

MBA (MASTER OF BUSINESS ADMINISTRATION) - COURSE MATRIX

II Semester MBA

Paper Code	Subject	IA	Exam	Total
2.1	Entrepreneurship and Start-ups Management	30	70	100
2.2	Business Research Methods	30	70	100
2.3	Managing Human Resources	30	70	100
2.4	Business Analytics	30	70	100
2.5	Financial Management	30	70	100
2.6	Production and Operations Research	30	70	100
2.7	SOFT CORE Employability Skill Development –II	30	70	100
Total		210	490	700

2.1 ENTREPRENEURSHIP AND START-UP MANAGEMENT

COURSE OBJECTIVES

60 Hours

1. To make the students aware of the importance of entrepreneurship opportunities available in the society for the entrepreneurs.
2. To acquaint them with challenges of starting new ventures and enable them to investigate, understand and internalize the process of setting up a business

LEARNING OUTCOMES

By the end of the course, the student should be able to –

1. Demonstrate the entrepreneurial process and recognize the core role of creativity and innovation in managing the entrepreneurial process effectively.
2. Demonstrate the issues and decisions involved in financing and growing the new Venture

MODULE 1: INTRODUCTION TO THE WORLD OF ENTREPRENEURSHIP 10 Hours

Evolution and revolution of Entrepreneurship. Three schools of thought: a. Entrepreneurship as an economic function, Trait based theory, Entrepreneurship as a behavioral phenomenon. Myths and realities of Entrepreneurship. Types of entrepreneurs. Growth of Entrepreneurship. Entrepreneurial competencies, Intrapreneurship.

Assignment: Preparing video/print profile of an entrepreneur

MODULE 2: ENTREPRENEURSHIP PROCESSES

10 Hours

Pre-startup- Idea generation and evaluation. **Startup**- Evaluating the opportunity, developing the business model, writing the business plan, assessing the required resources, acquiring the required resources, Managing the venture. **Growth**- Various growth strategies that entrepreneur can pursue. **Exit**- Various exit cum harvesting strategies

MODULE 3: BUSINESS PLAN AND FEASIBILITY ANALYSIS

10 Hours

Business plan and its contents. Financial plan, market plan, operational plan and funding plan. Feasibility analysis -Technical feasibility, market feasibility, financial feasibility, environmental feasibility, economic feasibility.

Assignment: Preparing a real time business plan and presenting into the potential investors.

MODULE 4: ECO- SYSTEM SUPPORTING GROWTH OF ENTREPRENEURSHIP 10 Hours

Sources of Finance, Central government institutions and agencies: SIDBI, NABARD, NSIC, SISI, EDI, etc. State government institutions and agencies: DIC, CEDOK, KIADB, KSFC, etc.

Other supporting agencies RUDSETI, Incubation centers, VCs, Makers labs, TBIs, etc. Specific initiatives to promote entrepreneurship: Startup India, Stand up India and Mudhra Make in India, etc initiatives.

MODULE 5: BUSINESS ETHICS AND LEGAL ASPECTS

10 Hours

Importance and relevance of business ethics. Emerging business ethics issues. Understanding ethical decision making and corporate governance. Ethics as a dimension of social responsibility, formalities for setting up of new venture. Legal aspects involved in setting up new ventures.

MODULE 6: CONTEMPORARY DEVELOPMENT IN ENTREPRENEURSHIP 07 Hours

Social entrepreneurship, Women entrepreneurship, Next-Gen entrepreneurship, Family Business, Effectuation Theory, Problem Mapping, Design thinking, achieving entrepreneurial leadership in the new millennium, problems, challenges and success stories in start-ups.

SKILL DEVELOPMENT EXERCISES

1. Identify five Business Ideas and prepare Business Plan for those ideas.
2. Proposal to Vice-Chancellor along with presentation
3. Story-telling for New Venture Creation
4. What do you mean by viable business opportunity? Justify the stand to your answer.
5. SWOT analysis of a successful entrepreneur you know
6. How do you play the role of an Intrapreneur in an organization, give details
7. Draw up a market feasibility plan for a startup company of your choice, remember you are the consultant for them and you get consultancy charges for such service.
8. Do you agree that the government cannot facilitate growth of entrepreneurs, why? Justify your answer and give a report how can there be growth of entrepreneurship in India.
9. Why does an entrepreneur fail? Bring two case studies of both fail and turn around stories with proper analysis of the details.
10. Identify famous business person(s) of India who now play the role of venture capitalists and support startups, give details of the ventures.
11. What do you emulate from successful women entrepreneurs/ bring few examples to justify your answer.
12. What have you to say that the B-Schools should do to promote entrepreneurial culture in the campus?

RECOMMENDED BOOKS (Latest Editions)

1. Entrepreneurship-11th edition, Robert D Hisrich, Michal P Peter, Dean A Shepherd, Tata MC Graw hill Education PvtLtd
2. New business ventures and the Entrepreneurs- 6th edition, Stevenson or Roberts or Groves beek, Irwin,Inc.mcrhall
3. New venture creation, entrepreneurship for the 21st century, 76th edition, Jeffry.A.timmous, Stephen spinelli, Tata mcrgaw hill,edition
4. Entrepreneurship development small business enterprises Poornima, Charanti Matt edition 5th, Dorling Kindersley (India PvtLtd)
5. Bangalore Business ethics, ethical decision making and cases 6th edition O.C Ferrell, Jhon paeel fraedrich, lindaferrel Houghton mifflinco,USA
6. 'Effectuation' - Saras Saraswathi
7. '8 steps to innovation' – Rishiksha T Krishnan and Vinay Dabholkar; Collins Publications

REFERENCE BOOKS (Latest Editions)

1. Reddy, "Entrepreneurship: Text & Cases", Cengage Learning
2. David H. Holt , "Entrepreneurship: New Venture Creation", Prentice-Hall ofIndia
3. K Ram Chandran, "Entrepreneurship Development: Indian cases on Change Agents" Tata McGraw Hill
4. Brigitte Berger , "The Culture of Entrepreneurship", ICSPress
5. VasantDesai, "EntrepreneurialDevelopmentandManagement",HimalayaPublication

2.2 BUSINESS RESEARCH METHODS

COURSE OBJECTIVES

60 Hours

1. To enable students acquire thought process in research,
2. To imprint on them the paradigm of research in business & to make them use research as base for decisions

LEARNING OUTCOMES

1. Demonstrate proficiency in defining a research problem, identifying variables or phenomena, identifying research designs, and developing purpose statements, research questions, hypotheses, and data collection.
2. Demonstrate proficiency in developing a research methodology for qualitative or quantitative designs, using appropriate statistical methods for data analysis.

MODULE 1: INTRODUCTION TO BUSINESS RESEARCH

06 Hours

Nature and role of Business Research, Types of Research based on Purpose, Process, Outcome, Nature, Action and Logic, Theory Building – constructs, propositions, variables and hypotheses, Features of a good Research Study, Research Process, Internet and research

MODULE 2: RESEARCH PROBLEM, HYPOTHESIS AND DESIGN

10 Hours

Identification and Selection of the Problem, Definition and Statement of the Problem, Evaluation of the Problem, Criteria and sources for identifying the problem, process of defining the problem. Nature, Definition and Characteristics of Good Hypothesis & types of hypotheses, Formulation and testing of hypothesis, The Design of Research, Meaning, Need, dimensions, types of research design.

MODULE 3: DATA COLLECTION AND MEASUREMENT

15 Hours

Primary Data Collection, Classification of Survey methods, Evaluation Criteria for Survey Methods; Observation Techniques, Classification of Observation Methods, Advantages and Limitations of Observation Techniques, Secondary Data Collection, Classification of Secondary Data Sources, Evaluation of Secondary Data, Roadmap to use Secondary Data & Benefits and Drawbacks of Secondary data. Qualitative methods, Observational Methods, Focus Group Method, Personal Interview Method and Projective Techniques
Scales of Measurement, Classification of Scales - Single Item v/s Multi Item Scales, Comparative v/s Non-Comparative scales, Continuous Rating Scales; Criteria for Good Measurement, Criteria for Questionnaire Designing; Types of Questionnaire; Questionnaire Design Procedure, Pilot test, validity and reliability of Questionnaire, Cronbach's alpha, interview schedule.

MODULE 4: SAMPLING AND DATA PREPARATION

10 Hours

Sampling, Concept of Sample and Target Population, Census and Sampling, Sample frame, Sample unit and sample element, Sample size, Determination of Sample Size, Characteristics of

A Good Sample, Sampling Design; Probability and Non Probability, Sampling v/s Non-Sampling Error Data Preparation, Field Validation, Data editing, Coding, Content Analysis, Classification and Tabulation of Data, data transformation

MODULE 5: DATA ANALYSIS

14Hours

Basic data analysis: Descriptive Statistics, Univariate and Bivariate, Parametric & Non- Parametric Tests; Null & Alternative Hypothesis, Error in Testing of Hypothesis, Critical Region, Degrees of Freedom, One Tailed & Two Tailed Tests, Standard Error; Procedure for Testing of Hypothesis. Parametric test, Non parametric test (Conditions for applicability, practical applicability, Implementation and statistical Inference of all the above tests)

MODULE 6: RESEARCH REPORT

05 Hours

Types of Research Report, Report Format, Report Writing – Insight from the communication models, Report Formulation, Guidelines for effective Documentation and visual representation and Research Briefing –Oral Presentation, reports on the internet

SKILL DEVELOPMENT EXERCISES

Using MS Excel, SPSS/SYSTAT/MINITAB for Data Analysis: Entering data from questionnaire, types of analysis, types and applicability of graphs. Advanced tools of analysis: Concepts of discriminant analysis - factor analysis - cluster analysis - conjoint analysis - multi dimensional scaling - perceptual mapping to be taught through practical/real business problems

Exp 1. Z-Test, t-test, F-test Values

Exp 2. Chi-Square test Values

Exp 3. Analysis of Variance (ANOVA) Values

Exp 4. Research Proposal writing

Exp 5. Data Interpretation and report writing: Short and Long reports:

Exp 6. Report presentation methods, ex: Power Point Presentation, etc.

RECOMMENDED BOOKS (Latest Editions)

1. Zikmund/Adhikari, “Business Research Methods: A South-Asian Perspective”, engage
2. Deepak Chawla & Neena Sondhi, “Research Methodology-Concepts & Cases”, Vikas Publishing House
3. Donald R Cooper, Pamela S Schneider, J K Sharma, “Business Research Methods”, McGraw Hill Education

REFERENCE BOOKS (Latest Editions)

1. Naval Bajpai, “Business Research Methods”, Pearson India
2. Rummel & Ballaine, “Research Methodology in Business”, Harper & Row Publishers
3. C.R. Kothari , “Research Methodology (Methods and Techniques)”, New Age International
4. R. Pannerselvam, “Research Methodology”, Prentice-Hall of India

2.3 MANAGING HUMAN RESOURCES

COURSE OBJECTIVES

60 Hours

1. This course is designed for a systematic and comprehensive study about the various facets of Human Resource Management for students of Management. In this course, students will learn the basic concepts and frameworks of Human Resource Management (HRM), and understand the role played by HRM in effective business administration.
2. Students will also get a perspective of the problems associated with HRM and their causes.

LEARNING OUTCOMES

On completion of the course, the students will be able to:

1. Define a comprehensive Human Resources Management strategy within both entrepreneurial and non-profit organizations, also on an international scale;
2. Plan and implement end to end human resource management process from – recruitment, selection, training, compensation, personnel development, evaluation and manage industrial relations;

MODULE1: INTRODUCTION

12 Hours

Human Resource Management: Definition – Objectives – Functions – Scope – models of HRM– HRM in India and Global context – Evolution of HRM –HR Metrics – Qualities of a good Human Resource Manager- Human Resource Outsourcing- HR Audit – Human Resource Information System (HRIS)

Human Resource Planning: HR Planning as a source of Information – Methods of HR Planning – Job Analysis, Job description and Job Specification – Job redesign, HR dashboard.

MODULE 2: RECRUITMENT, SELECTION AND RETENTION

10 Hours

Purpose and Importance of Recruitment – Sources of Recruitment – Selection Process – Selection Techniques – Selection Errors – Orientation, Induction, On boarding and Placement. Retention – managing Attrition, Retention Strategies.

MODULE 3: TRAINING AND DEVELOPMENT, CAREER MANAGEMENT **12 Hours**

Training and Development – Training need analysis, designing a training program, Evaluating a training program- approaches, Methods of Training: Job Instructed Training , Coaching, Mentoring, Job Rotation, Apprenticeship training, Learning Theories – Jaen Piaget’s theory, Social Learning theory, Kolb’s model on Learning style of individuals

Career Management – Need for career planning – Career Development (CD) – Steps in CD – Elements in CD – Career anchors in CD – Diversity in CD – Counseling and Mentoring in CD – Competency: Concept – Meaning – Types – Process of Competency Mapping

MODULE 4: COMPENSATION AND PERFORMANCE MANAGEMENT

10 Hours

Compensation and Benefits – Basics purposes of compensation, Wages versus Salaries, Components of Remuneration, Determinants of Compensation Strategy, Job Evaluation

Methods, Pay for Knowledge and Skill Based Pay, Wage and Salary Administration, Incentives and Performance Based Rewards – Individual, Team and Group Incentive Plans.

Performance Management –Performance Management- Different elements of Performance Management, process and evaluation techniques, issues and dilemmas, context and design model of system, Human Resources Accounting

MODULE 5: MANAGING EMPLOYEE RELATIONS **07 Hours**

Employee Relations: Meaning & Characteristics – Parties to Industrial relations – Theoretical Perspectives on Industrial Relations – Nature of Trade Unions – Types of trade unions – Reasons for joining TU – Problems of Trade Union – Causes for Industrial Disputes – Grievance Procedures – Redressal of Grievances through Collective Bargaining – Features – Workers participation in management – Laws relating to Employee Relations.

MODULE 6: THE GLOBAL ENVIRONMENT **09 Hours**

Global Issues in HRM – Stages of Development of Transnational Organizations, Structural Implications, IHRM Strategy, Understanding the cultural, political and legal environment – **Domestic Issues in IHRM** – Local recruiting and selection, training and compensation issues, **Managing International transfers and assignments**– Expatriates and corporate international strategy, selecting, performance management, training and compensating expatriates – Repatriation - The future of IHRM / HRM.

PEDAGOGY / METHODOLOGY

Lectures, Case study analysis, Exercises, Assisted private studying, Guest speakers, Videos, Company tours, and Role plays

SKILL DEVELOPMENT EXERCISES

- Recruitment Management – Group discussion/ JAM sessions / Interviewing techniques
- Workforce Planning – Reading assignments and Case studies/ Field visits
- Induction Management - Role play / Group dynamics/Discussion
- Training Management – Skill training / Laboratory training/ Teambuilding
- Performance Management – In basket training/ Case studies.
- Compensation & Benefits – Sensitivity training / Live examples.
- Employee Information/ Skill Management – Instruments, videos and films
- Employee Survey – preparing Questionnaires / case study designing specific to the topic
- Exit Interviews & Process – preparing Questionnaires
- Role play on conducting interview

RECOMMENDED BOOKS (Latest Editions)

1. DeNisi/Griffina/Sarkar, “HR – A South-Asian Perspective”, Cengage Learning
2. Dr. K Aswathappa, “Human Resource Management, Text & Cases”, McGraw Hill
3. Biswajeet Pattanayak , “Human Resource Management”, Prentice Hall of India(PHI)
4. Gary Dessler and BijuVarkkey, “Human Resource Management”, Pearson Publication
5. P. Jyothi and D. N Venkatesh, “ Human Resource Management”, Oxford Publication

REFERENCE BOOKS (Latest Editions)

1. Dr. C.B. Gupta, “Human Resource Management”, Sultan and Sons
2. P. SubbaRao, “Personnel & Human Resource Management”, Himalaya Publishing House
3. K. Aswathappa, “Human Resource and Personnel Management”, Tata McGraw Hill
4. C.S. Venkata Rathnam & B.K. Srivastava, “Personnel Management & Human Resource”, Tata McGraw Hill
5. Dr. C.B. Memoria, Dr. Satish Memoria & S.V. Gankar, “Dynamics of Industrial Relation”, Himalaya Publishing House

2.4 BUSINESS ANALYTICS

COURSE OBJECTIVES

60 Hours

1. To introduce the business intelligence process that support the decision making in business operations.
2. To expose the students to analytics practices used in various verticals across industries and thereby educating students to develop basic analytical skills.

LEARNING OUTCOMES

By the end of the course,

1. Describe how analytics are powering consumer applications and creating a new opportunity for entrepreneurship for analytics
2. Demonstrate understanding on the areas and application of Analytics

MODULE 1: INTRODUCTION TO BUSINESS ANALYTICS

10 Hours

Introduction to Business Analytics; Challenges; Business Analytics Optimization (BAO); Data warehousing; Online Analytical Processing (OLAP); Online Transaction Processing (OLTP); Introduction to Predictive Analytics and Prescriptive Analytics; Role of Business Analyst and Data Scientist; Business Intelligence Applications.

MODULE 2: DATA MINING

10 Hours

Meaning of Data Mining; Evolution of Data Mining; Data Mining Process; Knowledge Discovery from Data (KDD); Cross Industry Standard Process for Data Mining (CRISP-DM), Data Mining techniques; Challenges of Data Mining

MODULE 3: PREDICTIVE ANALYTICS

15 Hours

Introduction to Simple Linear Regression, Multiple linear Regression, Logistic Regression, Time series, Decision Trees and Neural Networks

MODULE 4: BIGDATA ANALYTICS**10 Hours**

Introduction to Big Data; Need for Big data; Characteristics of Big Data; structure of Big Data (Structured, Semi-structured, Unstructured and real time data); Benefits and barriers of Big Data Analytics; Mobile Data Analytics; Social Media Analytics

MODULE 5: AREAS AND APPLICATIONS OF ANALYTICS**10 Hours**

Financial Analytics; HR Analytics; Marketing Analytics; Supply Chain Analytics; Production and Operations analytics

MODULE 6: CONTEMPORARY DEVELOPMENTS IN THE AREA OF ANALYTICS**05 Hours**

Machine learning; Artificial Intelligence; Deep Learning; Internet of Things (IOT); and Robotics

REFERENCE BOOKS (Latest Editions)

1. Albright Winston “Business Analytics, Data Analysis and Decision Making” 5th edition, Cengage Publication
2. Cindi Howson “Successful Business Intelligence” 2nd edition, McGraw Hill Education
3. U Dinesh Kumar “Business Analytics: The Science of Data - Driven Decision Making” by Wiley Publications

2.5 FINANCIAL MANAGEMENT

COURSE OBJECTIVES

60 Hours

1. To enable a strong conceptual fundamentals for corporate finance and make the students comfortable and easy understanding of financial management and an overview of Indian and global scenario.
2. The syllabus also contains the practical components of the subject which enable the students gain more practical knowledge under each module

LEARNING OUTCOMES

1. The student will exhibit the conceptual understanding of various steps involved in raising, allocation and distribution finance
2. The student will be able to apply concepts learnt to demonstrate the understanding of the published reports of business firms and companies and also demonstrate the ability to draw meaningful conclusions about the financial performance of business firms and companies

MODULE 1: INTRODUCTION TO FINANCIAL MANAGEMENT

08 Hours

Introduction to International Financial System, General areas of finance, importance of finance in non-finance areas, Functions of Financial Management, finance and corporate strategy, Financial Goals of a firm, Emerging role of finance manager in India

MODULE 2 TIME VALUE OF MONEY

08 Hours

Compounding, Continuous Compounding, Effective Rate of Interest, Discounting – Single Cash Flows & Series of Cash Flows, Annuity – Future Value and Present Value, Present Value of Growing Annuity, Perpetuity – Present Value, Growing Perpetuity – Present Value, Equated Annual Installments.

MODULE 4: INVESTMENT DECISIONS

12 Hours

Capital Budgeting, process of Capital budgeting, use of capital budgeting techniques in practice, Methods of appraising proposals; Payback period, ARR, NPV, IRR, MIRR, Profitability Index (problems). Meaning of Capital Rationing

MODULE 4: COST OF CAPITAL AND CAPITAL STRUCTURE

16 Hours

Introduction of capital structure- optima capital structure, Factors influencing capital structure. NI Approach, NOI approach, and MM approach (Theory and simple problems only) **Leverages** - Financial Leverage – Operating Leverage and Combined Leverage. **Cost of Capital**- Meaning and Methods of computing cost of capital: Cost of Equity Capital, Cost of Preferred Capital, Cost of Debt, Weighted Average Cost of Capital (Theory and Problems).

MODULE 5: WORKING CAPITAL MANAGEMENT

06 Hours

Working capital, factors determining working capital, Sources of working capital, estimating working capital needs, Cash Management, Inventory Management (Only Theory), Receivables Management.

MODULE 6: DIVIDEND DECISIONS

10 Hours

Dividend decisions and valuation of firms, Determinants of dividend policy, Dividend theories – relevance and irrelevance: Walter, Gordon and Modigliani-Miller Hypothesis (including problems), Bonus issues, and stock split.

SKILL DEVELOPMENT EXERCISES

1. Draw a chart showing the functions of finance manager
2. List out the formulas of time value of money
3. List out the methods of capital budgeting appraisal
4. Collect the different companies debentures
5. List out the theories of dividend and importance.
6. List of companies declared different types of dividend in the last financial year.

RECOMMENDED BOOKS (Latest Editions)

1. Kishore, M. Ravi, “Financial Management – with Problems and Solutions”, Taxmann Allied Services (P) Ltd.
2. I. M Pandey “Financial Management”, Vikas Publishing House
3. Besley/Brigham/Parasuraman, “CFIN: A South-Asian Perspective”, Cengage Learning
4. Rajiv Srivastava, Anil Misra, “Financial Management”, Oxford Higher Education
5. Parasuraman, “Financial Management: A Step by Step Approach”, Cengage Learning
6. Shashi K Gupta, R K Sharma, “Financial Management- Theory and Practice”, Kalyani Publishers
7. Bodhanwala, J. Ruzbeh, “Financial Management using Excel Spreadsheet”, Taxmann Allied Services (P) Ltd.

REFERENCE BOOKS (Latest Edition)

1. Brigham, “Fundamentals of Financial Management”, Cengage Learning
2. Prasanna Chandra, “Financial Management”, McGraw Hill Education
3. Bahal, Mohit, “Practical Aspects of Financial Management”, Suchita Prakashan (P)Ltd
4. Sharma, Dhiraj, “Working Capital Management – A conceptual Approach”, Himalaya Publishing House
5. Bhalla, V.K., “Financial Markets and Institutions”, S.Chand andCo
6. Hampton, John, “Financial Decision Making – Concepts, Problems and Cases”, Prentice Hall of India
7. Khan, M.Y; “Indian Financial System”, The McGraw Hill Companies

2.6 PRODUCTION AND OPERATION SRESEARCH

COURSE OBJECTIVES

60 Hours

1. To provide a formal quantitative approach to problem solving and an intuition about situations where such an approach is appropriate.
2. To introduce some widely-used mathematical models. The understanding of these models will allow the students derive solutions by logic demonstrated through numbers & equip them with techniques for finding solutions.

LEARNING OUTCOMES

1. The students acquire quantitative tools, and use these tools for the analysis and solution of business problems.
2. The emphasis will be on the concepts and application rather than derivations.

MODULE 1: PRODUCTION AND OPERATIONS MANAGEMENT

10 Hours

Functions of Production and material management, Types of production Systems.

Forecasting – Forecasting types, Exponential smoothening, Measurement of errors, Box-Jenkins Method.

Facility Planning – Facilities location decisions

Facility layout planning: Layout, types of plant layouts – product layout, process layout, fixed position layout, cellular manufacturing layouts, hybrid layouts

Quality – Six Sigma, and elimination of 7 wastes (Mudas), Lean operations, JIT, KANBAN

MODULE 2: FACILITY MANAGEMENT

10 Hours

Productivity and types of productivity

Materials Management – Purchase functions, Procurement procedures including bid systems, Vendor selection and development, Vendor rating, ethics in purchasing.

Concepts of lead time, purchase requisition, purchase order, amendments, forms used and records maintained.

Inventory Management: Classification, ABC, VED and FSN analysis. Inventory costs, Inventory models – EOQ, safety stocks, Re order point, Quantity discounts

Maintenance: TPM, breakdown maintenance, continuous maintenance.

MODULE 3: INTRODUCTION AND LINEAR PROGRAMMING TECHNIQUES

10 Hours Introduction Decision Making, Quantitative Approach to Decision Making, Nature and Significance of OR in Decision Making, Scientific Methods in Operations Research, Models in Operations Research, Application Areas of OR in Management.

Linear Programming: Model Formulation, Graphical Methods, Simplex Method, Maximization and Minimization of L.P.P, Degeneracy in L.P.P.

MODULE 4: TRANSPORTATION MODELS

10 Hours

General Structure; Various methods for finding initial solution: North West Corner Method, Least Cost Method, Vogel's Approximation Method; Test for optimality (MODI method only)

Alternate Optimal solutions. Variations: Balanced Transportation Problem, Maximization problem, Degenerate Solution.

MODULE 5: ASSIGNMENT PROBLEMS

10 Hours

Concepts, Mathematical Formulation of an Assignment Problem, The Assignment Algorithm (Hungarian Assignment method), Balanced and Unbalanced Assignment Problems, Travelling Salesman Problem as an Assignment Problem.

Sequencing: Terminology and notations, types of sequencing problems, processing n jobs through 2 machines, processing N jobs in N Machine.

MODULE 6: NETWORK ANALYSIS

10 Hours

Terminology; Networking Concepts; Rules for drawing network diagram; CPM Computations: CPM Terminology, Finding critical path – Different Floats; PERT Computations: Probability of meeting the scheduled dates; difference between PERT and CPM.

Replacement Models Types of Failure, Replacement of Items whose efficiency deteriorates with Time, Replacement of Items that Fail Completely

SKILL DEVELOPMENT EXERCISES

1. Linear programming is a general method usable for a wide range of problems. Visit any nutrition center which sells health-food. Bring into play the applications of LP in formation and building
2. Transportation programming techniques facilitates in maintaining traffic rules. Apply with the help of illustrations
3. Visit your nearest fast moving consumer goods manufacturing company like LG, Samsung, Videocon etc. and apply the concept of assignment model to increase its produce line.
4. Visit one of the construction companies and analyze its modus-operandi to function. Apply the concept of network model (PERT and CPM) to proper completion of work in time
5. Apply the queueing theory to regulate the problem of huge waiting lines at the railway reservation counters

PEDAGOGY

Use of case studies and Methods to solve the problems of OR using MS Excel or TORA.

RECOMMENDED BOOKS (Latest Editions)

1. Hillier, Lieberman, Nag & Basu, "Introduction to Operations Research", McGraw Hill Education(India)
2. Ravindran, Phillips & Solberg, "Operations Research – Principles & Practice", Wiley India
3. Hamdy A. Taha, "Operations Research: An Introduction", Pearson
4. H.M. Wagner, "Principles of Operations Research with Application to Managerial Decisions", Prentice Hall of India

REFERENCE BOOKS (Latest Editions)

1. Srinivas Reddy, "Operations Research", Cengage Learning
2. J. K. Sharma, "Operations Research-Theory & Applications", MacMillan. India Ltd

3. V. K. Kapoor, "Operations Research-Techniques for Management", Sultan Chand & Sons
4. Hiller & Lieberman, "Introduction to Operations Research-Concepts & Cases", Tata-McGraw Hill
5. Gupta & Hira, "Operations Research", S.Chand&Co
6. Chawla, "Operation Research", Kalyani Publishers
7. Mahadevan B, "Production and Operations Management", Pearson Education India,2010
8. J.P Saxena, "Production and Operations Management", Tata Mcgraw-Hill Education Pvt Ltd.,
9. Ajay K.Garg, "Production and Operations Management", Tata McGraw-Hill Education PvtLtd.,
10. Norman Gaither and Greg Frazier, "Operations Management", South – Western College Pub.1999
11. Clifford Gray and Larson, "Project Management", MCGraw-Hill/Irwin,2008

2.7 EMPLOYABILITY SKILL DEVELOPMENT – II

COURSE OBJECTIVES

30Hours

1. To assess and identify the individual employability skill deficiencies
2. Facilitating student to take remedial measures to improve the status of skill deficiencies and enable students to apply these skills in order to be successful in professional life.

LEARNING OUTCOMES

1. Become self-confident individuals by mastering communication skills, interpersonal skills, and IT skills.
2. Demonstrate an understanding of employability skills and will be able to prepare a structured resume, Handle group discussions and interviews effectively

MODULE 1: COMMUNICATION SKILLS:

Listening- the art of listening- elements of listening, being an effective listener- practical exercises in listening,

Reading- Understanding the elements of effective reading, using skimming and scanning techniques for rapid reading, reading for comprehension- exercises in Reading

Writing- Elements of good writing – paragraphing skills, coherence and cohesion, lexical resources, grammatical range and accuracy in writing – exercise in writing tasks.

Speaking- Elements of effective presentation skills- Vocal and Verbal Communication, expression of ideas and opinions, skills in handling a conversation and a dialogue. Exercise in

Speaking. Group discussion- Purpose-Process- understanding the criteria for assessment, right types of behaviour in GD- GD practice sessions

MODULE 2: INFORMATION TECHNOLOGY SKILLS:

MS Word

1. Understanding the Business Functionalities of various options available in MSWord
 - a) Creating a new document – Typing Skills (25 to 30wpm)
 - b) Editing a document, Text formatting ,Finding and replacing text and checking spelling
 - c) Using Clip gallery, Working with tables, Using Mail merge, Creating a new data source
 - d) Accessing the data document, Printing a document

MS Excel:

1. Understanding the various functionalities of MS Excel
 - a) Basic operations: Operators in Excel, Modifying the worksheet layout, Working with functions – Date and Time function, Statistical function, financial function, Mathematical function. b) Formatting Charts c)Finding Trends in Data
2. Using Sorting, Filter Functions, Text to Column Functions
3. Learning and Implementing Conditional Formatting
4. Learning and Implementing V-Lookup and H-Lookup
5. Learning and Implementing PIVOT
6. Inserting Charts, Graphs, Tables etc.

MODULE 3: PRESENTATION SKILLS

Designing and delivering business presentations – planning an effective business presentation – identify your key message, know your audience, organizing the content, vocal quality, delivery style – Exercises: short presentations.

Power Point Presentation:

- 1) Understanding the various functionalities of MS PowerPoint
 - a) Creating a presentation slide
 - b) Working with the text
 - c) Moving the frame and inserting clipart
 - d) Formatting the slide design
- 2) Designing the Master Slide and Theme Slide
- 3) Implementing the Organizational Charts, Functional Charts, Process Flow Charts, Timing Diagram, Gaunt Charts and Other Project Management Tools required for the business.
- 4) Running Slide Shows: Adding Transitions and Animations

MODULE 4: INTERVIEW SKILLS

Understanding the interview process – ground work before interview – interviewing for success – Tips on power dressing – exhibiting appropriate body language – Mock interviews and assessment

MODULE 5: IMAGE MANAGEMENT

The 4 C's of Personal branding, Step by step process of personal branding- Art and Science of Creating a First Image, Clothes Power, Etiquette Ready, Fitness, Colour and Clinic, Make-up, Grooming Personal Hygiene, and Business Etiquette.

MODULE 6: SKILL DEVELOPMENT ACTIVITIES

Training Need Analysis, Skill development activities on leadership, team building, conflict management, event management, self-management, life skills, Emotional Intelligence, positive thinking, crisis management, Digital skills: mock trading activities, e-HR activities and other related skill development activities.

PEDAGOGY / METHODOLOGY

Movie clips, videos, Educational games, examples, story/sharing questionnaire/role play/exercises/ Task, Video/Audio recording, Group talk. Numerous GDs, Mock Interviews followed by exhaustive feedback rounds. Pedagogy exhaustively involves Methodologies to Crack GDs', Resume Building Techniques & Tips to Crack Interviews

RECOMMENDED BOOKS (Latest Editions)

1. Butterfield, "Soft Skills for Everyone", Cengage Learning
2. Lehman / Dufrene / Sinha , "BCOM – A South-Asian Perspective", Cengage Learning
3. Andrews, Sudhir, "How to Succeed at Interviews", Tata McGraw Hill
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