

**MADHYA PRADESH BHOJ (OPEN) UNIVERSITY,
BHOPAL**
Raja Bhoj Marg Kolar Road, BHOPAL (M.P.)



MBA STEM

**MADHYA PRADESH BHOJ (OPEN) UNIVERSITY,
Raja Bhoj Marg Kolar Road, BHOPAL (M.P.)**

MBA STEM

Duration: Minimum 2 Year
Eligibility : Graduation from a recognized University
Fee: 9000/-

COURSES OF MBA STEM PROGRAMME

FIRST YEAR

Subject Name: FINANCIAL & MANAGEMENT ACCOUNTING

1. **Introduction:** Financial Objectives- Profit and Wealth Maximization, Finance Functions, Role of Finance Manager.
2. **Capitalisation:** Basics of Capitalisation, Estimation of Annual Net Earnings, CapitalizationRate, Overcapitalization, Undercapitalization.
3. **Capital Structure:** Principles of Capital Structure, Management, Factors Affecting Capital Structure.
4. **Capital Structure and Cost of Capital:** Concept of Cost of Capital- Importance, Calculation, Composite, Leverage, Theories of Capital Structure.
5. **Time Value of Money:** Compounding and Discounting Techniques, Present Value of Cash Flows, Techniques of Evaluation of Capital Expenditure Proposals.
6. **Sources of Working Capital:** Meaning and Concept of Working Capital, Optimum Working Capital, working of- Capital Cycle, Capital Forecasts, Capital Management, Management Policies and Various Elements, Cash Management- Nature, Planning Aspect, Control Process, Models, Cash Budgets, Playing and Kinds of Floats.

Subject Name: BUSINESS ETHICS

Unit 1: BUSINESS ETHICS

Introduction – Meaning - Scope – Types of Ethics – Characteristics – Factors influencing Business Ethics
– Importance of Business Ethics - Arguments for and against business ethics- Basics of business ethics -
Corporate Social Responsibility – Issues of Management – Crisis
Management



Unit 2: PERSONAL ETHICS

Introduction – Meaning – Emotional Honesty – Virtue of humility – Promote happiness – karma yoga – proactive – flexibility and purity of mind.

Unit 3: ETHICS IN MANAGEMENT

Introduction – Ethics in HRM – Marketing Ethics – Ethical aspects of Financial Management – Technology Ethics and Professional ethics.



Unit 4: ROLE OF CORPORATE CULTURE IN BUSINESS

Meaning – Functions – Impact of corporate culture – cross cultural issues in ethics

Unit 5: CORPORATE GOVERNANCE

Meaning, scope, composition of BODs, Cadbury Committee, various committees, reports on corporate governance, scope of Corporate Governance, Benefits and Limitations of Corporate Governance with living examples.

SKILL DEVELOPMENT

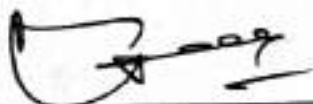
1. State the arguments for and against business ethics
2. Make a list of unethical aspects of finance in any organisation
3. List out ethical problems faced by managers
4. List out issues involved in Corporate Governance.
5. List out unethical aspects of Advertising

BOOKS FOR REFERENCE

1. Murthy CSV: Business Ethics and Corporate Governance, HPH
2. Bholanath Dutta, S.K. Podder – Corporation Governance, VBH.
3. Dr. K. Nirmala, Karunakara Reddy: Business Ethics and Corporate Governance, HPH
4. H.R.Machiraju: Corporate Governance
5. K. Venkataramana, Corporate Governance, SHBP.
6. N.M.Khandelwal : Indian Ethos and Values for Managers
7. S Prabhakaran; Business ethics and Corporate Governance
8. C.V. Baxi: Corporate Governance
9. R. R. Gaur, R. Sanghal, G. P. Bagaria; Human Values and Professional ethics B O B Tricker, Corporate Governance; Principles, Policies and Practices
10. Michael, Blowfield; Corporate Responsibility
11. Andrew Crane; Business Ethics
12. Ghosh; Ethics in Management and Indian ethos.

Subject Name: ORGANISATIONAL BEHAVIOR & MANAGEMENT PROCESSES

1. **Introduction:** Emergence, Concepts, Importance, Nature, Characteristic, Models, Cognitive, Behaviorist, Social Cognitive Framework, Relationship with Other Fields.
2. **Perception:** Nature, Concept, Process and Importance.
3. **Attitude:** Concept, Process, Importance, Attitude Measurement.



4. **Personality:** Concept, Nature, Types and Theories.
5. **Learning:** Concept and Theories.
6. **Work Motivation:** Concept, Application, Principles Theories Involvement, Theories of Motivation: Maslow's Need Hierarchy, Herzberg Theory of Motivation.
7. **Group Dynamics:** Definitions Types of Groups, Stage of Group Development, Group Characteristics, Group Structure, Groups Norms and Group Cohesiveness, Group Decision-Making.
8. **Leadership:** Definition and Framework of Leadership Perspectives, Leadership Theories and Models: Traits Theories, Behavior Theories, Leadership Styles, Nature of Conflict, Reactions of Conflict, Managing Conflict.
9. **Organisational Change:** Forces of Change, Process for Planned Organizational Culture, Globalization and Organizational Cross Cultures, the Emergence of Global Organization.

Subject Name: COMPUTER APPLICATION IN MANAGEMENT

Unit- I -Fundamentals of Computers:

1. **Data, Information and EDP:** Data, Information Need and Concept of Data and Information; Levels of Information from Data: Data Processing: Electronic Data Processing; Electronic Machines;
2. **Numbers Systems and Codes:** Different Numbers Systems- Binary, Octal, Decimal, Hexagonal, and their Conversion from Used in Computers; BCD, EBCDIC, ASCII, Gray and Conversions.
3. **Computer Arithmetic and Gates:** Binary Arithmetic, Complements, Addition and Subtraction; Conversion from One System to Another; Logic Gates, Their Truth Table and Application Minimization, and K-Maps.
4. **Computer Processing Systems:** Definition of Computer, Hardware/ Software Concepts; Generation of Computers; Types of Computers; Elements of Digital

Computer, CPU and its Functions; Various Computer Systems.

5. **I/O Devices:** Basics Concepts of I/O Devices; Various Input Devices-KeyBoard, Mouse, MICR, OCR, Microphones.
6. **Various Output Devices:** VDU, Printer, Plotter, Spooling, LS.
7. **Storage Devices:** Primary and Secondary Memory; Types of Memories; Memory Capacity and its Enhancement; Memory Device and Their Comparisons; Auxiliary Storage, Type of Disks (Magnetic and Optical); Various Devices and Their Comparison.



8. **System Software:** Role of Software, Different System Software: O.S., Utilities, Element of O.S.- its Types and Variations; DOS and Windows.
9. **Computer and Networks:** Need of Communication; Data Transmission; Baud; Bandwidth; Communication Channel; Multiplex, Basic Network Concepts; O.S.I. Model; Types of Topologies; LAN, WAN; Client Server Concept.

Unit-II: Computer Based Business Application:

1. **Word Processing:** Meaning and Role of Word Processing in Creating of Documents, Editing, Formatting and Printing Documents, Using Tools Such as Spelling Check, Thesaurus, etc. in Word Processors (MS-Word);
2. **Electronic Spreadsheet:** Structure of Spreadsheet and its Applications to Accounting, Finance and Marketing Functions of Business, Creating a Dynamic/Sensitive Worksheet, Concept of Absolute and Relative Cell Reference; Using Built-in Functions, Goal Seeking and Solver Tools; Using Graphics and Formatting of Worksheet; Sharing Data With Other Desktop Applications; Strategies of Creating Error-Free Worksheet (MS-Excel, Lotus 123).
3. Practical Knowledge of Wings Accounting (Software), Tally etc.
4. **Programming under a DBMS Environment: The Concept of Database Management Systems:** Data Fields, Records and Files, Sorting and Indexing Data; Understanding Programming Environment in DBMS; Developing Menu Driven Applications Query Language (MS-Access).

Unit-III: Electronic Data Interchange (EDI)

- Introduction to EDI; EDI Standards; Financial EDI (FEDI); FEDI for International Trade Transactions; Applications of EDI; Advantages of EDI; Future of EDI.
- Unit-IV: The Internet and its Basic Concepts:
- Internet-Concept, History, Development in India; Technological Foundation of Internet; Distributed Computing; Client-Server Computing; Internet Protocol Suite; Application of Distributed Computing; Client-Server Computing; Internet Protocol Suite in the Internet
- Environment; Domain Name System (DNS); Domain Name Service (DNS); Generic Top- Level Domain (gTLD); Country Code Top-Level (ccTLD);- India; Allocation of Second-Level Domain; IP Addresses; Internet Protocol; **Applications of Internet in Business, Education, Government, etc.**



Unit- V: Information System Audit:

Basic Idea of Information Audit; Difference with the Traditional Concepts of Audit; Conduct and Applications of IS Audit in Internet Environment.

Subject Name: BUSINESS ENVIRONMENT

1. **Indian Business Environment:** Concept, Components and Importance.
2. **Economic Trends (Overview):** Income; Savings and investments; industry; Trade and Balance of Payments; Money, Finance, Prices.
3. **Problems of Growth:** Unemployment; Poverty; Regional imbalances; Social Injustice; Inflation; Parallel Economy; Industrial Sickness.
4. **Role of Government:** Monetary and Fiscal Policy; Industrial Policy; Industrial Licensing, Privatisation; Devaluation; Export Import Policy; Regulation of Foreign Investment; Collaboration in the Light of Recent Changes.
5. **The Current Five-Year Plan: Major Policies; Resource Allocation.**
6. **International Environment:** International Trading Environment (Overview); Trends in World Trade and the Problems of Developing Countries; Foreign Trade and Economic Growth; International Economic Grouping; International Economic Institutions- GATT, WTO, UNCTAD, World bank, IMF, GSP, GSP; Counter Trade.

Subject Name: RESEARCH METHODOLOGY AND QUANTITATIVE TECHNIQUES

1. **Introduction:** Concept, of Research and its Applications, Scientific Method; Identification and Formulation of Research Problem. Survey of Literature. Process of Research: Steps Involved in Research Process. Research Design- Meaning, Purpose and Principles.
2. **Data Collection and Hypothesis:** Observation, Questionnaire, Interview and Case Study. Hypothesis and Testing of Hypothesis; Exploratory, Descriptive and Causal Research Designs; Basic Principles and Types of Sampling, Precision and Accuracy of Sample Based Research; Sampling and Non-Sampling Errors, Sampling Distribution.
3. **Presentation and Analysis of Data;** Classification, Tabulation and Graphical Representation of Data. Statistical Techniques; Measures of Central Tendency and Variability. Statistical Estimation, Interval and Point Estimation; Chi-Square Test and t-test. Linear Programming Analysis of Variance: One Way and Two Way, Factor Analysis; Regression Analysis, Data Analysis Using Software Packages.
4. **Report Writing:** Components and Characteristic; Types of Reports; Precautions and Principles of



Report and References Writing.

Subject Name: HUMAN RESOURCE MANAGEMENT

1. **Introduction:** Meaning, Definition, Scope, Evolution, Objectives of HRM Qualities of HR/ Personnel Manager, Role of Human Resource Manager, Development of HRM in India, Distinction between HRM and PM.
2. **Human Resources Planning:** Meaning, Objectives, Benefits of Human Resources Planning, Process and Problems in Human Resources Planning, Recent Implication in HRP, Staffing, Recruitment, Types of Tests.
3. **Training and Development:** Meaning, Definition, Need, Advantages, Objectives, Importance of Training, Types of Training, Difference between Training and Development, Education Classification of Training Methods, Executive Development, and Knowledge Management.
4. **Trade Unions:** Meaning, Characteristics, Functions and Role of Trade Unions, Unions Structure, Wages and Salary Administration, Wage Boards and Pay Commissions, Wage Incentives, Quality Circles, Industrial Democracy, Socio-Technical Systems.
5. **Performance Evaluation:** Performance Appraisal, Promotions, Transfer, Demotions, Separation, Grievance.

SUBJECT NAME: MANAGERIAL ECONOMICS

1. **Introduction to Managerial Economics** -Nature, Scope -Marginal Analysis, Determination of Consumer's Equilibrium through Utility and Indifference Curve Approach, Theory of Demand - Demand Functions, Change in Demand, Elasticity of Demand.
2. **Cost Analysis**-Types of Costs, Cost-Output Relationship: Cost Function, Production Analysis, Meaning of Production and Production Function, Cost of Production, Return to a Factor, Return to Scale, Profit and Sales Maximization.
3. **Market Structure** -Types & Characteristics, Price Determination under Perfect, Monopolistic, Oligopoly and Monopoly Market, Introduction to Duopoly and Price Discrimination under Monopoly.
Pricing Practices- marginal cost pricing, mark up pricing, transfer pricing, product pricing, price skimming, penetration pricing, market failure induction to game theory
4. **National Income** -Aggregates and concepts, GNP and GDP, and Methods to Measure National Income, Centre -State Financial Relationship.
5. **Money Supply and Monetary Policy**, Aggregate Consumption, Gross Domestic Savings, Gross



Domestic Capital Formation –WPI, CPI and Inflation, Fiscal Policy, Business Cycle-
Introduction, Meaning and Features, Balance of Payment, Balance of Trade.

Subject Name: PRODUCTION AND OPERATION MANAGEMENT

1. **Work Study:** Method Study-Process Chart, Flow Process Chart, Flow Diagram, Man and Machine Chart and Two Handed Chart. Work Measurement- Time Study, Tools and in Time Study, Performance Rating, Allowance and Use of Some Time Standards, Time and Motion Study. Principles of Human Motion Economy (Introduction to Ergonomics).
2. **Plant Layout and Material Handling:** Concept of Plant Layout. Types of Layout (Process, Product and Combination Type); Their Characteristic; Merits and Demerits. Factors Affecting Plant Layout. Work Station Design; Factors Considered in Designing a Work Station. Introduction and Functions of Material Handling. Selection of Material Handling Equipment for Different Equipment.
3. **Production Planning and Quality Control:** Types of Production: Job, Batch and Mass Production. Material Planning and Allocation. Process Planning and Process Sheet Inventory Control: Need and Advantages of Inventory Control.
4. **Inspection and Quality Control:** Inspection. Need and Planning for Inspection. Types of Inspection. Role of Operator and Inspector in Inspection. Quality Control and Quality Assurance. Meaning and Need for Quality Control. Statistical Quality Control. Acceptance Sampling (Single and Sequential Sampling Plans). Control Charts for Variables and Attributes, Interpretation of Patterns in Control Charts, O.C. Curves. Concept of TQM. Machine Capability Studies.
5. **Standards and Codes:** National and International Codes. ISO-9000, Concept and its Evolution and Implications.
6. **Repair and Maintenance:** Objectives and Importance of Maintenance. Different Types of Maintenance. Nature of Maintenance Problem. Range of Maintenance Activities. Schedules of Preventive Maintenance. Advantage of Preventive Maintenance.
7. **Cost Estimation:** Introduction and Functions of Cost Estimation. Estimation Procedure. Estimation of Costs and Ladder of Costs. Depreciation, Methods of Calculating Depreciation. Overhead Expenses and Distribution of Overhead Expenses Calculation of Cost of Machining and Metal.
8. **Value Engineering:** Concept of Value Engineering and Techniques.



Second Year

Subject Name: MARKETING MANAGEMENT

1. **Introduction to Marketing:** Marketing: Definition, Key Concepts and Trends; Marketing Environment; Marketing Strategy: Market Segmentation, Target Marketing Selection and Marketing Mix.
2. **Consumer Behavior:** Consumer Behavior: Customer Decision Making Framework, Buying Process; Customer Satisfaction; Customer Relationship Marketing; The Product: Meaning, Levels, Product Mix Decisions, Product Life Cycle, New Product Development; Pricing: Objectives and Strategies.
3. **Promotion and Distribution:** Marketing Information System and Marketing Research; Promotion: Meaning, Types and Strategies; Channel Management, Supply Chain Management, Sales- Force Management and Process of Personal Selling.
4. **Global Marketing:** Contemporary Issues in Marketing: Green Marketing; Global Marketing; Retailing in India; Brand Management; Competitive Strategies; Customer Loyalty.

Subject Name: INTERNATIONAL BUSINESS

1. **Marketing Basics:** Marketing Versus Sales, Effective Marketing, Role of the Marketing Plan, Marketing Potential, The Role of Marketing in Business, Marketing Functions, The Hierarchy of Effects, Common Marketing Mistakes, Found Versus Created Markets.
2. **Elements of the Marketplace:** Elements of Domestic Marketing, Elements of Export Marketing, Decision Making for Entering International Markets, Commonality and Conflict.
3. **The Dimensions of International Marketing:** Defining Market Conditions, the Dawn of Exchange Rates, International Business.
4. **International Trade:** Growth of International Markets, Pride, Prosperity and National Industries, Absolute and Comparative Advantage, Coproduction and Trade, Trade Among Nations.
5. **The Role of Government:** Sovereignty, Prestige and Security, Host Government Trade Barriers, Home Government Intervention, Formal and Informal Restrictions, Trading Blocs, the WTO and



International Intervention, Overseas Risk Management.

6. **The Role of Cultural Forces:** Language, Local Customs, History, Education, Religion, Family, Climate, Xenophobia, Cultural Adaptation, Guidelines for Cultural Analysis, Profile of an International Marketer.
7. **Developing Products for the Foreign Market:** Carrying an Established Product Across Borders, When to Make New Products, the Product Cycle, Resistance to Old Product, Meeting the New Demands for Quality, Financing & Product Development, Research.
8. **Market Research:** Defining Research Objectives, Designing Your Research Process, Sources for International Commercial Research, Collecting Information, Effective Competition Studies, the Value of Objectivity, Interpretation of Research, Guidelines for Cultural Research, Commercial Research, Competition Profiles.
9. **Preparing for Market Entry:** Segmentation, Differentiation, Positioning, Public Relations, Problems to Avoid in New Markets, Matching Goods to Market, the Pricing Process, Product Life Cycle, Warranty and Service Considerations, Matching Services to Market, Commercial and Consumer Services Pricing, Financing Strategies, Transaction Settlement, Brand Selection and Equity, Gaining Market Share.
10. **Developing Distribution:** Controlling the Channels, Distributions Strategies, Managing Logistics, Channel Options and Problems, Selecting Teammates.
11. **Advertising and Promotions:** Challenges of the Foreign Market, Standard versus Adapted Advertising, Agency Selection, Media Planning, Being Believable.
12. **Making Contact: Different Products and Promotions:** Personal Selling, Industrial Sales, Sponsorships, Direct Marketing, Push versus Pull.
13. **Staffing the New Market:** Personnel Restrictions, Selection Guidelines, Overall Management, Operations Management, Cultural Training, Motivating the Overseas Team, International Specialists, and International Divisions.
14. **Evaluating Performance:** Sales Analysis, Market Share Growth, Tracking Satisfaction, and Marketing Audit.
15. **The Marketing Plan:** Guideline for Marketing Success.
16. **The Marketing Audit:** The Marketing Audit.

Subject Name: BUSINESS COMMUNICATION

1. **Basics of Communication:** Introduction, Why Communication, Meaning and definition of



- Communication, Importance of Communication, Elements Of Communication Process, Communication Process Models, Basics Forms Of Communications, Effective Communication.
2. **Communication Theories:** Assumptions about Communication, Communication Theory, Communication Models, Uses of theories and models.
 3. **Audience Analysis:** Introduction, Types of Audience, Importance of Audience Analysis, Analysing Individual and Members of Audience.
 4. **Self-Development:** What is self-development, Objectives of self- development, How Self- Development Improves Communication, How Communication Leads to Self- Development, How to Development Oneself.
 5. **Developing Positive Attitude:** Impact of Positive Attitude on Communication, How to Develop Positive Thinking.
 6. **Corporate Communication:** Corporate Communication, Corporate Communication and Marketing Communication, Types of Corporate Communication.
 7. **Formal vs. Informal Communication Network:** Formal Communication Network, Informal Communication.
 8. **Barriers to Communication:** Semantic Barriers, Physical Barriers, Organisational Barriers, Psychological Barriers, How to Overcome Communication Barriers.
 9. **Practices in Business Communication:** Group Communication, Group Discussion, Seminar, Mock Interview, Presentations, Listening.
 10. **The Essentials of Effective Communication:** 7c's of Communication, Other Principles of Communication.
 11. **Non-Verbal Communication:** Kinesics, Proxemics, Physical Context.
 12. **Writing Skill:** Writing Skill, Business Writing, You- Attitude, Steps In Effective Writing.
 13. **Letter and Memo Writing: Formats:** Functions of Business Letters, Types of Letters, Parts of Business Letters, Format Of Business Letters, How to make Business Letters Effective.
 14. **Request Letters:** Approaches to request Letters.
 15. **Good News Letters:** Purpose of Good news letters, Organization of Good news letters.
 16. **Bad News Letters:** What is bad news letter, purpose of writing bad news letters, the right Attitude, Drafting news message.
 17. **Persuasive, Sales and Collection Letters:** Types Of Persuasive Letters, Purpose Of Persuasive Letters, How to Persuade Others, Approach to Persuasive letters, Most Common Forms Of



ersuasive Letters, Letters Applying Or Offering For Agency.

18. **Memo Writing:** Memo, Memo Format, How to write effective Memos.
19. **Report Writing:** Meaning of Business Report, Types of Reports, Importance of Reports, Essentials of Good Business Report, Steps in Business Report Writing, Structure of Reports.
20. **Speeches and Presentations:** Characteristics of a good speech, How to make Effective Speech, Presentations, Support, Speech, Sales Presentation.
21. **Listening:** Importance of Listening, Types of Listening, and Barriers to effective Listening.
22. **Interviewing Skill:** Types of Interview, Staging and conducting effective interviews, conducting the Interview, Information Gathering Interviews, Selection Interview.
23. **Resumes and Job Application:** Job Application Letters, Writing Solicited Letters, Resume Writing.
24. **Modern Forms of Communication:** Facsimile (FAX), Video Conferencing, Electronic, Electronic Mail (E-Mail).
25. **SWOT Analysis:** SWOT Analysis and Communication, use of SWOT analysis by organizations

Subject Name: FINANCIAL MANAGEMENT

1. **Stock Exchange:** Definition, Market Participants, The Role of Stock Exchanges, Corporate Governance, Trading in stock Exchanges, AMEX, NASDAQ, LSE, NYSE, FSE, PSE, TSE, SSE, Madrid Stock Exchange.
2. **Indian Stock Exchange:** Bombay Stock Exchange: BSE Sensex, Sensex Milestones, National Stock Exchange: Innovations, Indices, Mission, Logo, Corporate Structure, Board of Directors, Committee on Trade Issues (COTI), Capital Market Segment.
3. **Capital Market:** Types of Market, The Primary Stock Market, Beneficial Effects of Primary Market, Secondary Stock Market, Process of Purchase/ Sales of Shares, Bodies Regulating Share Market, what is SEBI? Advantages of Listing on stock Exchange.
4. **Investment Management:** Investment Concepts, Investment objectives, Investment Alternatives, Investment Process, Equity, Investment Strategies, Fundamental Analysis/Equity analysis, Industry Cycle, The Annual Report, Profit and Loss Ratios, Stock Utilization.
5. **Technical Analysis:** Introduction, DOW Theory, Basic Principles of Technical Analysis, Different types of Charts, Charting: Support and Resistance, Trading Guidelines, Uptrend and Downtrend Psychology, ELLIOT's Wave Principle, Moving Averages, Trading with Moving Averages.
6. **Analysis of any listed company:** Company Background, shareholding Pattern, Corporate



Announcement.

Subject Name: STRATEGIC MANAGEMENT

1. Introduction, Strategic Management, Business Policy, Corporate Strategy, Basic Concept of Strategic Management, Mission, Vision, Objectives, Impact of Globalization, Basic Model of Strategic Management, Strategic Decision Making, Impact of Internet and E-Commerce, Role of Strategic Management in Marketing, finance, HR and Global Competitiveness.
2. Environment Scanning, Industry Analysis, Competitive Intelligence ETOP Study, OCP, SAP Scanning, Corporate Analysis, Resource Based Approach, Value-Chain Approach, Scanning Functional Resources, Strategic Budget and Audit.
3. SWOT Analysis, TOWS Matrix, Various Corporate Strategic Stability, Retrenchment and Combination Strategy. Process of Strategic Planning, Stages of Corporate Development, Corporate Restructuring, Functional Strategy, BCG Model, GE 9 Cell, Porters Model: 5 Force and Porters Diamond Model, Strategic Choice.
4. Strategy Implementation through Structure, through Human Resource Management: through value and ethics. Mc Kinsey's 7S Model, Organization Life Cycle, Management and Control, Activity Based Costing, Strategic Information Systems, Case Study related to the Entire Syllabus.

Subject Name: TOTAL QUALITY MANAGEMENT

1. **Introduction:** Definition of Quality, Dimension of Quality, Quality Planning, Quality Cost-Analysis Techniques for Quality Costs, Basic Concepts of Total Quality Management, Historical Review, Principles of TQM, Leadership - Concepts, Role of Senior Management, Quality Council, Quality Statements, strategic Planning, Deming Philosophy, Barriers to TQM Implementation.
2. **TQM Principle:** Customer satisfaction- Customer Perception of Quality, Customer Complaints, Service Quality, Customer retention, Employee Involvement - Motivation, Empowerment, Terms, Recognition and Reward, Performance Appraisal, Benefits, Continuous Process Improvement - Juran Trilogy, PDCA Cycle, 5S, Kaizen, Supplier Partnership - Partnering Sourcing, Supplier Selection, Supplier rating, Relationship Development, Performance Measures- Basic Concepts, strategy, Performance Measure.
3. **Statistical Process Control (SPC):** The Seven tools of Quality, Statistics Fundamentals - Measure of Central Tendency and Dispersion, Population and Sample, Normal Curve, Control Charts for



Variables and attributes, Process Capability, Concept of six Sigma, New Seven Management Tools.

4. **TQM Tools:** Benchmarking - Reasons to Benchmark Process, Quality function Deployment(QFD)
- House of Quality, QFD Process, Benefits, Taguchi Quality Loss Function, Total productive Maintenance (TPM) - Concept, Improvement Needs. FEMA - Stages of FEMA.
5. **Quality System:** Need for ISO 9000 and other quality Systems, ISO 9000:2000 Quality System-Elements, Implementation of Quality System, documentation, Quality Auditing QS9000, ISO14000
- Concept, Requirements and Benefits.

SPECIALISED ELECTIVE COURSES FOR STEM MBA

Subject Name: Biotechnology Management:

Course Outcome

- o Navigate the regulatory landscape and compliance requirements in the biotech industry.
- o Identify funding sources and strategies for biotech startups.
- o Develop marketing and branding strategies for biopharmaceutical products.
- o Understand clinical trial phases and their significance in biotech product development.
- o Evaluate ethical considerations in biotechnology research and innovation.

Unit 1 : Biopharmaceutical Marketing

Unit 2 : Regulatory Affairs in Biotech

Unit 3 : Clinical Trials and Drug Development

Unit 4 : Biotech Investment and Venture Capital

Unit 5 : Bioprocess Engineering

Subject Name: Healthcare Management:

Course Outcome

- o Analyse healthcare policy and its impact on the industry.
- o Develop strategies to improve patient care and healthcare delivery.
- o Implement health information systems to enhance operational efficiency.
- o Evaluate the role of telemedicine and digital health solutions in modern healthcare.
- o Assess the ethical and social responsibilities of healthcare organisations.

Unit 1 : Health Information Systems

Unit 2 : Healthcare Quality and Patient Safety

Unit 3 : Health Economics and Policy Analysis

Unit 4 : Telemedicine and Digital Health



Unit 5 : Healthcare Strategy and Innovation

Subject Name: MANAGEMENT INFORMATION SYSTEM

1. **Introduction to Information System in Business:** Organization, Management and Network Enterprises Information system in enterprises, Information system, Organization, Management and Strategy: The changing role of Information system in organisation, Decision making, business strategy.
2. **Computer Hardware and Computer software, Telecommunications, Categories of computer and Computer system, what is software, System software telecommunication and Networks.**
3. **Information System for Managerial Decision Support, Managing Knowledge:** Knowledge Management in organisation, Information and Knowledge work system. Group Discussion Support System (GDSS), What is GDSS, Characteristics of GDSS.
4. **Enterprise and Global Management:** Redesigning the Organisation with Information System: Business Process reengineering and Total Quality Management. Management international Information system: The Growth of international information system, organising international information system, Managing global system.

Subject Name: ENGINEERING MANAGEMENT:

Course Outcome

- o Plan and manage engineering projects effectively within budget and timeline constraints.
- o Implement lean and Six Sigma methodologies to improve production and processes.
- o Develop quality control systems to enhance product and service quality.
- o Innovate in engineering design and technology to stay competitive.
- o Analyse and optimise the entire product lifecycle, from concept to disposal.

Unit 1 : Project Management for Engineers

Unit 2 : Lean Six Sigma and Process Improvement

Unit 3 : Product Lifecycle Management

Unit 4 : Systems Engineering and Integration

Unit 5 : Innovation in Engineering Design

Subject Name: ENVIRONMENTAL MANAGEMENT

Unit 1: Study of Nature, Resources and Ecosystem



1. **Environment Studies - Scope and Importance:** Objectives, Environment, Types of Environments, Need for Public Awareness, Environment Ethics, Environmental Education, Multidisciplinary Nature of Environmental Education, Scope of Environmental Education.
2. **Natural Resources:** Objectives, Introduction, Classification of Natural Resources, Principal Natural Resources and their Problems- Forest Resources, Water Resources, Mineral Resources, Food Resources, Energy Resources, Land Resources.
3. **Ecosystem:** Objectives, Types of Ecosystem, Ecosystem Components, Ecosystem- Structure and Function, Food Chain and food Web. Ecological Pyramids, Major Ecosystems, Ecological Succession (Changes in Biotic Community).

Unit 2: Biodiversity and Pollution Control

1. **Biodiversity and ITS Conservation:** Objectives, Levels of Biodiversity, Bio Geographical Classification of India, Value of Biodiversity, Man-Wildlife Conflicts, Conservation of Biodiversity, Hot Spots of Biodiversity, Biodiversity Conservation of India.
2. **Environment Pollution:** Objectives, pollutions, Types of Pollution, Atmospheric or Air pollution, Water pollution, Soil pollution, Radioactive pollution, Noise pollution, Solid Waste Management, Role of Individual in Prevention of Pollution, Environmental Disasters and Their Management.
3. **Social Issues and The Environment:** Objectives, Sustainable Development, Water Conservation, Resettlement and rehabilitation of People Environmental Ethic and Resource Use, Global Environmental Changes, Greenhouse Effect, Relative Contribution and Effects of Greenhouse, Wasteland Development.

Unit 3: Study of Population Growth and Case Studies

1. **Human Population and The Environment:** Objectives, human Population Growth, Maximum Carrying Capacity, Environment and Human Health, Family welfare Programme, Human Rights, Women and Child Welfare, role of Information Technology in Environment and Human Health.
2. **Field Work:** Introduction Visit to a Local Area to Document environmental Assets- River, Forest, Grasslands, Hill Mountains, A Visit to Local Pollution Sites-Urban Site Rural Site, Agricultural Site, Study of Common Plants, Insects and Birds, Study of Simple Ecosystem - Pond Ecosystem, River, Hill Slope.

Subject Name: Data Science and Analytics:

Course Outcome

- Apply machine learning algorithms to solve business problems.



- o Analyse large datasets to extract valuable insights for decision-making.
- o Develop predictive models for sales forecasting and customer behavior.
- o Communicate complex data findings to non-technical stakeholders.
- o Utilise data visualisation tools to create informative reports and dashboards.

Unit 1 : Deep Learning and Neural Networks

Unit 2 : Natural Language Processing

Unit 3 : Time Series Analysis

Unit 4 : Business Analytics with R or Python

Unit 5 : Data Visualisation and Communication

Subject Name : Digital Marketing

Unit 1 : Introduction Introduction to Digital Marketing; Objectives of Digital Marketing; Marketing in Digital Economy; Influential Digital Subcultures; Digital Marketing Strategy;

Unit 2 : Search Marketing & Search Advertising Search Engine Optimization; Organic & Paid Search Results; Overview of Google AdWords; Keyword Research and analysis; Tracking the success of SEM; Search Engine optimization techniques; On-page & off-page optimization; search Advertisement Basic concepts; elements of search Ad Managing pay per click Process.

Unit 3 : Social Media Marketing (SMM) Process, Managing & Analysing SMM Process Key Stakeholders in Digital Display; Managing DDA Process.

Unit 4: Email & Mobile Marketing Email Strategy & Planning , Advantages & Challenges of Email Marketing; Managing Email Marketing Process; understanding Mobile Marketing; Mobile Messaging Channels; Mobile Commerce Managing Mobile Marketing Process.

Unit5: Affiliate & Video Marketing Affiliate Marketing Basic Concepts , Building Blocks of Affiliate Marketing ; Video Marketing: Basic Concepts, Video Production & Promotion; Conyent Marketing; Basic Concepts, Strategic Building Blocks of content Marketing

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First Year								
S. No.	Name of Subject	Max. Marks		Min Marks		Total Marks		Credits
		Assign	Theory	Assign	Theory	Max. Marks	Min Marks	
1	Financial & Management Accounting	30	70	12	28	100	50	4
2	Business Ethics	30	70	12	28	100	50	4
3	Organisational Behaviour & Management Processes	30	70	12	28	100	50	4
4	Computer Application in Management	30	70	12	28	100	50	4
5	Business Environment	30	70	12	28	100	50	4
6	Research Methodology and Quantitative Techniques	30	70	12	28	100	50	4
7	Human Resource Management	30	70	12	28	100	50	4
8	Managerial Economics	30	70	12	28	100	50	4
9	Production and Operation Management	30	70	12	28	100	50	4
Second Year								
S. No.	Name of Subject	Max. Marks		Min Marks		Total Marks		Credits
		Assign	Theory	Assign	Theory	Max. Marks	Min Marks	
1	Marketing Management	30	70	12	28	100	50	4
2	International Business	30	70	12	28	100	50	4
3	Business Communication	30	70	12	28	100	50	4
4	Financial Management	30	70	12	28	100	50	4
5	Strategic Management	30	70	12	28	100	50	4
6	Total Quality Management	30	70	12	28	100	50	4
7	Elective Course - Opt any one from the Elective Courses	30	70	12	28	100	50	4
8	Elective Course - Opt any one from the Elective Courses	30	70	12	28	100	50	4
9	Project Work - From any elective course	-	-	-	-	100	?	4

Elective Course

	Biotechnology Management
2	Healthcare Management
3	Management Information System
4	Engineering Management
5	Environmental Management
6	Data Science and Analytics
7	Digital Marketing