & Project Work shall also be conducted for 30 marks and the details shall be made available in the respective Internship & Project Work Guidelines Manual.

Semester End Examination Assessment (SEE) for Theory Courses shall be conducted for 70 marks. The SEE question paper shall comprise of objective and descriptive type questions. The SEE will be conducted with technology support as a remote proctored examination. For Internship & Project Work the SEE shall be conducted for 70 marks and the details for the same shall be made available in the respective Internship & Project Work Guidelines Manual.

A student's performance in a course shall be judged by taking into account the results of CIA and SEE together. A student has to obtain and satisfy the following conditions to be declared as pass in each course:

(i) minimum 40% of marks in CIA

(ii) minimum 40% of marks in SEE

(iii)minimum 40% of marks in aggregate considering both CIA & SEE

- Students must score minimum 40% marks for project-based courses.
- There shall be no improvement of Continuous Internal Assessment marks if they are above 40%.
- If a student fails in any one component (failure to get 40% marks either in CIA or SEE), then the student will be required to re-appear for that component only (CIA or SEE as the case may be).
- There shall be no improvement of Semester End Examination marks if they are above 40%.

DSU shall be complying as per the prevailing regulatory directions on the conduct of the examinations.

6.3.1 Question Paper Pattern

The Question Paper for the Semester End Examination Assessment (SEE) for Theory Courses shall be conducted for 70 marks. shall comprise of three sections:

- Section – A for 20 marks comprising TEN Multiple Choice Questions (MCQ) of 2 mark each.
- Section – B for 30 marks of Short Answer type Descriptive Questions of 6 marks each for which a student shall be need to write answers for 5 out of 6 questions.
- Section – C for 20 marks of Long Answer type Descriptive Questions of 10 marks each for which a student shall be need to write answers for 2 out of 3 questions.

Section A (Answer ALL)	**Questions x Marks**	**Marks**
Ten Multiple Choice Questions	10 x 2	20
Section B – Answer **Five** out of **Six** questions		
Descriptive Questions (Short Answers)	5 x 6	30
Section C – Answer **Two** out of **Three** questions		
Descriptive Questions (Long Answers)	2 x 10	20
Total		**70**

6.3.2 Distribution of Marks in Continuous Internal Assessments

The following procedure shall be followed for awarding internal marks for courses. Student must

submit two assignments each carrying 30 marks and average of both will be considered as internal assessment marks.

6.3.3 Passing Minimum

The students are considered as passed in a course if they score 40% marks in the Continuous Internal Evaluation (CIA) and Semester-End Examinations (SEE) individually. If a student fails in any one component (failure to get 40% marks either in CIA or SEE), then the student will be required to re-appear for that component only.

6.3.4 Marks and Grades

Grading System: A student's performance in each course will be evaluated based on both Continuous Internal Assessment (CIA) and Semester End Examination (SEE). Based on the total marks obtained for each course, Student will be awarded grade for that course as per the below criteria:

GRADE	GRADE POINTS	DESCRIPTION	% MARKS
O	10	Outstanding	90 to 100
A+	9	Excellent	80 to 89
A	8	Very Good	70 to 79
B+	7	Good	60 to 69
B	6	Above Average	55 to 59
C	5	Average	50 to 54
P	4	Pass	40 to 49
F	0	Fail	< 40
IC	-	In Complete	-

Class Equivalence of Grade points:

CGPA	Class/Division
>=4.0 - < 5.75	Pass Class
>=5.75 -<6.75	Second Class
>=6.75 - <7.75	First Class
>=7.75 – 10	First Class with Distinction

- A student will have to ensure a minimum CGPA of 4, to become eligible for the award of the degree.
- A student shall have to re-appear all courses in which they obtain 'F' and 'IC' Grade until a passing grade is obtained.
- 'F' grade denotes failure to obtain minimum passing marks in Continuous Internal Assessment or Semester End Examinations.
- 'IC' grade denotes incomplete performance in any Theory and/or Practical Assessment. It may be awarded in case of absence for CIA or SEE.
- The student can appear for the course/s with 'F' and 'IC' grade, when exams are conducted subsequently by the University for those Courses.

For a semester:

The SGPA is calculated on the basis of grades obtained in all courses, except audit courses and courses in which F grade or below, registered for in the particular semester.

$$\text{SGPA} = \frac{\text{Points secured in the semester (O} - \text{P Grades)}}{\text{Credits registered in the semester, excluding audit courses}}$$

For the entire programme:

The CGPA is calculated on the basis of all pass grades, except audit courses.

$$\text{CGPA} = \frac{\text{Cumulative points secured in all the passed courses (O} - \text{P Grades)}}{\text{Cumulative registered credits, excluding audit Courses}}$$

7. Requirement of the Laboratory Support and Library Resources

7.1 Laboratory Support

No lab-based courses are offered in this program.

7.2 Library Resources

CDOE, DSU provides an exceptional library facility to support the academic needs of students enrolled in the MBA program. The Central Library at DSU is well-stocked with a vast array of reference books, including key titles relevant to the online MBA curriculum.

For students enrolled in the online mode of education, the University offers digital library access, which provides an extensive collection of e-books, journals, and academic databases. This digital resource ensures that online learners have equal access to critical academic content, supporting them in their coursework and research. To further enhance the academic experience, DSU will provide access to educational platforms like SWAYAM, Scopus, and Knimbus, to the students. These memberships provide access to an extensive range of academic content, including journals, articles, and research papers, enhancing the research capabilities among students.

To ensure a holistic learning experience, DSU has integrated e-learning resources into the LMS for the online MBA program. The LMS serves as a centralized hub for all course materials, including e-books, articles, and other resources. Additionally, e-tutorial lectures are made available, offering students the flexibility to study at their own pace while reinforcing key concepts covered in their courses. This seamless integration of resources ensures that students have everything they need to succeed in their

academic journey, regardless of their mode of study.

Beyond traditional academic resources, DSU will organize webinars and other virtual interactions by industry professionals for students. Such events will provide students with valuable insights into contemporary trends, challenges, and best practices in the business world.
Through a combination of comprehensive library resources, digital access, and expert industry engagement, the CDOE at DSU will provide online MBA students to strive for academic excellence.

8.Cost Estimate of the Programme and the Provisions

The costs towards the programme study material development and academic delivery system depend on the total programme credits and the number of students. DSU, known for academic excellence, has always complied with the UGC regulations. The programme related expenses towards e-content and IT infrastructure setup cost 50% of the programme fee revenue and the balance for the academic delivery of the programme which depends on the student strength.

9.Quality Assurance Mechanism and Expected Programme Outcomes

The quality of the online MBA programme is determined by the professionalism of the curriculum, which is designed to meet the demands of the business management profession. A well-structured syllabus, coupled with dedicated efforts and effective course execution, plays a critical role in ensuring the program's success. The primary goal of the online MBA programme is to equip students with comprehensive knowledge and practical skills in management. Additionally, expertise in information communication technology (ICT) gained through the programme opens up new career opportunities, allowing students to enhance their job prospects and elevate their positions, both in the workplace and in society at large.

The effectiveness of the programme will be assessed through various benchmarks, including the performance of students in their final semester examinations. These results will provide valuable insight into the programme’s impact on student learning and skill acquisition. Moreover, continuous feedback from key stakeholders will play an important role in maintaining and enhancing the quality of the programme. By collecting and analysing such feedback, the programme can be refined to better meet the evolving needs of business management students and the corporate sector.

CDOE, DSU has constituted Centre for Internal Quality Assurance (CIQA), which will assist the

Director, CDOE, DSU to conduct periodic review and assessments and assist CDOE to implement necessary quality measures and effectiveness in programme delivery. CIQA is constantly involved in reviewing all materials prepared by CDOE, including syllabus, SLMs and e-learning content. CIQA will be involved in conducting studies to measure effectiveness of methods adopted for learning. As we proceed further, CIQA will involve in benchmarking quality of academic delivery, and perform various analyses, and guide all stakeholders towards upgrading quality constantly.

Centre for Internal Quality Assurance Committee (CIQAC) chaired by the Vice Chancellor consisting of internal and external experts oversees the functioning of Centre for Internal Quality Assurance and approve the reports generated by Centre for Internal Quality Assurance on the effectiveness of quality assurance systems and processes.

In addition to CIQA, as per the guidelines of National Assessment and Accreditation Council (NAAC), DSU has constituted Internal Quality Assurance Cell (IQAC), in which academicians, industry representatives and other stakeholders are nominated as members. The IQAC is a part of the institution's system and work towards realization of the goals of quality enhancement and sustenance, as quality enhancement is a continuous process. The prime task of the IQAC is to develop a system for conscious, consistent, and catalytic improvement in the overall performance of institutions. The work of the IQAC is the first step towards internalization and institutionalization of quality enhancement initiatives. IQAC's elementary motive is to promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.

The guidelines on quality monitoring mechanism prescribed by the UGC have been adoptedby the Centre for Internal Quality Assurance for conducting institutional quality audits, to promote quality assurance and enhance as well as spread best-in-class practices of quality assurance. University has setup an effective system for collecting feedback from the stakeholders regularly to improve its programmes. The University will conduct self- assessments regularly and use the results to improve its systems, processes etc. and finally quality of programmes.

The outcomes from the online MBA programme aim to develop skilled and competent professionals who are equipped to navigate the complexities of modern businesses and organizations. The programme fosters leadership and management capabilities by instilling the knowledge, skills, and attitudes required for effective leadership, enabling students to excel and sustain themselves in a global business environment. It emphasizes the ability to analyse complex business problems by identifying,

formulating, and reviewing relevant research, allowing students to derive substantiated conclusions grounded in management principles.

Students are trained to design innovative solutions to intricate business challenges while considering legal, cultural, societal, and environmental factors. They will learn to apply research-based knowledge and advanced methods, such as statistical analysis and data interpretation, to offer well-rounded and valid solutions to complex problems. The programme also highlights the importance of leveraging modern concepts, tools, and ICT applications to develop solutions for business challenges in an effective manner.

Understanding environmental sustainability is integral for business executives, with students evaluating business environments to devise strategies that address threats and opportunities while maintaining a balance between professional objectives and societal impacts. Ethical principles are embedded throughout the curriculum, ensuring students uphold professional responsibilities and ethical standards in management practices.

The programme equips students to work both individually and in diverse, inclusive teams, applying theories of team dynamics, composition, and motivation. Effective communication is a key focus, enabling students to make professional reports, deliver impactful presentations, and convey ideas clearly in business settings.

Finally, the programme is expected to inculcate the importance of continuous learning, encouraging students to remain adaptable and engage in lifelong education to keep pace with the evolving business landscape, ensuring they remain competitive and relevant throughout their careers.

Registrar

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