

Master of Business Administration (MBA) Year 1

Semester - 1 (20 Credits)		Semester -2 (22 Credits)	
Subject Code	Subject	Subject Code	Subject
MB 501	Principles of Management Practices (3-0-0-3)	MB 507	Managerial Economics (3-1-0-4)
MB 502	Data Science for Business Decisions (3-1-0-4)	MB 508	Business Research Methods and Ethics (3-1-0-4)
MB 503	Principles of Marketing Management (3-0-0-3)	MB 509	Corporate Finance (3-0-0-3)
MB 504	Finance and Account Fundamentals (3-1-0-4)	MB 510	Corporate Law (3-0-0-3)
MB 505	Organizational Behavior (3-0-0-3)	MB 511	Management Accounting (3-1-0-4)
MB 506	Corporate Social Responsibilities (3-0-0-3)	MB 512	Business Analytics (3-1-0-4)

Master of Business Administration (MBA) Year 2

MBA Year 2: In Year 2 (Semester 3), a candidate would have an option to opt for any one of the following Track (Elective) as major specialization of 20 Credit based on interest, aptitude and market demand.

Track – 1: Finance / FinTech Management

Track – 2: Human Resource Management

Track – 3: Marketing Management

Track – 4: Data Analytics & Decision Science

Track – 5: Operations & Supply Chain Management

Track – 6: Generative AI

Track – 7: Business Management in Virtual Space

Semester 3 (20 Credits)

Track – 1: FinTech Management		Track – 2: Human Resource Management	
Subject Code	Subject	Subject Code	Subject
MB 513	Digital Accounting and Taxation Practices (3-1-0-4)	MB 518	Principles of People Management (4-0-0-4)
MB 514	Foundations of FinTech (3-1-0-4)	MB 519	Talent Acquisition (4-0-0-4)
MB 515	Investment Banking (3-1-0-4)	MB 520	Performance Management (3-1-0-4)
MB 516	Accounting and Audit Assurance (3-1-0-4)	MB 521	Strategic Business Leadership (3-1-0-4)
MB 517	Financial Reporting (3-1-0-4)	MB 522	Strategic Business Reporting (3-1-0-4)

Track – 3: Marketing Management		Track – 4: Data Analytics & Decision Science	
Subject Code	Subject	Subject Code	Subject
MB 523	Consumer Behavior & Strategic Marketing Communication (3-1-0-4)	MB 528	Python & Business analytics (3-1-0-4)
MB 524	Marketing Analytics (3-1-0-4)	MB 529	Digital & Cyber Physical System (3-1-0-4)
MB 525	Sales & Retail Management (3-1-0-4)	MB 530	Business Applications of AI and ML Techniques (3-1-0-4)
MB 526	Product & Brand Management (3-1-0-4)	MB 531	Business Intelligence for Decision Modelling (3-1-0-4)
MB 527	Marketing Research Methods (3-1-0-4)	MB 532	Understanding Big Data Analytics (3-1-0-4)

Track – 5: Operations & Supply Chain Management		Track – 6: Generative AI	
Subject Code	Subject	Subject Code	Subject
MB 533	Information System in Supply Chain Management (3-1-0-4)	MB 538	Foundations of AI models for Product Management (3-0-2-4)
MB 534	Supply Chain & Logistics Management (3-1-0-4)	MB 539	Public Policy, Ethics & Legalities in Generative AI (3-1-0-4)
MB 535	Operations Planning & Control (3-1-0-4)	MB 540	Generative AI strategy in Customer Service Operation (3-1-0-4)
MB 536	Materials and Stores Management (3-1-0-4)	MB 541	Business Research Methods in AI (3-1-0-4)
MB 537	Innovations and R&D Management (3-1-0-4)	MB 542	Data Visualization for Managers (3-1-0-4)

Track – 7: Business Management in Virtual Space	
Subject Code	Subject
MB 543	Search Engine Marketing & Optimization (3-1-0-4)
MB 544	Digital Entrepreneurship (3-1-0-4)
MB 545	Content Marketing (3-1-0-4)
MB 546	Lead Generation and Marketing Automation (3-1-0-4)
MB 547	Web Analytics (3-1-0-4)

Semester 4 (22 Credits)

Subject Code	Subject
MB 548	Project Management (3-1-0-4)
MB 549	Product Management (3-1-0-4)
MB 550	Indian Knowledge System (2-0-0-2)
MB 551	Research Project (0-0-24-12)

Optional: In Year 2 (Semester 4), As per NEP 2020 a candidate would also have an option to opt for anyone (Other than major) Elective as minor specialization of additional 16 Credit based on interest, aptitude and market demand.

Total Credit: 84 for Single specialization

Total Credit: 100 for Dual specialization (Optional)

Master of Business Administration (MBA) Year 1 – Detail Syllabus

Semester - 1 (20 Credits)

Course number	MB 501
Course Credit	L-T-P-C: (3-0-0-3)
Course Title	Principles of Management Practices
Learning Mode	Online
Learning Objectives	The objective of this course is to provide conceptual understanding of Management Concepts & to familiarize the students with the contemporary issues in Management. A course on the principles and practices of management can also help students to understand the changing business environment, and the role of ethics, social responsibility, and environmental issues in contemporary business.
Course Description	This course will provide basic understanding of methods to solve managerial problems & helps in managerial decision-making process. It will also provide an overview to analyze managerial problems theoretically & practically.
Course Outline	<p>Nature of Management - Social Responsibilities of Business - Manager and Environment Levels in Management - Managerial Skills - Planning - Steps in Planning Process - Scope and Limitations - Short Range and Long-Range Planning - Flexibility in Planning Characteristics of a sound Plan - Management by Objectives (MBO) - Policies and Strategies - Scope and Formulation - Decision Making - Techniques and Processes.</p> <p>An Overview of Staffing, Directing and Controlling Functions - Organising - Organisation Structure and Design - Authority and Responsibility Relationships - Delegation of Authority and Decentralisation - Interdepartmental Coordination - Emerging Trends in Corporate Structure, Strategy and Culture - Impact of Technology on Organisational design - Mechanistic Vs Adoptive Structures - Formal and Informal Organisation</p> <p>Group Dynamics - Leadership - Styles - Approaches - Power and Politics - Organisational Structure - Organisational Climate and Culture - Organisational Change and Development.</p> <p>Comparative Management Styles and approaches - Japanese Management Practices Organisational Creativity and Innovation - Management of Innovation - Entrepreneurial Management - Benchmarking - Best Management Practices across the world - Select cases of Domestic & International Corporations - Management of Diversity.</p>
Learning Outcome	By the end of this course, students will be able to: Learners will absorb various management concepts such as planning, organizing, implementing, staffing, coordinating, controlling, motivating and Managerial Grid.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

Koontz, Weirich & Aryasri, Principles of Management, Tata McGraw-Hill, New Delhi, 2004
 Tripathi & Reddy, Principles of Management, Tata McGraw-Hill, New Delhi, 2008
 Laurie Mullins, Management And Organisational Behaviour, Pearson, New Delhi, 2007
 Meenakshi Gupta, Principles of Management, Phi Learning, New Delhi, 2009
 Fred Luthans, Organisational Behaviour, Tata McGraw-Hill, New Delhi
 Principles & Applications, Cengage, New Delhi, 2008

Course number	MB 502
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Data Science for Business Decisions
Learning Mode	Online
Learning Objectives	The objective of this course is to Equip learners with the most relevant knowledge required in pursuing a career in data science for business decision making.
Course Description	This course examines how data science relates to developing strategies for business organizations. The emphasis is on obtaining decision-making value from an organization's data assets. The course will investigate the use of data science findings to develop solutions to competitive business challenges.
Course Outline	<p>Banking and Financial services- Fraud detection- Compliances and Regulatory requirements- Customer segmentation- Personalised marketing, Risk management</p> <p>E- Commerce - Supply chain management- Merchant analytics Merchant/ Customer Fraud Analytics- Recommender systems- Product specific analytics- online marketing analytics- user experience.</p> <p>Health care – Hospital Traffic analytics- Electronic Health records Real-time alerts- Prevention of Drug abuse- Predictive analytics in health care- Tele Medicine.</p> <p>Manufacturing - Competitive advantage- Decision making and ROI Value analysis- Customer analysis.</p> <p>HR analytics – HR intelligence framework- Staffing metrics – Development metrics – Compensation metrics.</p>
Learning Outcome	<p>By the end of this course, students will be able to:</p> <ul style="list-style-type: none"> ● Transform findings from data resources into actionable business strategies. ● Integrate data science capabilities into the formation of a situation analysis. ● Explain how data assets can be used to develop a competitive advantage. ● Identify and appraise the leadership and management skills required to direct a team of data science professionals toward meeting organizational goals.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Customer and Business Analytics: Applied Data Mining for Business Decision Making Using R (Chapman & Hall/CRC The R Series) by Daniel S. Putler and Robert E. Krider
2. Analytics in Healthcare and the Life Sciences: Strategies, Implementation Methods, and Best Practices (FT Press Operations Management) by Thomas H. Davenport and Dwight McNeill
3. Advances in Business, Operations, and Product Analytics: Cutting Edge Cases from Finance to Manufacturing to Healthcare (FT Press Analytics) by Matthew J. Drake
4. FinTech Innovation: From Robo-Advisors to Goal Based Investing and Gamification (The Wiley Finance Series) by Paolo Sironi

Course number	MB 503
Course Credit	L-T-P-C: (3-0-0-3)
Course Title	Principles of Marketing Management
Learning Mode	Online
Learning Objectives	Assess market opportunities by analyzing customers, competitors, collaborators, context, and the strengths and weaknesses of a company. Understand consumers' requirements and their behaviors & to develop effective marketing strategies to achieve organizational objectives.
Course Description	This course examines how Marketing strategies develops and implements strategic marketing programs, processes, and activities that align with wider business objectives, while utilizing customer insights, tracking metrics, and optimizing internal processes to achieve success..
Course Outline	<p>Understanding marketing and the marketing process The importance and scope of marketing Evolution of marketing: From transaction based to relationship marketing Fundamental marketing concepts Marketing and customer value The marketing environment (macro and micro), ethics and social responsibility Marketing management process</p> <p>Marketing planning, information and strategy Strategic planning and the marketing process; Developing marketing plans Marketing research and Decision support systems Understanding consumer behavior – marketing implications Market Segmentation, Targeting and Positioning Competitive strategies</p> <p>Developing the marketing mix: Product and Price Product classifications, Product Mix Product management decisions, Product Life Cycle Strategies New Product Development Pricing considerations and approaches (cost-based, buyer based and competition-based), pricing strategies</p> <p>Developing the marketing mix: Place and Promotion Distribution channels and physical distribution – channel design decisions, channel management decisions Retailing and wholesaling – Retail classification, retailer marketing decisions, wholesaler marketing decisions Integrated marketing communication and promotion strategy, Promotion mix</p> <p>Marketing applied Introduction to and the basic concepts of Industrial marketing, Services marketing, Rural marketing, International marketing, marketing for non-profit organizations, marketing in a connected world</p>
Learning Outcome	<p>By the end of this course, students will be able to:</p> <ul style="list-style-type: none"> ●Remember and comprehend basic marketing concepts. ●Understand marketing Insights on application of basic marketing concepts. ●Able to Apply and develop Marketing Strategies and Plans ●Understand and Analyzing Business/ Consumer Markets and ability Identify & evaluate Market Segments and Targeting
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Cravens, Hills and Woodruff: MARKETING MANEGEMENT
2. Pride and Ferrell: Marketing – Concepts and strategies (Indian adaptation) (Wiley Dream Tech)
3. Stanton: Fundamentals of Marketing (McGraw-Hill)
4. Ramesh Kumar: MARKETING NUGGETS

Course number	MB 504
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Finance and Account Fundamentals
Learning Mode	Online
Learning Objectives	The objective of this course is to acquire knowledge about various techniques used for analysing financial statements with its application & to enable students acquainted with current trends and social responsibility accounting.
Course Description	This course describes how the rules of corporate financial reporting effect the application of standards & managing the financial aspects of a business and helping the business with various solutions to achieve the desired goals & objectives.
Course Outline	<p>Meaning and Scope of Accounting: Evolution and Users of Accounting, Basic Accounting terminologies, Principles of Accounting, Accounting Concepts & Conventions, Accounting Equation, Depreciation Accounting. GAAP.</p> <p>Accounting Standards and IFRS: International Accounting Principles and Standards; Matching of Indian Accounting Standards with International Accounting Standards.</p> <p>Preparation of final accounts (Profit & Loss Account and Balance Sheet) according to companies act 2013 , Excel Application to make Balance sheet, Preparation of Cash Flow Statement and its analysis</p> <p>Analysis of financial statement: Ratio Analysis- Solvency ratios, Profitability ratios, activity ratios, liquidity ratios, Market capitalization ratios; leverage Ratio, Detailed Analysis using excel application.</p> <p>Different sources of Finance; long term and short term sources, Cost of capital: concept, relevance of cost of capital, Implicit and Explicit cost, specific costs and weighted average cost (its computation) , rationale of after tax weighted average cost of capital, marginal cost of capital (its computation).</p> <p>Objectives of Capital Budgeting Process, Concept of Cash flow, Methods of long-term Investment decisions</p>
Learning Outcome	<p>By the end of this course, students will be able to:</p> <ul style="list-style-type: none"> ● Understand and apply accounting concepts, principles and conventions. ● Understand about IFRS, Ind AS and IAS for preparation and reporting of financial statements. ● Create and prepare financial statements and Cash flow in accordance with GAAP. ● Analyze, interpret and communicate the information in financial statement. ● Understand basic concepts of financial management and their application in investment, financing and dividend decisions.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Maheshwari S.N & Maheshwari S K – A text book of Accounting for Management (Vikas, 10th Edition)
2. Essentials of Financial Accounting (based on IFRS), Bhattacharya (PHI, 3rd Ed)
3. Khan and Jain - Financial Management (Tata McGraw Hill, 7th Ed.)
4. PC Tulsian- Financial Accounting (Pearson, 2016)
5. Horne, J.C. Van and Wackowich. Fundamentals of Financial Management. 9th edition. New Delhi Prentice Hall of India.
6. Pandey, I.M. Financial Management. Vikas Publications.

Course number	MB 505
Course Credit	L-T-P-C: (3-0-0-3)
Course Title	Organizational Behaviour
Learning Mode	Online
Learning Objectives	To understand and appreciate the fact that why & how of human behaviour in organizations is critical for its success and to orient the managers-to-be to develop people skills to make and run the work-place effective, innovative and stake-holder centric.
Course Description	This course describes the basic concepts and topics in organizational behavior (OB) and management. The course focuses on OB at three levels: individual, interpersonal, and collective. We will cover decision-making, relationships, motivation, personality, influence, and groups. .
Course Outline	<p>Concepts of OB, OB Model, Components of OB, Personality, types of personality, Personal effectiveness, meaning of Attitudes, Types, Components, attitude formation and attitude change.</p> <p>Interpersonal skills, Transactional Analysis, Johari Window, Personality and Individual Differences; Motivation – Content & Process Theories of Work Motivation - and Job Performance; Personal Values, Attitudes and Beliefs; Conflicts & Stress – Concept.</p> <p>Group Dynamics & Determinants of Group Culture; Group Decision Simulation; Team Orientation; Leadership; Power and Politics in Organizations</p> <p>Organizational Dimensions Organisational Structure & its influence on personnel behaviour in organizations; Organisational Climate and Culture; Creating a culture for Innovation & Creativity; Organisational Change and Development.</p> <p>Trends in Organisational Behaviour; Consciousness, conscience management, ICT & its influence on behavioural dimensions; Gen Next orientation; Relationship Orientation for improved productivity & lack of formal authority.</p>
Learning Outcome	By the end of this course, students will be able to analyze and compare different models used to explain individual behaviour related to motivation and rewards. to identify the processes used in developing communication and resolving conflicts. to explain group dynamics and demonstrate skills required for working in groups (team building) .
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Fred Luthans, ORGANISATIONAL BEHAVIOUR, 11th Edition, Tata McGraw Hill, New Delhi.
2. Udai Pareek, —Organizational Behaviorl, Oxford University Press
3. Stephen P. Robbins, —Organizational Behaviourl, 12th Edition, Prentice Hall
4. Fred Luthans, —Organizational Behaviourl, 12th Edition, McGraw Hill International Edition

Course number	MB 506
Course Credit	L-T-P-C: (3-0-0-3)
Course Title	Corporate Social Responsibilities
Learning Mode	Online
Learning Objectives	Create awareness of the CSR theoretical framework, its ethical foundation and importance to improve the general welfare. Provide students with comprehensive knowledge of stakeholders' expectations and sustainability challenges companies face.
Course Description	This course familiarizes the students with the concept of corporate social responsibility. The evolution of CSR has far reaching consequences on the development sector in India. The collaboration of companies and NGOs with the community has initiated a new paradigm of change in the country.
Course Outline	<p>Definitions, dimensions and various terms defining corporate social responsibility, sustainability, business ethics and corporate citizenship.</p> <p>Different approaches to corporate social responsibility and arguments for and against. Strategic aspects of corporate social responsibility, programs and their contribution to financial, market and social performance of the company.</p> <p>Stakeholder management and stakeholder analysis. Group Dynamics & Determinants of Group Culture; Group Decision Simulation; Team Orientation; Leadership; Power and Politics in Organizations</p> <p>Business ethical issues and dilemmas & Ethical theories. Institutionalization of business ethics (mandatory and voluntary requirements) across cultures. Ethical decision-making.</p> <p>Success and failure with CSR initiatives. Corporate response to citizen demands via CSR. The five stages of organizational growth in CSR. The strategic importance of CSR Implementation.</p>
Learning Outcome	<p>After completing this course, students will be able to:</p> <ul style="list-style-type: none"> • Understand CSR theoretical framework and its ethical foundation. • Evaluate moral development among SMEs and international corporations. • Identify and build stakeholders mapping and engagement strategy. • Identify and manage social, environmental, and economic risks through business activities.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Carroll, A.B., Brown, J. and Buchholtz, A. K., (2017). Business & Society: Ethics, Sustainability & Stakeholder Management. Cengage, USA..
2. Beal, B.D. (2014). Corporate Social Responsibility: Definition, Core Issues, and Recent Developments. Sage, USA
3. Responsible Business: How to Manage a CSR Strategy Successfully -Manfred Pohl, Nick Tolhurst
4. The A to Z of Corporate Social Responsibility, 2nd, Revised and Updated Edition Wayne Visser, Dirk Matten, Manfred Pohl, Nick Tolhurst -ISBN: 978-0-470-68650-8, 504 pages, May 2010.

Semester -2 (22 Credits)

Course number	MB 507
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Business / Managerial Economics
Learning Mode	Online
Learning Objectives	To introduce the economic concepts & to familiarize with the students the importance of economic approaches in managerial decision making To understand the applications of economic theories in business decisions.
Course Description	This course engages learners in problem solving exercises that integrate various principles of Business, Statistics and Economics to determine market forecast, pricing strategy, resource usage, and production level.
Course Outline	<p>General Foundations of Managerial Economics - Economic Approach - Circular Flow of Activity - Nature of the Firm - Objectives of Firms - Demand Analysis and Estimation - Individual, Market and Firm demand - Determinants of demand - Elasticity measures and Business Decision Making - Demand Forecasting.</p> <p>Law of Variable Proportions - Theory of the Firm - Production Functions in the Short and Long Run - Cost Functions – Determinants of Costs – Cost Forecasting - Short Run and Long Run Costs –Type of Costs - Analysis of Risk and Uncertainty.</p> <p>Product Markets -Determination Under Different Markets - Market Structure – Perfect Competition – Monopoly – Monopolistic Competition – Duopoly - Oligopoly - Pricing and Employment of Inputs Under Different Market Structures – Price Discrimination - Degrees of Price Discrimination.</p> <p>Introduction to National Income – National Income Concepts - Models of National Income Determination - Economic Indicators - Technology and Employment - Issues and Challenges – Business Cycles – Phases – Management of Cyclical Fluctuations - Fiscal and Monetary Policies.</p> <p>Macro-Economic Environment - Economic Transition in India - A quick Review - Liberalization, Privatization and Globalization - Business and Government - Public-Private Participation (PPP) - Industrial Finance - Foreign Direct Investment(FDIs).</p>
Learning Outcome	After completing this course, students will be able to: <ul style="list-style-type: none">• Apply the knowledge of the mechanics of supply and demand to explain working of markets• Describe how changes in demand and supply affect markets• Understand the choices made by a rational consumer• Explain relationships between production and costs Define key characteristics and consequences of different forms of markets.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Yogesh Maheswari, Managerial Economics, Phi Learning, New Delhi, 2005 Gupta G.S.,
2. Managerial Economics, Tata McGraw-Hill, New Delhi Moyer & Harris,
3. Managerial Economics, Cengage Learning, New Delhi, 2005 Geetika, Ghosh & Choudhury, ,
4. Managerial Economics, Tata McGraw-Hill, New Delhi, 2011

iit	MB 508
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Business Research Methods and Ethics
Learning Mode	Online
Learning Objectives	1. Understand the concept / fundamentals of research and their types. 2. Understand the practical application of various research techniques. 3. Understand the importance of scaling & measurement techniques and sampling techniques 4. Understand the importance of coding, editing, tabulation and analysis in doing research.
Course Description	This course helps learners to identify and formulate a research question, select and apply appropriate quantitative and qualitative research methods, and present research findings. A strong focus is placed on ethical issues relevant for research in the business and economics disciplines.
Course Outline	<p>Research applications in functional areas of Business, Emerging trends in Business research. Research & the Scientific Method: Characteristics of scientific method. Steps in Research Process Concept of Scientific Enquiry: – Formulation of Research Problem.</p> <p>Concept, Features of a good research design, Use of a good research design; Qualitative and Quantitative research approaches, Comparison – Pros and Cons of both approaches. Exploratory Research Design: Concept, Types: Qualitative techniques – Projective Techniques, Depth Interview, Experience Survey, Focus Groups, Observation. Descriptive Research Designs: Concept, types and uses. Concept of Cross-sectional and Longitudinal Research.</p> <p>Concept of Measurement: Need of Measurement; Problems in measurement in management research – Validity and Reliability. Levels of measurement – Nominal, Ordinal, Interval, Ratio. Attitude Scaling Techniques: Concept of Scale – Rating Scales viz. Likert Scales, Semantic Differential Scales, Constant Sum Scales, Graphic Rating Scales – Ranking Scales – Paired comparison & Forced Ranking – Concept and Application.</p> <p>Concepts: Defining the Universe, Concepts of Statistical Population, Sample, Characteristics of a good sample. Sampling Frame (practical approach for determining the sample frame expected), Sampling errors, Non-Sampling errors, Methods to reduce the errors, Sample Size constraints, Non-Response.</p> <p>Hypothesis: Qualities of a good Hypothesis –Framing Null Hypothesis & Alternative Hypothesis. Concept of Hypothesis Testing – Logic & Importance. Analysis of Variance: One way and two way Classifications. Mechanism of Report Writing. Ethics in research, ethical issues related to publishing – Plagiarism.</p>
Learning Outcome	After completing this course, students will: <ul style="list-style-type: none"> • be able to identify a business research opportunity; • be able to synthesise a range of literature on a business problem; • be able to explain and evaluate research processes within a specific context; • be able to apply appropriate research methods;
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Business Research Methods by Alan Bryman & Emma Bell, Oxford University Press, 2nd Edition.
2. Business Research Methods by T N Srivastava & Shailaja Rao, TMH Publication, 2nd Edition.
3. Research Methodology, Deepak Chawla, Neena Sondhi, Vikas Publication
4. Business Research Methods, Naval Bajpai, Pearson Education
5. Research Methodology, C R Kothari, New Age International.
6. Business Research Methods by Donald Cooper & Pamela Schindler, TMGH, 9th Edition.

Course number	MB 509
Course Credit	L-T-P-C: (3-0-0-3)
Course Title	Corporate Finance
Learning Mode	Online
Learning Objectives	The objective of this course is to enable the students to understand the fundamentals of financial management in the context of a corporate entity. It attempts to acquaint them with different dimensions of financial management with a focus on the application of the relevant tools and techniques of financial decision making aimed at shareholder's wealth maximization.
Course Description	The course aims to facilitate understanding of corporate merger and acquisition activity, restructurings and corporate governance. The focus will be on fundamental concepts of valuation and analytical tools of corporate finance related to restructuring.
Course Outline	<p>Financial Management – Introduction to finance, objectives of financial management – Firm Value and equity value– profit maximization and wealth maximization - Changing role of finance managers - Organization of finance function.</p> <p>Present and future value of single payments, annuities, annuities due, and perpetuities - Growth in annuities and perpetuities - Compound interest and continuous compounding - Annual percentage rates and effective annual rates - Mathematics of loans: Discount, Interest only, Full and partial amortization.</p> <p>Concepts of Risk and Return – Diversifiable and Non-Diversifiable risk - Risk & return of single asset, risk and Return of a portfolio, Measurement of market risk for single asset and portfolio. Investment Rules: Capital budgeting methods and their limitations - Comparing projects with varying lives with varying cash flows - Capital budgeting decision rules.</p> <p>Sources of long-term funds Cost of capital – basic concepts. Cost of debenture capital, cost of preferential capital, cost of term loans, cost of equity capital (Dividend discounting and CAPM model). Cost of retained earnings. Determination of Weighted average cost of capital (WACC) and Marginal cost of capital.</p> <p>Capital structure decisions – Overview of financing choices –The financing process; internal and external financing - Operational and financial leverage - Business risk and its effect on the use of financial leverage - Determination of the optimal capital structure.</p> <p>Dividend policy – factors affecting the dividend policy - dividend policies- stable dividend, stable payout. Theories of dividend policy: relevance and irrelevance dividend decision. Walter's and Gordon's model, Modigliani and Miller approach. Dividend policies – stable dividend, stable payout and growth. Bonus shares and stock split corporate dividend behavior. Legal and procedural aspects of dividends.</p>
Learning Outcome	<p>After completing this course, students will:</p> <ol style="list-style-type: none"> 1) Recognize the importance of financial management from a strategic perspective 2) Compute cost of capital and develop innovative financial strategies 3) Analyze the capital structure decisions through relevant models 4) Discuss the dividend policy of a firm 5) Take both long-term and short-term financing decisions;
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. I.M. Pandey – Financial Management (Vikas), 9/e,
2. Prasanna Chandra; Financial Management Theory and Practice; Tata McGraw Hill; 7th Edition
3. Brigham & Houston – Fundamentals of Financial Management, Thomson Cengage Learning, 1/e,
4. M.Y. Khan & P.K. Jain – Financial Management (TMH), 5/e
5. Damodaran, Corporate Finance – John Wiley & Co., 2/e, 2004
6. Vanhorne, Financial Management & Policy, Pearson / PHI, 11/e, 2002.

Course number	MB 510
Course Credit	L-T-P-C: (3-0-0-3)
Course Title	Corporate Law
Learning Mode	Online
Learning Objectives	To develop knowledge and skills in the understanding of the general legal framework, and of specific legal areas relating to business, recognising the need to seek further specialist legal advice where necessary.
Course Description	The course covers a range of specific legal areas relating to various aspects of business of most concern to finance professionals. These are the law relating to employment and the law relating to companies. These laws include the formation and constitution of companies, the financing of companies and types of capital, and the day-to-day management, the administration and regulation of companies and legal aspects of insolvency law.
Course Outline	<p>Essential elements of the legal system: Law and the legal system, Source of law.</p> <p>The law of obligations: Formation of contract, Content of contracts, Breach of contract and remedies , The law of torts and professional negligence</p> <p>Employment law: Contract of employment, Dismissal and redundancy</p> <p>The formation and constitution of business organisations: Agency law, Partnerships, Corporations and legal personality. The formation and constitution of a company</p> <p>Capital and the financing of companies: Share capital, Loan capital, Capital maintenance and dividend law</p> <p>Management, administration and the regulation of companies: Company directors, Other company officers, Company meetings and resolutions</p> <p>Insolvency law: Insolvency and administration</p> <p>Corporate fraudulent and criminal behaviour: Fraudulent and criminal behaviour</p>
Learning Outcome	<p>After completing this course, students will be able to:</p> <ol style="list-style-type: none"> 1. Identify the essential elements of the legal system, including the main sources of law 2. Recognise and apply the appropriate legal rules relating to the law of obligations 3. Explain and apply the law relating to employment relationships 4. Distinguish between alternative forms and constitutions of business organisations 5. Recognise and compare types of capital and the financing of companies
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. A Compendium of Companies Act 2013, along with Rules, by Taxmann Publications.
2. Corporate Law, Gupta, Garg, Dhingra, Kalyani Publication
3. Company Law: Roy & Das, Oxford University Press.
4. Kumar, R., Legal Aspects of Business, Cengage Learning
5. Corporate Law– S K Matta, Geetika Matta, Vrinda Publications (P) Ltd
6. Arora & Banshal, Corporate Law – Vikash Publication 7. Gogna, P.P.S – Company Law, S. Chand

Course number	MB 511
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Management Accounting
Learning Mode	Online
Learning Objectives	The purpose of this course is to impart basic knowledge of both financial and cost accounting so that students are able to understand financial statements and reports to make decisions.
Course Description	This is a core course which is intended to make future managers learn about financial and managerial accounting concepts, techniques and tools used to design and develop costing systems, the preparation of budget and their role in planning and control. This course is aimed at making students understand various tools and techniques of management accounting namely inventory valuation, decision-support, cost-control and understand various costing approaches and cost management systems.
Course Outline	<p>Purpose and Scope; changing role of Accountant in profession, industry and as a consultant; Basic accounting concepts and postulates and their implications. Accounts Records and Systems; the journal and other subsidiary books. The Ledger and account, debit and credit, adjusting and closing entries, ruling and balancing accounts. The trial balance. Construction of Profit and Loss Account and Balance Sheet of joint stock companies as per companies act requirement.</p> <p>Cost concepts, determination of costs, elements of Cost-cost classification Preparation of cost sheet, tender.</p> <p>Overheads, Allocation, Apportionment, Absorption, Control over Factory, administration, selling and distribution Overheads, valuation of Inventories.</p> <p>Marginal costing – Distinction between absorption costing and marginal costing Cost volume profit (CVP) Analysis- Break Even Analysis- Margin of safety.</p> <p>Meaning, Concepts and Objectives, Merits and Demerits of Standard costing, Prerequisite for establishment of standard costing, Efficiency and Activity Ratios, Variance Analysis and Control .</p> <p>Budget and budgetary control - Objectives- Advantages and limitations Production budget - Sales budget- Cash budget and Flexible budget.</p>
Learning Outcome	<p>After completing this course, students will:</p> <ul style="list-style-type: none"> · Explain how management accounting tools and techniques can be used to support process improvement in order to reduce cost & time, improve quality and support innovation. · Identify, evaluate, and utilize relevant management accounting information in making various operational, investment and pricing decisions. · Apply analytical tools, techniques and frameworks to evaluate and critically examine the contents of both internal and external financial reports · Learnt to apply budget planning and control systems and product costing techniques
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Advanced Management Accounting Jawaharlal, S. Chand & Co
2. Managerial Accounting – Indian Edition Ronald W. Hicton, G. Ramesh and M. Jayadev by Tata McGraw Hill.
3. Management Accounting – NM Singhvi and Ruzbeh J. Bodhanwala PHI learning PVT Ltd.,
4. Management Accounting, Principles and Applications – HUGH Coombs, David Hobbs and Ellis Jenkuis – By Sage www.sagepublications.com

Course number	MB 512
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Business Analytics
Learning Mode	Online
Learning Objectives	<p>The main objectives of this course are to:</p> <ul style="list-style-type: none"> ➤ To achieve and establish vital understanding of big data application in business intelligence. ➤ To institute the concept of systematic transformation of process-oriented data into information of underlying business process. ➤ To exhibit knowledge of data analysis techniques and to apply principles of data sciences integrating Enterprise reporting.
Course Description	Business Analytics is a course designed to assist leaders in making smart business decisions. It provides knowledge of data processing and business administration to people in the real work field. The Business Analytics course is planned to develop valuable analytical abilities among the learners and prepare them for the future.
Course Outline	<p>Introduction to the BA Role: Business Analysis -Business Analyst - The evolving role of the Business Analyst - The BA roadmap: different levels of business analysis - The basic rules of Business & Business Analysis - Classical Requirements and Tasks performed by Business Analysts. Project Definition and Scoping: Aspects - Projects phases</p> <p>Business view of Information Technology Applications: Core business process – Baldrige Business Excellence framework - Key purpose of using IT in business - Enterprise Applications - Information users and their requirements. Data Definition: Types of Data – Attributes and Measurement – Types of data sets – Data quality – Types of Digital Data.</p> <p>Introduction to OLTP and OLAP – OLTP – OLAP – Different OLAP Architectures – OLTP and OLAP – Data models for OLTP and OLAP – Role of OLAP Tools in BI Architecture. Business Intelligence – Business Intelligence defined – Evolution of BI and Role of DSS, EIS, MIS and Digital Dashboards.</p> <p>Data Integration – Data Warehouse – Goals – Data sources – Extract – Transform, Load – Data Integration – Technologies – Data Quality maintenance – Data profiling. Data Modelling – Basics – Types – Techniques – Fact table – Dimension Table – Typical Dimensional Models – Dimensional modeling life cycle – Designing the Dimensional Model.</p>
Learning Outcome	<p>After completing this course, students will:</p> <ul style="list-style-type: none"> · Outline the business analytical role. · Examine the business view of information technology application. · Explain the concepts of OLTP, OLAP and BI · Demonstrate the data integration and data modelling concepts · List the concepts of Enterprise reporting and BI in real world
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. RN Prasad, Seema Acharaya - Fundamentals of Business Analytics – Wiley – Revised Edition 2015.
2. Haydn Thomas – Demonoid – Business Analysis Fundamentals – Pearson Education – 2015 Revised Edition.
3. Fundamentals of Business Analytics, 2nd Edition; R N Prasad, Seema Acharya; Wiley
4. Business Analysis with Microsoft Excel and Power BI, 5th edition; Conrad G. Carlberg; Pearson
5. AI and Analytics, Accelerating Business Decisions; Sameer Dhanrajani; Wiley

Master of Business Administration (MBA) Year 2 – Detail Syllabus

Semester -3 (20 Credits)

Track – 1: FinTech Management

Course number	MB 513 (FinTech Management)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Digital Accounting and Taxation Practices
Learning Mode	Online
Learning Objectives	<ol style="list-style-type: none">1. To understand the concept of E-Accounting.2. To obtain the theoretical and practical knowledge of Income Tax Act.3. Computation of Taxable Income and Tax Liability.4. To understand the historical background and implementation of GST Act
Course Description	The subject of e-accounting and taxation with GST, Analyze financial statements to take effective business decisions. Gain insights into a company's financial performance and position. Identify and prevent fraud and earnings manipulation. Establish internal as well as external Corporate Governance mechanisms.
Course Outline	<p>Introduction of E-Accounting: Concept of Business and Profession, Types of Accounts, Rule Accounts.</p> <p>Converting the business transaction into Journal according to the Golden Accounting Rules, Concept of Ledger Trail Sheet and Final Accounting.</p> <p>Income Tax: Introduction of Income Tax: Important concept and definitions, Theoretical knowledge of various heads of Income Tax.</p> <p>Computation of Taxable Income, Procedure of Tax Assessment and Types of Tax Assessment, TDS and Tax Refund Procedure.</p> <p>GST: Introduction, Important terms, Structure and classification of GST, Concept of Impact Tax Credit.</p> <p>Meaning, Scope, Place and Time of Supply, Computation of assessable value under GST.</p>
Learning Outcome	<p>As a result of taking this course, the student should be able to:</p> <ol style="list-style-type: none">1. To impart knowledge of basic accounting concepts2. To create awareness about application of these concepts in business world3. To impart skills regarding Computerised Accounting4. To impart knowledge regarding finalization of accounts of various establishments
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Shripal sakhlecha" Income Tax Law and Account", Satish Printer Indore.
2. HC Mehrotra & Prof VP Agarwal 'GST & Customs Duty", Sahitya Bhawan Publications, Agra.
3. <https://www.gst.gov.in>

Course number	MB 514 (FinTech Management)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Foundations of FinTech
Learning Mode	Online
Learning Objectives	1. To equip the students, to understand the basics of FinTech; 2. To have a working knowledge of FinTech operations;
Course Description	This course introduces the emerging FinTech discipline. It is intended to be the starting point for Stern students who may take additional electives in the FinTech area, while also providing an overview of the area for students who intend to take only one FinTech course.
Course Outline	<p>Introduction & History of Data Regulation FinTech Transformation, FinTech Evolution 1.0, FinTech Evolution 2.0, FinTech: Opportunities and challenges; a Case study on FinTech: The Rise of new TechFins – New Models and New Products- Innovative products in mobile-based, person to person, credit cards, pos based ecosystem.</p> <p>Cryptocurrencies and Block chain; Alternative Finance; Developing Countries and DFS: The Story of Mobile Money; Developing Countries and DFS: Regulation of Mobile Money; Legal and Regulatory Implications of Cryptocurrencies.</p> <p>Digital Finance; A Brief History of Financial Innovation; Digitization of Financial Services; Crowdfunding; FinTech & Funds, Case study of FinTech startups; FinTech ecosystem, players, processes, modes and various charges; FinTech Regulations; Challenges of Data Regulation; Innovation in consumer and retail payments led by Govt. & private sector; new payments banks.</p> <p>AI is Transforming the Future of FinTech; AI basics, Governance; New Challenges of AI and Machine Learning in FinTech; AI in Smart Regulation and Fraud Detection; Redesigning Better Financial Infrastructure-case studies; Data in Financial Services Application of Data Analytics in Finance; Methods of Data Protection: GDPR Compliance and Personal Privacy.</p>
Learning Outcome	As a result of taking this course, the student should be able to: 1. To equip the students, to understand the basics of FinTech; 2. To have a working knowledge of FinTech operations;
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. The Fintech Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries by Susanne Chishti
2. Digital Bank: Strategies to launch or become a digital bank (Kindle Edition by Chris Skinner
3. Fintech in a Flash: Financial Technology Made Easy by Agustin Rubini
4. The Business Blockchain: Promise, Practice, and Application of the Next Internet Technology by William Mougayar

Course number	MB 515 (FinTech Management)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Investment Banking
Learning Mode	Online
Learning Objectives	1. To provide students with the necessary theoretical and conceptual tools used in investment banking. 2. To provide an introduction and general understanding of investment banking activities. 3. To perform a valuation of companies. 4. To prepare reports on important components of investment banking
Course Description	Corporate finance represents a special area of finance, which focusses on a firm's sources of funding, capital structure decisions, managerial actions to increase the value of the firm, and tools and analyses that can be used to allocate financial resources in the most beneficial way.
Course Outline	<p>Introduction To Investment Banking: The evolution of Investment banking – Concept and Definition– Merchant Banking Today's major players – The culture and organization structure of Investment banks: the changing face of leadership, risk management, professional behaviour and organizational values – The structure of investment banks.</p> <p>The Business of Investment Banking: Nature of Contemporary investment banking – Service portfolio of Indian Investment banks – Introduction to Allied business – Asset Management, Mutual funds, Hedge fund, and Private Equity funds – Regulatory.</p> <p>Investment Banking and Business Valuation: Value and Valuation – Corporate Value vs Investment Value – Business Valuation - Drivers for Value Creation – Asset based valuation model – Financial forecasting – Determinants of financial forecasting – Free cash flow.</p> <p>Core Investment Banking Services: Domestic Issue Management – Types of Issues requiring issue management, Stages in an IPO, role of Investment banker as Issue manager – Underwriting – Underwriting commission and Underwriting.</p> <p>Overview of Corporate Restructuring: – Introduction to global capital market – Private placement. Relevant Case Studies. Corporate Re-organization – Rationale for Corporate Re-organization – Mergers and Amalgamations – Types of Mergers, Structure of an Amalgamation, Investment banking Perspective in Merger and Amalgamations – Introduction to Acquisitions, Takeover and Buyout – Strategic Acquisitions, Negotiated.</p>
Learning Outcome	By the end of this course, students will be able to: <ul style="list-style-type: none"> ● To provide the intellectual framework to learners who are pursuing a career in investment banking ● Develop the knowledge of corporate finance and who wish to broaden their understanding of finance by applying financial concepts and techniques ● Orientation about banking and financial concepts covered Managing investment in the primary market and secondary market. ● Apply learning from this program will help to get opportunities to work with Investment Banking companies.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Matt Krantz and Robert R. Jhonson, Investment Banking, Dummies a Wiley Brand, 2020.
2. Joshua Rosenbaum, Joshua Pearl, Investment Banking, Valuation, Leveraged Buyouts and Mergers and Acquisitions, Wiley, 2013.
3. CA Tapan Jindal, Investment Banking, Bharath Publishing House, 2015.
4. Pratap G. Subramanayam, Investment Banking, McGraw Hill Higher Education, 2008.

Course number	MB 516 (FinTech Management)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Accounting and Audit Assurance
Learning Mode	Online
Learning Objectives	To familiarize and develop an understanding of the basic aspects of accounting, auditing concepts and their principles.
Course Description	The Audit and Assurance (AA) module provides an introduction to the role of assurance in modern governance and accountability frameworks, with a more specific focus on the roles of and the techniques used by auditors.
Course Outline	<p>Audit framework and regulation: Concept of audit and other assurance engagements, External audits, Corporate governance, Professional ethics and ACCA's Code of Ethics and Conduct.</p> <p>Planning and risk assessment: Obtaining, accepting and continuing audit engagements, Objective and general principles, Assessing audit risks, Understanding the entity and its environment, Fraud, laws and regulations, Audit planning and documentation.</p> <p>Internal control: Internal control systems, The use and evaluation of internal control systems by auditors, Tests of controls, Communication on internal control, Internal audit and governance and the differences between external audit and internal audit, The scope of the internal audit function, outsourcing and internal audit assignments.</p> <p>Audit evidence: Financial statement assertions and audit evidence, Audit procedures, Audit sampling and other means of testing, The audit of specific items, Computer-assisted audit techniques, The work of others, Not-for-profit organisations.</p> <p>Review and reporting: Subsequent events, Going concern, Written representations, Audit finalisation and the final review, The Independent Auditor's Report.</p>
Learning Outcome	<p>On successful completion of this course, candidates should be able to:</p> <ul style="list-style-type: none"> • Explain the concept of audit and assurance and the functions of audit, corporate governance, including ethics and professional conduct. • Demonstrate how the auditor obtains and accepts audit engagements, obtains an understanding of the entity and its environment, assesses the risk of material misstatement and plans an audit of financial statements
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. B.N. Tandon, "Practical Auditing", S Chand Company Ltd
2. F.R.M De Paula, "Auditing-the English language Society and Sir Isaac Pitman and Sons Ltd, London
3. Spicer and Pegler, "Auditing: Khatalia's Auditing"
4. Kamal Gupta, "Auditing", Tata Mcgriall Publications

Course number	MB 517 (Finance / FinTech Management)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Financial Reporting
Learning Mode	Online
Learning Objectives	<ol style="list-style-type: none"> 1. To provide understanding of the concepts of Financial Reporting & Analysis. 2. To highlight the importance of Accounting Process. 3. To elaborate on the methods of inventory valuation. 4. To elucidate the management of funds/ cash from operations of the company.
Course Description	This course covers the analysis and interpretation of information from financial statements including both financial and non-financial information.
Course Outline	<p>Introduction to Accounting: Importance, Objectives and Principles, Accounting Concepts and Conventions and The Generally Accepted Accounting Principles (GAAP), Their Implications on Accounting System, Double Entry System, Recording Business Transactions, Classification of accounts. Accounting cycle.</p> <p>The Accounting Process: Overview, Books of Original Record, Journal, Ledger, Trial Balance, Classification of Capital and Revenue Expenses, Final Accounts Trading, P&L Account, Balance Sheet with Adjustments. Rectification of Errors. Accounting from Incomplete Records, Advantages and Disadvantages of Single Entry and Double Entry System and the Differences between the two, Preparation of Accounts, and Ascertainment of Profit from Incomplete Records, Accounting Treatment as per the Statement of Affairs Method and Calculation of Missing Figures.</p> <p>Valuation Models: Valuation of Assets, Tangible vs. Intangible Assets. Inventory Valuation, Methods of Inventory Valuation and Valuation of Goodwill, Methods of Valuation of Goodwill, Depreciation, Methods of Depreciation, their Impact on Measurement of Business Accounting.</p> <p>Financial Statement Analysis-I: Statement of Changes in Working Capital, Funds from Operations, Paid Cost and Unpaid Costs. Distinction between Cash Profits and Book Profits, Preparation and Analysis of Cash Flow Statement and Funds Flow Statement, Horizontal Analysis and Vertical Analysis of Company.</p> <p>Financial Statement Analysis-II: Analysis and Interpretation of Financial Statements, Liquidity, Leverage, Solvency and Profitability Ratios, Valuation Ratios, Du Pont Chart, Accounting Standards Issued by ICAI, Focus on INDAS, International Financial Reporting Standards (IFRS).</p>
Learning Outcome	<p>On successful completion of this course, candidates should be able to:</p> <ul style="list-style-type: none"> • Understand the Concepts and Principles of Accounting. • Understand the Accounting Process in detail. • Learn various aspects in depreciation, Inventory and Goodwill. • Analyze the Working Capital and Flow of Funds and Cash into the Business • Prepare, analyze and Interpret Financial Statements
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. S.N. Maheswari, S. K. Maheshwari, Sharad K. Maheshwari, Accounting for Management, Vikas Publishing House, 5e, 2022.
2. Narayanaswamy. R, Financial Accounting: A Managerial Perspective, PHI Learning, 7e, 2022.
3. Ambrish Gupta, Financial Accounting for Management, Pearson Education, 7e, 2022.

Track – 2: Human Resource Management

Course number	MB 518 HRM
Course Credit	L-T-P-C: (4-0-0-4)
Course Title	Principles of People Management
Learning Mode	Online
Learning Objectives	<ul style="list-style-type: none"> ➤ To understand and appreciate the importance of the human resources vis-a-vis other resources of the organisation ➤ To familiarize the students with methods and techniques of HRM ➤ To equip them with the application of the HRM tools in real world business situations.
Course Description	People management, a component of human resource management, is all about optimising talent acquisition, development and retention to provide sustained performance and positive employee engagement.
Course Outline	<p>Human Resources Management - Context and Concept of People Management in a Systems Perspective - Organisation and Functions of the HR and Personnel Department - HR Structure and Strategy; Role of Government and Personnel Environment including MNCs.</p> <p>Recruitment and Selection - Human Resource Information System [HRIS] - Manpower Planning - Selection – Induction & Orientation - Performance and Potential Appraisal - Coaching and Mentoring - HRM issues and practices in the context of Outsourcing as a strategy.</p> <p>Human Resources Development –Training and Development Methods - Design & Evaluation of T&D Programmes - Career Development - Promotions and Transfers - Personnel Empowerment including Delegation - Retirement and Other Separation Processes.</p> <p>Financial Compensation- -Productivity and Morale - Principal Compensation Issues & Management - Job Evaluation - Productivity, Employee Morale and Motivation - Stress Management - Quality of Work Life.</p> <p>Building Relationships – Facilitating Legislative Framework - Trade Unions - Managing Conflicts - Disciplinary Process - Collective Bargaining - Workers Participation in Management - Concept, Mechanisms and Experiences.</p>
Learning Outcome	<p>By the end of the programme, participants are expected to:</p> <ul style="list-style-type: none"> • Have a better understanding of the challenges of managing people in today’s work organisations • Develop attitudes and skills necessary for leading and managing newer generations of people • Recognise the need for emotional competence in dealing with people • Understand how to balance “hard” and “soft” approaches to get the best performance from people
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Venkata Ratnam C. S. & Srivatsava B. K., Personnel Management And Human Resources, Tata Mc-Graw Hill, New Delhi,,
2. Aswathappa, Human Resource Management, Tata McGraw Hill, NewDelhi, 2010
3. Human Resource Management, Pearson, New Delhi, 2009 Alan Price,
4. Human Resource Management, Cengage Learning, New Delhi, 2007 Pravin Durai,

Course number	MB 519 HRM
Course Credit	L-T-P-C: (4-0-0-4)
Course Title	Talent Acquisition
Learning Mode	Online
Learning Objectives	This course examines the core staffing activities, i.e. recruitment, selection, and employment, as well as the staffing support activities, such as legal compliance, human resource planning, and job analysis.
Course Description	Models, methods, and practices of employee acquisition, including, human resource planning, job analysis, recruitment, selection and retention management, to achieve organizational effectiveness.
Course Outline	<p>Introduction to Talent Management: Introduction, Meaning & Objectives, Role of Talent Management in building sustainable competitive advantage to a firm, Key Processes of Talent Management, Human Resource Planning, Recruitment, Selection, performance monitoring, Retention, Talent vs. knowledge people, Source of Talent, Consequences of Failure in Managing Talent, Some suggestive tools for Managing Talent.</p> <p>Talent Acquisition: Job analysis-Method of collecting information, developing questionnaires, interviews, developing job description & job specification. Developing HR planning process, Recruitment Process, Strategic Trends in Talent Acquisition, Talent acquisition management solutions; Preparing recruitment plan, E-recruitment (using various job portals), preparing recruitment budget, employer branding, formulating a recruitment strategy</p> <p>Elements of Talent Management The element of Talent Management-The resourcing strategy- Attraction and retention policies and programs – Talent Audit – Role Development – Talent relationship management – Performance management – Total reward - Learning and development - Career management, Talent Management Strategy Building the talent pipeline; Employee engagement; Employee engagement strategies; Talent management to drive culture of excellence, Leadership development</p> <p>Employee Retention: Comprehensive approach to Retaining employees, Managing Voluntary Turnover, dealing with Job Withdrawal, Strategic Compensation plan for Talent Engagement, Defining the Elements of Total Rewards, Integrated Rewards Philosophy, Designing Integrated Rewards, Sustainable Talent Management and Reward Model</p>
Learning Outcome	<p>As a result of taking this course, the student should be able to:</p> <ul style="list-style-type: none"> • Understand the framework of Talent Acquisition and development in the context of business realities • Develop processes and methodologies for manpower selection and development • Formulate strategies for the effective implementation of talent acquisition strategies
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. The Talent Management Handbook, Second Edition: Creating a Sustainable Competitive Advantage by Selecting, Developing, and Promoting the Best People (Hardback)
2. THE Rob Silzer Ben E. Dowell EDITORS. A Leadership Imperative A Publication of the Society for Industrial and Organizational Psychology. Strategy-Driven Talent Management. Josseybass.com www.josseybass.com/email for more information.

3.Talent Management Handbook. (2017). Association for Talent Development (ATD) By Lance A. Berger, Dorothy R. Berger. Virginia, USA.

Course number	MB 520 HRM
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Performance Management
Learning Mode	Online
Learning Objectives	<p>➤ To understand the importance of employee performance to achieve the organisational goals</p> <p>➤ To identify the process of performance management applications.</p>
Course Description	This course identifies the knowledge and skills needed for effective management of individual and team performance and examines the design of performance management systems that aim to transform organisational objectives into performance outcomes.
Course Outline	<p>Quality Performance Management - Concept - Dimensions - Facilitating Organisations for Performance - Organizational Dynamics and Employee Performance – Job Analysis</p> <p>Work Place and Its Improvement Through 5S - Modern Management Techniques and Management of Employee Performance - Team Building - Concept, Culture, Methods, Effectiveness & Empowerment Problems - Potential and Perspectives.</p> <p>Organizational Structure and Employee Motivation and Morale - Contemporary Thinking on Employment Practices and Work Schedules - Related Performance Appraisal Systems – Reward Based – Team Based – Competency Based- Leadership Based -Quality Circle - Features - Process.</p> <p>Industrial Restructuring - Reward System and Employee Productivity - Performance Counseling – Performance Evaluation & Monitoring – Methods of Performance Evaluation -Performance Management in Multi-National Corporations.</p> <p>Indian and Western Thoughts - Performance Management in the perspective of Indian Ethos – Ethical Issues and Dilemmas in Performance Management.</p>
Learning Outcome	<p>By the end of this course, students will be able to:</p> <ul style="list-style-type: none"> • Monitor and assess performance • Develop objectives that align with organisational values and goals • Provide meaningful feedback and ensure performance standards • Conduct performance conversations • Recognise and address performance-related issues
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

Srinivas Kandula, Performance Management, Prentice Hall India, NewDelhi, 2006

Dewakar Goel, Performance Appraisal And Compensation Management, Prentice Hall India, NewDelhi, 2008

Robert Cardy, Performance Management, Prentice Hall India, NewDelhi, 2004

S.K. Chakravathy, Managerial Effectiveness And Quality Of Work Life - Indian Insights, Tata-McGraw Hill , New Delhi

Course number	MB 521 HRM
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Strategic Business Leadership
Learning Mode	Online
Learning Objectives	The aim of this course is to demonstrate organisational leadership and senior consultancy or advisory capabilities and relevant professional skills, through the context of an integrated case study.
Course Description	This course typically focuses on developing the skills necessary to make strategic decisions at a senior leadership level, encompassing areas like corporate governance, leadership ethics, strategic planning and risk management.
Course Outline	<p>Leadership: Qualities of leadership, Leadership and Organisational culture, Professionalism, ethical codes and the public interest.</p> <p>Governance: Agency, Stakeholder analysis and organisational social responsibility, Governance scope and approaches, Reporting to stakeholders, The board of directors 6. Public sector governance.</p> <p>Strategy: Concepts of strategy, Environmental issues, Competitive forces, The internal resources, capabilities and competences of an organisation, Strategic choices, Identification, assessment and measurement of risk, Managing, monitoring and mitigating risk.</p> <p>Technology and data analytics: Cloud and mobile technology, Big data and data analytics, E-business: value chain, IT systems security and control.</p> <p>Organisational control and audit: Management and internal control systems, Audit and compliance, Internal control and management reporting.</p> <p>Finance in planning and decision-making: Finance function, Financial analysis and decision-making techniques, Cost and management accounting.</p> <p>Innovation, performance excellence and change management: Enabling success: organising, Enabling success: disruptive technologies, Enabling success: talent management, Enabling success: performance excellence, Managing strategic change, Innovation and change management, Leading and managing projects.</p>
Learning Outcome	<p>By the end of this course, learners will be able to:</p> <ul style="list-style-type: none"> • Apply excellent leadership and ethical skills to set the ‘tone from the top’ and promote a positive culture within the organisation, adopting a whole organisation perspective in managing performance and value creation. • Evaluate the effectiveness of the governance and agency system of an organisation and recognise the responsibility of the board or other agents towards their stakeholders, including the organisation’s social responsibilities and the reporting implications.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Davies, B.J. and Davies, B. (2004) ‘The nature of strategic leadership’, School Leadership and Management
2. Garratt, B. (2003) Developing Strategic Thought. London: McGraw-Hill.
3. Kaplan, R.S. and Norton, D.P. (2001) The Strategy-Focused Organization. Boston, MA: HBS Press
4. Davies, B. (2003) ‘Rethinking strategy and strategic leadership in schools’, Educational Management and Administration

Course number	MB 522 HRM
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Strategic Business Reporting
Learning Mode	Online
Learning Objectives	The aim of the syllabus is to discuss, apply and evaluate the concepts, principles and practices that underpin the preparation and interpretation of corporate reports in various contexts.
Course Description	The syllabus for Strategic Business Reporting, assumes knowledge acquired at the Fundamentals level including the core technical capabilities to prepare and analyse financial reports for single and combined entities.
Course Outline	<p>Fundamental ethical and professional principles: Professional behaviour and compliance with accounting standards, Ethical requirements of corporate reporting and the consequences of unethical behaviour.</p> <p>The financial reporting framework: The applications, strengths and weaknesses of the accounting framework</p> <p>Reporting the financial performance of a range of entities: Revenue, Non-current assets, Financial instruments, Leases, Employee benefits, Income taxes, Provisions, contingencies and events after the reporting date, Share-based payment, Fair Value Measurement, Reporting requirements of small and medium-sized entities (SMEs).</p> <p>Financial statements of groups of entities: Group accounting including statements of cash flows, Associates and joint arrangements, Changes in group structures, Foreign transactions and entities.</p> <p>Interpret financial statements for different stakeholders: Analysis and interpretation of financial information and measurement of performance</p> <p>The impact of changes and potential changes in accounting regulation: Discussion of solutions to current issues in financial reporting.</p>
Learning Outcome	<p>On successful completion of this paper, candidates should be able to:</p> <ul style="list-style-type: none"> • Apply fundamental ethical and professional principles to ethical dilemmas and discuss the consequences of unethical behaviour • Evaluate the appropriateness of the financial reporting framework and critically discuss changes in accounting regulation.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Andersen, M. M., Poulsen, F. (2006). Discount Business Strategies: How the New Market Leaders are Redefining Business Strategy, Wiley: Chichester
2. Andersen, T. J. (2000). Strategic planning, autonomous actions and corporate performance
3. Andersen, T. J. (2006). Global Derivatives: A Strategic Risk Management Perspective, FT Prentice Hall: Harlow
4. Aldrich, H.E., 2008. Organizations and Environments. Stanford University Press: Stanford.

Track – 3: Marketing Management

Course number	MB 523 MM
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Consumer Behaviour & Strategic Marketing Communication
Learning Mode	Online
Learning Objectives	<ul style="list-style-type: none"> ➤ To understand the conceptual foundations of consumer buying behavior. ➤ To create awareness of the theories of motivation and perception as applied in consumer behavior. ➤ To familiarize the learners with concepts and practices in strategic marketing communications. ➤ To learn about various communication tools and their effectiveness in contemporary time.
Course Description	This course gives an overview of psychological knowledge as it pertains to capturing consumer insight, and includes a consideration of how the brain works, what factors influence consumer choice, and a critical evaluation of psychological assessment tools & focuses on the theories, concepts, and applications of integrated marketing communications.
Course Outline	<p>Consumer Behaviour and Marketing Action - An overview - Consumer involvement - Decision-making processes - Purchase Behaviour and Marketing Implications - Consumer Behaviour Models, Environmental influences on Consumer Behaviour - Cultural influences - Social class - Reference groups and family influences - Opinion leadership and the diffusion of innovations. Consumer buying behaviour - Marketing implications - Consumer perceptions – Learning and attitudes - Motivation and personality – Psychographics - Values and Lifestyles.</p> <p>The Global Consumer Behaviour and Online buying behaviour - Consumer buying habits and perceptions of emerging non-store choices - Research and applications of consumer responses to direct marketing approaches - Issues of privacy and ethics.</p> <p>Marketing Communication: The Role of Marketing Communication Developing Effective Communication: Target Audience, Communication Objectives Design the Communication, Select the Communication Channels & Total Marketing Communication Budget. Communication Mix & Managing the IMC Process.</p> <p>Meaning, Nature and Scope of Advertising, Classification of advertising, Process of Advertising, Fundamentals of Advertising Campaigns, The Creative Brief, and Advertising Appeal.</p> <p>Developing the Advertising Campaign: Message Strategies, Executional Framework of messages, Sources and Spokespersons, Advertising Effectiveness & its measurement Media Planning and Strategy: Steps involved in media planning, Media Types and their characteristics; Setting Media objectives, Media Selection & Media Strategy. Interactive Marketing: Its advantage and disadvantages, Viral Marketing, and Mobile marketing.</p>
Learning Outcome	<p>On successful completion of this course students will be able to:</p> <ul style="list-style-type: none"> ● To explain the concept of Consumer Behaviour & describe Consumer research process in detail. ● To evaluate the factors affecting consumer behaviour in detail. ● To analyze the consumer decision process. ● To assess the impact of consumer's motivation, personality on the buying behaviour.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Hawkins, Best and Coney, Consumer Behaviour, Tata McGraw Hill, New Delhi
2. John A Howard, Consumer Behaviour in Marketing Strategy, Prentice Hall New Delhi
3. Schiffman L G and Kanuk L L Consumer Behaviour, Prentice Hall New Delhi
4. Guolla, Michael A., Belch, George E., & Belch, Michael A. (2020).
5. Advertising & Promotion: An Integrated Marketing Communications Perspective (7th Canadian Edition). McGraw-Hill.

Course number	MB 524 MM
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Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Marketing Analytics
Learning Mode	Online
Learning Objectives	<input type="checkbox"/> To understand the basic concepts of Marketing Analytics <input type="checkbox"/> To study various tools to have marketing insights in various marketing areas through empirical data
Course Description	The goal of this course is to provide you the skills needed to make intelligent use of marketing data and analytics to make business recommendations and decisions.
Course Outline	<p>Introduction to marketing Analytics: Meaning, characteristics, advantages and disadvantages of marketing analytics, Market Data Sources (Primary and Secondary). Market Sizing: Stakeholders, Applications & Approaches (Top-down and Bottom-up), PESTLE Market Analysis, Porter Five Force Analysis.</p> <p>Pricing Analytics: Pricing Policy and Objectives, Estimating Demand: Price Elasticity, Estimating Linear and Power Demand Curves, Optimize Pricing, Incorporating Complementary Products, Pricing using Subjective Demand Curve, Pricing Multiple Products, Price Bundling & Nonlinear Pricing: Pure Bundling & Mixed Bundling, Determine Optimal Bundling Pricing, Profit Maximizing strategies using Nonlinear Pricing Strategies, Price Skimming & Sales, Revenue Management: Markdown Pricing and Handling Uncertainty.</p> <p>Sales Forecasting: Introduction, Simple Linear Regression & Multiple Regression model to forecast sales, Forecasting in Presence of Special Events, Modeling trend and seasonality; Ratio to moving average forecasting method, Using S curves to Forecast Sales of a New Product.</p> <p>Customer Analytics: Customer Lifetime Value: Concept, Basic Customer Value, Measuring Customer Lifetime value, Estimating Chance that customer is still active, Using Customer Value to value a business Market Segmentation: The segmentation-targeting-positioning (STP) framework, Segmentation, The concept of market segmentation, managing the segmentation process, Deriving market segments and describing the segments using Cluster analysis.</p> <p>Retailing & Advertising Analysis: Market Basket analysis: Computing two way and three-way lift, RFM Analysis, Allocating Retail Space and Sales Resources: Identifying the sales to marketing effort relationship & its modeling, optimizing sales effort Advertising Analysis: Measuring the Effectiveness of Advertising, Pay per Click (PPC) Online Advertising.</p>
Learning Outcome	On successful completion of this course students will be able to: <ul style="list-style-type: none"> ● To develop the skill in marketing analytics. ● To acquainted with better understanding of real life marketing data and its analysis. ● To develop analytical skill for effective market decision.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Marketing Analytics: Data-Driven Techniques with Microsoft Excel by Wayne L Winston, Wiley India Pvt. Ltd.
2. Marketing Analytics: Strategic Models and Metrics by Stephan Sorger Create Space Publishing
3. Marketing Engineering and Analytics by Gary Lilen, Arvind Rangaswamy and Arnaud De Bruyn, Decision Pro, Inc.
4. Marketing Metrics by Dugar Anurag, SAGE Publishing India

Course number	MB 525 MM
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Sales & Retail Management
Learning Mode	Online
Learning Objectives	<input type="checkbox"/> To build knowledge, understanding, and skills in Sales and Retail Management. <input type="checkbox"/> Enable development and implementation of Sales and Retail Management strategies. <input type="checkbox"/> Help to analyze decision alternatives and criteria in the context of realistic problem situations in Sales and Retail Management
Course Description	Retail Management is a course designed to equip students with the knowledge and skills necessary to manage and operate retail business effectively.
Course Outline	<p>Introduction to Sales: Role of selling in marketing, Personal selling, Types of sales personnel, Characteristics of a successful salesman, Process of effective selling.</p> <p>Negotiation and Bargaining: Negotiation Strategies, conflicts and dispute resolution, negotiation and discussion stages. Listening skills - Controlling emotions, Art of persuasion and emotions, ethics in sales, Influencing and assertiveness skills, Spotting the signs, non-verbal communication and voice clues The Bargaining and Closing Stage: Making concessions, the techniques, Closing techniques, Confirming agreement.</p> <p>Building Sales Organization: Types of sales organizations and their structure, Functions and responsibilities of sales person. Filling sales positions: Recruitment, Selection, Training and Development. Leading Sales Organization: Sales force motivation & compensation, designing incentives and contests, Sales forecasting, Sales budget, Sales quota, Sales territory, Building sales reporting mechanism and monitoring, Sales force productivity, Sales force appraisal.</p> <p>Introduction to retailing: Factors Influencing Retailing, Strategic Retail Planning Process, Retail Organization, Retail Models and Theory of Retail Development, Modern retail formats in India, Store Location& Site Selection: Trading Area Analysis, Types of Location, Location and Site Evaluation, Objectives of Good store Design.</p> <p>Store Layout and Space planning: Types of Layouts, Visual Merchandising Techniques, Controlling Costs and Reducing Inventory Loss, Parking Space Problem at Retail Centers Retail Stores & Operations Management Responsibilities of Store Manager, Store Security, Store Record and Accounting System, Coding System, Material Handling in Stores, Logistic and Information system, Promotion, CRM & Brand Management in retailing.</p>
Learning Outcome	<p>On successful completion of this course students will be able to:</p> <ul style="list-style-type: none"> ● Develop knowledge, understanding and skills in Sales force management. ● Acquainted with better understanding of implementation of sales management strategies. ● Develop analytical skills for effective decision alternatives in sales management problems. ● Develop the knowledge, understanding and skills in retail management.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Still, R.R., Cundiff, E.W. and Govani, N.A.P.; Sales Management; Pearson Education
2. Venugopal, Pingali, Sales and Distribution Management, SAGE Publishing
3. Berman, Evans, Retail Management Strategic approach, Pearson
4. Chaudhary Prashant , Selling and Negotiation, SAGE Publishing
5. Tapan Panda: Sales and Distribution Management, OUP.
6. Havaladar, K.K., and Cavale, V.M.; Sales and Distribution Management; McGraw- Hill Education. 7. Pradhan Swapna; Retailing Management; McGraw-Hill Education

Course number	MB 526 MM
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Product & Brand Management
Learning Mode	Online
Learning Objectives	The objective of this course is to make students understand principles of Branding, role of brands, elements and components of brands, brand equity etc. The main aim for Brand Management is to make sure that students understand implications of planning, implementing and evaluating Branding Strategies.
Course Description	This course is designed to give the student insight into developing a strong brand and product management system by building, measuring and managing brand equity over time.
Course Outline	<p>Product: Concepts – Product Levels – Product Hierarchy and Product Classification – Product Life Cycle – Portfolio Management – Market Potential – New Product – Planning – Development Strategies and Launching Strategies.</p> <p>Product Mix: A Strategic Choice – Product Mix Decisions – Product Line Decision – Concept of Product Positioning – Elements of Positioning – Positioning Methods – Communicating the Positioning Strategy and Developing Positioning Strategy – Product Research – Importance – Tools and Analysis.</p> <p>Brand: Meaning – Definition – Evolution of Brands – Different Types of Brands – Functions of Brand to Consumer – Role of Brand – Advantages of Brand – Product Vs Brand – Brand Life Cycle – Creation of Brands – Branding Decisions – Strategic Brand Management Process – Concept of Brand Equity – Customer Based Brand Equity.</p> <p>Branding Strategies: Multiple Branding – Brand Extension – Co-branding Strategies – Brand Personality – Brand Image Building – Brand Repositioning – Brand Leveraging – Branding Impact on Buyers and Competitors – Methods for Measuring Brand Equity – Measuring Brand Performance – Brand Audit.</p> <p>Brand Rejuvenation : Brand Re-launch – Brand Development through Acquisition – Take over and Merger – Brand Licensing and Franchising – Role of Packaging and Labelling – Brand Success Strategies – Brand Loyalty Programs – Building Global Brands – Brand Failures.</p>
Learning Outcome	<p>On successful completion of this course students will be able to:</p> <ul style="list-style-type: none"> • Understand the advantages associated with creating strong product lines and brands while learning to leverage that strength to build future business. • Gain a better understanding of how marketers build the brand and brand equity. • Develop the ability to think critically about adjusting brand and product strategies over time to maximize long-term brand profitability.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. A.K.Chitale, Ravi Gupta, “Product Policy and Brand Management, Text and Cases”, Second edition, PHI Learning Private Limited, 2013
2. Kevin Lane Keller, M.G.Parameswaran, Isaac Jacob, “Strategic Brand Management”, Third edition, 2011, Pearson
3. Marc. A. Annacchino, P.E. “New Product Development, From Initial idea to product management”, 2003, Elsevier
4. U.C.Mathur, Product and Brand Management, First Edition, 2007, Excel Books

Course number	MB 527 MM
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Marketing Research Methods
Learning Mode	Online
Learning Objectives	To make the students familiar with Marketing Research and enable them to understand the fundamentals of Marketing Research.
Course Description	This course examines key concepts and methods of marketing research to allow students to understand how to apply methodological tools to solve real-life business problems. The student will learn basic techniques of research in marketing, including problem definition, research design, questionnaire construction, sampling, data collection, data analysis, and result presentation.
Course Outline	<p>Marketing Research - Introduction, Meaning of Research, Research Characteristics, Various Types of Research, Marketing Research and its Management, Nature and Scope of Marketing Research.</p> <p>Research Process: An Overview, Formulation of a Problem, Research Methods, Research Design, Data Collection Methods, Sample Design, Data Collection, Analysis and Interpretation, Report Writing, Components of Research Proposal-Data Collection Sources and Methods.</p> <p>Sampling Theory-Design, size and Techniques: Meaning of Sampling, Importance of Sampling in Marketing Research-Probability and Non Probability Sampling, Classification of Probability Sampling Techniques, Classification of Non Probability Sampling, Selecting an Appropriate Sampling Technique-Designing a Questionnaire Pilot study.</p> <p>Survey Field Work and Data Collection, Nature and Scope of Data Preparation, Editing, Coding, Data Entry, Preliminary Data Analysis. Data Analysis: Statistics in Data Analysis, Measures of Central Tendency, Measures of Dispersion-Hypothesis Testing: Introduction, Hypothesis, Steps Involved in Hypothesis Testing.</p> <p>Data Interpretation and Report Writing: Introduction, Data Interpretation, Research Report Structure of the Report, Components of a Report, Style and Layout of a Report, Revising and Finalizing the Research Report, Quality Research Report.</p>
Learning Outcome	<p>This course is designed to help students develop skills and knowledge in the following area(s):</p> <ul style="list-style-type: none"> • Provide students with the concept of problem formulation and decision making in marketing research. • Empower students with the right tools to implement marketing research in the marketplace. Implement the concepts of research design through collection of data from various primary and secondary sources. • Equip students with the right statistical tools to do thorough data analysis.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Krishna Swamy: Methodology of Research in Social Sciences
2. Kothari: Research Methodology
3. Zikmund: Business Research Methods
4. S C. Gupta: Fundamentals of Statistics
5. S P.Gupta: Statistical Methods

Track – 4: Data Analytics & Decision Science

Course number	MB 528 ADS
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Python & Business analytics
Learning Mode	Online
Learning Objectives	<p>The course aims to help learners to acquire conceptual knowledge of.</p> <ol style="list-style-type: none"> 1. Basic to advanced level Python programming for effective business data analysis and manipulation. 2. Advanced data visualization features to interpret complex business insights accurately. 3. Complete business data journey flow from data acquisition to transformation for robust analysis. 4. Advanced analytics models to solve complex business problems, improving decision-making accuracy and operational efficiency.
Course Description	<p>This course is about developing the essential skills, through a hands-on perspective, for working in a business analytics division within a company, regardless of the precise position. Such skills include programming, often in Python, answering business questions through data analysis, building predictive models, and presenting results to business stakeholders.</p>
Course Outline	<p>Introduction to Python: Basic Syntax, Data types, Type Casting, Operators; Control Flow (Conditional Statements, Loops); Functions; Module; Data Structures - List, Dictionary, Tuple, Set</p> <p>Python for Data Analysis: Hypothesis Testing; Importing Libraries- NumPy for numerical computation; Pandas for data manipulation and analysis (Data frames, Series): Handling Missing Data, Data Aggregation and Grouping; SciPy for Scientific and Technical Computing.</p> <p>Line Chart, Bar chart, Pie chart, Scatter plot, Histogram, Box plot, Funnel Chart; Plotting with Matplotlib, Subplot; Advanced Visualization with Seaborn.</p> <p>Introduction to Scikit-Learn; Loading Dataset: Duplication Checking, Missing Value Calculation; Data Pre-Processing - Outlier Detection, Data Cleaning; Data Transformation (Drop / Replace/ Imputation, Categorical to Numerical Conversion, Data Normalization / Standardization), Data Reduction/Feature Selection, Selection of Independent and Dependent Variable.</p>
Learning Outcome	<p>By the end of this course, learner would be able to:</p> <ol style="list-style-type: none"> 1) Identify core components of a business where analytics or prediction can be a significant value add. 2) Formulate business objectives into well-written Python code. 3) Explore data for business insights using Python packages. 4) Distinguish between different analytical techniques in order to best address the objective.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Galit Shmueli, et al., Data Mining for Business Analytics: Concepts, Techniques, and Applications in Python. E-book available at this [hyperlink](#).

2. Wes McKinney, Python for Data Analysis: Data Wrangling with Pandas, NumPy, and IPython 2nd Ed.
3. U Dinesh Kumar, Business Analytics: The Science of Data - Driven Decision Making, 2017, WILEY.
4. R. Evans James, Business Analytics, 2017, Pearson Education.
5. Reema Theraja, Python Programming using Problem Solving Approach, 2017, Oxford University Press.

Course number	MB 529 ADS
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Digital & Cyber Physical System
Learning Mode	Online
Learning Objectives	The objective of this course is to develop an exposition of the challenges in implementing a cyber-physical system from a computational perspective, but based equally on the principles of automated control.
Course Description	This course will review several recent advancements in cyber-physical systems and intelligent control. Topics will include core principles of CPS, differential equations to model physical processes, graph theory and CPS communication structures, control loops in CPS, intelligent control, game theoretic frameworks for secure control, control and estimation over lossy and attacked networks, intrusion and fault detection in CPS, differential and temporal logic for safety of execution, machine learning in CPS.
Course Outline	<p>Fundamentals of - Cyber Physical Systems: Cyber-Physical Systems (CPS) in the real world Basic principles of design and validation of CPS, Industry 4.0 AutoSAR, IIOT implications, Building Automation, Medical CPS.</p> <p>Platform Components for Cyber Physical Systems: CPS HW platforms - Processors, Sensors, Actuators CPS Network – Wireless Hart, CAN, Automotive Ethernet Scheduling Real Time CPS tasks: Table-driven and Event driven schedulers Hybrid schedulers.</p> <p>Principles of Dynamical Systems: Dynamical Systems and Stability Controller Design Techniques Performance under Packet drop and Noise.</p> <p>CPS implementation issues: From features to automotive software components Mapping software components to ECUs CPS Performance Analysis: Effect of scheduling, bus latency, sense and actuation faults on control performance, network congestion Building real-time networks for CPS.</p> <p>Intelligent CPS: Safe Reinforcement Learning: Robot motion control, Autonomous Vehicle control Gaussian Process Learning: Smart Grid Demand Response, Building Automation.</p>
Learning Outcome	<p>By the end of this course, learner would be able to:</p> <ol style="list-style-type: none"> 1. To develop the student's ability to understand the concept of cyber physical systems' characteristics, requirements and architecture. 2. To provide the students with some knowledge and analysis skills associated with the principles of memory organisation and bus structure of cyber physical systems.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Suh, Sang C., U. John Tanik, John N. Carbone, and Abdullah Eroglu, eds. Applied cyber-physical systems. Springer New York, 2014.
2. Alur, Rajeev. Principles of cyber-physical systems. MIT Press, 2015.

3. Colombo, Armando W., Thomas Bangemann, Statmatis Karnouskos, Jerker Delsing, Petr Stluka, Robert Harrison, Francois Jammes, and Jose L. Lastra. "Industrial cloud-based cyber-physical systems." The Imc-aesop Approach 22 (2014)

Course number	MB 530 ADS
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Business Applications of AI and ML Techniques
Learning Mode	Online
Learning Objectives	The course is designed to provide in-depth knowledge of ML algorithms that can be used for fact-based decision-making using case studies from Indian and multinational companies and understand how ML algorithms are used for automation and innovation.
Course Description	This course prepares students to effectively analyze data and improve prediction performance using AI techniques, with a focus on ML as a core component.
Course Outline	<p>Introduction and Data sources for AI, Knowledge acquisition, Knowledge representation, History of ML, Framework for building ML Systems-KDD process mode, Introduction of Machine Learning Approaches – (Artificial Neural Network, Clustering, Reinforcement Learning, Decision Tree Learning, Bayesian networks, Support Vector Machine, Genetic Algorithm), Issues in Machine Learning, Data Science Vs Machine Learning.</p> <p>Supervised Learning: Introduction to classification, Linear Regression, Metrics for evaluating linear model, Applications of supervised learning in multiple domains Application of supervised learning in solving business problems such as pricing, customer relationship management, sales and marketing.</p> <p>Unsupervised Learning: Clustering, Hierarchical clustering, Partitioning Clustering- K-mean clustering, Density Based Methods DBSCAN, OPTICS, Applications of unsupervised learning in multiple domains, Association rules: Introduction, Large Item sets.</p> <p>Perceptron model, Multilayer perceptron, Gradient descent and the Delta rule, Multilayer networks, Backpropagation Algorithm, DEEP LEARNING - Introduction, concept of convolutional neural network, Types of, Concept of Convolution layers, Training of network, Recent Applications.</p> <p>Introduction to Reinforcement Learning , Learning Task, Example of Reinforcement Learning in Practice, Learning Models for Reinforcement – Application of Reinforcement Learning, Introduction to Deep Q Learning.</p>
Learning Outcome	<p>This course is designed to help students develop skills and knowledge in the following area(s):</p> <ul style="list-style-type: none"> ● To understand the need of Machine Learning & Statistics for solving various problems. ● To understand the basic concepts of Supervised and Unsupervised learning. ● To apply regression analysis on the data available. ● To design appropriate machine learning and apply on real world problem.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Artificial Intelligence for Business Leaders: Ajit Kr. Jha
2. Machine Learning in Business: John C. Hull

3. An Introduction to Statistical Learning with Applications in R : James, G., Witten, D., Hastie, T., Tibshirani, R. (Springer)
4. Artificial Intelligence Business Applications: How to Learn Applied Artificial Intelligence and Use Data Science for Business. Includes Data Analytics, Machine Learning for Business and Python : William J Ford
5. AI and Machine Learning: Was Rahman, SAGE Publishing India

Course number	MB 531 ADS
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Business Intelligence for Decision Modelling
Learning Mode	Online
Learning Objectives	This course aims to present the usefulness of business intelligence in modern enterprises to the students, and to familiarize them with the application of business intelligence methods and techniques that support problem solving.
Course Description	This course provides an introduction to the concepts of business intelligence (BI) as components and functionality of information systems. It explores how business problems can be solved effectively by using operational data to create data warehouses, and then applying data mining tools and analytics to gain new insights into organizational operations.
Course Outline	<p>Changing Business Environments and Evolving Needs for Decision Support and Analytics, Decision-Making Processes and Computerized Decision Support Framework, Evolution of Computerized Decision Support to Analytics/Data Science, A Framework for Business Intelligence, Analytics Overview, Artificial Intelligence: Concepts, Drivers, Major Technologies, and Business Applications.</p> <p>The Nature of Data in Analytics, A Simple Taxonomy of Data, The Art and Science of Data Pre-processing, Definition of Big Data, Fundamentals of Big Data Analytics, Big Data Technologies, Big Data and Stream Analytics, Statistical Modeling for Business Analytics.</p> <p>Business Intelligence and Data Warehousing, Data Warehousing Process, Data Warehousing Architectures, Data Management and Warehouse Development, Data Warehouse Administration, Security Issues, and Future Trends, Business Reporting, Data Visualization, Different Types of Charts and Graphs, The Emergence of Visual Analytics, Information Dashboards.</p> <p>Data Mining Concepts and Applications, Data Mining Applications, Data Mining Process, Data Mining Methods.</p> <p>Model-Based Decision-Making, Structure of Mathematical Models for Decision Support, Certainty, Uncertainty, and Risk, Decision Modeling with Spreadsheets.</p>
Learning Outcome	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> · explain the benefits from business intelligence systems utilization for the enterprise · apply methods and techniques of data visualization · describe the intelligent decision support systems · apply methods of data preprocessing and data mining
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Steve Williams, Business Intelligence Strategy and Big Data Analytics - A General Management Perspective, Morgan Kaufmann (Elsevier), 2016.

2. Vincent Charles, Pratibha Garg, Neha Gupta and Mohini Agarwal, Data Analytics and Business Intelligence - Computational Frameworks, Practices, and Applications, CRC Press, 2023.
3. Ira J. Haimowitz, Data Analytics For Business - Lessons for Sales, Marketing, and Strategy, Routledge (Taylor & Francis), 2023

Course number	MB 532 ADS
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Understanding Big Data Analytics
Learning Mode	Online
Learning Objectives	To implement Map Reduce programs for processing big data, to realize storage and processing of big data using MongoDB, Pig, Hive and Spark & to analyze big data using machine learning techniques.
Course Description	This course covers the knowledge of big data science. It serves as a graduate level course for graduate students. The focus will be big data computer system, storage, processing, analysis, visualization, and applications.
Course Outline	<p>Classification of data, Characteristics, Evolution and definition of Big data, What is Big data, Why Big data, Traditional Business Intelligence Vs Big Data, Typical data warehouse and Hadoop environment. Big Data Analytics: What is Big data Analytics, Classification of Analytics, Importance of Big Data Analytics, Technologies used in Big data Environments, Few Top Analytical Tools, NoSQL, Hadoop</p> <p>Introduction to Hadoop: Introducing hadoop, RDBMS Vs Hadoop, History of Hadoop, Hadoop overview, Use case of Hadoop, HDFS (Hadoop Distributed File System), Processing data with Hadoop, Managing resources and applications with Hadoop YARN (Yet Another Resource Negotiator). Introduction to Map Reduce Programming: Introduction, Mapper, Reducer, Combiner, Partitioner, Searching, Sorting, Compression.</p> <p>Map Reduce Anatomy of a Map Reduce Job Run, Failures, Job Scheduling, Shuffle and Sort, Task Execution, Map Reduce Types and Formats, Map Reduce Features.</p> <p>What is MongoDB, Why MongoDB, Terms used in RDBMS and MongoDB, Data Types in MongoDB, MongoDB Query Language</p> <p>What is Hive, Hive Architecture, Hive data types, Hive file formats, Hive Query Language (HQL), RC File implementation, User Defined Function (UDF). Introduction to Pig: What is Pig, Anatomy of Pig, Pig on Hadoop, Pig Philosophy, Pig Latin Overview, Data types in Pig, Running Pig, Execution Modes of Pig, HDFS Commands, Relational Operators. Spark and Big Data Analytics: Spark, Introduction to Data Analysis with Spark.</p>
Learning Outcome	<p>By the end of this course, learner would be able to:</p> <ul style="list-style-type: none"> • Identify Big Data and its Business Implications. • List the components of Hadoop and Hadoop Eco-System • Access and Process Data on Distributed File System • Manage Job Execution in Hadoop Environment • Develop Big Data Solutions using Hadoop Eco System
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Chris Eaton, Dirk Deroos et al., “Understanding Big data”, McGraw Hill, 2012.
2. Boris Lublin sky, Kevin t. Smith, Alexey Yakubovich, “Professional Hadoop Solutions”, Wiley, ISBN: 9788126551071, 2015.
3. Tom White, “HADOOP: The definitive Guide”, O Reilly 2012.
4. Aven Jeffrey, Data Analytics with Spark Using Python | Big Data | First Edition | Pearson Paperback, November 2018

Track – 5: Operations & Supply Chain Management

Course number	MB 533 (O & SCM)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Information System in Supply Chain Management
Learning Mode	Online
Learning Objectives	<ul style="list-style-type: none"> ➤ To appreciate the role of IT in supply chain ➤ To understand data mining in supply chain ➤ To analyze IT practices in supply chain
Course Description	This course aims at learning and applying useful principles, analytical methods, and information technology to process improvement and optimization in supply chain management.
Course Outline	<p>The role of IT in Supply Chain .Uses of IT in inventories, Transportation & facilities within a Supply Chain .The Supply Chain IT frame work-macro Processes.</p> <p>The future of IT in the Supply Chain, Internal Supply Chain management, Supply Relationship Management, The Transaction Management Foundation .Data mining –Methods application area in Supply Chain.</p> <p>Goals of Supply Chain information Technology, Standardization, information Technology Infrastructure Presentation Devises, Communication Devices .Data base, System architecture.</p> <p>The Supply Chain IT in Practice, Integrating Supply Chain Information Technology, Stage of Development, Implementation of ERP & DSS. Structure of DSS. Selection of Supply Chain DSS. Supply Chain master Planning.</p> <p>Supply Chain Information System Design – Planning, Capacity, Performance requirement’ manufacturing requirement, Operation, Transportation, Inventory Development .E-Business – Role in Supply chain, Framework, Impact on Cost.</p>
Learning Outcome	<p>By the end of this course, learner would be able to:</p> <ol style="list-style-type: none"> 1. To understand of existing supply chain and its challenges 2. Ability to find opportunities for supply chain transformation 3. Application of innovation and IT frameworks in the supply chain context of their domain 4. To design new strategy to mitigate the cyber risk towards an efficient supply chain in the modern context.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. David Simchi-Levi et al, Designing and Managing The Supply Chain – Concepts, Strategies, And Case Studies, McGraw Hill International Edition 2003.
2. N. Chandrasekaran, Supply Chain Management, Oxford University Press, New Delhi 2010
3. Donald J Bowersox et al, Supply Chain Logistics Management, McGraw hill Education (India) Pvt. Ltd. New Delhi 2007

Course number	MB 534 (O & SCM)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Supply Chain & Logistics Management
Learning Mode	Online
Learning Objectives	<ol style="list-style-type: none">1. To understand the strategic role of logistics management2. To study the important modes of logistics operations3. To Know supply chain techniques in national & an international perspective.
Course Description	This course develops upon the basic foundations of logistics and supply chain concepts to provide deeper understanding concepts, frameworks and tools for advanced analysis of logistics and supply chain design and deployment in complex organizations.
Course Outline	<p>Logistics management and Supply Chain management - Definition, Evolution, Importance. The concepts of logistics and Supply Chain Management, Key Drivers of Supply Chain Management and Logistics relationships.</p> <p>Basics of Transportation, Transportation Functionality and Principles; Multimodal Transport: Modal Characteristics; Modal Comparisons; International Air Cargo Transport; Coastal and Ocean transportation, Characteristics of shipping transport- Types of Ships.</p> <p>Containerization: Genesis, Concept, Classification, Benefits and Constraints; Inland Container Depot (ICD): Roles and Functions, CFS, Export Clearance at ICD; CONCOR; ICDs under CONCOR.</p> <p>Packing and Packaging: Meaning, Functions and Essentials of Packing and Packaging, Packing for Storage- Overseas Shipment Inland-Transportation- Product content Protection, Packaging Types: Primary, Secondary and Tertiary- Requirements of Consumer Packaging, Channel Member Packaging and Transport Packaging - Shrink packaging –Identification codes, bar codes, and electronic data interchange (EDI)- Universal Product Code- GS1 Standards- package labels- Symbols used on packages and labels.</p> <p>Special Aspects of Export logistics: Picking, Packing, Vessel Booking [Less-than Container Load(LCL) / Full Container Load (FCL)], Customs, Documentation, Shipment, Delivery to distribution centers, distributors and lastly the retail outlets- Import Logistics: Documents Collection- Valuing- Bonded Warehousing Customs Formalities- Clearing , Distribution to Units.</p>
Learning Outcome	<p>By the end of this course, learner would be able to:</p> <ol style="list-style-type: none">1. Able to Understand the strategic role of Logistics and Supply chain Management in the cost reduction and offering improved service to the customers.2. Combining the traditional physical distribution activity with modern Information Technology to have sustainable competitive advantage to the organization Globally.

Assessment Method	Quiz / Assignment / ESE
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Suggested Reading:

1. Bowersox, Closs, Cooper, Supply Chain Logistics Management, McGraw Hill.
2. Burt, Dobbler, Starling, World Class Supply Management, TMH.
3. Donald J Bowersox, David J Closs, Logistical Management, TMH
4. Pierre David, “International Logistics”, Biztantra.
5. Sunil Chopra, Peter Meindl, Supply Chain Management , Pearson Education, India.

Course number	MB 535 (O & SCM)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Operations Planning & Control
Learning Mode	Online
Learning Objectives	<ul style="list-style-type: none"> •To understand the problems and opportunities faced by the operations manager in manufacturing and service organizations. •To develop an ability to apply PPC concepts in a various areas like marketing, accounting, finance, engineering, personnel management, logistics, etc. •To integrate operations concepts with other functional areas of business •To understand the PPC function in both manufacturing and service organizations.
Course Description	The course will describe the use of the manufacturing planning and control (MPC) system to manage material flow, capacity, and other resources in operations to meet strategic objectives. Operations planning and control is an integrative function in business that is critical in linking the planning activities in many areas of the business.
Course Outline	<p>Introduction: Meaning and objective of Production Planning & Control, functions, roles & responsibilities of PPC manager. Forecasting – qualitative and quantitative analysis techniques.</p> <p>Process of Production Planning and Control – Capacity planning –Concept, types, plant capacity, capacity planning strategies-Routing –procedure, materials flow patterns -Scheduling –production scheduling, machine scheduling and Line Balancing with numerical -Loading –process, strategies and relationship between capacity and loading-numerical, PPC in different production systems i.e. Job, batch, Mass (assembly) and continuous.</p> <p>Aggregate Planning –Meaning, Strategies and Cost, concept of Aggregate planning; capital-intensive, labor-intensive, and fashion industries. Materials requirement planning (MRP I), MRP-Manufacturing resource planning (MRP II) – Master production scheduling, Enterprise Resource Planning (ERP) and global practices.</p> <p>Waste Management: Value and waste, Types of waste; 5S techniques of eliminating wastes, Lean process to minimize wastages.</p> <p>Control Systems: Production control systems, Gantt Charts, Bar Charts, production progress reporting and performance analysis, system feedback, strategies for corrective actions, role of control rooms in production plants.</p>
Learning Outcome	<p>By the end of this course, learner would be able to:</p> <ol style="list-style-type: none"> 1. Recognize the objectives, functions, applications of PPC and forecasting techniques. 2. Explain different Inventory control techniques. 3. Solve routing and scheduling problems 4. Summarize various aggregate production planning techniques. 5. Describe way of integrating different departments to execute PPC functions.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Martand Telsang, “Industrial Engineering and Production Management”, S. Chand and Company,

2. S.K. Mukhopadhyay, Production Planning and Control, Prentice Hall of India private limited,
3. James.B.Dilworth, “Operations Management – Design, Planning and Control for manufacturing and services” McGraw Hill International edition.
4. S.N.Chary, “Theory and Problems in Production & Operations Management”, Tata McGraw Hill,
5. KanishkaBedi, “Production and Operations management”, Oxford university press,
6. Elwood S.Buffa, and RakeshK.Sarin, “Modern Production / Operations Management”, John Wiley and Sons

Course number	MB 536 (O & SCM)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Materials and Stores Management
Learning Mode	Online
Learning Objectives	<ul style="list-style-type: none"> ➤ To understand the concepts and principles materials and store management ➤ To appreciate the role of store management and forecasting ➤ To analyze the management aspects of health and safety in work
Course Description	The course intends to equip students with updated knowledge of modern materials management concepts and aims to develop their functional expertise in the store and purchase management disciplines.
Course Outline	<p>Determination of Stockholding Policy. Customer expectations – internal/external; supply market conditions; Categories of risks and their evaluation; Requirements of the business and the need for stock; Economics constraints; methods of avoiding carrying stock; General control methods e.g. ABC analysis. Control of Stock Range Coding, classification and categorization methods.</p> <p>Variety reduction and standardization; Application and approval of new stock items; Control of slow moving; obsolete and redundant stock; Role of and function in determining stock range, Control of Stock Levels Forecasting techniques in relation to demand and lead times.</p> <p>Management of Storage Facilities. Identifying types of commodities to be stored and their characteristics with regard to storage and handling needs; Materials requirements planning (MRP) and manufacturing resource planning (MRPII) and distribution requirements planning (DRP); Pull systems.</p> <p>Physical Management of Stock Selection and operation of appropriate storage and materials handling equipment – general outline; Methods of stores layout to optimize the use of space and minimize picking costs; Outsourcing the activity and vendor managed inventory; Maintenance of security and prevention of theft; Storage and disposal of redundant, obsolete and scrap items; Environmental issues.</p> <p>Management Aspects Health and Safety at work – operational issues: Health and Safety at work – management issues interdependence and teamwork; Relationships with other functions. Relevant Techniques Use of operational research techniques of queuing theory, network analysis, simple simulation techniques and decision trees; Identifying methods to distinguish between stores efficiency and effectiveness.</p>
Learning Outcome	After completing this module the learners will be clear about the procedures for procuring, ordering, transportation and storage of Materials being procured for operation of an organisation.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Jessop & Morrison, Storage and Supply Of Materials,
2. Duru C. Innocent, Purchasing and Stores Management, Ken Printing Press,
3. Terry Lucey, Quantitative Techniques, Letts Educational, 5th Edition.
4. Dobler & Burt. Purchasing & Supply Management

Course number	MB 537 (O & SCM)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Innovations and R&D Management
Learning Mode	Online
Learning Objectives	<ul style="list-style-type: none"> ➤ To understand the managerial aspects of Innovation functions ➤ To appreciate the Research & Development in management ➤ To evaluate the financial aspects of R&D projects
Course Description	The syllabus outlines the management of R&D and innovation processes within an educational framework. It details assignment structures, grading criteria, and expectations for both individual and group work. Emphasis is placed on ethical standards, professional quality, attendance, teamwork, and maintaining a productive learning environment.
Course Outline	<p>Introduction & Managerial aspects of Innovation function: Introduction, Components of Innovation, Types of Innovations, Models of Innovation Processes, Evolution and characteristics of Innovation Management, Key drivers of Innovation, Factors influencing Innovation, Organizing for Innovation, Factors influencing organizational design, Developing Innovation Strategy, Characteristics of creative of creative organization.</p> <p>Research and Development Management: Introduction, Meaning, Objectives, Significance, Classification of R&D according to R&D type, process phase, measurement level, purpose of measurement and measurement perspective. Technology development approaches, Performance of R&D management in Indian scenario.</p> <p>Financial Evaluation of R&D Projects Introduction: Cost effectiveness of R&D, R&D financial forecasts, Project selection, Evaluating R&D ventures, Conflicting views of managers. Allocation of resources, R&D programme planning and control. Project management, Project Planning and Control Techniques.</p> <p>Organization R&D and innovation: HRM issues in innovation and R&D, Leadership and R&D management, Organization Design and structure of R&D, R&D Project Management, Measurement, Evaluation and assessment of R&D.</p> <p>National R&D infrastructure and Institutional Framework: Fiscal and other incentives and Promotional /Support measures, Industry, Institutions and Government cooperations. Other important issues in R&D management, Commercialization of R&D.</p>
Learning Outcome	<p>Upon successful completion of this course learners would be able to:</p> <ol style="list-style-type: none"> 1. Demonstrate knowledge of the main issues in the domain of innovation, such as its main sources, types, and patterns; 2. Demonstrate an understanding of the relevant theoretical frameworks for the study and analysis of innovation management; 3. Demonstrate an understanding of the practical relevance of the theoretical frameworks 4. Display abilities in connecting the key issues for innovation management at the individual, organizational, and environmental level.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. White, The Management of Technology and Innovation - A Strategic Approach, Cengage Publication
2. S Moikal, Innovation Management, Sage Publication
3. C.K Prahalad & M.S. Krishnan, The New Age Of Innovation, Tata McGraw Hill Education Pvt. Ltd. New Delhi 2008.

Track – 6: Generative AI

Course number	MB - 538 (GAI)
Course Credit	L-T-P-C: (3-0-2-4)
Course Title	Foundations of AI models for Product Management
Learning Mode	Online
Learning Objectives	The objective of this course is to provide a comprehensive overview of how product management for AI technologies differ from other project. It covers everything from creating datasets and building models, to measuring impact and continuously updating models.
Course Description	This course is designed comprehensively for aspiring leaders and managers in the digital world. It embarks you on a transformative learning journey into the dynamic landscape of AI product management, where innovation meets strategy.
Course Outline	<p>Infrastructure and Tools for Building AI Products: AI product management, Technical introduction to AI, Core pillars and required skills for AI product management, AI product manager role and impact on various industries.</p> <p>Model Development and Maintenance for AI Products, Machine Learning and Deep Learning Deep Dive, Commercializing AI Products, AI Transformation and Its Impact on Product Management, Understanding the AI-Native Product, Productizing the ML Service, Customization for Verticals, Customers, and Peer Groups, Macro and Micro AI for Our Product, Benchmarking Performance, Growth Hacking, and Cost, The Rising Tide of AI, Trends and Insights Across Industry, Evolving Products into AI Products.</p> <p>Product Management for AI Projects, Project Management Planning for AI projects and products, Building an AI Native Product, Applications: Market Analytics, FinTech, Drug Discovery, Sports Analytics, Law, Application to Scientific research.</p>
Learning Outcome	<p>After completion of this course, the learners will be able to:</p> <ol style="list-style-type: none"> 1. Understanding of the principles and tools for AI-based product development 2. A working knowledge of machine learning and deep learning technologies 3. Strategy development for macro and micro-level management of AI-infused products 4. The ability to productize machine learning services and customize solutions for specific verticals.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Barthelmess U., Furbach U., 2014. Do we need Asimov's laws? MIT Technology Review, <http://arxiv.org/abs/1405.0961>, Cambridge, MA.

2. Cio R., Travaglioni M., Piscitelli G., Petrillo A., Felice F.D., 2020. Artificial intelligence and machine learning applications in smart production: Progress, trends, and directions. *Sustainability*, 12, 492.
3. Gonzalez A.G.C., Alves M.V. S., Viana G.S., Carvalho L.K., 2018. Supervisory control based navigation architecture: A new framework for autonomous robots in Industry 4.0 environments. *IEEE Transactions on Industrial Informatics*, 14(4), 1732– 1743.

Course number	MB-539 (GAI)
Course Credit	L-T-P-C: 3-1-0-4
Course Title	Public Policy, Ethics & Legalities in Generative AI
Learning Mode	Online
Learning Objectives	The objective of this course is Identify and remember core principles, challenges, and developments in AI governance. To Understand the complex interplay of AI development and regulatory practices, comprehending how emerging technologies influence and are Influenced by public norms and values.
Course Description	This course observes the emergence of AI ethics in law and public policy, examining the norms, values, and political strategies involved in the consensus-building processes that shape the development and governance of AI systems.
Course Outline	<p>The challenges of evaluating AI-Augmented knowledge; the value of intellectual property in the age of knowledge extractivism The use of technology for professional judgment in critical decision-making processes; the potential for deceptive outputs of machine learning algorithms; and the essential role of human oversight in mitigating the limitations of AI.The ethical challenges of programming moral decisions into machines; the principles that should guide such decisions; and the legal and ethical frameworks for accountability when those decisions lead to harm.</p> <p>The trade-offs between technological efficiency and fairness; the ethical obligations to prevent bias in technological deployments; and the broader societal impacts of relying on flawed systems.The emergence of AI-based communication systems; the responsibilities of tech companies vs. Governmental bodies in regulating content; and the potential impacts on public opinion and values.The global context of AI governance; the feasibility of harmonizing policies between nations with fundamentally different norms and values; and the potential for creating standards that respect both technological progress and cultural diplomacy.</p>
Learning Outcome	<p>After completion of this course, the learners will be able to:</p> <ol style="list-style-type: none"> 1. Understand the legal and ethical implications of artificial intelligence and how they impact society, organizations, and individuals. 2. Analyze the potential consequences of AI applications and technologies on various stakeholders, including government, industry, and the general public. 3. Develop a critical understanding of the potential risks and benefits of AI and how to mitigate the risks while maximizing the benefits. 4. Understand the role of law, regulation, and ethics in shaping the development and use of AI. 5. Understand how to apply ethical principles and frameworks to AI-related decision making.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Joler, Vladan, and Matteo Pasquinelli. "The Nooscope Manifested: AI as Instrument of

Knowledge Extractivism." AI & Society 36, no. 4 (2021): 1263–1280.

2. Christian, Brian, and Tom Griffiths. Algorithms to Live By: The Computer Science of Human Decisions. New York: Henry Holt and Company, 2016. ▪ Eubanks, Virginia. Automating Inequality: How High-tech Tools Profile, Police, and Punish the Poor. First Edition. New York, NY: St. Martin's Press, 2018.

3. Patrick Lin, Keith Abney, George A Bekey, Robot Ethics: The Ethical and Social Implications of Robotics, The MIT Press- January 2014.

Course number	MB – 540 (GAI)
Course Credit	L-T-P-C: 3-1-0-4
Course Title	Generative AI strategy in Customer Service Operation
Learning Mode	Online
Learning Objectives	<ul style="list-style-type: none"> • Understanding how AI impacts customer service strategies • Implementing AI-driven chatbots and virtual assistants for efficient customer interactions • Customizing services based on individual preferences and behaviour • Utilizing AI algorithms to analyse and extract insights from customer feedback • Improving feedback management processes using AI techniques.
Course Description	Learn how to enhance customer service with Generative AI. Discover AI's role, tools, and models while mastering automated problem resolution, dynamic responses, and sentiment analysis. Improve user experience, anticipate needs, and prioritize privacy.
Course Outline	<p>The digital transformation of Customer service, , Importance of Generative AI in Customer Service Operation in modern business, AI-powered chatbots and virtual assistants, Personalizing customer interactions, Generative AI for customer feedback analysis, Streamlining customer feedback with Generative AI.</p> <p>CRM Strategy Development - Customer-centric business approach, Customer lifetime value (CLV) analysis - Data Management for CRM - CRM software and technology solutions - Customer Segmentation and Targeting high-value customer segments, Personalization strategies in CRM. Generative AI strategies for Social media engagement and monitoring - CRM Analytics and Performance Measurement - Key performance indicators (KPIs) for CRM.</p> <p>Implementing Customer Relationship Management Customer Acquisition and On boarding - Lead generation and prospecting, Conversion optimization techniques - Customer Engagement and Retention - Building customer loyalty and advocacy, Customer engagement strategies.</p> <p>CRM for Sales and Marketing Alignment - Sales and marketing collaboration, Lead nurturing and sales pipeline management, Marketing automation and CRM integration - Customer Service and Support in CRM. Proactive customer service and self-service Options - Relationship Building and Loyalty Programs.</p>
Learning Outcome	<p>After completion of this course, the learners will be able to:</p> <ol style="list-style-type: none"> 1. Apply Generative AI Strategy to effectively manage customer relationships and enhance customer satisfaction. 2. Analyse and interpret customer data to make data-driven decisions in the context of CRM. 3. Develop and implement integrated marketing strategies that leverage CRM practices to drive business growth and customer loyalty..
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Kumar, V., & Reinartz, W. (2018). Customer Relationship Management. Springer-Verlag GmbH Germany, part of Springer Nature 2006, 2012, 2018.
2. Raab, G., Ajami, R. A., & Goddard, G. J. (2016). Customer Relationship Management: A Global Perspective. CRC Press.

Course number	MB - 541 (GAI)
Course Credit	L-T-P-C: 3-1-0-4
Course Title	Business Research Methods in AI
Learning Mode	Online
Learning Objectives	The objective of this course is comprehensive exploration of the methodologies and techniques essential for conducting effective research in the field of AI. In this course, learner will equip with the knowledge and skills needed to navigate the complex landscape of AI research.
Course Description	This course introduces learners to the fundamental research methods, data analysis techniques, and reporting strategies necessary to conduct meaningful inquiry and research in the field of Artificial Intelligence (AI).
Course Outline	<p>Introduction and Basic Research Concepts: Research in the field of AI Ethical considerations in AI research Identifying research hypotheses and questions Reviewing relevant AI literature Introduction to data collection and analysis in AI Qualitative Research Methods in AI.</p> <p>Understanding qualitative data in AI: Qualitative data collection techniques Qualitative data analysis procedures Coding and thematic development in AI research Quantitative Research Methods and Statistics in AI.</p> <p>Types of quantitative data in AI Sampling concepts in AI research Quantitative data collection instruments Introduction to applied statistics in AI Descriptive and inferential statistics in AI Regression analysis, t-tests, ANOVA, correlations, and chi-square in AI research Mixed Methods Research in AI.</p> <p>Advantages and design components of mixed methods research in AI Explanatory and exploratory mixed methods frameworks in AI research Reporting Results of Data Analysis in AI.</p> <p>Presenting quantitative and qualitative findings in AI research reports Writing about AI research findings Critically reviewing and critiquing AI research reports Completing the AI Research Project.</p> <p>Applying research findings to AI applications Finalizing and presenting the AI research project.</p>
Learning Outcome	<p>After completion of this course, the learners will be able to:</p> <ul style="list-style-type: none">● Formulate research hypotheses and define research problems in AI.● Select appropriate research methodologies for AI investigations.● Collect, process, and analyze data relevant to AI research.● Effectively present research findings and data analysis to various stakeholders.● Evaluate and critique AI research reports and proposals.

Assessment Method	Quiz / Assignment / ESE
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Suggested Reading:

1. "Research Methods in Artificial Intelligence" by Nik Bear Brown
2. Bryman, A., & Bell, E. (2015). Business research methods (4th ed.). Oxford University Press

Course number	MB - 542 (GAI)
Course Credit	L-T-P-C: 3-1-0-4
Course Title	Data Visualisation for Managers
Learning Mode	Online
Learning Objectives	<ul style="list-style-type: none"> ☐ To understand the fundamentals of data visualization. ☐ To know the working principles of various information visualization depth tools. ☐ To acquire knowledge about the issues in data representation. ☐ To visualize the Data using tools Tableau
Course Description	This course introduces the basic concepts of data analytics for understanding the importance of collecting, validating, managing and presenting data. The course helps to lay strong foundations on the tools and techniques for data management and visualization and aims to integrate them with those from allied management disciplines.
Course Outline	<p>Context of data visualization – Definition, Methodology, Visualization design objectives. Key Factors – Purpose, visualization function and tone, visualization design options – Data representation, Data Presentation, Seven stages of data visualization, widgets, data visualization tools. Mapping - Time Series - Connections and Correlations - Scatterplot Maps - Trees, Hierarchies, and Recursion - Networks and Graphs.</p> <p>Mapping - Time series - Connections and correlations – Indicator-Area chart-Pivot table Scatter charts, Scatter maps - Tree maps, Space filling and non-space filling methods Hierarchies and Recursion - Networks and Graphs-Displaying Arbitrary Graphs-node link graph-Matrix representation for graphs- Info graphics.</p> <p>Acquiring data, - Where to Find Data, Tools for Acquiring Data from the Internet, Locating Files for Use with Processing, Loading Text Data, Dealing with Files and Folders, Listing Files in a Folder, Asynchronous Image Downloads, Web Techniques, Parsing data - Levels of Effort, Tools for Gathering Clues, Text Markup Languages, Regular Expressions, Grammars and BNF Notation, Compressed Data, Vectors and Geometry, Binary Data Formats, Advanced Detective Work.</p> <p>Drawing with data – Scales – Axes – Updates, Transition and Motion – Interactivity – Layouts. Port scan visualization - Vulnerability assessment and exploitation - Firewall log visualization - Intrusion detection log visualization -Attacking and defending visualization systems – Creating secured visualization system.</p>

Learning Outcome	After completion of this course, the learners will be able to: ·Apply mathematics and basic science knowledge for designing information visualizing System. · Collect data ethically and solve engineering problem in visualizing the information. · Implement algorithms and techniques for interactive information visualization.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Robert Spence, “Information Visualization An Introduction”, Third Edition, Pearson Education, 2014.
2. Colin Ware, “Information Visualization Perception for Design”, Third edition, Morgan Kaufmann Publishers, 2012.
3. Robert Spence, “Information Visualization Design for Interaction”, Second Edition, Pearson Education, 2006.
4. Benjamin B. Bederson and Ben shneiderman, “The Craft of Information Visualization”, Morgan Kaufmann Publishers, 2003.

Track – 7: Business Management in virtual Space

Course number	MB 543 (Business Management in Virtual Space)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Search Engine Marketing & Optimization
Learning Mode	Online
Learning Objectives	This SEO course is designed to provide a thorough understanding of Search Engine Optimization principles and techniques. Aligned with OMCP standards, the course covers fundamental concepts through advanced strategies, ensuring that participants are equipped to effectively optimize websites for search engines and improve online visibility.
Course Description	Search Marketing involves capturing consumer intent at each stage of the consideration, information, and buying cycle. This online Search Marketing course includes techniques of both “organic” and “paid” search and how to optimize your content for various devices and channels. It covers the basics and advanced tools of Search Engine Optimization (SEO) needed to improve your rankings during a search query.
Course Outline	<p>Introduction to SEO, How Search engine works, SEO Phases, History Of SEO, How SEO Works, What is Googlebot (Google Crawler), Types Of SEO technique, Keywords, Keyword Planner tools.</p> <p>On page Optimization, Technical Elements, HTML tags, Schema.org, RSS Feeds, Microsites, Yoast SEO Plug-in.</p> <p>Off page Optimization- About Off page optimization, Authority & hubs, Backlink, Blog Posts, Press Release, Forums, Unnatural links.</p> <p>Social media Reach- Video Creation & Submission, Maintenance- SEO tactics, Google search Engine, Other Suggested tools.</p>

Learning Outcome	By the end of this course, learner would be able to: <ol style="list-style-type: none"> 1. To understand and contextualize the role of search in marketing efforts overall 2. To understand how search engines function and how users interact with them 3. To understand the technology, terminology, and business process related to search engine optimization (SEO) and paid search advertising 4. To evaluate websites for search optimization and effectiveness using common SEO, website key performance indicators and analytics
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Digital Marketing –Kamat and Kamat-Himalaya
2. Marketing Strategies for Engaging the Digital Generation, D. Ryan,
3. Digital Marketing, V. Ahuja, Oxford University Press
4. Digital Marketing, S.Gupta, McGraw-Hill
5. Quick win Digital Marketing, H. Annmarie , A. Joanna, Paperback edition

Course number	MB 544 (Business Management in Virtual Space)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Digital Entrepreneurship
Learning Mode	Online
Learning Objectives	<ul style="list-style-type: none"> · Create, evaluate and exploit business opportunities in the digital space; · Evaluate the latest technology trends and how they impact high-tech start-ups; · Learn how entrepreneurial ventures use digital technology to design and offer new products and services · develop a business idea into a comprehensive and highly scalable digital business model for a high-tech start-up;
Course Description	This course describes the fundamental aspects and the definition of the Industry 4.0 concept (smart manufacturing), starting from the description of the historical evolution of the different industrial revolutions, as well as its applications and the advantages and disadvantages derived from its implementation in the industry.
Course Outline	<p>Introduction and course overview. Entrepreneurial mind-set. Defining digital entrepreneurship. Identifying and exploiting opportunities for digital entrepreneurship.</p> <p>Digital economy. Industry 4.0 and digital Innovation. Key actors, resources and emerging technologies to facilitate digital entrepreneurship.</p> <p>Understanding digital business. Digital disruption and new market creation. Turning ideas into action. Developing digital business models.</p> <p>Designing your entrepreneurial life. Digital business strategies for creating competitive advantage in digital entrepreneurship.</p> <p>Start-up funding. Venture capital, crowdfunding and finance for entrepreneurs. Entrepreneurial KPIs, Digital marketing for entrepreneurs. Digital communication and social networks. Social media and e-commerce.</p>

	Design thinking. Data driven decision-making for entrepreneurs, Digital concepts: Lean start-up, Disruptive innovation, Innovator's dilemma, Blue Ocean strategy.
Learning Outcome	By the end of this course, learner would be able to: (1) Explain why, when and how digital entrepreneurship and digital transformation develops, (2) Explain why, when and how some 'digital start-ups' and some incumbents effectively integrating digital technology are more successful than others, (3) Systematically choose between different routes of entrepreneurial and managerial action (4) Create and evaluate entrepreneurial business plans in this arena.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Chaffey D. 2015. Digital business and e-commerce management. Pearsons: Harlow.
2. Chaffey D, Ellis-Chadwick F. 2017. Digital marketing (6th ed.). Pearson: Edinburgh.
3. Kotler P, Kartajaya H, Setiawan I. 2017. Marketing 4.0: Moving from traditional to digital. Wiley: Hoboken, New Jersey
4. Schilling MA. 2017. Strategic management of technological innovation (5th ed.). McGraw-Hill Education: New York, NY.

Course number	MB 545 (Business Management in Virtual Space)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Content Marketing
Learning Mode	Online
Learning Objectives	This syllabus is designed to establish content marketing as the foundation for executing an effective inbound marketing strategy. Learners will learn a content creation framework that focuses on producing effective content consistently.
Course Description	Content Marketing focuses on building authority, increasing the message, acquiring and keeping the intended audience. The excellent content writing assists strengthen the position of a subject guide. The various aspects of Content Marketing by developing a deep understanding of consumer psychology, demographics, tactics to engage users, and measuring content effectiveness.
Course Outline	<p>Introduction to Content Marketing - Applying the Behavioral Framework within a content marketing context, A content marketing business model.</p> <p>Defining Your Content Niche and Strategy - Content Maturity Model, Six principles of content marketing, Treating content as an asset, Building audience personas, Defining the engagement cycle, Developing on-brand content, Creating brand ambassadors, Enhanced branding through content marketing.</p> <p>Developing and Distributing Content - Analyzing current content assets, Developing different types of content, Finding good content within your organization, Creating content your audience wants , Developing an effective editorial calendar.</p> <p>Marketing Content and Evaluating Impact - Content Marketing Pyramid, Brief overview analytics and tracking.</p> <p>Ethics/Diversity in Content Marketing - Importance of considering diversity in developing and marketing content, Ethical issues in the digital age.</p>

	Putting it All Together - Best practices in content marketing, Applying principles in real world case studies.
Learning Outcome	On completion of this course, the students will be able to: 1. Learners will learn to be able to define Content Niche and build audience personas. 2. Learners will learn to harness the power of words to disseminate information. 3. Learners will learn various ways to generate engaging and persuasive content. 4. Learners will be able to use content marketing strategies, tactics, and best practices to produce fetching content.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Social Marketing in India 1st Edition (Sameer Deshpande, Philip Kotler, Nancy R. Lee)
2. Marketing with Social Media (Linda Coles)
3. The Social Media Marketing Book (Dan Zarrella)
4. Social Media Marketing 1st Edition (Michael R. Solomon, Tracy Tuten)
5. The Art of Social Media: Power Tips for Power Users (Guy Kawasaki, Peg Fitzpatrick)

Course number	MB 546 (Business Management in Virtual Space)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Lead Generation and Marketing Automation
Learning Mode	Online
Learning Objectives	Students will learn lead generation strategies and how to analyze results in order to formulate a comprehensive marketing plan for a business.
Course Description	This course teaches students marketing strategies that will attract new business, as well as retain and foster repeat customers in the world of digital selling. When executed effectively, these strategies will increase brand awareness, drive leads, boost referrals, maximize a brand's return on investment (ROI), and also create brand loyalists who refer others.
Course Outline	<p>Lead generation Strategy, Lead and list Management CRM Integration, Sales Integration, Product Integration Capturing leads from sources Lead source link building and Lead tracking features</p> <p>Business reporting, Web hooks and connector, Marketing Automation Tools, Google Auto suggest and Google Operators ,Complete Automation.</p> <p>Introduction to Digital Selling, Creation of Keyword, Keyword search, Creation and publication of Blogs, Email Campaigns Email Auto responder SMS Auto responder.</p> <p>Creating landing Page, Landing page CTA, Working with Plugins, Website backup and Widgets, Synthesis and exercises.</p> <p>Practical – Live Sessions on lead generation using CRM platform example Meritto etc.</p>
Learning Outcome	On completion of this course, the students will be able to: <ul style="list-style-type: none"> ● Develop a brand's vision and architecture as a framework for content creation and lead generation strategy ● Write unique value propositions, website content, email content and landing page content that drives leads to convert to sales ● Generate more qualified leads with a cohesive and integrated digital footprint

	<ul style="list-style-type: none"> • Perform keyword research and understand the major themes of search engine Optimization.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Convert– Ben Hunt ↗
2. Conversion Optimization: The Art and Science of Converting Prospects to Customers– Khalid Saleh
3. The Best Digital Marketing Campaigns in the World: Mastering the Art of Customer Engagement– Damian Ryan and Calvin Jones
4. Trust Agents: Using the Web to Build Influence, Improve Reputation, and Earn Trust – Chris Brogan

Course number	MB 547 (Business Management in Virtual Space)
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Web Analytics
Learning Mode	Online
Learning Objectives	To Assess that how website visitors view and interact with a site's pages and features, and business intelligence, which would allow using data on customer purchasing patterns, demographics, and demanding trends to make effective strategic decisions.
Course Description	The study of social media and web analytics involves gaining a comprehensive understanding of major platforms, developing effective strategies aligned with organizational goals, and proficiently using analytics tools.
Course Outline	<p>Web Analytics—Present and Future: A Brief History of Web Analytics, Current Landscape and Challenges, Traditional Web Analytics Is Dead, What Web Analytics Should Be Data Collection—Importance and Options: Understanding the Data Landscape, Click stream Data, Outcomes Data, Research Data, and Competitive Data.</p> <p>Overview of Qualitative Analysis: Overview of Qualitative Analysis, Lab Usability Testing, Heuristic Evaluations Critical Components of a Successful Web Analytics Strategy? : Focus on Customer Centricity, Solve for Business Questions, Follow the 10/90 Rule, Hire Great Web Analysts, Identify Optimal Organizational Structure and Responsibilities.</p> <p>Web Analytics Fundamentals: Capturing Data: Web Logs or JavaScript tags? Selecting Your Optimal Web Analytics Tool, Understanding Clickstream Data Quality, Implementing Best Practices, Apply the “Three Layers of So What” Test</p> <p>Diving Deep into Core Web Analytics Concepts: Preparing to Understand the Basics, Revisiting Foundational Metrics, Understanding Standard Reports, Using Website Content Quality and Navigation Reports. Jump-Start Your Web Data Analysis: Creating Foundational Reports, E-commerce Website, Support Website, Blog Measurement.</p>

	Search Analytics—Internal Search, SEO, and PPC Performing Internal Site Search Analytics, Beginning Search Engine Optimization, Measuring SEO Efforts, Analyzing Pay per Click Effectiveness.
Learning Outcome	On completion of this course, the students will be able to: <ol style="list-style-type: none"> 1. Understand the Web analytics 2. Identify Different Data Collection and Web Analytics Strategies 3. Apply Different Web Analytics Tools 4. Summarize Various Google Analytics and testing
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Clifton B., Advanced Web Metrics with Google Analytics, Wiley Publishing, Inc. (2010), 2nd ed.
2. Kaushik A., Web Analytics 2.0 The Art of Online Accountability and Science of Customer Centricity, Wiley Publishing, Inc. (2010), 1st ed.
3. Sterne J., Web Metrics: Proven methods for measuring web site success, John Wiley and Sons (2002), 1st ed

Semester - 4 (20 Credits)

Course number	MB 548
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Project Management
Learning Mode	Online
Learning Objectives	<ul style="list-style-type: none"> · To understand the basic concepts of project management. · Appraise the project using appropriate appraisal techniques. · Design and implement project by considering risk and its evaluation. · Learn the process of project planning and execution.
Course Description	The course covers key components of project management including project integration, project scope management, project time and cost management, quality management, human resource management, risk management, and procurement management.
Course Outline	<p>Introduction to Project Management: What is a project? Evolution of project management, the nature of project management, Where is project management appropriate? Characteristics of project management, Projects in contemporary organizations, Project life cycle.</p> <p>Project Selection and Appraisal: Brainstorming and concept evolution, Project selection criteria, evaluation, Selection criteria and models, Types of appraisals, SWOT analysis, Cash flow analysis, Payback period, and Net present value.</p> <p>Project Organization and Planning: Project manager, Cross-functional team, Dedicated project organization, Influence project organization, Matrix organization, Advantages and disadvantages of project organizations, Selection of project organization, Work Breakdown Structure (WBS), Integration of project organization and WBS, WBS and responsibility matrix.</p> <p>Project Scheduling and Resource Management: Gantt chart, Milestone chart, Network techniques, PERT and CPM, AON and AOA representation, Three time estimates, Using probability distributions for time computation, Probability of project completion, Timescale version of project network, Early start and late start schedules, Resource allocation, Resource loading and leveling, Constrained resource scheduling, Multi-project scheduling and resource allocation, Crashing</p>

	project. Computerized PM: Computerized PMIS, Choosing software for project management, us software for project management.
Learning Outcome	On completion of this course, the students will be able to: 1. Recognize issues in a realistic project scenario. 2. Employ work breakdown structures (WBS) in a project application 3. Demonstrate the use of appropriate network scheduling techniques. 4. Produce a project proposal. 5. Discuss the implementation of a proposed plan.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Project Management for Business and technology: Principles and Practice, John M. Nicholas, Pearson Prentice Hall, New Delhi, 2005.
2. A Guide to the Project management Body of Knowledge (PMBOK Guide) 5th Edition, PMI.
3. Project Management-Case Studies, Harold Kerzner, John Wiley & Sons, New Jersey, 2006.
4. Project and Production Management, A course by National Programme on Technology Enhanced Learning (NPTEL), Arun Kanda and S. G. Deshmukh, IIT Delhi, 2005.
5. Projects: Preparation, Appraisal, Budgeting and Implementation, Prasanna Chandra, Tata McGraw Hill Publishing Company Ltd., New Delhi, 1980.

Course number	MB 549
Course Credit	L-T-P-C: (3-1-0-4)
Course Title	Product Management
Learning Mode	Online
Learning Objectives	Understand the product policy of companies, new product development, launch cycle and necessary marketing effort, and discuss live cases of new products.
Course Description	This comprehensive course on Product Management is designed to provide students with a solid foundation in the principles, strategies, and techniques involved in managing & developing successful products. Students will gain a deep understanding of the product development & management lifecycle, including market research, ideation, product development, launch, and post-launch analysis.
Course Outline	<p>Nature of New Product Management – Role of New Products in Firm’s Marketing Effort – Characteristics of New Products – Types of New Products</p> <p>Product policy – Product Mix decisions, Product life cycle strategies, line extension, category extension, market expansion, product cannibalization decisions and after-support decisions. Managing product turnarounds. Branding decisions for multi-product portfolios.</p> <p>Strategic Planning for New Products – Process – Objectives – Strategies – Product Program implementation and control – New Product Management in Services.</p> <p>New Produce process – Idea generation – Tools and Techniques – Screening of ideas – Concept formulation – Concept testing – Business Analysis – Product Development – Marketing testing.</p> <p>Commercialization – Product launch cycle – Marketing plan – Strategies – Promotion – post Launch Tracking – Post Launch and Control. Managing existing product portfolios and new products.</p>

	Organising for New Product – Strategies and Practices – Product Champions – Innovation Labs and Intrapreneurship - Future of New Product Management.
Learning Outcome	On completion of this course, the students will be able to: <ul style="list-style-type: none"> • Understand the concept of product development and its strategic importance. • Develop a comprehensive product development process. • Evaluate new product ideas and concepts. • Manage product launch and commercialization effectively
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Eberhard E. Scheuing: New Product Management Merrill Pub. Co., Columbus Ohio
2. Merle Crawford: New Product Development Irwin Pub.
3. Ramanuj Majumdar: Product Management In India (Prentice-Hall, India).
4. Donal R. Lehmann, Russel S. Winer: Product Management, McGraw-Hill

Course number	MB 550
Course Credit	L-T-P-C: (2-0-0-2)
Course Title	Indian Knowledge System
Learning Mode	Online
Learning Objectives	To impart knowledge on the various elements of knowledge and to make the students familiarise with principles and process involved in knowledge creation.
Course Description	This course focuses on how knowledge is created, captured, represented, stored and reused so as to fully leverage the intellectual assets of a firm. The tools and techniques for knowledge acquisition, assessment, evaluation, management, organization and dissemination are applied to business situations.
Course Outline	<p>Introduction: Introducing KM: Concept, Principles and processes of KM, Industrial Economy to Knowledge Economy - KM system life cycle - aligning KM and business strategy - KM Cycle: Knowledge creation - capturing tacit knowledge - Types of knowledge and its implications for KM.</p> <p>Knowledge Creation: Knowledge creation – Knowledge toolbox – Communities of Practice (COP) – knowledge centres - the role of culture and structure - Analysis design and development - Knowledge infrastructure - Knowledge audit and knowledge team.</p> <p>Knowledge Exchange: Knowledge exchange: Definition, Developing the knowledge environment - Role & importance of stakeholders - protecting knowledge & research–Social Nature of Knowledge - Social Network Analysis - Obstacles to knowledge sharing - Organizational learning & Social Capital. Knowledge Application – Individual level, Group level & Organization Level Collaboration IPR.</p> <p>Knowledge Management Metrics: KM tools and Portals: inferences from data - data mining and knowledge portals - Evaluation of KM effectiveness: Tools and metrics KM Strategy, KM</p>

	<p>Tools – Knowledge Capture & Creation tools, Knowledge sharing & Dissemination Tools, Knowledge Acquisition & Application tools.</p> <p>Trends In Knowledge Management: KM experiences from Indian companies - KM innovation and Learning organization Knowledge audit - GAP Analysis, Road Map - KM Metrics - Balance Score Card - Ethical, legal and managerial issues - The future of KM.</p>
Learning Outcome	<p>On completion of this course, the students will be able to:</p> <ol style="list-style-type: none"> 1. Analyze the role of knowledge management in attainment of financial objectives, quality and process improvement, and innovation. 2. Apply knowledge management models and technologies to business situations. 3. Use a knowledge management system for an organization. 4. Create a knowledge management plan to leverage opportunities to create, capture, represent and share knowledge within an organization.
Assessment Method	Quiz / Assignment / ESE

Suggested Reading:

1. Madanmohan Rao, Knowledge Management Tools and Techniques, Routledge 2012
2. Jennex Murray, Knowledge Management: Concepts, Methodologies, Tools, and Applications, IGI Global, 2008
3. Schwartz, David: Encyclopedia of Knowledge Management, IGI
4. Géraud Servin, ABC of Knowledge Management, Freely extracted from the NHS National Library for Health at <http://www.library.nhs.uk/knowledgemanagement>

Course number	MB 551
Course Credit	L-T-P-C: (0-0-24-12)
Course Title	Research Project