

# Organizational Behavior

MEM 113

**Semester – I**

**Credit Hour: 3**

## **General Objectives;**

- to make students familiar with individual and group behavior dynamics in the changing organizational contexts,
- to provide an insight in to organizational change and development processes in the organizations.

## **Specific Objectives;**

The specific objectives of this unit are;

- to make the students aware of conceptual framework for understanding the organizational behavior,
- to make the students understand and manage individual behavior,
- to make them understand group process and team effectiveness,
- to make them realize the importance of communication within an organization,
- to make them aware of various aspects of leadership, motivation, job satisfaction, performance and commitment, job conflict, power and politics; gender; organizational change etc.

### **Unit 1: Introduction of OB**

**6 hrs**

Concept of OB, Emerging trends in OB, Basic assumptions of OB, Behavioral issues and implications, Diversity Management; Nature of diversity in Organizations, Dimension of diversity, managerial implications, Gender: Concept, gender and behavioral implications..

### **Unit 2: Understanding and Managing Individual Behavior**

**8 hrs.**

Perception: Concept, perceptual process, factors affecting perception, perception and individual decision making, Personality: Concept, determinants, traits, and characteristics, major personality attributes, influencing OB, matching personality and jobs, personality and behavior, Values: Concept, Sources, types. Attitudes: Concept, sources, types, attitudes and behavior. Learning: Concept, major theories, principles managerial implications. Work Motivation: Concept, Theories-Need Hierarchy Two factor, EGR, Achievement Motivation, Equality Theory, Expectancy Theory, job satisfaction, performance and commitment, issues in motivation. Job design: Concept, approaches of job design.

### **Unit 3: Understanding and Managing Group Processes**

**6 hrs**

Concept of group dynamics, Stages of group development, Types of groups, Group structure and processes, Work team: Types, issues in managing work teams, Group decision making: Concept and techniques

### **Unit 4: Communication**

**2 hrs**

Concept and process, Goals of organizational communication, Barriers to effective communication, Communication systems and network, Issues and managerial implications

**Unit 5: Leadership and influence process****5 hrs**

Concept and styles of Leadership, Theories of leadership: Trait, Behavioral and contingency, Behavioral: Ohio State University studies, Michigan studies, Managerial grid, Contingency: Fielder's contingency theory, life cycle theory and path Goal theory, Issues in Leadership.

**Unit 6: Conflict, Negotiation and Inter group Behavior****6 hrs**

Concept of Conflict, Nature and types of conflict, Dynamics of inter group conflict, Conflict-management techniques, Negotiation: Concept, bargaining strategies, negotiation process, issues in negotiation.

**Unit 7: Power and politics in Organizations****6 hrs**

Power: The nature of power, types of power, the use of power in organizations, Politics and political Behavior: concept, managing political behavior, Impression management in organizations

**Unit 8: Organizational change****6 hrs**

Forces of change, Managing planned change, Resistance to change, Approaches to managing organizational change, Contemporary change issues for today's managers.

**Suggested Readings:**

- ❖ Robbins, Stephen P. Organizational Behavior: Concepts Controversies and Applications, Printice Hall of India, New Delhi
- ❖ Moorhead, Gregory and Griffin, Ricky W.; Organizational Behavior: Managing people and Organizations, AITBS Publishers and Distributors, Delhi.
- ❖ Arnold, H.J. and D.C. Field man, Organizational Behaviors, McGraw Hill.
- ❖ Mitchell, T.R. and J.R. Larson, People in Organizations: an Introduction to OB, McGraw Hill.

# Engineering Economic Analysis

## MEM 111

**Semester: First**  
**Credit Hr: 3**

### General objectives:

- To provide students with a sound understanding of the principles, basic concepts and methodology of engineering economy and economic aspect of management.
- To help them develop proficiency with these methods and with the process of making rational decisions regarding situations they are likely to encounter in professional practice.

### Specific objectives:

Specific objectives of this unit are:

- To build a thorough understanding of the theoretical and conceptual basis on which the practice of financial project analysis is built.
- To satisfy the very practical need that engineer will be called upon to make financial decisions when acting as team member or project manager of engineering project.
- To incorporate all the decision making tools including the most contemporary that engineers bring to the task of making informed financial decision.
- To explore the economic aspect of management including the public sector and private sector projects.

### Course contents

#### Unit 1: Foundation of Engineering Economics

**2hrs**

Engineering economic definition, origin of engineering economy, basic terminologies used in engineering economic decision, Role of engineers in making economic decision, types of strategic engineering economic decision, introduction to the cash flow.

#### Unit 2: Money-Time Relationship and Economic Equivalence

**7hrs**

The time value of money, simple interest versus compound interest, development of interest formulas, compound interest formula(single cash flow), discrete compounding interest formula ( uniform series cash flow), gradient series interest formula (arithmetic and geometric), concept and general principle of economic equivalence, equivalence relation (Payment Period > Compounding Period and Payment Period < Compounding Period), Introduction to continuous compounding interest formula, nominal and effective interest rate

#### Unit 3: Alternatives Evaluation Procedures

**8hrs**

Equivalent worth method: Present worth analysis (PW) of projects having same useful life and different useful lives, Repeatability assumption and co-terminated assumption Future worth analysis (FW), Annual worth analysis (AW), Capitalized worth method (CW), payback period (simple and discounted), Rate of return method: Internal rate of return (IRR) and external rate of return (ERR) of single and mutually exclusive project, Definition of Mutually exclusive project in terms of combination of project.

**Unit 4: Economic Analysis of Public sector Project****3hrs**

Introduction to public sector project, difference between public and private sector project, public sector project analysis view point, benefit cost analysis (conventional and modified), alternative selection using incremental benefit cost analysis.

**Unit 5: Replacement Decision****6hrs**

Introduction to replacement analysis and reason for replacement analysis, factors to be considered in replacement studies, comparison of defender and challenger, determining the economic life of a challenger, determining the economic life of a defender, comparison in which the defender's useful life differs from that of challenger.

**Unit 6: Depreciation****7hrs**

Asset depreciation (economic and accounting depreciation), factors inherent to asset depreciation (cost basis, salvage value, depreciable life), depreciation methods: book and tax depreciation, book depreciation method (straight line method, accelerated method: declining balance and sum of the year's digit method), Tax depreciation method (MACRS depreciation, MACRS depreciation rates, Half year convention, Switching from declining balance to straight line method), depletion (cost depletion and percentage depletion)

**Unit 7: Inflation in Engineering Economics****5hrs**

Meaning and measure of inflation, actual versus constant dollars, equivalence calculation under inflation: market and inflation free interest rates, constant dollar analysis, actual dollar analysis mixed dollar analysis, rate of return analysis under inflation.

**Unit 8: Economic decision under risk and uncertainty****7hrs**

Introduction to risk, uncertainty, Origin of project risk, method of describing project risks: sensitivity analysis, break even analysis (single project and mutually exclusive project), evaluation of alternatives using decision tree,

**Text Book:**

1. Chan S. Park (1997), Contemporary Engineering Economics, Contemporary Engineering Economics, 2<sup>nd</sup> edition, Addison-wesley Publishing Company, Inc.
2. William G Sullivan, James A Bontadelli and Elin M. Wicks (2001), Engineering Economy, 11<sup>th</sup>Edition , Pearson Education, Inc.
3. Blank, L. and Tarquin, A. (2005), "Engineering Economy", Sixth Edition, McGraw Hill, Singapore.

# QUANTITATIVE METHODS

## MEM 114

**Semester: First**

**Credit Hr: 3**

**General objectives:**

- State and explain the concept of statistical methods and technique which can be applied to any research studies.

**Specific objectives:**

Specific objectives of this unit are:

- to provide knowledge to the students about probability theories and their appropriate application.
- to familiarize the students with descriptive as well as inferential statistics and their application for their research studies.
- to develop an understanding of different method of hypothesis testing and appropriate selection of hypothesis.
- to provide skills for the selection of sampling technique and proper planning different sampling methods.
- to develop an understanding of different method of statistical process control, control charts and their statistical interpretation .

**Course contents**

**Unit 1: Introduction**

**5 hrs**

Definition of statistics, Descriptive and Inferential Statistics, Sources of Data (Primary and Secondary), Types of Data (Categorical and Numerical), Parameter and Statistics, Census and Sampling, Mean, Median, Mode, Range, Quartile Deviation, Mean Deviation, Standard Deviation, Variance, Descriptive analysis in SPSS

**Unit 2: Hypothesis Testing**

**6 hrs**

Null and Alternative Hypothesis, Level of Significance, Critical Value, One and Two Tailed Test, Type I and Type II Error, Sampling Distribution of mean, One Sample Tests for Mean (Z and t Test), Two Sample Tests for Mean (Z and t Test ), Hypothesis testing in SPSS

**Unit 3: Correlation and Regression Analysis**

**5 hrs**

Definition, Methods of studying correlation (graphical and mathematical), Rank correlation coefficient, Simple regression analysis, Estimating equation, Interpretation of intercept and slope,, Multiple regression analysis, Correlation and Regression analysis in SPSS

**Unit 4: Chi Square Test & Analysis of Variance**

**8 hrs**

Introduction, Chi Square as a Test of Independence, One way ANOVA and Two ways ANOVA, ANOVA & Chi- Square test in SPSS

**Unit 5: Non Parametric Test**

**3 hrs**

Differences between parametric and non parametric test, One sample test (Run test), Two related sample test (Sign test)

**Unit 6: Introduction of Quality Control**

**3 hrs**

Introduction, Uses of S.Q.C,  $\bar{X}$  Chart, R chart, p chart, C-chart

**References:**

- 1 Statistics for Management, Seventh Edition, Richard I. Levin, David S. Rubin, Prentice Hall.
- 2 Business Statistics, Third Edition, Levine, Krehbiel, Berenson, Pearson Education
- 3 Practical Business Statistics, Siegel, Andrew F, Irwin
- 4 Practical Nonparametric Statistics, Conover, W.J., Wiley

# Entrepreneurship

MEM 112

**Semester: First**

**Credit Hr: 3**

## General Objectives:

- make students able to understand entrepreneurship, entrepreneurs and their various dimensions;
- prepare a ground where the students view entrepreneurship as a desirable and feasible career option;
- Institute knowledge on entrepreneurship among students by giving an overview of who the entrepreneurs are and what competencies are needed to become and entrepreneurs.

## Specific objectives:

Specific objectives of this unit are to:

- make students understand the concept and process of entrepreneurship;
- familiarize students regarding its contribution and role in the growth and development of individual and the nation;
- To acquaint students with entrepreneurial quality, competency, and motivation;
- To enable the students to acquire knowledge on different dimensions of entrepreneurship with emphasis on creativity and innovation.

## Course Contents

### Unit 1: The Nature of Entrepreneurship

**4 hrs**

Entrepreneurship: meaning and development; Factors influencing entrepreneurship; Entrepreneurship vs. Management; Women entrepreneurship; Rural entrepreneurship; Social entrepreneurship; Economic, social and psychological needs for entrepreneurship; The schools of entrepreneurial thought; Roles of entrepreneurship in economic development; Small business as the seedbed of entrepreneurship; Ethics and social responsibility in entrepreneurship; Barriers to entrepreneurship.

### Unit 2: The Entrepreneurial Mindset

**4 hrs**

Entrepreneurs; Characteristics of a successful entrepreneur; Roles and functions of entrepreneurs; Entrepreneur vs. Professional manager; Entrepreneurial motivation; Entrepreneurial competencies; Entrepreneurial mobility; Knowledge and skills of an entrepreneur:- Negotiation, Leadership, Communication, Change management, Conflict management, Knowledge management, Financial control, Time management, Prioritization and Critical thinking ability.

### Unit 3: Entrepreneurial Environment

**4 hrs**

Factors affecting entrepreneurial growth:- Economic factors, non-economic factors and government actions; Industrial policies and regulations; Entrepreneurial development programmes (EDPs):- Need and objectives, Phases of EDPs, Evaluation of EDPs; Role of government, family and society in enterprise development; Roles of financial institutions, cooperatives, FNCCI and chamber of commerce in entrepreneurship development; Training and other support services for entrepreneurship development; Industrial estates.

**Unit 4: Corporate Entrepreneurship****3 hrs**

Concept of and need for corporate entrepreneurship; Obstacles for corporate entrepreneurship; Creating entrepreneurial culture within a corporation; The interactive process of corporate entrepreneurship.

**Unit 5: International Entrepreneurship****3 hrs**

Nature and importance of international entrepreneurship; International vs. Domestic entrepreneurship; Entrepreneurial entry into international markets:- Exporting, Licensing, Franchising and Direct foreign investment; Barriers to international trade.

**Unit 6: Creativity, Innovation and Business idea****5 hrs**

Creativity and innovation; Elements of creativity; Personal creativity; Organizational creativity; The creative process; Barriers to creativity; Concept, meaning and various dimensions of innovation; Innovation for enterprise development; Sources of new business ideas; Methods for generating ideas:- Focus group, Brainstorming, Problem inventory analysis.

**Unit 7: Opportunity Assessment and Enterprise Planning****5hrs**

Opportunity and environmental factors; Identifying problems and opportunities; The Window of opportunity; Principles of innovative opportunity seeking; The entrepreneurial process:- Identification and evaluation of the opportunity, Development of the business plan, Determination of the required resources, Management of the enterprise; Managerial vs. Entrepreneurial decision making; Planning for enterprise development - Preparation of a project document; Resource Assessment:- Financial and Non-financial, Fixed and working capital requirement, Facilities and technologies.

**Unit 8: Business Plan Preparations****5 hrs**

Business Plan-Introduction and importance; Information needs for writing a business plan; Pre-feasibility study; Writing the business plan:- Cover page, Executive summary, Business description, Marketing segment, Research, design and development segment, Operations segment, Management segment, Financial segment, Risk segment, Harvest strategy segment, Appendix and/or bibliography segment; Implementing the business plan; Measuring plan progress; Updating the plan; A project on writing a business plan.

**Unit 9: Enterprise Management****7 hrs**

Managing Market:- Concept of marketing and marketing management; Market segmentation and targeting; Marketing mixes, Product life cycle strategies.

Managing Finance:- Determination of revenues, costs and profit; Sources of Funds:- Equity and debt; Sources of equity capital:- Personal savings, Friends and family members, Angels, Partners, Venture capital companies and Public stock sale; Short-term sources of debt financing; Long term sources of debt financing; Internal methods of financing.

Managing Growth:- To grow or not to grow, Hitting the growth wall; Venture expansion strategies:- Joint ventures, Acquisitions, Mergers, Hostile takeovers, Leveraged buyouts and franchising.

**Unit 10: Legal Issues****4 hrs**



Major forms of ownership:- Sole proprietorship, Partnership, Limited liability company and Joint venture; Advantages and disadvantages of the these forms of ownership; Need for Lawyer, Intellectual property; Patent Requirements; Type of patents; The Patent Application; Patent infringement; Trademarks; Registering the trademark; Copyrights, Trade Secrets

### **Unit 11: Ending the Venture**

**4 hrs**

Warning signs of bankruptcy; Surviving bankruptcy; Reorganization; Liquidation; Succession of business:- Transfer to family members or to non-family members; Harvesting strategies:- Direct sale, Employee stock option and Management buyouts.

### **References:**

1. Robert D. Hisrich and Michael P. Peters, Dean A Shepherd, **Entrepreneurship (Seventh Edition)**. Tata McGraw-Hill Publishing Company, New Delhi, India,2008.
2. Donald F. Kuratko and Richard M. Hodgetts, **Entrepreneurship: Theory, Process, Practice(7<sup>th</sup> edition)**. Thomson South-Western, India,2007.
3. S. S. Khanka, **Entrepreneurial Development**. S. Chand and Company Limited, New Delhi, India,2000.
4. David H. Holt, **Entrepreneurship: New Venture Creation**. Prentice Hall, 1991
5. P. C. Jain, **Handbook for New Entrepreneurs**. Entrepreneurs Development Institute of India

# Research Methodology

MEM 115

**Semester: First**

**Credit Hours: 3**

## General Objectives:

General objectives are to:

- make students able to comprehend the fundamentals of research;
- facilitates student to carry out their research activities independently; and
- to familiarize the students with the techniques of Research Methodology .

## Specific objectives:

Specific objectives of this unit are to:

- facilitate students to write their dissertation with appropriate research methodology;
- familiarize students regarding the importance of research methodology to carry out any kind of research; and
- enable students to acquire knowledge on different dimensions of research methodology.

## Course Contents

### Unit 1: Introduction to research

**3 hrs.**

Meaning and importance of research; Classification of research; The Research Process; Qualities of good research; Ethical Issues Governing Research Function; Inductive and deductive reasoning; Qualitative Vs Quantitative Research.

### Unit 2: Literature Review

**3 hrs.**

Need; Procedure- Search for existing literature, Review the literature selected, Develop a theoretical and conceptual framework, Writing up the review.

### Unit 3: Research Design

**4.5 hrs.**

Meaning, purpose, principles and Importance of Research Design; Types of research design; Features of a good research design; Exploratory research design; Descriptive research design; Experimental research design; Qualitative research design; Quantitative research design; Variables; Hypothesis; Errors Affecting Research Design; Issues Governing Research Design; Formulating research problems and objectives; Formulating research questions; Hypothesis setting-null hypothesis and alternative hypothesis; Hypothesis testing-logic and importance; Research Modeling: Types of Models, Model building and stages, Heuristic and Simulation modeling.

### Unit 4: Development of Research Proposal

**3 hrs.**

Meaning and Importance of research proposal ; the Development of Research Issues Governing Proposal; Writing a research report- Developing an outline; Key elements of

research proposal- Objective, Introduction, Design or Rationale of work, Experimental Methods, Procedures, Measurements, Results, Discussion, Conclusion, Referencing and various formats for reference writing of books and research papers; Publications in Research journals

**Unit 5: Sampling Designs** **4.5 hrs.**

Concepts of statistical population; Sampling Vs. Census; Sampling Frame; Advantage of sampling; Sampling error; Characteristics of a good sample; Sampling Techniques; Issues Governing Sampling Decisions; Determination of sample size; Sampling method ( probability sampling and non-probability sampling); Characteristics of good sample; Probability Sample – Simple Random Sample, Systematic Sample, Stratified Random Sample & Multi-stage sampling. Non Probability Sample – Judgment, Convenience, Quota & Snowballing methods.

**Unit 6: Attitude Scaling Techniques** **3 hrs.**

Concept of Scale – Rating Scales viz. Likert Scales, Semantic Differential Scales, Constant Sum Scales, Graphic Rating Scales; Ranking Scales – Paired Comparison & Forced Ranking.

**Unit 7: Data management** **3 hrs.**

Meaning, Importance, and Types of Data; Secondary and primary data- definition, sources, characteristics, advantages and disadvantage; Advantages and disadvantages of primary data over secondary data; Methods of Data Collection-Questionnaire Construction, Pre-testing of questionnaire, Personal Interviews, Telephonic Interview, Mail Survey, Email/Internet survey; Steps of Data processing and Presentation.

**Unit 8: Data Reduction and Analysis** **3 hrs.**

Meaning and Importance of Data Reduction; Data Reduction Process; Selected Techniques of Data Analysis ; Tabulation, analysis and interpretation of data; Editing, decoding and classification of data; Preparation of tables; Scaling techniques; Graphic and diagrammatic representation of data; Univariate analysis (frequency tables, bar charts, pie charts, percentages), Bivariate analysis – Cross tabulations and Chi-square test including testing hypothesis of association.

**Unit 9: Formatting the report** **1.5 hrs.**

Formatting a Report; Developing the Final Draft; Preparing for Citation and Referencing; Making an Oral Presentation of a Report

**Unit 10: Socio-Ethical issues in Research** **1.5 hrs.**

Issues governing Research Function; Incorporating Socio-Ethical Issues in Research; Impact of Social Issues in Research.

**Suggested Readings**

1. Cooper & Schindler (2004). Business Research Methods. New Delhi: Tata McGraw-Hill Publishing Co
2. Kothari, C.R. (2008). Research Methodology-Methods and Techniques, New Age International Publishers, New Delhi.
3. Donald Cooper & Pamela Schindler (2006). Business Research Methods (9<sup>th</sup> edition), TMGH.

4. Alan Bryman & Emma Bell (2007). *Business Research Methods*, Oxford University Press.