

# दिल्ली विश्वविद्यालय

## UNIVERSITY OF DELHI

Bachelor of Arts (Hons) Business Economics

(Effective from Academic Year 2019-20)



**Revised Syllabus as approved by**

Date:	Academic Council	No.
Date:	Executive Council	No.

**Applicable for students registered with Regular Colleges, Non Collegiate  
Women's Education Board and School of Open Learning**

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## Preamble

The objective of any programme at Higher Education Institute is to prepare their students for the society at large. The University of Delhi envisions all its programmes in the best interest of their students and in this endeavour it offers a new vision to all its Under-Graduate courses. It imbibes a Learning Outcome-based Curriculum Framework (LOCF) for all its Under Graduate programmes.

The LOCF approach is envisioned to provide a focused, outcome-based syllabus at the undergraduate level with an agenda to structure the teaching-learning experiences in a more student-centric manner. The LOCF approach has been adopted to strengthen students' experiences as they engage themselves in the programme of their choice. The Under-Graduate Programmes will prepare the students for both, academia and employability.

Each programme vividly elaborates its nature and promises the outcomes that are to be accomplished by studying the courses. The programmes also state the attributes that it offers to inculcate at the graduation level. The graduate attributes encompass values related to well-being, emotional stability, critical thinking, social justice and also skills for employability. In short, each programme prepares students for sustainability and life-long learning.

The new curriculum of B.A. (Honours) Business Economics offer s theoretical and analytical skills to the students so that they will analyse and interpret data for effective decision making in the corporate world or be able to pursue higher studies at the Master's level in Business Economics, Economics and Management. In the rapidly changing globalised market scenario, the need was felt to equip students with the capability to handle consumer, economic , financial and big data using modeling and other techniques to understand the dynamic of economics and the business world.

This revised syllabus comprising topics relating to economics, quantitative techniques and business have been included in the three-year, six-semester module, giving wider coverage to the course contents, better organisation to enable easier assimilation of the same by the students, and a more professional touch to the course.

The University of Delhi hopes the LOCF approach of the programme B.A. (Hons) Business Economics will help students in making an informed decision regarding the goals that they wish to pursue in further education and life, at large.

## **1. Introduction to Bachelor of Arts (Hons) Business Economics**

Introduced in 1995, the Bachelor of Arts (Hons) Business Economics programme is a perfect blend of practical, analytical and theoretical tools so as to imbibe proficient capabilities in students to analyse data and information for sound policy formulation and decision making.

Business Economics is essentially an application based inter-disciplinary approach to tackling business problems. The academic orientation of the course has been designed to create a strong orientation towards seamless applicability of economics and related tools in the various functions of a business enterprise. The course equips students with tools and principles relating to subjects such as Statistics, Finance, Marketing, Economics, Econometrics with relevant software to keep abreast with the changing economic scenario and globalisation of business. In addition, the curriculum design includes discipline specific papers like Environmental Economics which cherishes the need of the hour to protect the ecology and biodiversity to achieve sustainable growth while achieving business objectives.

The course also enables the students to acquaint themselves with the actual business environment through eight weeks summer internship, case-studies and industry interactions. Today the course boasts of a flourishing alumni presence in all kinds of industries offering an attractive mix of intellectual growth, corporate exposure and develops world class professionals with a potential to make a mark on the global economy.

## **2. Learning Outcome-based Curriculum Framework in B.A. (Hons) Business Economics**

### **2.1. Nature and extent of the Programme B.A (Hons.) Business Economics**

1. The programme is an attempt to develop capabilities in students to take effective decisions as managers of business organisations operating in the rapidly changing global economic environment.
2. The programme is an amalgamation of foundation and application papers in Business and Economics
3. The scope of the programme extends to topics in statistics, accountancy, mathematics, corporate finance, microeconomics, macroeconomics, marketing, business law, econometrics in the context of international business environment.

### **2.2. Aims of Bachelor's degree programme in B.A.(HONS.) Business Economics**

1. To develop an in-depth understanding of theoretical constructs of economics, business management and research methods.
2. To equip students with skills that enable them to perform as managers, economists and researchers in the areas of finance, marketing, econometrics, entrepreneurial and start-up skills.
3. To foster research acumen through the use of relevant software's, econometric modeling, economic/financial/consumer data and live projects.
4. Enhance the ability of students to analyse and interpret data to take effective managerial decisions in organizational departments.

### **3. Graduate Attributes in B.A(Hons) Business Economics**

#### **1. Disciplinary knowledge**

Students will become capable of demonstrating comprehensive knowledge and understanding of the business and economic disciplines that are an integral part of this course.

#### **2. Communication Skills**

Students shall develop the ability to express thoughts and ideas effectively in writing and orally; confidently share their views; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner using appropriate software.

#### **3. Critical thinking**

Students shall develop the capability to apply analytic thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; and formulate coherent arguments

#### **4. Problem solving**

Students shall have the capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems, rather than replicate curriculum content knowledge and apply their learning to real life situations.

#### **5. Analytical reasoning**

Students shall develop ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyse and synthesis data from a variety of sources; draw valid conclusions and support them with evidence and examples, and shall be capable of addressing opposing viewpoints.

#### **6. Research-related skills**

Students shall develop a sense of inquiry and capability for asking relevant/appropriate questions, synthesising and articulating; Ability to recognise cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-

effect relationships; ability to plan, execute and report the results of an experiment or investigation.

7. Cooperation/Team work

Students shall develop the ability to work effectively and respectfully with teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team. Thereby, they would develop the skills to work in similar corporate teams /projects.

8. Information/digital literacy

Students shall learn to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.

9. Moral and ethical awareness/reasoning

Students will learn to embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. They shall avoid unethical behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopting objective, unbiased and truthful actions in all aspects of work.

10. Leadership readiness/qualities

Students shall develop a practical capability for mapping out the tasks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.

#### **4. Qualification Description for graduates in B.A(Hons) Business Economics**

- Demonstrate
  - i) a systematic, in depth knowledge of the Macro and Micro Economic environment that a business may face, understanding and applications of the established theories, principles and concepts of business and economics.
  - ii) procedural knowledge that creates economists, business managers, researchers, teachers, government and public service in a variety of industries such as banking, finance, marketing, advertising, consulting, forecasting and research.
  - iii) skills in areas related to specializations in finance, marketing, econometrics, advanced economics and start-ups.
- Demonstrate project based skills in collection of quantitative and qualitative data drawing on a wide range of primary and secondary sources; analysis and interpretation of data using econometric methodologies.
- Use knowledge, understanding and skills for critical assessment of a wide range of business and economic scenarios.
- Communicate the results of studies undertaken in projects pertaining to different facets of business and economics.
- Apply one's disciplinary knowledge and skills attained to business and economics contexts and to identify and analyse problems and issues and seek solutions to real-life problems.
- Demonstrate subject-related skills that are relevant to consulting, finance, banking, marketing, advertising and research based employment opportunities.



## **5. Programme Learning Outcome for B.A(Hons) Business Economics**

- (i) The course being a blend of management, quantitative skills and economics disciplines, students graduating from this programme are expected to possess both subject specific and generic skills.
- (ii) Recognise the importance of key theories and practices in the broad areas of business and economics.
- (iii) Conduct quantitative assessment of business situations keeping in line with professional standards and moral values and recommend appropriate courses of action which satisfies all stakeholders.
- (iv) Analyze & synthesize information as well as data across disciplines/functions in order to evaluate business opportunities from local, global and economic perspectives to make sound business decisions.
- (v) Demonstrate professional skills so as to work more effectively with others by understanding and recognizing the importance of diversity, leadership and team skills.
- (vi) Core competencies such as
  - (i) communication skills required to articulate thoughts and ideas effectively using oral and written skills.
  - (ii) to present information and explanations using appropriate software
  - (iii) ethical integrity
- (vii) Demonstrate computational skills and data modelling skills required in handling economic and business related problems.

## 6. Structure of B.A. (HONS.) Business Economics

### 6.1 Credit Distribution for B.A (Hons.) Business Economics

Course	Credits*	
	Theory + Practical	Theory +Tutorial
<b>I. Core Course: 14 Papers</b> (6 credit) Theory Practical/Tutorial	$14 \times 4 = 56$ $14 \times 2 = 28$	$14 \times 5 = 70$ $14 \times 1 = 14$
<b>II. Elective Courses: 8 Papers</b> (6 credit) <b>A1. Discipline Specific Elective</b> (4 papers) Theory Practical/Tutorial <b>A2. Generic Electives</b> (4 papers) Theory Practical/Tutorial	$4 \times 4 = 16$ $4 \times 2 = 08$  $4 \times 4 = 16$ $4 \times 2 = 08$	$4 \times 5 = 20$ $4 \times 1 = 04$  $4 \times 5 = 20$ $4 \times 1 = 04$
~ Optional dissertation or project work in place of one Discipline Specific Elective (6 credit) in VI semester.		
<b>III. Ability Enhancement Courses</b> <b>1. Ability Enhancement Compulsory courses (AECC)</b> (2 paper of 2 credit each) Environmental Science English\Hindi MIL Communication <b>2. Skill Enhancement Course</b> <b>(Minimum 2, Maximum 4)</b> (2 papers of 4 credit each)	$2 \times 4 = 08$  $2 \times 4 = 08$	$2 \times 4 = 08$  $2 \times 4 = 08$
<b>Total Credits</b>	<b>148</b>	<b>148</b>

\*Wherever practical is mentioned there will be no tutorial and vice-versa.

## 6.2 Semester-wise Distribution of Papers

### B.A. (HONS.) BUSINESS ECONOMICS:

#### Three-Year (Six Semesters)

#### CBCS Programme

Paper Code	Paper Title	Paper Type
<b>Semester I</b>		
AECC-1	Environmental Studies	Ability Enhancement – Compulsory
BBE C1	Microeconomics and Applications- I	Core Discipline
BBE C2	Accounting for Managers	Core Discipline
BBE GE I	Any One from the List of Generic Elective	Generic Elective
<b>Semester II</b>		
AECC-2	Business Communication (Language: English/MIL)	Ability Enhancement – Compulsory
BBE C3	Microeconomics and Applications - II	Core Discipline
BBE C4	Mathematics for Business Economics	Core Discipline
BBE GE II	Any One from the List of Generic Elective	Generic Elective
<b>Semester III</b>		
BBE C5	Macroeconomics and Applications – I	Core Discipline
BBE C6	Statistics for Business Economics	Core Discipline
BBE C7	Corporate Finance	Core Discipline
BBE GE III	Any One from the List of Generic Elective	Generic Elective
BBE SEC I	Any ONE from the list of Skill Enhancement Course (SEC)	Skill Enhancement Course
<b>Semester IV</b>		
BBE C8	Macroeconomics and Applications – II	Core Discipline
BBE C9	Basic Econometrics	Core Discipline
BBE C10	Marketing Management	Core Discipline
BBE GE IV	Any One from the List of Generic Elective	Generic Elective
BBE SEC II	Any ONE from the list of Skill Enhancement Course (SEC)	Skill Enhancement Course
<b>Semester V</b>		
BBE C11	Indian Financial System	Core Discipline
BBE C12	Organization Behavior	Core Discipline
BBE DSE I	Any One from the List of DSE	Discipline Specific Elective
BBE DSE II	Any One from the List of DSE	Discipline Specific Elective
<b>Semester VI</b>		
BBE C13	Industrial Organisation	Core Discipline
BBE C14	Legal Aspects of Business	Core Discipline
BBE DSE III	Any One from the List of DSE	Discipline Specific Elective
BBE DSE IV	Any One from the List of DSE	Discipline Specific Elective
<b><i>Project Work/ Dissertation in lieu of one of the Elective Core discipline papers</i></b>		

### List of Skill Enhancement Courses (SEC)

Paper Code	Paper Title
BBE SEC 1	Quantitative Techniques for Management
BBE SEC 2	Personality Development & Interpersonal Skills
BBE SEC 3	Research Methods and Statistical Packages
BBE SEC 4	Entrepreneurial Skills

### List of Discipline Specific Elective Course (DSE)

*Note: A Student is Free to Choose Any FOUR Papers*

Paper Code	Paper Title
<b>Group 1: Finance</b>	
BBE DSE 1A	Security Analysis and Portfolio Management
BBE DSE 1B	Derivatives and Currency Markets
<b>Group 2: Quantitative Techniques</b>	
BBE DSE 2A	Applied Econometrics
BBE DSE 2B	Topics in Mathematics
<b>Group 3: Economics</b>	
BBE DSE 3A	Economic Growth & Development
BBE DSE 3B	Indian Economy
<b>Group 4: Ventures</b>	
BBE DSE 4A	New Ventures Planning and Implementation
BBE DSE 4B	Strategic Management
<b>Group 5: Marketing</b>	
BBE DSE 5A	Consumer Behaviour and Advertising
BBE DSE 5B	Marketing Analytics
<b>Group 6: Applied Economics</b>	
BBE DSE 6A	International Economics
BBE DSE 6B	Environmental Economics

### List of General Elective papers –Interdisciplinary

Paper Code	Paper Title
BBE GE 1	Dynamics of New Ventures
BBE GE 2	Digital Marketing
BBE GE 3	Statistical Techniques
BBE GE 4	Contemporary Issues in Indian Economy
BBE GE 5	Fundamentals of Finance for Business
BBE GE 6	International Business

## **Courses for Programme B.A (Hons.) Business Economics**

# Core Papers

## **Micro Economics and Applications-I**

### **(BBE C1)**

#### Course Objective

This course aims at inculcating basic understanding of fundamentals of microeconomics and its applications. It will enable students to apply microeconomic concepts to consumer and producer behavior in real world.

#### Course Learning Outcomes

- i) To analyse the market behaviour by understanding the basic concepts of micro economics.
- ii) To provide students with an understanding of the standard theoretical analysis of consumer and producer behaviour.
- iii) To know the applications of theory of production and cost structure
- iv) To study various forms of market structure and how they work to allocate resources and the optimal decision making for efficient outcome.
- v) To relate the concept with the corporate world example economies of scale

#### Unit 1: Basic Concepts

Scarcity and Choice; Production possibility frontier, Positive and normative economics; constructing a model, scientific method; concepts of opportunity cost, rate of growth, and of total, average and marginal functions.

Demand and Supply: Market demand, elasticity, shifts and movements, Applications of Demand, Supply and elasticity. Revenue and Expenditure, elasticity and marginal revenue; income elasticity of demand; consumer surplus.

#### Unit 2: Consumer Choice

Cardinal theory, derivation of demand in case of one or more goods; Ordinal theory: Budget sets and Preferences under different situations. Indifference curves: the rate and elasticity of substitution. Consumer equilibrium; effects of change in prices and income; Engels curve. Derivation of demand curve. Income and substitution effects: Hicks and Slutsky. Applications of indifference curves to other economic problems.

Revealed preference theory: WARP, SARP and the derivation of demand curve.

### Unit 3: Production

Production functions: single variable - average and marginal product, variable proportions, stages of production. Two variables - isoquants, returns to scale and to a factor; factor prices; cost minimization and output maximization; Elasticity of substitution. Expansion path and the cost function.

### Unit 4: Cost

Concept of economic cost; Short run and long run cost curves; increasing and decreasing cost industries; envelope curve; L-shaped cost curves; economies of scale. Prices as parameters: Firm equilibrium and profit; short and long-run supply function; taxes and subsidies.

### Unit 5: Forms of Market Structure

Perfect competition: Equilibrium of the market. Long run industry supply: producer and consumer surplus. Applications: effects of taxes and subsidies.

Monopoly: Equilibrium; supply; Multiplant firm; monopoly power; deadweight loss; price discrimination; bundling; two-part tariffs. Monopolistic Competition: Product differentiation; equilibrium of the firm in the industry-with entry of new firms and with price competition. Comparison with pure competition.

### References

#### Essential Readings:

Latest editions of the following to be used:

1. Browning, EK. & Zupan, "Microeconomic Theory and Applications", Wiley
2. Mankiw G N, "Principles of Economics", John Wiley & Sons
3. Pindyck R S. & Rubinfeld D L, "Microeconomics", PHI
4. Samuelson & Nordhaus , "Microeconomics", McGraw-hill
5. Varian H. R, "Intermediate Microeconomics", W. W. Norton & Company

#### Suggested Readings:

Latest editions of the following to be used:

1. Arthur O Sullivan and Steven M.S, "Microeconomics- Principles, Applications and Tools", Pearson
2. Joseph E.S and Carl E.W, "Principles of Microeconomics", W.W. Norton & Company



3. Lipsey & Chrystal, “Economics” Oxford University Press.
4. Robert E. Hall and Dr. Marc L, “Microeconomics- Principles and applications”, Cengage Learning

#### Teaching Learning Process

Case Discussions about market structure, consumer behaviour and firms must be encompassed in teaching methodology. Theoretical concepts backed by relevant real world examples and case studies are highly recommended.

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

#### Keywords

Economic Models, Cardinal Theory, Ordinal Theory, Revealed Preferences, Costs, Returns to Scale, Market Structure.

## **Accounting for Managers**

**(BBE C2)**

### Course Objective

The course aims at acquainting students with the fundamentals of financial, cost & management accounting and their various techniques while providing a thorough grounding in the key principles of accounting.

### Course Learning Outcomes

By the end of this course, the students shall

- i) Comprehend company annual reports and understand the flow of information contained therein
- ii) Develop analytical skills associated with the interpretation of accounting reports
- iii) Become capable of systematically applying cost & management accounting concepts in real life situations
- iv) Develop judgmental skills associated with the use of accounting information in decision making

### Unit 1: Introduction to Accounting: The Basic Framework & Fundamentals

Accounting: Meaning, need, functions, advantages & limitations. Types and Branches of Accounting. Accounting as an Information System: Users of accounting information and their needs. Qualitative characteristics of accounting information. Basis of Accounting: Cash and Accrual.

Accounting Principles (GAAP). Accounting Standards. Overview of International Financial Reporting Standards (IFRS) and Ind AS.

### Unit 2: Understanding Financial Accounting through Double entry Book Keeping

Data entry in primary and secondary books of accounts. Preparation of Trial balance. (Overview only).

Preparation of Final Accounts with adjustments (Sole Proprietorship): Trading and Profit and Loss account, Balance Sheet.

Understanding financial statements of a Joint Stock Company: Format of Income statement and Position Statement as per revised schedule VI of the Companies Act 2013.

### Unit 3: Cost and Management Accounting

Concept of cost, cost vs. expense, cost classification, cost behavior, elements of cost and cost determination. Basics of cost and management accounting. Cost Control, Cost Reduction and Cost Management. Preparation of Cost Sheet.

Determination of income based on cost segregation: Absorption Costing and Variable Costing; Comparison of Absorption Costing and Variable Costing; Reconciliation of Absorption Costing Profit and Variable Costing Profit; Benefits and Shortcomings of Variable & Absorption Costing.

### Unit 4: Accounting Information Interpretation & Financial Analysis

Financial Statements: Meaning and types, importance and limitations. Analysis and interpretation of financial statements.

Techniques of Financial Analysis: Ratio Analysis: Calculation of various ratios with emphasis on their interpretation. Cash Flow Statement and analysis: Preparation of Cash Flow Statement (Indirect method) as per Accounting Standard (AS): 3 (Revised) (ICAI)

### Unit 5: Accounting for Performance Evaluation, Planning and Control

Cost Volume Profit Analysis: Concepts and Techniques; Contribution Margin Analysis; Break even Analysis; Margin of safety; Angle of incidence; Applications and Limitations of CVP Analysis.

Budgeting and Budgetary control: Concept and types. Preparation of master budget, fixed & flexible budgets. Concept of Zero Base Budgeting.

Accounting information for Decision Making: Relevant costs in making decisions. Special sales order problem, shut down or continue decision, Make or Buy decision, further processing of joint products decision, product mix decision, evaluation of export order or new markets and new product decision.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Gupta R.L “Introductory Corporate Accounting”, Sultan Chand & Sons.
2. Maheshwari S.N, “Accounting for Management”, Vikas Publishing House
3. Monga, J.R., “Financial Accounting Concepts and Applications”, Mayur Paperbacks, New Delhi.
4. Rustagi R.P, “Fundamentals of Management Accounting”, Taxmann

### Suggested Readings:

Latest editions of the following to be used:

1. Gupta .& Agarwal , “Grewal’s Accountancy”, S.Chand
2. Horngren, Surdem, Stratton, Burgstahler, Schatzberg, “Introduction to Management Accounting”, PHI Learning.
3. Monga J.R, "Basic Corporate Accounting", Mayur Paperback
4. Sahoo B.P and Varshny J.C, “Accounting for Managers”, Wisdom Publications.
5. SinghviBodhanwala, "Management Accounting" -Text and cases, PHI Learning
6. Singh S, “Management Accounting”, PHI Learning
7. Stice & Stice, “Financial Accounting Reporting and Analysis”, Cengage Learning

### Teaching-Learning Process

The students must be given exposure to real-life situations involving applications of accounting concepts through various examples and class assignments.

Students should be encouraged to read and analyze company annual reports including financial statements and notes to financial statements.

The primary focus shall be on the conceptual knowledge rather than the procedural aspects. For example, students must be encouraged to understand the why behind various accounting principles, let us say’ Why do we need the going concern assumption?’ and so on. Emphasis shall be on clarifying the basic concepts for example, the difference between expense and cost.

Teachers should strive to make the process of imparting accounting knowledge more and more interesting.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

### Keywords

Financial Statements, Income Statement, Ratio Analysis, Cash Flow Analysis, Accounting Standards and Budgets.

## **Micro Economics and Applications-II**

**(BBE C 3)**

### Course Objective

This course aims at inculcating basic understanding of fundamentals of microeconomics and its applications under specific situations like oligopoly, duopoly and monopoly market conditions. It will enable students to apply micro economic concepts to consumer and producer behavior in real world.

### Course Learning Outcomes

- i) To analyse a firms profit maximising strategies under the various oligopoly models.
- ii) Explaining the role of game theory in understanding the behaviour of oligopolies and its relevance in the present scenario.
- iii) To understand efficient allocation of inputs through General equilibrium analysis.
- iv) To analyse the conditions of economic welfare and analyse the factors that determine welfare.
- v) Identify the causes of market failure to provide efficient outcome.

### Unit 1:Oligopoly and Game Theory

Cournot model and reaction curves; Stackelberg's model, Bertrand model; quantity leadership; price leadership; Non collusive stable equilibrium; simultaneous quantity setting; collusion; cartels; Concepts of Game Theory: Dominant strategies and Nash Equilibrium; Mixed strategies; Prisoner's Dilemma. Specification of oligopoly models in game theoretic terms. Repeated Games and Entry Deterrence.

### Unit 2: Factor Markets

Factor pricing in the case of single and many variable factors; demand for labor in a product market with perfect competition and monopoly. Monopsony, bilateral monopoly and role of labour unions. Economic rent and quasi rent.

### Unit 3:General Equilibrium

Edgeworth box: 2 good, 2 factor, 2 consumer analysis and Pareto optimality conditions; market trade; Walras Law; Relative prices; Equilibrium and efficiency; Grand Utility possibility frontier. Implication of first and second welfare theorem.

## Unit 4: Welfare

Social welfare function: welfare maximization; Fair allocation; Envy and equity. Arrow's Impossibility Theorem.

## Unit 5: Market Failure

Externalities: Environment and its impact on market, Common property resources and public goods, Asymmetric Information and Signaling, Joint production and consumption.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Hal R Varian, “Intermediate Microeconomics”, W. W. Norton & Company
2. Pindyck, R.S. & Rubinfeld, D.L, “Microeconomics” PHI

### Suggested Readings:

Latest editions of the following to be used:

1. John P. Gold, C.E Ferguson, Edward P.Lazear, “Micro Economic Theory”, McGraw-Hill.
2. Joseph E. S and Carl E. W, “Principles of Microeconomics”, W. W. Norton.
3. Koutsoyiannis, “ Modern Micro economics”, Palgrave Macmillan U.K.
4. Robert E. Hall and Marc Lieberman, “Microeconomics Principles and applications”, Cengage Learning.

## Teaching Learning Process

Case Discussions about market structure, consumer behaviour and firms must be encompassed in teaching methodology. Theoretical concepts backed by relevant real world examples and case studies are highly recommended.

## Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Monopoly power, Bundling, two-part tariffs, Dominant strategies, Nash Equilibrium, Prisoner's Dilemma, Economic rent, Pareto optimality, Externalities, social welfare function.



## **Mathematics for Business Economics**

**(BBE C 4)**

### Course Objective

The objective of this course is to provide instruction on basic mathematics that enables the study of economic theory and business applications at the undergraduate level. This shall be required for the teaching of the courses on microeconomic theory, macroeconomic theory, statistics, and econometrics set out in this syllabus. This is not a course in Mathematical Economics, but economic and business models are a means for illustrating the method of applying mathematical techniques to economic theory and business applications in general. The level of complexity at which the material is to be taught is indicated by the contents of the prescribed main textbook.

### Course Learning Outcomes

Students after completing this course will be able to:

- i) Build its mathematical base which is necessary for other courses.
- ii) Use its mathematical knowledge in business decision making.
- iii) Make and refute arguments by her mathematical understanding.

### Unit 1: Preliminaries and functions of a single variable

Logic, proofs and set theory; relations; functions and their properties; number systems. Functions of one variable: sequences, series and convergence; real functions: quadratic, polynomial, power, exponential, logarithmic; graphs; continuity; differentiable functions: characterizations, properties with respect to various operations and applications; second and higher order derivatives: properties and applications.

### Unit 2: Single-variable optimization

Geometric properties of functions: convex functions, their characterizations and applications; local and global optima: geometric characterizations, characterizations using calculus and applications.

### Unit 3: Linear algebra

Vector spaces: algebraic and geometric properties, scalar products, norms, orthogonality; linear transformations: properties, matrix representations and elementary operations; systems of linear equations: properties of their solution sets; determinants: characterization, properties and applications.

### Unit 4: Functions of several real variables

Geometric representations: graphs and level curves; differentiable functions: characterizations, properties with respect to various operations and applications; second order derivatives: properties and applications; the implicit function theorem, and application to comparative statics problems; homogeneous and homothetic functions: characterizations and applications.

### Unit 5: Multi-variable optimization

Convex sets; geometric properties of functions: convex functions, their characterizations, properties and applications; further geometric properties of functions: quasi concave functions, their characterizations, properties and applications; unconstrained optimization: geometric characterizations, characterizations using calculus and applications; constrained optimization with equality constraints: geometric characterizations, lagrange characterization using calculus and applications.

### References

#### Essential Reading:

Latest editions of the following to be used:

1. Alpha C. Chiang and Kevin Wainwright, “Fundamental Methods of Mathematical Economics”, Mc Graw Hill Education.
2. K. Sydsaeter and P. Hammond, “Mathematics for Economic Analysis”, Pearson.

### Suggested Readings:

Latest editions of the following to be used:

1. Edward T. Dowling, "Introduction to Mathematical Economics", Tata McGraw-Hill.
2. Michel Hoy, John Livernois, Chris McKenna, Ray Rees, Thanasis Stengos, "Mathematics for Economics", Prentice Hall
3. RGD Allen, "Mathematical Analysis for Economists", Macmillan.

### Teaching Learning Process

The students would be taught with classroom teaching and problem solving exercises at regular intervals. The problems would include case studies taken from real time economic data at the industry and aggregate level.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

### Keywords

Set theory, Calculus, Differentiation, Concavity, Convexity, Optimisation

## **Macro Economics and Applications-I**

**(BBE C 5)**

### Course Objective

This course aims at inculcating basic understanding of fundamentals & functioning of closed economy. It will enable students to identify major macroeconomic issues, challenges and their solutions.

### Course Learning Outcomes

Student will be able:

- i) To understand basic concept of circular flow of income in open and closed economies and different approaches to measurement of National Income.
- ii) To be able to differentiate between various national income aggregates, stocks and flows, nominal and real macroeconomic variables.
- iii) To identify and derive money market and goods market equilibrium conditions and understand the interaction between the two.
- iv) To apply closed economy IS-LM model for effectiveness of Fiscal and Monetary policies in the short run.
- v) To derive aggregate demand and aggregate supply schedules and use it to differentiate between effects of policy in short run and medium run
- vi) To analyze closed economy policy mix and its applicability to developing economies.
- vii) To identify medium run impact of inflation and the nature of the inflation-unemployment trade-off.
- viii) To understand root causes of the great depression & its after effects.
- ix) To introduce students to latest developments in the field of macroeconomics using real business cycle model.

### Unit 1: An Introduction to Basic Macroeconomics Concepts

Circular flow of Income in Closed and Open Economies; National Income Accounting :Definition and differences between various national income aggregates - Gross Domestic Product (GDP),Gross National Product (GNP), Net National Product, Personal Income, Personal Disposable Income; Measurement of GDP : The Product, Income and Expenditure

Approaches and equivalence of the three; National Income Identities in open and closed economies : Components of GDP-Consumption, Investment, Government Expenditure, Net Exports; Real and Nominal GDP: GDP Deflator and important price indices – CPI and WPI.

#### Unit 2: Keynesian Theory of Income Determination

The Simple Keynesian Model : The Keynesian Consumption function, concept of Aggregate Demand, equilibrium income determination and concept of multiplier; the Savings function, alternative formulation of goods market equilibrium as savings-investment equality and Paradox of Thrift.

The IS-LM Model : Derivation and properties of IS curve, Demand and supply of money, Money multiplier, Derivation and properties of LM curve, Monetary and Fiscal policy through IS-LM framework.

#### Unit 3: Aggregate Supply and Aggregate Demand Model

The AD Curve : Derivation, slope, movement along and shifts of the AD curve; The AS Curve–Derivation and Slope in Short run and Long Run; Equilibrium in the AS-AD framework : The effects of Fiscal and Monetary Policy and the Neutrality of Money in the Long run; Effects of Oil Price Shocks in AS-AD Framework.

#### Unit 4: Inflation, Unemployment and The Phillips Curve

Defining and Identifying Unemployment and concept of Natural Rate of Unemployment; Determinants of Inflation; The Short-Run Tradeoff between Inflation and Unemployment; the Short run and long run Phillips curve; Relation between the Phillips Curve and the AS Curve; The Cost of Reducing Inflation: The Sacrifice Ratio, Rational Expectations and the Possibility of Costless Disinflation.

#### Unit 5: Recent Development in Macroeconomics

Economics of Great Events-Depression, Hyperinflation and Deficits Advances in Business Cycle Theory. Real Business Cycles & New Keynesian Economics.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Blanchard, O, “Macroeconomics”, Pearson.
2. David C. Colander, “Macroeconomics”, McGraw-Hill New Delhi.
3. Dornbusch Rudiger, Fischer Stanley and Startz Richard, “Macroeconomics”, McGraw-Hill.
4. D’Souza, E, “Macroeconomics”, Pearson.
5. Goodwin, Harris, Nelson, Roach & Torras, “Macroeconomics in Context”, Routledge Taylor and Francis Publication.
6. N. Gregory Mankiw , “Macroeconomics”, Worth Publishers.

### Suggested Readings:

Latest editions of the following to be used:

1. Chugh, S. (2015) “Modern Macroeconomics”, MIT Press.
2. D N Dwivedi (2015), “Macroeconomics- Theory and Policy”, McGraw-Hill.
3. Sikdar, S. (2012) “Principles of Macroeconomics”, Oxford University Press.
4. Ray, P. (2013), “Monetary Policy”, Oxford University Press.
5. Froyen (2013), “Macroeconomics Theories and Policies”, Pearson.
6. The Core Team (2017), “The Economy – Economics for a Changing World”, Oxford University Press, Oxford. (Freely Available at :<https://core-econ.org/the-economy/book/text/0-3-contents.html>).
7. Government of India (GOI) (Latest Year), “Economic Survey”, Ministry of Finance: New Delhi.

### Teaching Learning Process

Group Discussion on specific macroeconomic challenges like inflation, unemployment, economic growth. Assignments on preparation of country specific macroeconomic profile from different database are highly recommended to understand macroeconomic parameters. Workshop/ seminar on major macroeconomic issues pertaining to Indian economy.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

### Keywords

Closed Economy, Goods Market, Money Market, Monetary Policy, Fiscal Policy, Phillips Curve, Business Cycle.

## **Statistics for Business Economics**

### **(BBE C 6)**

#### Course Objective

The objective of this course is to provide keys and tools of statistical concepts which are very useful and often indispensable in understanding the world around us. This shall be required for the teaching of the courses on Mathematics and Econometrics set out in this syllabus. The course is so designed to present an introduction to probability and statistics using a background of calculus. Because econometrics deals with the study of unknown variables, the course lays emphasis on estimation and hypothesis testing.

#### Course Learning Outcomes

Student will be able to:

- i) Master the Fundamentals of Probability Theory
- ii) Learn the concepts and tools of Sampling and Estimation
- iii) Develop skills in statistical computing, statistical reasoning and inferential Methods
- iv) Comprehend and analyze real data like real indices and provide students with both descriptive and analytical methods for dealing with the variability in observed data
- v) Make intelligent judgments and informed decisions in the presence of uncertainty and variation
- vi) Clarifying and quantifying natural phenomena.

#### Unit 1: Understanding Data

Measures of Central Tendency and Dispersion, Skewness, Kurtosis, Covariance and Correlation.

#### Unit2: Probability Theory and Probability Distributions

Axioms of probability; Review of counting rules, experiments, sample space, simple and complex events; Addition and multiplication rules; Concepts of Mutually exclusive events, Independent events; Joint, marginal and conditional probability; Bayes' theorem.

Concept of Discrete and continuous Random Variables and Features of univariate, joint, marginal and conditional probability distributions; Chebychev's Theorem; Mathematical



expectation and moments of probability distributions, Distributions of linear combinations of random variables.

Cumulative distributions, Theoretical probability distributions. Discrete: Uniform, Bernoulli, Binomial and Poisson; Continuous: Uniform, Exponential and Normal.

### Unit 2: Sampling and Estimation

Population versus Sample; Sample Statistic versus population parameters; Definition and Statistical properties of a Random Sample; Chi-square, t and F distributions; Sampling Distributions of Sample Mean, Sample Proportion and Sample Variance; Point Estimation and Small Sample Properties of Estimators (unbiased, efficient); Interval Estimation and Confidence Intervals for population parameters (population means, proportions and variances).

Convergence in Probability, Law of Large Numbers, Convergence in Distribution, Central Limit Theorem; Large Sample Properties of Estimators (Consistency, asymptotic normality)

### Unit 3: Hypothesis Testing

Formulation of Null and Alternate Hypotheses; One-tailed and two-tailed Tests; Type I and Type II errors; Power of a Test; p-values.

Tests about population mean, proportions and variances (from a single and from two populations, i.e., tests for equality of 2 population means, proportions and variances)

### Unit 4: ANOVA

One-Factor ANOVA; Testing for Equality of k Population Means; F-test and t-test for pairwise equality of means; Two-Factor ANOVA.

### Unit 5: Index Numbers

Laspyres, Paasche index numbers, Bowley, Marshall Edgeworth and Fisher indexes. Fixed and chain base index numbers. Tests of adequacy, Base shifting, splicing and deflating. Construction of real indexes: Consumer Price Index and BSE index.

Practical

Software Required: Spreadsheet software and a statistical package

## References

### Essential Readings:

Latest editions of the following to be used:

1. Devore, Jay L, “Probability and Statistics for Engineers”, Cengage Learning.
2. John E. Freund: Mathematical Statistics with Applications, Pearson.
3. Nagar, A. L. and Das, R. K, “Basic Statistics”, Oxford University Press.
4. Spiegel, M.R, “Theory & Problems of Statistics”, Schaum’s outline series, McGraw Hill.

### Suggested Readings.

Latest editions of the following to be used:

1. Douglas C. Montgomery and George C. Runger, “Applied Statistics and Probability for Engineers”, John Wiley & Sons.
2. P.H. Karmel and M. Polasek, “Applied Statistics for Economists”, Pitman.
3. Richard J. Larsen and Morris L. Marx”, Introduction to Mathematical Statistics and its Applications”, Prentice Hall.

## Teaching Learning Process

The students would be introduced to the basic concepts of statistics and probability through classroom teachings and lecture presentations. Data interpretation would be explained through real time economic data complimented by class presentation and regular assignments.

## Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Probability, Sampling and Estimation, Hypothesis Testing, ANOVA. Index Numbers

## **Corporate Finance**

**(BBE C 7)**

### Course Objective

The course aims to provide basic concepts and knowledge with regard to corporate finance and its decisions. It will enable the students to understand the corporate issues and challenges in better manner.

### Course Learning Outcomes

Students will able

- i) To learn the role and objectives of financial management in business corporations.
- ii) To focus on developing skills to analyse corporate behaviour during procurement and development of resources.
- iii) To understand the concepts, vital tools and techniques applicable for financial decision making by a business firm.
- iv) To analyse and compute the working capital requirement, cash management and dividend models.

### Unit 1: Introduction

Nature of Financial Management. Finance and related disciplines. Scope of Financial Management. Profit Maximization, Wealth Maximization: Traditional and Modern Approach. Functions of finance.

Finance Decision, Investment Decision, Dividend Decision, objectives of Financial Management, concept of Time Value of Money.

### Unit 2: Long-Term Investment Decision

Capital Budgeting: Nature and meaning of capital budgeting; Estimation of Relevant cash flows.

Evaluation techniques: Accounting Rate of Return, Pay Back, Net Present Value, Internal Rate of Return, Terminal Value, Profitably Index Method.

### Unit 3: Cost of Capital

Concept and Measurement of Cost of Capital: Measurement of specific costs: Cost of debt, Cost of perpetual debt, Cost of Redeemable debt; Cost of Preference Share; Cost of Equity Capital: Dividend valuation model; Cost of Retained Earnings. Computation of Over-all Cost of Capital based on book value weights and market value weights.

### Unit 4: Financing Decision

Leverage Analysis: Operating, Financial, and Combined Leverage, Earning Before Interest and Tax (EBIT) – Earning Per Share (EPS) analysis, Indifference point. Capital structures theories - Net income approach; Net operating income approach; Modigliani-Miller (MM) approach; Traditional approach.

Dividend Decision: Relevance and irrelevance of dividends. Residual theory of dividends; Modigliani and Miller hypothesis; Walter's model; Gordon's model.

### Unit 5: Short-Term Investment Decision

Concepts and Definition of working capital; Determining Financing Mix; Permanent and temporary working capital; Determinants of working capital; Computation of Working Capital. Management of Receivables – Objectives; Collection cost, Capital cost, Default cost, Credit policies; Credit terms; Collection policies.

### References

Main readings:

Latest editions of the following to be used:

1. Khan, M.Y., & Jain, P.K. (2012), “Basic Financial Management”, Tata McGraw Hill Education Private Limited.
2. Pandey, I.M. (2010), “Financial Management”, Vikas Publishing House Pvt. Ltd.
3. Rustagi, R. P, “Fundamentals of Financial Management”, Taxmann publication(Pvt) Ltd.

### Suggested Readings:

Latest editions of the following to be used:

1. Brealey, Richard, A., & Myers, Stewart, C. (2011), "Principles of Corporate Finance", Tata McGraw Hill Publishing Company Limited.
2. Chandra, Prasanna, "Financial Management-Theory and Practice", Tata McGrawHill
3. Levy, H. and Sarnat, M, "Principles of Financial Management", Prentice Hall.
4. Singh, Surender and Kaur, Rajeev, "Fundamentals of Financial Management", Mayur Paperbacks, Delhi.
5. Van Horne, J.C, "Financial Management and Policy", Prentice Hall.

### Teaching Learning Plan

The paper is taught in a traditional classroom setting for lectures and tutorials. The students are guided with a detailed manual and a textbook incorporating the basic and applications of financial management, learning outcomes and assignment briefs. The paper is delivered by means of formal and participative lectures supported by the numericals, reflecting the importance of finance in practical situations. Tutorials are also used to discuss financial management topics in greater depth and past examination papers with suggested solutions are introduced.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

### Keywords

Corporate Finance, Financial Management, Time Value Of Money, Compounding, Discounting, Net Present Value, Capital Budgeting, Capital Structure, Dividend, Working Capital, Cost Of Capital.

## **Macro Economics and Applications-II**

**(BBE C 8)**

### Course Objective

This course aims at inculcating an understanding of economic models & functioning of an open economy. It will enable students to identify major macroeconomic issues, challenges and their solutions in the context of open macroeconomic environment.

### Course Learning Outcomes

Student will be able

- i) To understand basics of consumption function and different hypotheses regarding aggregate consumption behavior.
- ii) To be able to identify important determinants and differentiate between different models of investment.
- iii) To understand concepts relating to Balance of Payments and exchange rate determination under alternate exchange rate regime in an open economy.
- iv) To apply open economy macroeconomic IS-LM model and find out effectiveness of Monetary and Fiscal policies in the short run.
- v) To analyze open economy policy mix and its applicability to developing economies.
- vi) To derive aggregate demand and aggregate supply for an open economy and differentiate the policy effect in short run and medium run.
- vii) To identify and understand factors determining long run growth and inter- country variations in growth experience using Solow growth model.
- viii) To introduce students to specific issues in monetary and fiscal policy such as Inflation targeting and Sustainability of Public Debt.

### Unit 1: Theories of Consumption and Investment

Consumption Functions: Absolute Income Hypothesis, Relative Income Hypothesis, Fisher's Inter-temporal Choice Model, Life-Cycle and Permanent Income Hypotheses, Business Fixed, Residential and Inventory Investments, Theories of investment – Accelerator Model, Tobin's Q, Cash Flow model

## Unit 2: Open Economy I – The Concepts

Balance of Payments: Components of the Current Account, Balance of Trade, Balance on Invisibles and Current Account Balance; Components of the Capital Account, Short term vs Long term, Debt creating vs Non-debt creating capital flows and the Capital Account Balance; Role of Foreign Exchange Reserves and concepts of BOP surplus vs deficit.

Foreign Exchange Market and Exchange Rate Determination : Nominal, Real and Effective Exchange Rates; Difference between Flexible and Fixed Exchange Rate regimes and concepts of Appreciation, Depreciation, Devaluation and Revaluation; Effects of changes in the exchange rate on the balance of trade – the J-Curve; Purchasing Power Parity theory (PPP): Concepts of Absolute and Relative PPP.

## Unit 3: Open Economy II –The Mundell-Fleming Model

The Mundell-Fleming Model - Effectiveness of Fiscal Policy and Monetary Policy in IS-LM model under Fixed vis a vis Flexible Exchange Rate Regimes, under the assumption of Perfect Capital Mobility. Optimal policy mix for internal and external balance under perfect capital mobility.

## Unit 4: Economic Growth

Sources of Growth, Okun's Law, Concepts of Potential and Feasible Output.

The Determinants of Long-Run Growth in Neo-classical (Solow) growth model – Steady state equilibrium in the Solow Model with and without technological progress.

The Golden Rule of capital accumulation; Concepts of Unconditional and Conditional Convergence and Poverty Traps.

Endogenous Growth : The essence of endogenous growth theories and their basic differences with the Neo-classical growth Model.

## Unit 5: Topics in Monetary and Fiscal Policy

Inflation Targeting, The Optimal Design of Monetary Policy, The Government Budget Constraint: The Arithmetic of Deficits and Debt Sustainability, Current versus Future Taxes, the Evolution of Debt-to-GDP Ratio, Issues in Fiscal Policy.

### References

#### Essential Readings:

Latest editions of the following to be used:

1. Blanchard, O, “Macroeconomics”, Pearson Education.
2. David C. Colander, “Macroeconomics”, McGraw-Hill.
3. Dornbusch R, Fischer S and Startz R , “Macroeconomics”, McGraw-Hill.
4. D’Souza, E, “Macroeconomics”, Pearson Education
5. Goodwin, H, Nelson, Roach & Torras, “Macroeconomics in Context”, Routledge Taylor and Francis Publication.
6. N. Gregory Mankiw, “Macroeconomics”, Worth Publishers.

#### Suggested Readings:

Latest editions of the following to be used:

1. Chugh, S. (2015), “Modern Macroeconomics”, MIT Press : Massachusetts, USA.
2. D N Dwivedi (2015), “Macroeconomics- Theory and Policy”, McGraw-Hill.
3. Froyen (2013), “Macroeconomics- Theories and Policies”, Pearson
4. Ray, P, “Monetary Policy”, Oxford University Press.
5. Sikdar, S, “Principles of Macroeconomics”, Oxford University Press.
6. Government of India (GOI) (Latest Year), “Economic Survey”, Ministry of Finance.
7. The Core Team (2017), “The Economy – Economics for a Changing World”, Oxford University Press, Oxford. (Freely Available at: <https://core-econ.org/the-economy/book/text/0-3- contents.html>).

### Teaching Learning Process

Group Discussion on specific macroeconomic challenges like inflation, unemployment, economic growth. Assignments on preparation of country specific macroeconomic profile



from different database are highly recommended to understand macroeconomic parameters.  
Workshop/ seminar on major macroeconomic issues pertaining to Indian economy.

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

#### Keywords

Consumption Function, Balance of Payments, Exchange Rate, Purchasing Power Parity, Capital Mobility, Steady State, Golden Rule, Government Budget Constraints.

## **Basic Econometrics**

### **(BBE C 9)**

#### Course Objective

Econometrics is a combination of economic theory, mathematical economics, economic statistics, and mathematical statistics. Economic theory makes statements or hypotheses that are mostly qualitative in nature. Econometrics provides the basis for numerical estimates and gives empirical content and verification to most economic theory. The objective of the course is to provide basic data modelling skills required in handling economic problems and interpretation of regression outputs

#### Course Learning Outcomes

Students will be able to:

- i) Explain Key econometric concepts.
- ii) Formulate simple econometric models
- iii) Interpret the regression results obtained from software packages.
- iv) Identify the errors in regression models and rectify the same.
- v) Analyze the suitability of the data for solving the problem at hand

#### Unit 1: Classical Linear Regression Model

Types of Data: Time Series, Cross Section and Panel Data. Concept of Population Regression Function and Sample Regression Function, Assumptions of the model, Derivation of Coefficients of Regression in a two variable model, Estimation of the SRF using OLS, Analysis of variance and R squared.

Expectation and standard errors of the regression coefficients and the error term. Gauss Markov Theorem. Interval estimation and tests on population regression coefficients, variance of population disturbance term and forecasts. Testing the significance of the model as a whole. Testing the normality assumption.

Extensions of the Two Variable Linear Regression Model: Regressions through the origin, Scaling of Variables and Regression on Standardized Variables. Functional forms of Linear Regression Models: The double log, semi-log, reciprocal, log- reciprocal models with applications.

## Unit 2: Multiple Regression Model

Coefficients of regression in a multi variable model and their properties. Interval estimation, tests on population regression coefficients and model significance. Correlations, Goodness of fit and the Adjusted R square. Hypothesis testing for significance of the contribution of a variable, structural stability, Restricted least squares.

## Unit 3: Dummy Variable Regression Models

Intercept, Slope Dummy variables. Interaction between qualitative variables. Interaction between quantitative and qualitative variables. Use of dummy variables in testing for structural change and for seasonal indexes.

## Unit 4: Relaxing the Assumptions

Introduction to multicollinearity, heteroscedasticity, autocorrelation and specification errors. The nature of the problem, its detection and corrective measures.

## References

### Main Readings:

Latest editions of the following to be used:

1. Dougherty C, "Introductory Econometrics", Oxford University Press.
2. Gujarati D & Sangeetha, "Basic Econometrics", Tata McGraw Hill
3. Studenmund, A.H., "Using Econometrics A Practical Guide", Pearson India Education Services Pvt, Ltd.

### Suggested Readings:

Latest editions of the following to be used:

1. Pindyck R.S. and Rubinfeld D.L, "Econometric Models and Economic Forecasts", Mc GrawHil.
2. Ramanathan, Ramu, "Introductory Econometrics with Applications", Thomson South Western.
3. Wonnacott, R.J. and Wannacott, T.H, "Econometrics" , John Wiley

## Teaching Learning Process

The teacher may provide small data sets to the students to enable them to run regressions on spreadsheets and interpret the results.

## Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Two Variable Regression, Multi Variable Regression, Dummy Variable, Multicollinearity, Heteroscedasticity, Autocorrelation.

## **Marketing Management**

**(BBE C 10)**

### Course Objective

- i) To develop understanding about the nature and purpose of marketing and the most fundamental concepts and frameworks and apply these to new and existing businesses.
- ii) The course provides managerial perspective to critically analyse the marketing opportunities, planning, implementation, evaluation and control of the marketing effort.
- iii) The course explains how to integrate product and service decisions with those on pricing, distribution and promotion.

### Course Learning Outcomes

Students will be able to:

- i) Explain how organisations effectively use the marketing mix often called the four P's of marketing to market to their target customers.
- ii) Apply the knowledge, concepts and tools such as Michael Porters model, BCG matrix, Ansoff matrix and SWOT Analysis to understand the challenges and issues of marketing in a competitive environment.
- iii) Define important terms like brand, brand identity, brand equity and brand re-positioning and how to devise a successful branding strategy.
- iv) Predict the costs and benefits associated with different pricing strategies and marketing channels for the marketers.
- v) Classify the common methods used for integrated marketing communication like advertising, sales promotion, events and experiences, public relations and publicity, direct marketing, interactive marketing, word of mouth and public selling.
- vi) Correctly represent and outline measures taken by the companies to encourage ethical behaviour and rightly demonstrate their social responsibility.

### Unit 1: Introduction to Marketing and Segmentation, Targeting & Positioning

Importance and Scope of Marketing, Core Marketing Concepts, Company Orientations, Marketing Myopia.

Market Segmentation: Marketing segmentation Procedure, Bases for segmenting Consumer Markets, VALS segmentation, Effective segmentation.

Market Targeting: Evaluating and Selecting Market Segments.

Positioning: Positioning Statement, determining which positioning to promote, positioning possibilities, Points-of-Parity, Points-of-Difference.

## Unit 2: Product

Product life cycle: The Concept and its Strategic Implications, Product Mix: Levels, Hierarchy, Classifications, Mix.

Product line decisions: Product Line Analysis, Product Line Length, Line Modernization, Featuring, Pruning.

Differentiation: Differentiation tools: Product, services, personnel, channel, image differentiation.

Branding: Brand decisions, building brand identity, Brand Equity, Branding Challenges, Brand Name Decisions, Brand Building Tools, Devising a Branding Strategy, Brand Re-positioning.

Services: Characteristics of services.

## Unit 3: Pricing

Significance of pricing, factors influencing pricing, pricing objectives, Pricing Strategies and Procedure, psychological pricing.

## Unit 4: Distribution

Channels: Channel Functions and Flows, Channel Levels, Channel Integration and Systems (Vertical Marketing System, Horizontal Marketing System, Integrated Multichannel Marketing System).

Retailing: Types of retailers, marketing decisions in retailing Wholesaling: Types of wholesalers.

## Unit 5: Promotion

Promotion Mix, Factors affecting Promotion Mix, concept of Integrated Marketing Communication.

Advertising: advertising objectives, advertising budget, message generation, Media (types, reach frequency, impact) and measuring advertising effectiveness.

Sales promotion (Objectives, Advertising versus Promotion, Major Decisions in sales promotion).

Events and Experiences, Public Relations and Publicity (Marketing Public Relations, tools), Direct Marketing.

Interactive Marketing(introduction to online marketing), Word of Mouth.

## Unit 6: Marketing Environment, Competitive Analysis and Emerging Trends in Marketing

Marketing Environment: Scanning the Indian Marketing Environment: Economic, Demographic, Socio- cultural, Technological, Political and Legal. Competitive Analysis: Michael Porter's Model of Competitive analysis, BCG Matrix, ANSOFF Matrix, SWOT Analysis. Basics of Marketing Research, Ethics in Marketing, Relationship marketing, Holistic marketing, Rural marketing.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Kotler, P. & Keller, K. L. (2012), "Marketing Management", Pearson.
2. Kotler P, Armstrong G., Agnihotri P.Y & UIHaq, E, "Principles of Marketing - A South Asian Perspective", Pearson.

### Suggested Readings:

Latest editions of the following to be used:

1. Dawn Iacobucci, "Marketing Management", Cengage Learning.
2. Etzel M. J, Walker B.J, Stanton W.J and Pandit A , "Marketing", Tata McGraw Hill.

3. Ramaswamy V.S, Namakumari S, “Marketing Management: Global Perspective-Indian Context”, Macmillan Publishers.

#### Teaching Learning Process

1. Case Study and Case Lets of Indian context must be included in teaching methodology.
2. Group discussions on important and recent marketing topics must be included.
3. The theoretical concepts of marketing must be covered in the context of relevant Indian corporate examples.

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

#### Keywords

Marketing environment, Marketing mix, Product, Service, Product line, Brand, Price, Channel, Distribution, Promotion Mix, Advertising



## **Indian Financial System**

**(BBE C 11)**

### Course Objective

- i) To provide a sound information and knowledge of broad framework of Indian Financial System and its constituents.
- ii) To acquaint the students an understanding of inter-linkages and regulatory framework within which the system operates in India.
- iii) To enhance the knowledge of students regarding emerging issues in Indian Financial System.

### Course Learning Outcomes

After studying this paper the student will be able to:

- i) Describe the Indian Financial System and various financial sector reforms.
- ii) Understand how the new securities are issued to Investors.
- iii) Define the secondary equity market which further evaluates the significance, structure, participants, equity market indices and raising funds through international markets.
- iv) Elucidate the market in which money is created.
- v) Discuss the significance of interbank markets in money creation.

### Unit 1: Financial System and Financial Markets in India

Financial System, Structure of Indian Financial System, Integration of Indian Financial System with World Markets, Role and Importance of Financial Markets, Major Instruments traded in financial markets: Equity Shares, Debentures, Bonds & Derivatives, Financial Markets vs. Capital Markets vs. Stock Markets, Linkages Between Economy and Financial Markets, Players in Financial Markets, Role of Regulator (RBI and SEBI) in Investors' Protection, Emergent Issues related to the working of Financial System, Introduction of 2008 Sub-Prime Crisis, Greek Crisis, European Debt Crisis.

### Unit 2: Primary Market for Corporate Securities in India

Issue of Corporate Securities: Public Issue through Prospectus, Eligibility criteria, Offer for sale, Private Placement Rights Issue, On-Line IPO, Book Building of Shares, Advertisement, Allotment of shares, Green shoe option, Disinvestment of PSU, Employees Stock Options,

Preferential Issue of Shares, Venture Capital, Private Equity, Performance of Primary Market in India, Institutional Interest in Public Issues, measuring success of an IPO. Corporate Listings: Listing and Delisting of Corporate Stocks.

### Unit 3: Secondary Market In India

Introduction to Stock Markets: Regional and Modern Stock Exchanges, International Stock Exchanges, Demutualization of exchanges, Competition amongst major exchanges in India, Raising of funds in International Markets: ADRs and GDRs, FCCB and Euro Issues Indian Stock Indices and their construction, free float vs. full float methodology, Classification of Securities to be included in the Index, impact of corporate actions (rights, bonus and stock split) on index Bulls and Bears in Stock Markets, Factors influencing the movement of stock markets, indicators of maturity of stock markets. Trading of securities on a stock exchange: Selection of broker, capital and margin requirements of a broker, MTM and VaR Margins, Kinds of brokers, opening of an account to trade in securities, DEMAT System, placing an order for purchase/sale of shares, margin trading and margin adjustment, contract note, and settlement of contracts, rolling and traditional (weekly) settlement systems, Depositories System: NSDL and CSDL, Scams in Stock Market.

### Unit 4: Money Markets & Debt Market in India

Money Market Meaning, role and participants in money markets, Segments of money markets, Call Money Markets, Repos and reverse Repo concepts, Treasury Bill Markets, Market for Commercial Paper, Commercial Bills and Certificate of Deposit. Role of STCI and DFHI in money markets Debt Market: Introduction and meaning, Market for Government/Debt Securities in India, When issued market, Secondary market for government/debt securities, Oversubscription and devolvement of Government Securities, Fiscal Responsibility Act, Government securities issued by State Governments, Municipal Bonds, Corporate Bonds vs. Government Bonds.

### Unit 5: Financial Services

Banking: Recent Developments: Commercial and Development Banks: Meaning , their roles (Traditional and New /Changing roles), Challenges Ahead, Conversion of Financial Institutions into banks, Mergers and Acquisitions in the banking sector in India, Concept of Universal Banking, Non- Performing Assets in the Banking Sector, the Securitization Act,

Risk Management in Banks (a Brief Overview), BASEL-III Capital Adequacy Norms. Payment Banks, Microfinance, Housing Finance: Meaning and rise of housing finance in India, Fixing the amount of loan, factors driving demand for residential loans, Repricing of a loan, floating vs. fixed rate, the rest method, problems on housing finance. Credit Rating: Introduction, Meaning, and Methodology of rating, Credit rating and the banking sector. Credit Rating Models: Numerical Credit rating Score System, Z Scoring system, Sensitivity Analysis Markov chains CIBIL & Various Credit Rating Agencies in India and their performance and Different Symbols used by them. Credit rating of Non-Debt Instruments (Country and State Ratings, Chit funds ratings, ratings for Banks & AMCs, IPO Gradings), Why equities cannot be rated, Recommendation for equities, Earnings Guidance, Shocks and Surprises.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Khan M.Y ,“Indian Financial System”, Tata McGraw Hill.
2. Pathak, B, “Indian Financial System”, Pearson.
3. S.G. Eakins, S.G.(1999), “Finance: Investments, Institutions and Management”, Addison Wesley Longman Inc.
4. National Stock Exchange of India (2003), “Indian Securities Market: A Review”, NSE, Mumbai.

### Suggested Readings:

Latest editions of the following to be used:

1. Desai V, “Indian Financial System and Development”, Himalaya Publishing House.
2. Gordan and Natarajan, “Indian Financial System”, Himalaya Publishing House.
3. Madura J, “Financial Markets and Institutions”, Cengage Learning.

## Teaching Learning Process

1. The classes should be conducted in an interactive manner by taking examples from Indian economy or World economy to ensure maximum participation of students.

2. The theoretical concepts of Indian Financial System should be discussed with the help of relevant examples.
3. Reading of Business Newspapers or Economic Newspapers should be encouraged so that regular discussion on contemporary issues can be held in a class.
4. Different case studies related to Financial System should be discussed in a class.

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

#### Keywords

Initial Public Offer, Book Building, Green Shoe Option, Public Sector Undertakings, Clearing and Settlement, Municipal and Corporate Bonds, Non-Performing Assets, Universal Banking, BASEL-III Norms, Credit Rating.

## **Organisational Behaviour**

**(BBE C 12)**

### Course Objective

To give a general orientation to the student about the different forms of organizations (business and non business) and business environment, which will enable better appreciation and understanding of the human resource function.

### Course Learning Outcomes

Student will be able to

- i) Understand psychology theories and research at individual, group and organizational levels.
- ii) Analyze how these theories and empirical evidence can help to understand contemporary organizational issues.
- iii) Understand organizational behaviour and management practices by examining psychological principles.
- iv) Imbibe the critical evaluation of organizational practices and their impact on work behaviors, attitudes and performance.
- v) Apply theories to practical problems in organizations in a critical manner.

### Unit 1: Introduction Concept of Organisational Behaviour

Management roles, skills and activities; Disciplines that contribute to OB; Opportunities for OB (Globalization, Indian workforce diversity, customer service, innovation and change, networked organizations, work-life balance, people skills, positive work environment, ethics).

### Unit 2:: Individual Behavior Learning, attitude and job satisfaction

Concept of learning, conditioning, shaping and reinforcement Concept of attitude, components, behavior and attitude Job satisfaction: causation; impact of satisfied employees on workplace Comparison of job satisfaction amongst Indian employees with other cultures Motivation: Concept; Theories (Hierarchy of needs, X and Y, Two factor, McClelland, Goal setting, Self-efficacy, Equity theory); Job characteristics model; Redesigning job and work arrangements; Employee involvement; Flexible benefits, Intrinsic rewards Personality and

Values: Concept of personality; MBTI; Big Five model. Relevance of values; Indian values; Linking personality and values to the workplace (person-job fit, person-organization fit) Perception, Decision Making and Emotions: Perception and judgments; Factors; Linking perception to individual decision making; Decision making in organizations, Ethics in decision making. Emotional labour; Emotional Intelligence.

### Unit 3: Group Behavior Groups and Work Teams

Concept; Five stage model of group development; Group think and shift; Indian perspective on group norms Groups and teams; Types of teams; Creating team players from individuals; Team building and team based work (TBW).

Leadership: Concept; Trait theories; Behavioral theories (Ohio and Michigan studies); Contingency theories ( Fiedler, Hersey and Blanchard, Path-Goal); Authentic leadership; Mentoring, self- leadership, online leadership; Inspirational Approaches (transformational, charismatic); Comparison of Indian leadership styles with other countries. Exercises, games and role plays may be conducted to develop team and leadership skills.

### Unit 4: Organizational Culture and Structure

Concept of culture; Impact (functions and liability); Creating and sustaining culture; Employees and culture; Creating positive and ethical cultures. Concept of structure; Prevalent Organization designs; New design options

### Unit 5: Organizational Change

Conflict and Power Forces of change; Planned change; Resistance; Approaches (Lewin's model, Organization development); Learning organization; Organizational change in Indian businesses. Concept of conflict; Traditional view and integrationist's view of conflict; Conflict process; Functional/Dysfunctional. Introduction to power and politics.

## References

### Essential readings:

Latest editions of the following to be used:

1. Dwivedi, R. S., "Human relations and organizational behaviour: a global perspective", Macmillan India Ltd.
2. Luthans Fred., "Organizational Behaviour", McGraw Hill.
3. Singh Kavita, "Organisational Behavior- Text and cases", Vikas publishing house.
4. Stephen P. Robbins, Timothy A. Judge and Niharikavohara, "Organisational Behaviour", Pearson Education ltd.

### Suggested Readings:

Latest editions of the following to be used:

1. Arnold, John, Robertson, Ivan t. and Cooper, Cary, l., Work psychology: understanding human behavior in the workplace, Macmillan India Ltd.
2. Consuming Negative News can make you less effective at work (HBR 9-15); Make yourself immune to secondhand stress (HBR 9-15).
3. Hellriegel, Slocum and Woodman, "Organisational Behavior", South-Western, Thomson Learning.
4. How to Win Friends and Influence People" - Dale Carnegie.
5. Jerald Greenberg, "Behavior In Organizations", Pearson Education.
6. The Owner's Manual to Personality at work - Pierce & Jane Howard.
7. What makes a leader" - Daniel Goleman (HBR - Jan 2004).

## Teaching Learning Process

Teaching learning process: The teaching learning process will involve two way communication between teacher and students. It will include Lecture, Tutorial, seminar, lecture by industry experts for enriching the learning experience for students.

Tools: The tools to be used by teachers include PPT, Lecture, case study, role playing, Field visit.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

### Keywords

Organizational Behaviour, Work-Life Balance, Learning, Attitude, Motivation, Personality, Group Behavior, Leadership.



## **Industrial Organisation**

### **(BBE C 13)**

#### Course Objective

To introduce students to the field of economics that deals with the strategic behavior and interaction of firms, market competition and regulatory and social concerns.

#### Course Learning Outcomes

Students will be able.

- i) To understand the origin and methods of Industrial Organization.
- ii) To analyse firm behavior and interaction in oligopolistic markets through the basic components of the Structure-Conduct-Performance paradigm.
- iii) To understand how the ‘theory of the firm’ can be applied to firm interaction and strategic behavior.
- iv) To understand the importance of “interdependence” that characterizes the firm’s decision in markets.
- v) To learn about the importance of regulatory public policy in ensuring consumer welfare in imperfectly competitive/oligopolistic markets.
- vi) To use game theory to understand firm behavior and interaction in oligopolistic markets.

#### Unit I: Introduction

Origin and methods of Industrial Organization, the Structure-Conduct-Performance paradigm, Competing paradigms and Public Policy, Behavioral Economics and Industrial Organization, Theory of the Firm and Basic Conditions of Demand and Cost.

#### Unit II: Market Structure

Measures of concentration, Number and Size of Firms, Product Differentiation, Conglomerates, Entry and Exit Barriers, Vertical Integration, and Game theoretic applications.

### Unit III: Market Conduct

Pricing Behavior, Product Strategy, Horizontal, Vertical and Conglomerate Mergers, Research and Innovation, Advertising, Legal Tactics, and Game theoretic applications.

### Unit IV: Market Performance

Static Efficiency, Dynamic Efficiency, Equity, Corporate Social Responsibility, Market Power and Distribution of Income and Wealth and Game theoretic applications.

### Unit V: Public Policy

Introduction to Law and Economics, Antitrust Legislation, Role of Industry Regulation, Regulation of Natural Monopoly, Social Regulation and Behavioral Economics, Social Concerns and Advertising and Game theoretic applications.

### References

Essential readings:

Latest editions of the following to be used:

1. Cabral Luis M.B. (2017) Introduction to Industrial Organization. 2<sup>nd</sup>Edn. Cambridge, MA: MIT Press
2. Carlton, D.W. and J. M. Perloff (2005). Modern Industrial Organization. Pearson
3. Shy, Oz (1996). Industrial Organization: Theory and Applications. The MIT Press.
4. Waldman D.E. and E. J. Jensen (2019). Industrial Organization: Theory and Practice. Taylor and Francis (e-book).

### Suggested Readings

Latest editions of the following to be used:

1. Pepall, Lynne, Dan Richards and George Norman (2008) ," Industrial Organization: Contemporary Theory and Empirical Applications" 4<sup>th</sup>Edn. Malden, MA: Blackwell Publishing
2. Tremblay, Victor J., and Carol Horton Tremblay. (2012), " New Perspectives on Industrial Organization" , New York: Springer.

## Teaching Learning Process

Lectures, group discussion and case studies will be used to teach this course. Applications of game theory will be used to discuss various topics.

## Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Structure-Conduct-Performance paradigm, Product Differentiation, Pricing Behavior, Product Strategy, Corporate Social Responsibility.

## **Legal Aspects of Business**

### **(BBE C 14)**

#### Course Objective

- i) The paper attempts to create an understanding of various laws required in business world and enable effective application of the laws to business situations.
- ii) This paper provides a blend of Basic laws like Contract Act and specifically applicable laws like Companies Act, Competition Act, widening the scope of understanding the legal technicalities in business world.
- iii) The study of recent cases laws assists the students to understand the interpretation of the legislation.

#### Course Learning Outcomes

Students will be able to:

- i) Understand business legislation and need for amendment of old laws.
- ii) Understand the laws applicable to business and apply their knowledge of laws in recent/ different business cases.
- iii) Appreciate different branches of law applicable in specific conditions.
- iv) Identify the need and application of laws in commercial situations.

#### Unit 1: Indian Contract Act 1872

Meaning, essentials and kinds, offer, Acceptance, Consideration-essentials and exceptions, Capacity of parties, Free consent, Modes of discharge of a contract, Remedies for breach of a contract.

#### Unit 2: The Sale of Goods Act 1930

Meaning and essentials of Contract of Sale, Sale and Agreement to Sell, Implied-Conditions and Warranties, Transfer of Property in Goods, Unpaid Seller and his Rights.

### Unit 3: Companies Act 2013

Meaning, kinds, Formation of a company—promotion, incorporation, on-line registration, commencement of business. Memorandum of association, Articles of Association and Prospectus. Company Management, Meetings and Resolutions. Winding up of a Company – Meaning and modes of winding.

### Unit 4: Consumer Protection Act 1986

Scope and Applicability of the Act, Consumer – of goods and consumer of services, Rights of consumer, Unfair and Restrictive Trade Practices, Complaint – meaning, relief available to a consumer, Consumer Protection Councils, Consumer Disputes Redressal Agencies – District Forum, State Commission and National Commission.

### Unit 5: Competition Act 2002

Scope and applicability of the Act, Definition, Prohibition of certain agreements, abuse of dominant position and regulation of combinations. Competition Commission of India – Composition, duties and powers and Competition Appellate Tribunal – Composition and Powers.

### Unit 6: Intellectual Property Rights Patents Act 1970

Objectives, meaning of Patent and Invention, Procedure for obtaining a patent, Surrender and Revocation of patents. Trademarks Act, 1999 – Purpose and meaning of a Trademark, goods and services; Conditions for registration of trademark, procedure of registration, Effects of registration, Certification Trademarks. Designs Act, 2000 – Definition of Design and Article, registration of Designs, Copyright in registered designs, Inspection and cancellation of registered designs, piracy of registered design.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Bansal V and Arora, A, "Corporate Laws", Vikas Publishing, House (P) Ltd., New Delhi.
2. Chadha R, Chadha S, "Corporate Laws", Mayur Paperbacks, New Delhi.
3. Kuchhal M.C & Vivek K, "Business Legislation for Management", VIKAS Publishing House (P) Ltd.
4. Kumar A, "Corporate Laws", International Book House (P) Ltd.
5. Bare Acts relating to the laws.

### Suggested Readings:

Latest editions of the following to be used:

1. Dagar I & Agnihotri A "Business Law" Sage Text.
2. Gulsan S.S,"Business Laws", Excel Books.
3. Singh Avtar, "The Principles of Mercantile Law" Eastern Book Company, Lucknow.

### Teaching Learning Process

1. The use of recent case laws would be encouraged so as to enable better understanding of legal text.
2. Interactive learning process can be used where legal case situation is given to students and they present their arguments on the basis of applicable laws.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

### Keywords

Contract, Agreement, Voidable, Void, Enforceability, Minor, Sale, Good, Services, Consumer, Competition, Anti-Trust, Dominant, Company, Ultra virus, Indoor Management, Trademark, Patent.

# **Skill Enhancement Course (SEC)**

## **Quantitative Techniques for Management**

### **(BBE SEC 1)**

#### Course Objective

This paper aims to introduce students to use quantitative methods and techniques for effective decisions-making; model formulation and applications that are used in solving business decision problems. Build a conceptual mathematical understanding of benefits of working in a team: specifically to solve larger problems, partition a problem into smaller tasks, and complete tasks on time.

#### Course Learning Outcomes

Student will be able to:

- i) Identify and develop operational research models and understand how to translate a real-world problem, given in words, into a mathematical formulation.
- ii) Understand the mathematical tools that are needed to solve optimization problems like linear programming, transportation and assignment problems.
- iii) Make use of Network analysis to plan, schedule, and control project activities
- iv) Formulate and solve network problems using graph optimisation algorithms.
- v) Propose the best strategy using decision making methods under uncertainty and game theory.
- vi) Use relevant software for solving the techniques learnt in theory for optimization.

#### Unit 1: Introduction to Operations Research and Linear Programming

Introduction: Operations research, Meaning of a model, steps in building of a model.

Linear Programming: Introduction, terminology and applications, Mathematical formulation of a linear programming problem, Graphical solution, Algebraic method (Simplex method) – Maximisation and Minimisation cases ( single and mixed constraints) Duality in LP.

Integer Programming: formulation through Gomorry Cut method.

Transportation: Introduction, Balanced & Unbalanced Problem, formulation as Linear Programming Problem, Initial basic feasible solution ( NW Corner Rule LCM & VAM



methods), Test of optimality and optimal solution, Stepping Stone and MODI methods) Note: Exclude special cases, degeneracy.

Assignment: Introduction, Balanced and unbalanced assignment problem, formulation as Linear Programming problem and solution using excel solver, Solution using Hungarian assignment method.

## Unit2: Inventory Control Models

Importance, Inventory Decisions, EOQ, Quantity discount Models, Safety Stock, ABC Analysis, Just-in-Time Inventory Control.

## Unit 3: Decision Theory

Decision Theory: Steps in Decision theory, Concepts of Expected Monetary Value, Expected Value of Perfect Information and Expected Opportunity loss, Introduction to risk and uncertainty, Decisions under Uncertainty using Laplace, Maximin, Minimax, Maximax, Minimin, Hurwicz criterion.

## Unit 4: Network Analysis

Meaning and Applications, Fundamental concepts & Construction, Time estimates in network analysis –earliest finish, latest finish, critical path, Float (Independent, free and total float), Programming Evaluation and Review Technique (PERT) – three time estimates, standard deviation and probability of project completion within a scheduled time, Direct and indirect cost, Time-Cost tradeoff – Crashing of activities.

## Unit 5: Waiting Lines and Queuing Theory Models

Waiting line costs, Queuing system, Single Channel Queuing Model, Multichannel Queuing Model, Constant Service Time Model, Finite population model.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Barry Render et .al, “Quantitative Analysis for Management”, Pearson
2. Hamdy A. Taha (2007)., “Operations Research-An Introduction”, Prentice Hall.

3. Kanti Swarup, P.K. Gupta and Man Mohan(2001), “Operations Research”, Sultan Chand & Sons.
4. Sharma J K (2013)., “Operations Research : Theory and Applications”, Macmillan India Ltd.
5. Vohra N.D. (2006), “Quantitative techniques in management”, Mc. Graw Hill Co.

#### Suggested Readings:

Latest editions of the following to be used:

1. Hamdy A. Taha (2007), “Operations Research-An Introduction”, Prentice Hall.
2. Kanti S, Gupta P.K. and Man Mohan (2001), “Operations Research” Sultan Chand & Sons.
3. Sharma J K (2013), “Operations Research : Theory and Applications”, Macmillan India Ltd.
4. Vohra N.D. (2006), “Quantitative techniques in management”, Mc. Graw Hill Co.

#### Teaching Learning Process

The lecture should be divided in to 80:20. For every 3-theory lecture one practical sessions using excel solver or any other relevant software must be held in a batch of 15-20 Students. Students should be evaluated for practical session in the form of internal assessment.

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

#### Keywords

Linear Programming, Transportation and Assignment, Simulation, Network Analysis.

## **Personality Development & Interpersonal Skills**

### **(BBE SEC 2)**

#### Course Objective

- i) To develop students into self aware and emotionally balanced individuals who know how to set realistic goals, manage their time and work effectively in teams.
- ii) To arm students with effective habits that will help them perform in any field of life.

#### Course Learning Outcomes

##### Student will be able to

- i) Conduct detailed self- introspection centering around strengths, weaknesses, relationships, goals, motives and dependence. Recognise and appreciate that warmth, genuineness and unconditional positive regard are the basis of good relationships.
- ii) Recognize and appreciate the seven habits and imbibe them gradually into daily life through regular practice.
- iii) Prioritise work, use planners, recognize and appreciate the importance of time management.
- iv) Understand the building blocks of effective interpersonal skills.
- v) Learn to accept emotions, recognise and appreciate the importance of emotional intelligence.

#### Unit 1: Self Analysis And Effective Habits

SWOT analysis, detailed self-introspection; Positive body image ; Knowing the Real Self; Self confidence and Self esteem through Johari window; The Seven Habits- Sharpen the saw; Be proactive; Begin with an end in mind; Put first things first; Think win-win; Seek first to understand, then to be understood; Synergize.

Value of time; Weekly planner, TODO list; Prioritizing work; Time management matrix; Multi tasking.

#### Unit 2: Attitude And Goal Setting

Influence of attitude on behavior; Synergy between knowledge, skill and attitude; Self talk- Tapping and tuning inner voice; Self motivation.

Reactive work and Proactive work, Wish list, 4CF method, SMART goal setting, Backwards Goal Setting, Goal tree, Using Goal poster, Short, long, life time goals.

### Unit 3: Emotions And Stress Management

Emotional intelligence - Self Awareness, Self Management, Social Awareness, Social Skill ; Emotional quotient and intelligence quotient, Emotion scale, Managing emotions; Anger management; Causes of stress and its impact, managing stress; Circle of control.

### Unit 4: Interpersonal Skills

Warmth, genuineness, unconditional positive regard; Gratitude; Active Listening skills; Stages of dependence; Networking and teamwork.

Negotiate disagreement in group work- resolving team conflict; following instructions in workplace; Expectancy Violations Theory- Proxemics, Confirmation, Accusation, escalation, de-escalation, relational transgressions and disregard.

### Unit 5: Creativity

Out of the box thinking, Creative thinking and Lateral thinking; Creative problem solving tools- restatement of problem, Pareto Principle, brainstorming; Torrance test of creative thinking.

### References

#### Essential Readings:

Latest editions of the following to be used:

1. Acquiring Interpersonal Skills: A Handbook of Experiential Learning for Health Professionals, Springer, 2013
2. Covey S, "Seven Habits of Highly Effective Teens", New York, Fireside Publishers, 1998.
3. Daniel Coleman, "Emotional Intelligence", Bantam Book, 2006.

### Suggested Readings:

Latest editions of the following to be used:

1. Carnegie Dale, “How to stop worrying and start living”, New York: Simon & Schuster, 1985.
2. Locke E A, and Latham G P, “A theory of goal setting & task performance”, Prentice –Hall, Inc, 1990.
3. Mitra, B.K, “Personality Development and Soft skills”, Oxford University Press.
4. Peggy Klaus, “The Hard Truth About Soft Skills: Soft Skills for Succeeding in a Hard World”, Harper Collins, 2009
5. Thomas A Harris, “I am Ok, You are Ok”, New York-Harper and Row, 1972.
6. The Anxiety Handbook: The 7-Step Plan to Understand, Manage, and Overcome Anxiety, Callisto Media Inc, 2013.

### Teaching Learning Process

Individual and group based activities/Visualisation exercises/Introspection activities/debriefing must be conducted for each unit to imbibe the concepts.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

### Keywords

Self Analysis, The Seven Habits, Time Management, Goal Setting, Emotions Management, Stress Management, Interpersonal skills, Creativity.

## **Research Methods and Statistical Packages**

### **(BBE SEC 3)**

#### Course Objective

This paper will equip the students to conceive a project, access data using scholarly database and run statistical analysis to do inferential analysis.

#### Course Learning Outcomes

Students will be able to

- i) Assess the roles of the researcher and the informant in the research process and be in a position to apply qualitative and quantitative research methodology.
- ii) Apply the probability rules and basic concepts relating to discrete and continuous random variables studied in core theoretical subjects in making effective business and economic decisions. Provide understanding of appropriate statistical techniques for summarizing and displaying business and economic data.
- iii) List a variety of formal inference procedures like correlation, regression, t-test and analysis of variance test which helps in statistical reasoning and performing exploratory analysis of data. Identify statistical tools needed to solve various business problems.
- iv) Perform the basic qualitative and quantitative data analysis in a clear concise and understandable manner with an in-depth, faster and accurate univariate, bivariate and multivariate data analysis.

#### Unit 1: Meaning of Research Design

Research Process (8 step mode), Research design and Types - Exploratory, Descriptive, Causal.

Hypothesis Testing and errors in testing of Hypothesis.

Sources of data: NSSO, CSO, RBI, World Bank, Accessing financial data base like Capital Line.

#### Unit 2: Steps in Data Collection

Primary vs Secondary Data

Methods of Data Collection in quantitative and qualitative Research through Observation, Interview and Questionnaire/Survey method.

Designing questionnaire (leading, loading and personal questions sequencing): Measurement Scale (Graphic Rating, Likert scale, a paired comparison, ranking, constant sum, semantic differential scale).

Sample design, Probability and non probability sampling, calculation of sample size, sampling Error.

### Unit 3: Handling Data in Spreadsheet

Understanding how to use various formulas, Analysing the data through various charts and tables (including pivot tables), Macros, Use of solver, Sorting of data, Filtering of data, lookup, Using Data Analysis, Running Regression in spreadsheet.

### Unit 4: Handling Data in relevant statistical software

Note : licensed statistical software or open source software (R can be used)

Identifying Variables: Nominal, Ordinal, Interval, Ratio, entering data, labelling and sorting of data, computing new variable, recoding existing variable into new variable.

Steps to be followed for Computing Variable, and Recoding. Conditions when to apply different tests while comparing means with assumptions.

One Sample t-test, Independent Sample t-test, Paired Sample t-test, (Assumptions Testing and Inferential Analysis).

One-way ANOVA, Two-way ANOVA, Repeated Measure ANOVA, MANOVA.,

Cluster Analysis, Discriminant Analysis and PCA. (Assumptions Testing and Inferential Analysis). Non Parametric Tests: Kolmogorov-Smirnov, Kruskal-Wallis and Wilcoxon tests.

### Unit 5: Introduction to Regression and Interpretation of Multiple Regression Output

Interpretation of Differential Mean Output using above specified methods

$R^2$ , Adjusted  $R^2$ , Unstandardized Coefficients with their Significance Levels, Detection of Multi-Collinearity using Variance Inflation Factor (VIF) and Tolerance Factor, Detection of Autocorrelation using DW Statistic,

Testing of Assumptions: Linearity, Normality of Independent/Dependent Variables, Normality of Error Term, Homoscedasticity, Testing Structural Stability of the Regression Model.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Donald R Cooper & Pamela S Schindler, "Business Research Methods", Mc Graw Hill
2. Naresh K. Malhotra, "Marketing Research: An Applied Orientation" PHI
3. Ranjit Kumar, "Research Methodology : A Step-by- Step Guide for Beginners" Sage Publications

### Suggested Reading

Latest editions of the following to be used:

Amir D Aczel, "Complete Business Statistics", McGraw Hill Education.

### Teaching Learning Outcome

Use of Spread sheet software and relevant statistical software to learn data analysis during lab sessions in the Computer Lab.

### Assessment Method

1. Theory Examination: 75 marks
2. Practical lab Examination: 15 marks
3. Group project (Primary or Secondary Data): 10 marks

### Keywords

Hypothesis Testing, Multiple Linear Regression, ANOVA, PCA.



## **Entrepreneurial Skills**

### **(BBE SEC 4)**

#### Course Objective

To provide the knowledge, skills and attitudes in entrepreneurship technical education training that will best meet the developing economy. Develop positive attitude towards self employment, judicious use of resource.

#### Course Learning Outcomes

This syllabus aims to:

- i) Develop an entrepreneurial mind-set within individuals to deal with high uncertainty in regional and global market environments.
- ii) Increase understanding of the diverse character traits of entrepreneurs, which inform their behaviour.
- iii) Enhance the understanding of the entrepreneurial process from idea generation, to concept development and creation of the venture.
- iv) Develop critical thinking and problem solving skills through creativity, innovation and logical applications.
- v) Apprise students of existing opportunities and support services for venture creation and sustainability within and outside the region to support economic and social gains.
- vi) The skills and abilities that students are expected to develop on completion of this syllabus have been grouped under three headings:
  - Knowledge and Comprehension.
  - Application.
  - Communication and Networking

#### Unit 1: Entrepreneur

Concept of entrepreneur, Concept and Evolution of entrepreneurship, Distinction between entrepreneur and manager, Distinction between entrepreneur and intrapreneur, Attributes of entrepreneurs, Core elements of entrepreneurship, Entrepreneurship in a Developing economy, Factors affecting Entrepreneurship development. Entrepreneurship as a Process, Role of entrepreneurship in the developing economy.

## Unit 2: Launching Entrepreneurial Ventures

Generation of ideas: methods and process of generating ideas, sources of ideas and screening process.

Assessing opportunities: Challenges, pitfalls and critical factors of new venture; business and Entrepreneurial development organizations.

Determining and acquiring required resources (Financial, Physical and Human): search for entrepreneurial capital- Debt vs Equity, venture capital market: Angel financing and alternative sources of finance for Entrepreneurs.

Business Plan Preparation for new Ventures: Meaning of a business plan, benefits, elements and presentation.

## Unit 3: Role of Innovation and Creativity

Creativity: concept and process of creativity. role and importance of creativity and mental blocks to creativity.

Innovation: Meaning and importance of innovation. Types of innovation; Sources of innovation; conditions for effective innovation at organisational level and methods of protecting innovation and creativity: branding, trade marks, patents, copyrights and registered design protection.

## Unit 4: Business transformation through technological innovation

Impact of technological change on business; difference between technology updation and technology upgradation. Difference between technology change and technology innovation; technology changes and trends: repercussions of frequent changes (good or bad) and their influence on business transformations. Impactful strategies to implement technology trends in business.

## Unit 5: Case study of selected Indian Entrepreneur

Case Studies and examples of successful entrepreneurs and entrepreneurial ventures should be discussed at relevant places.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Baron, R. A., & Hmieleski, K. M. (2018). *Essentials of Entrepreneurship: Changing the World, One Idea at a Time*. Northampton, MA: Edward Elgar Publishing.
2. Donald. F Kuratko & T.V Rao, “Entrepreneurship: A South Asian Perspective”, Cengage Learning Publications.

### Suggested Readings:

Latest editions of the following to be used:

1. C.B Gupta and S.S Khanka, “Entrepreneurship and Small Business Management”, Sultan Chand Publications.
2. Ernesto J. Poza, “Family Business”, South-Western College
3. Rajeev Roy, “Entrepreneurship”, Oxford University Press.
4. Taneja & Gupta, “Entrepreneur Development”, Galgotia Publishing Company.

## Teaching learning plan

The subject is delivered by means of formal and participative lectures supported by the use of case studies and examples of successful entrepreneurs in India and World reflecting the importance of entrepreneurship in practical situations. Students should be provided with the essential environment for debates, group discussions, presentations etc.

## Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Entrepreneur, Innovation, Creativity, Economic Development, Business Plan.

## **Discipline Specific Elective (DSE)**

# **Group 1: Finance**

## **Security Analysis and Portfolio Management**

### **(BBE DSE 1A)**

#### Course Objective

It focuses to explain the investment decision making by following principles including diversification, valuation, loss prevention etc.

#### Course Learning Outcomes

After completing the course successfully, student should be able to:

- i) List given types of financial instruments and explain how they work in detail
- ii) Contrast key characteristics of given financial instruments
- iii) Briefly recall important trends in the markets, trading and financial instruments
- iv) Name key facts related to the return and risk of bond and equity markets
- v) Understand key facts of the mutual fund industry
- vi) Explain the fundamental drivers of diversification as an investment strategy for investors
- vii) Discuss measures of portfolio risk-adjusted performance in detail and critically analyse the key challenges in employing them
- viii) Competently identify established risk management techniques used.

#### Unit 1: Understanding Investment

Concept of investment; Investment and Speculation. Factors of sound investment: liquidity, risk, capital appreciation, investment horizon. Relevance of Investment Analysis. Investment decision process. Concept of Return and Risk. Risk- Return Trade-off.

#### Unit 2: Fund Management

Mutual Fund: Concept, features and characteristics of mutual funds; Benefits of mutual funds; Structure of mutual funds. Mutual fund schemes. Exchange traded funds. Systematic Investment Plan (SIP). Systematic Withdrawal Plan (SWP). Net Assets Value (NAV) of a mutual fund. Costs and loads in Mutual Fund Investments. Return from a Mutual Fund. Performance of Mutual Fund. Emerging Trends in Mutual Funds in India. Mutual fund investment and investor's protection in India

### Unit 3: Bond Valuation and Management

Concept and features of debt instruments. Types of debt instruments. Debt market in India.

Bond Yield: concept, types and calculations. Different ways of Computing Yield (Current yield, holding yield and Yield to maturity (YTM)). Yield curve.

Bond pricing and Valuation. Term structure of interest rates. Theories of term structure of interest rates: expectations theory, spot and forward rates, liquidity preference theory, market segmentation theory.

Risk in bonds (default risk, market interest rate risk, liquidity risk, inflation risk, reinvestment risk). Risk structure of interest rates. Bond Duration, Modified Duration Bond Convexity, Immunization and Rebalancing of Bond Portfolios.

### Unit 4: Equity Shares Analysis and Valuation

Fundamental Analysis: Economic Analysis, Industry Analysis, Company Analysis.

Technical Analysis: Basic tool of technical analysis (Charting). Dow Theory. Elloit Wave theory. Price and volume charts: Bar chart, Line chart, Point and figure chart, candlestick chart. Pattern Analysis: Support and resistance level. Indicator Analysis.

Weaknesses and shortcomings of technical analysis.

Efficient Market Hypothesis: weak form, semi strong form, strong form of market efficiency.

Valuation of equity shares: Valuation based on dividends. Valuation of equity shares based on Earnings.

### Unit 5: Analysis of Risk and Return

Risk-Return Relationship and Portfolio Management

Risk-Return Analysis: Return: Holding period return, annual return, expected value of return. Risk: sources, types(systematic risk and unsystematic risk). Measurement of Risk: standard deviation and Beta.

Portfolio Theory (selection and management): Portfolio management: security analysis, analysis and selection of portfolio, revision of portfolio, evaluation of portfolio. Return and risk in the context of portfolio. Two security portfolio calculations. Harry Markowitz Model. Risk free lending and borrowing. Capital Market line (CML). Single Index Model. Security market Line. Optimal Portfolio.

Risk and long Term Investment Decisions

Measurement of risk: sensitivity analysis, assigning probability, standard deviation and coefficient of variation.

Evaluation of risk: Risk adjusted discount rate approach, certainty equivalent approach, probability distribution approach, decision tree approach.

References

Essential Readings:

Latest editions of the following to be used:

1. Brealey R and S.C.Myers, "Principles of Corporate Finance", Mc. Graw Hill, New York
2. Khan and Jain, "Financial Management: Text, problems and cases" Mc. Graw Hill, New York.
3. Rustagi R.P, "Security Analysis and portfolio management", Sultan Chand and Sons. New Delhi
4. Rustagi R.P, "Investment Management : Theory and Practice" Sultan Chand and Co. New Delhi
5. Tripathi V, "Fundamentals of Investments", Taxmann's. Delhi.

Suggested Readings :

Latest editions of the following to be used:

1. Chandra, "Prasanna Investment Management", Mc. Graw Hill, New Delhi.



2. Eakins S.G, “Finance: Investments, Institutions and Management”, Addison Wesley Longman Inc, USA.
3. Rana Nisha, “Emerging Trends in Business & Management: Shaping the future”, Anamica Pub Co.
4. Schaum’s Outline Series, “Theory and Problems of Investments”, Mc. Graw Hill.
5. Singh Preeti , “Fundamentals of Investment Management” , Himalaya Publishing House.

### Teaching Learning Plan

The paper is taught in a traditional classroom setting for lectures and tutorials. The students are guided with a detailed manual and a textbook incorporating the basic and applications of stock market, security analysis and portfolio management. The paper is delivered by means of formal and participative lectures supported by numericals reflecting the importance of risk and return in investments. Tutorials are also used to discuss investment management topics in greater depth.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

### Keywords

Security, Investment, Portfolio, Risk, Return, Mutual Funds, Fundamental Analysis, Technical Analysis.

## **Derivatives and Currency Markets**

### **(BBE DSE 1B)**

#### Course Objective

To give substantive knowledge to the students about two major different asset classes viz. Derivatives and Currencies.

#### Course Learning Outcomes Learning Outcomes

Students will be able

- i) To understand the functioning of derivatives and foreign exchange markets .
- ii) To gain the knowledge of International financial system.
- iii) To know how derivatives function in financial markets.
- iv) To imbibe the knowledge about different trading and hedging strategies and working of models which explain the pricing of derivatives.
- v) To understand the principles of trading in foreign exchange markets, different instruments traded , risks involved and hedging of currency risks.

#### Unit 1: Introduction to Currency Markets

Spot & forex market: Introduction and Features , Participants, & their method of communication in forex markets, currency Quotes and types, calculation of forward rates using spot rates, discount/premium on spot rate. Spot rate with and without transaction costs, Arbitrage, Arbitrage: one point, two point and three point (triangular) arbitrage. Cross Rates & Synthetic quotes.

Parity Conditions in Currency Markets : Interest rate Parity (explanation of borrowing and lending criteria, diagrammatic presentation) PPP Principle (both absolute and relative versions), International Fischer Effect. The linkages between parity conditions.

#### Unit 2: Introduction to Derivatives

Meaning and Types, Stock & Currency Futures ,Forwards & Options, Commodity Futures, Weather Derivatives, Hedging/Risk Management through stock futures and payoffs, Stock and Currency Options In the money, At the Money and Out of Money , Stock Option Payoffs, Pay Off profile on Currency.

Forward , Futures & Options contracts, Margin Adjustment for futures., Intrinsic Value, Forwards vs. Futures, Simple Futures and Stock Options Combination Strategies (Neutralizing the risk, Spread, Straddle, Collars, Covered call).

### Unit 3: Pricing of Derivatives

Pricing of Forwards, Option Pricing : Binomial Model , Black Scholes Model, Put Call Parity Equation, Option Greeks : Meaning and Order of Greeks, Delta of European Stock Options & Portfolio Delta, Delta and Black Scholes Model, Delta Hedging. Sensitivity of an Option : Vega, Theta , Rho & Lamda. Hedging through Gamma & Vega, Making a Portfolio Gamma Neutral, Gamma's relation with other Greeks

### Unit 4: International Financial System over the years

International financial system: Fixed, Flexible and Managed floating exchange rate regimes, hybrid systems, working of international financial system under Gold standard and Gold Exchange Standard System, Brettonwoods system and post: Brettonwoods. IMF and creation of SDR.

International capital flows, FDI vs FII, Investment strategies of FII, Foreign investment with special reference to Developing Countries. Payment Terms and Methods of Financing International Trade (Letter of Credit, Forfaiting, Factoring, Credit Lines).

### Unit 5: Exchange Rate Determination and Exposures

Currency Demand and Supply Curves, 'J' Curve Effect, Factors Affecting Exchange Rate, Foreign Exchange Exposure: Statistical Measurement of Exposure, Types of Exposure :Transaction, Economic and Translation Exposure, Hedging Strategies to Manage Transaction , Economic & Translation Exposures.

Swaps: Interest rate & Currency Swaps. Structured Products: Meaning, Types , Design and Risks Involved.

## References

### Essential Readings :

Latest editions of the following to be used:

1. Hull.J.C & Basu S., “Futures Options and Other Derivatives” Pearson Education.
2. Maurice Levi, “International Finance” McGraw Hill Inc, New York.
3. Madura Jeff, “International Financial Management”, Cengage Learning.

### Suggested Readings:

Latest editions of the following to be used:

1. Seth A.K, “International Financial Management”, Galgotia Publishing Company, New Delhi.
2. Shapiro A. C, “Multinational Financial Management”, Prentice Hall India Pvt Ltd., New Delhi.
3. National Stock Exchange of India ‘Indian Securities Market: A Review’ NSE, Mumbai ([www.nseindia.com](http://www.nseindia.com))

## Teaching Learning process

Teaching of this paper will be conducted in lecture and case study mode. Quiz will be organised to enhance both understanding and involvement of the students.

## Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Currency Markets, Futures, Forward, Exchange Rate, J-Curve.

## **Group 2: Quantitative Techniques**

## **Applied Econometrics**

**(BBE DSE 2A).**

### Course Objective

To provide an advanced exposure to the students about the nature and application of qualitative and quantitative research models with suitable industry applications.

### Course Learning Outcomes

By the end of the course the student should be able to:

- i) Demonstrate a comprehensive knowledge & advanced understanding of traditional econometrics.
- ii) Able to conduct independent data analysis using the tools of statistics and econometrics.
- iii) Shall understand project reports and journal articles that make use of the concepts and methods that are introduced in the course.
- iv) Be competent enough to synthesise econometric studies in the empirical literature and critically analyse the results and the approaches adopted
- v) Perform statistical tests using computer based program package for econometric analyses to investigate whether the classical assumptions in regression analysis are satisfied.

### Unit 1: Limited Dependent Variable Models (Using Cross Sectional Data)

Qualitative Response and Limited Dependent Variable Models (LPM, Logit/ Logistic Models).

### Unit 2: Simultaneous Equation Models (Using Cross Sectional Data)

Simultaneous Equations Models; The Identification Problem; Mongrel Equation, Rank and Order Conditions , Solution to Simultaneous equation bias..

### Unit 3: Time Series Models

Stationary and Non Stationary time series , Unit root tests, the Random Walk, Moving Average AR &,ARIMA Models, Forecasting with Time Series using AR & MA.

## Unit 5: Introduction to Panel Data

Fixed And Random Effect Models.

### References

Essential Readings :

Latest editions of the following to be used:

1. Brooks Chris, "Introductory Econometrics for Finance", Cambridge Univ. Press.
2. Gujarati D. N, "Basic econometrics", Tata McGraw-Hill Education.
3. Pindyck and Rubinfeld, "Econometric Models and Economic Forecasts", McGrawHill, Singapore.
4. Wooldridge J.M, "Introductory econometrics: A modern approach" , South Western Cengage Learning.

Suggested Readings:

Latest editions of the following to be used:

1. Dougherty Christopher, "Introductory Econometrics", Oxford University Press.
2. Gujarati D. N, " Econometrics By Example" Palgrave.
3. Ramanathan Ramu, "Introductory Econometrics With Applications", Dryden Press

### Teaching Learning process

Although the focus of the paper is on understanding of the advanced econometric concepts, the teacher may provide students with high quality empirical research papers which have applied the models learnt by them. This would enable the student to learn the art of writing a good research paper by linking the theory with actual published research output.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Time Series Models, Simultaneous Equations Models, Panel Data, Logistic Models, Forecasting.



## **Topics in Mathematics** **(BBE DSE 2B)**

### Course Objective

The objective of this course is to provide additional instruction on some topics in mathematics that do not fit into the core course in Mathematics for Business Economics. The course deepens the understanding in some areas related to real multivariate functions and their optimisation and linear algebra, and introduces an element of economic dynamics. The level of complexity at which the material is to be taught is indicated by the contents of the prescribed main textbook.

### Course Learning Outcomes

Students will be able to:

- i) Apply the knowledge of mathematical tools learned in this course in various decision making process of any business.
- ii) Relate the use of the mathematical skills acquired in various business scenarios.

### Unit 1: Integral Calculus

Integration, indefinite and definite and improper integrals; areas under the curve; integrals of discontinuous and unbounded functions; economic applications; Lorenz curve.

### Unit 2: Functions of Several Variables

Partial derivatives; results generalized to  $n$  variables; implicit function theorem; general quadratic forms; convex sets; convexity, concavity, quasi convexity, quasi concavity and their inter-relations; unconstrained optimization; constrained optimisation with one and more equality constraints; envelope results; non-linear programming; applications.

### Unit 3: Linear and Nonlinear Programming

Duality, Complementary Slackness, application of Kuhn Tucker conditions, Input-Output Model, Nonlinear programming problems, Local Vs. Global optimum, Concave and convex functions, Separable programming, Linear approximation of nonlinear program, Quadratic programming, One-dimensional optimization, mixed integer nonlinear programming

#### Unit 4: Difference Equations

Difference equations of the first order with constant and variable coefficients; Second order difference equations with constant coefficients; stability; economic applications.

#### Unit 5: Differential Equations

First order differential equations; direction diagram, separable differential equations; phase diagrams and steady states; applications to economics.

#### Unit 6: Simulation

Simulation and Problem Solving using Monte Carlo method and Random numbers.

#### References

##### Essential Reading:

Latest editions of the following to be used:

1. Chiang A.C. and Wainwright K, "Fundamentals of Mathematical Economics", McGraw-Hill Education.
2. Michel Hoy, John Livernois, Chris McKenna, Ray Rees, Thanasis Stengos, "Mathematics for Economics", Prentice Hall India.
3. Sydsaeter K & Hammond P.J, "Mathematics for Economic Analysis", Pearson Education.

##### Suggested Readings:

Latest editions of the following to be used:

Carl P. Simon. Lawrence Blume, "Mathematics For Economists", W.W. Norton.

#### Teaching Learning Process

The students would be taught with classroom teaching and problem solving exercises at regular intervals. The role and language of mathematics would be explained which would

allow the students to solve complex and testable subjects which could then be easily expressed. The focus would be on problem solving based learning, case studies, project work and games.

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

#### Keywords

Integrals, Duality, Kuhn Tucker Condition, Difference Equation, Differential Equation.

# **Group 3: Economics**

## **Economic Growth and Development**

### **(BBE DSE 3A)**

#### Course Objective

To analyse growth models in the context of technology and capital as a major determinant of growth and development. To understand international aspects with a thorough discussion on trade, investment and finance. To study about different aspects of inequalities.

#### Course Learning Outcomes

Student will be able to:

- i) Explain the basics of economic growth, economic development, factor affecting economic development, difference between economic development and economic growth.
- ii) Learn about basis and structure of Harrod- Domar growth model.
- iii) Analyse the concept and effects of the different factors in Solow Growth model.
- iv) Understand the concept of convergence.
- v) Get knowledge about the basic framework of the AK model.
- vi) Know the interrelationship between Traditional Subsistence sector and Modern Industrial sector in Lewis model.
- vii) Learn about poverty and its measures and find out the various causes and measures of inequality.
- viii) Identify the role of technological progress, human capital in process of Economic growth.
- ix) Learn about international trade and inequality.
- x) Understand the role of government and market in economic development

#### Unit 1: Economic Development Concepts

Introduction to the concept of Economic Development, Distinction between Growth and Development, Common characteristics of developing countries, Sen's Capabilities Approach. Lewis Model.

## Unit 2: Growth Models

Harrod-Domer Growth Model, The basic Solow Model, Solow model with technology, Convergence: Conditional and Unconditional, Alternate theories of Endogenous Growth.

## Unit 3: Technological Progress

Externalities, technical progress and growth, Total factor productivity, Capital and Labor saving technical progress, financing development from domestic resources, International trade.

## Unit 4: Human Capital-Education, Intellectual Capital, Inequality & Poverty

Educational Investment in Human Capital, Education, Health and Economic Development, Income inequality and its measurement, Concept of relative and absolute poverty, International Inequality.

## Unit 5: State and The Market

Market failure and Government Failure, Role of Government, Infant industry argument, market for land and credit, Structural adjustment facility of International Monetary Fund, World Bank.

Experience of South East Asia and Latin America Countries.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Charles Jones, "Introduction to Economic Growth", Norton, W. W. Norton & Company.
2. Debraj Ray, "Development Economics", Oxford University Press.
3. F Hayami, "Development Economics", Oxford University Press.
4. Meier, "Leading Issues in Economic Development", Oxford University Press.
5. Thirwall A.P, "Growth and Development", Palgrave Macmillan.
6. Todaro M.P, "Economic Developments", The Pearson Series in Economics.

### Suggested Readings:

Latest editions of the following to be used:

1. David Romer, “Advanced Macroeconomics”, MacGraw-Hill.
2. Robert J. Baro and Xavier Sala-i-Martin, “Economic Growth”, The MIT Press, Cambridge, Massachusetts London, England.

### Teaching Learning Process

Apart from detailed discussion on different topics, students will be asked to do case study of different countries. They can do the comparative study to understand the gaps between developed and developing countries. They will be encouraged to do field visit to get the first hand information of the many issues related to growth and development.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

### Keywords

Economic Growth, Economic Development, Harrod- Domar Growth Model, Solow Growth Model, Convergence, AK Model, Lewis Model, Poverty, Inequality, Technological Progress, Human Capital.

## **Indian Economy**

### **(BBE DSE 3B)**

#### Course Objective

The paper explains a wider aspects of global and Indian economic reforms, India reaching to the position of fastest growing economy, and simultaneously having dismal social and fiscal growth scenario.

Students will get wider perspective to understand and analyze the facts related to macro economic trends and fiscal trends. Knowledge of this paper will provide the students with a wider vision and deeper insight to think and actively work on the issues which are proving as the biggest hurdles in the overall growth and development of the business environment in the economy.

#### Course Learning Outcomes

- i) To make students familiar with the different phases of Indian economy's growth and development.
- ii) To make the students understand why there was policy change from state-led economy to the market led economy.
- iii) To know the facts related to dismal growth of economic and social indicators.
- iv) To analyse the impact of global economic crisis and the strategies adopted domestically and globally to resolve the crisis situation.
- v) To relate the economic issues with the current competitive business environment and to examine its impact.
- vi) To suggest the alternative policy options for the economic and social improvement.

#### Unit 1: Growth and structural changes in the Indian economy

State and Development of Indian economy during pre reform (1950-90) and post reform period.

An overview of the economic developments during the period 1947-1980; Objectives and strategies of planned economic development and the role of the State; Slowdown in growth since mid 1960; Changes in policy emphasis from growth to distribution.



## Unit 2: India Since 1980s: Social and economic changes

Macro-economic Policies and their impact on Indian Economy, Socio economic differences, macroeconomic Policy Changes since 1980s. The 1990 Crisis. Why Liberalization? Causes and Effects, Service led Growth.

## Unit 3: Social and Economic Issues

Demographic transformation: Growth of workforce and Changing Occupational structure in India Nature, extent and causes of unemployment, Reform of labor laws.

Health and Education Issues in India.

## Unit 4: Agriculture

Policy and performance, trends in productivity, marketing of agricultural products, food security, farmers's distress.

## Unit 5: Industry and foreign Trade

Import substitution industrialisation, Manufacturing industry under trade liberalisation, Competition Policy.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Achin Chakraborty (2015), "Reforming Labour Markets in States: Revisiting the Futility Thesis", Economic and Political Weekly, May 16.
2. Anand Rahul, Kochhar Kalpana and Saurabh Mishra (2015), "Make in India: Which exports can drive the next wave of growth?", IMF Working Paper, WP/15/119 (appendix excluded).
3. Arun Kumar, "Indian Economy since Independence: Persisting colonial disruption" , vision books.

4. Basu Kaushik & Maerten, "The oxford companion to economics in India" , OUP (Relevant topics).
5. Basu Kaushik (2007), "The Oxford Companion to Economics in India" , OUP Pages 211-214.
6. Bhagwati and Panagariya (2012), "A Multitude of Labour Laws and their reforms in, India's Tryst with Destiny", Collins Business, Noida, Ch.8.
7. Bloom David, "Population Dynamics in India and Implications for Economic Growth PGDA Working Paper No. 65.
8. Chakraborty Achin (2015)," Reforming Labour Markets in States: Revisiting the Futility Thesis" , Economic and Political Weekly, May 16.
9. Chanda Rupa(2017)," Services for Indian Manufacturing" in MahendraDev, S (ed), India Development Report 2017.
10. Dhar Biswajit(2015), "India's New Foreign Trade Policy", EPW Vol. 50, Issue No. 16, 18 Apr.
11. Dreze Jean & Sen Amartya, "An Uncertain Glory: India and its Contradictions", Penguin UK (Chapter 2 and 3).
12. Green Russell (2019), " Structural change forecast for India" EPW, Vol 54, Issue No 12, 23 March.
13. Gulati Ashok and Saini Shweta (2017), "25 Years of Policy Tinkering in Agriculture", in Rakesh Mohan (ed), India Transformed, Penguin (Viking).
14. Kohli Renu (2014), "Financial Globalization in India, in Ashima Goyal", The Oxford Handbook of Indian Economy in the 21<sup>st</sup> Century, OUP, Delhi, Ch.8.
15. Kumar Nagesh (2014), "Foreign Direct and Portfolio Investments Flows and Development: A Perspective on Indian Experience" in Uma Kapila (ed.), Indian Eco Since Independence, 26<sup>th</sup> edition, 2015-16. Academic Foundation, Delhi, Ch.40.
16. Mahendra Dev S, "India Development Report 2017", Oxford University Press

17. Nair S R. & Leena Mary Eapen, "Agrarian Performance and Food Price Inflation in India Insights And Lessons from Pre and Posteconomic Liberalisation Experiences", IDEAS working paper.
18. Panda Manoj (2017), "Macroeconomic Scenario and Policy options", IDR Oxford University Press.
19. Pulapre Balakrishnan (2007) "The Recovery of India: Economic Growth in the Nehru Era", EPW .
20. Suresh K G, V Nagi Reddy (2018), "Does FDI promote growth? : Evidence from Indian Manufacturing sector", EPW , Vol53, Issue no 36, 8 September.
21. Thomas J J (2012), "India's Labour Market during the 2000s: Surveying the Changes", EPW December 22.
22. Thomas J J (2018), "Economic Growth without employment: The story of Indian Manufacturing" in Hill and Patil (eds.), Employment Policy in Emerging Economies, Routledge, London and New York.
23. T.S. Papola (2012), "Employment Trends, in Kaushik Basu and Annemie Maertens (ed.)", The New Oxford Companion to Economics in India, vol. I, Delhi, Oxford University Press, pp. 169-173.
24. Vijay Joshi, " India's Long Road: The search of prosperity" , Penguin Books Limited (Chapter 2).

#### Suggested Readings:

Latest editions of the following to be used:

1. Bhagwati J and Panagariya A (2012), "India's Tryst With Destiny", Collins ,pages 4-5, 32- 38.
2. C. Veeramani (2012), "Anatomy of India's Merchandise Export Growth: 1993-94 to 2010-11", Economic and Political Weekly, Vol XLVII (1), pp 94-104.

3. Mohan R (2008), "Growth Record of the Indian Economy, 1950-2008: A story of Sustained Savings and Investment", EPW, May 10.
4. Government of India: Economic Survey (Annual), Ministry of Finance, New Delhi.
5. Economic and Political Weekly, Various Issues.

#### Teaching Learning Process

The outlined topics will be explained with the help of factual information from the documented and reported sources of Government reporting agencies. It will cover economic and social environment at wider level and make the students understand the comparative position of Indian economy in global perspective. Students will be able to analytically examine the factors responsible for the volatile economic trends of the economic and social indicators. They can work in the direction of alternative policy options for the inclusive growth of the country. They will be given field project and research work in the relevant areas to get the first hand information.

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

#### Keywords

Nehruvian era, Policy paralysis, golden era of Indian Economy, Hindu rate of growth  
Economic reform, liberalization, global financial crisis, foreign direct investment, inequality, malnutrition

# **Group 4: Ventures**

## **New Ventures Planning and Implementation**

**(BBE DSE 4A)**

### Course Objective

The objective of this course is to inculcate in students the strategic skills required to develop and launch a new venture, the vision required to support effective environmental scanning and the knowledge required to plan for harvesting and succession of a business. Students will gain an understanding of the process involved in the successful implementation of a new venture.

### Course Learning Outcomes

By the end of this course students should:

- i) Learn to identify opportunity for a new venture
- ii) Perform feasibility analysis to identify a potentially profitable venture
- iii) Be aware of risk associated with launch of a new venture and learn how to manage the same
- iv) Be aware of support system available from the government and various other sources for financial support towards the venture.

### Unit 1: Planning for a New Venture

Appraisal: An introduction, Project appraisal and Evaluation, Project life cycle, Project cycle management, Cost benefit analysis of Private and Public sector Projects; Identification and formulation of a new venture, Motivation for Creative Ideas and Entrepreneurship, Techniques to enhance creativity: Brainstorming, Mind mapping, Focus groups, Rapid Prototyping, Synectics, TRIZ. Creative Ideation process for identification of a new venture idea.

### Unit 2: Feasibility Assessment / Venture Viability Analysis – Marketing and Technical

Market Feasibility analysis, estimation of market size for the potential new venture, analysis of peers in the industry, forecasting of market growth with various tools, develop a sales and

marketing plan. Assessment of technical viability of the proposed venture, develop technical appraisal decision tool, technology tie-ups and diffusion, Case study of NOKIA.

### Unit 3: Financial and Socio Economic Viability

Financial feasibility analysis, investment decision criteria, Investment decision techniques: non-discounting and discounting, ratio analysis, lender's perspective for appraisal of financial viability of a new venture. Brief understanding of economic, environment and socio economic analysis. Case study of Tehri Dam.

### Unit 4: Risk and Sensitivity Analysis of a New Venture

Difference between Risk and Uncertainty Analysis, Uncertainty Analysis: Break Even analysis, sensitivity analysis, scenario analysis; Risk Analysis using Simulation and Decision Tree method; RADR and CEA approach; brief introduction of monitoring and control of investment projects.

### Unit 5: Financing Options for a New Venture

Conventional and Unconventional sources of funds for a new venture; central and state government initiatives for promotion of start ups in India, Venture fund, angel investment, crowd funding, bootstrapping etc. Process of launching a new venture in India, preparation of project report and business plan of the proposed new venture.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Agrawal, Rashmi and Mehra, Yogieta S, "Project Appraisal and Management", New Delhi: Taxmann Publications.
2. Machiraju, H. R, "Introduction to project finance: An analytical perspective", New Delhi: Vikas Publication House.
3. Raichaudhuri Anjan, "Managing New ventures, concepts and cases on entrepreneurship", PHI learning and private limited, New delhi.

### Suggested Readings:

Latest editions of the following to be used:

1. Boardman, A. E., et.al (2018), “Cost-benefit analysis: Concepts and practice”, Cambridge University Press.
2. Esty, B. C., & Sesia, A. M, (2006) “An overview of project finance and infrastructure finance 2006 update. Boston”, MA: Harvard Business School.
3. Kerzner, Harold, “Project Management: A Systems Approach to Planning, Scheduling, and Controlling”, Wiley publishing company. New Jersey.
4. Pouliquen, L. Y, “Risk Analysis in project appraisal. World Bank staff occasional” papers, No.11 (Washington D.C., IBR), 52-62.
5. Sinha P.K, "Project Appraisal, planning and control", Excel books. Delhi.

### Teaching Learning Process

The subject is delivered by means of formal and participative lectures supported by the use of case studies and examples of successful ventures in India and in the World reflecting the importance of new ventures in an economy. Students should be provided with the essential environment for debates, group discussions, presentations etc.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

### Keywords

Venture, project planning and appraisal, feasibility analysis, risk, sensitivity analysis, uncertainty, angel investment.



## **Strategic Management**

### **(BBE DSE 4B)**

#### Course Objective

The students will develop the skill to identify strategic capabilities for strategic decision making in an organisation.

#### Course Learning Outcomes'

- i) Students will learn the strategic decisions making process and strategic planning in the organizations.
- ii) Students will be able to analyse strategic macro environmental issues and identify their impact on profitability and strategic positioning.
- iii) Students will be skilled to identify strategic capabilities and gaps.
- iv) Students will analyse and assess organisational performance based on external and internal environment.
- v) Students will be able to understand the concepts, principles and practices associated with strategy formulation and implementation.

#### Unit 1: Overview

Concept of Strategy, Goals, Objectives, Strategic Intent, Vision and Mission Statements, Strategy Formulation Process, Strategy Implementation and its Stages, Reasons for Strategy Failure, Value of Strategic management. Benefits of strategic management. Role of Strategists in Decision Making, strategists at various management levels, Types of Strategies, Limitations of Strategic Management

#### Unit 2: Environment Analysis

Strategy Analysis: Environmental Appraisal and Scanning Techniques, Need and Characteristics of environmental factors. Analysis of specific environment: Michael E. Porter's 5 Forces Model. Organisational Position and Strategic Advantage Profile, Strategic Management Model. Internal Environment: Value of Systematic Internal Assessment. Developing the Company profile. Profile of Company's Strengths and Weaknesses. Core Competencies and capabilities. SWOT Analysis.

### Unit 3: Business Strategies and Strategy formulation

Strategy formulation: Formulating Long-Term Objectives and Grand Strategies. Types of Strategies – Corporate Strategy Business Strategy, Functional Strategy. Business Venture, Business Investment Strategies. Business Strategies , Techniques Employed to Manage Markets , Strategic Analysis and Choice Strategic Analysis at the Corporate Level. Grand strategy Selection Matrix. Contingency Approach to Strategic Choice, Porter’s Competitive Strategies, Portfolio Analysis, BCG Growth Share Matrix

### Unit 4: Challenges in Strategic Management

Strategy implementation and control: Operationalizing the Strategy Annual Objectives. implementation procedure of Strategy in an organization. Institutionalizing the Strategy Structural Considerations. Linking structure to strategy. Organizational leadership. Role of the CEO. Organizational culture. Managing the Strategy-Culture relationship. Strategic Control and Evaluation Establishing Strategic Controls. Operational control systems

### Unit 5: Global Strategic Management

Global Strategic Planning: Competitive strategies for firms in foreign markets, Strategic Choice in a Global Context. Managing Global Sourcing Opportunities. Strategic Alliances, Types of Strategic Alliances and Business Decisions, Problems Involved in Strategic Alliances.

### References

Essential readings:

Latest editions of the following to be used:

1. Arthur A. Thompson Jr. and A.J. Strickland: Strategic Management –Concepts and Cases, McGraw-Hill Companies
2. J.A. Pearce & R.B. Robinson : Strategic Management formulation implementation and control, TMH
3. Lawrence R. Jauch& William F. Glueck: Business Policy and Strategic Management (Mcgraw Hill Series in Management)

4. Thomas L. Wheelen and J David Hunger, Concepts in Strategic Management and Business Policy Pearson education.

Suggested Readings:

Latest editions of the following to be used:

1. Arthur A. Thompson Jr. & A.J Strickland, "Crafting and Executing Strategy" ,TMH
2. Gerry Johnson & Kevan Scholes, "Exploring corporate strategies" , PHI
3. Kachru Upendra, "Strategic Management" , Excel books

Teaching Learning Process

Teaching learning process: The teaching learning process will involve two way communication between teacher and students. It will include Lecture, Tutorial, seminar, lecture by industry experts for enriching the learning experience for students.

Tools: The tools to be used by teachers include PPT, Lecture, case study, role playing, Field visit to court.

Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

Keywords

Key words: Strategy, Vision, Mission, Strategy Analysis, Portfolio Analysis, Strategic Control, Strategic Alliances.

# **Group 5: Marketing**

## **Consumer Behaviour and Advertising**

**(BBE DSE 5A)**

### Course Objective

This paper aims at providing an understanding of Consumer Decision Making Process, Advertising Communication Process and their interlinkages.

### Course Learning Outcomes

- i) To recognize the theories of personality and appreciate their working in advertisements
- ii) To learn how human biases influence consumer perception of brand advertisement and to appreciate how attitudes influence purchase.
- iii) To understand how Innovative products receive acceptability in the market.
- iv) To gain insight into the working of advertising agencies.
- v) To analyze and interpret the advertisement objectives, appeals and formats.
- vi) To understand the use of creative briefs for creating effective advertisements meeting pre-identified advertising goals.

### Unit 1: Consumer Decision Making Process

Meaning of the term consumer. Customer Value, Satisfaction, Trust and Retention, Levels of consumer decision making, Model of Consumer Decision Making Process, The Diffusion process, The adoption of Innovations. Profile of Consumer innovator.

### Unit 2: Personality, Perception and Consumer Behaviour

Theories of Personality, Personality and Consumer Diversity, Brand Personality, Self and Self Image, Virtual Personality.

Dynamics of perception (Sensation, Absolute and Differential threshold, Subliminal perception, Perceptual selection, organization and interpretation), Consumer Imagery,

### Unit 3: Learning and Attitude formation

Meaning of the term Learning. Elements of consumer learning, Behavioural learning theories (Classical, Instrumental and Observational theories), Cognitive Learning Theory. Attitude

Formation and Attitude Change Strategies. Needs and culture, Learning and culture (Symbolism, Enculturation and Acculturation, Rituals), Subcultures, Indian Core Values.

#### Unit 4: Learning and Attitude formation

Meaning of the term Learning. Elements of consumer learning, Behavioural learning theories (Classical, Instrumental and Observational theories), Cognitive Learning Theory. Attitude Formation and Attitude Change Strategies. Needs and culture, Learning and culture (Symbolism, Enculturation and Acculturation, Rituals), Subcultures, Indian Core Values.

#### Unit 5: Creative Advertising Strategy: Planning and Implementation

Determining IMC Objectives, DAGMAR, Establishing and Allocating the promotional budget, Creative Strategy Development, Creative Brief.

Advertising Creativity, Appeals and Execution Styles, Source, message and Channel Factors Creative Tactics for Print and Television Advertising.

#### Unit 6: Media Planning Strategy and Evaluation

Developing a Media Plan, Media Plan budget, Media Mix selection, Media objectives, Measuring the Media audience - TV, Radio, print, support media, internet and interactive media.

#### References

Essential Readings:

Latest editions of the following to be used:

1. G.E. Belch, Michael A. Belch and Keyoor Purani, "Advertising and Promotion-An Integrated Marketing Communications", Tata McGraw Hill Education.
2. Hawkins D & Best Roger " Consumer Behaviour Best and Coney " , Tata McgrawHill.
3. Kruti Shah ,"Advertising and Integrated Marketing Communications", McGraw Hill Education India.

4. Leon G. Schiffman & Leslie Lazar Kanuk, "Consumer Behaviour", Pearson publications.
5. William Wells, Sandra Moriarty, and John Burnett, "Advertising: Principles and Practice", Prentice Hall of India.

#### Suggested Readings:

Latest editions of the following to be used:

1. Banerjee Saikat (2008), "Dimensions of Indian culture, core cultural values and marketing implications", Cross Cultural Management, Vol 15, Issue 4, p367-378, (Emerald Insight).
2. Jethwaney Jaishri and Jain Shruti, "Advertising Management", Oxford University Press.
3. Kumar S R, "Conceptual Issues in Consumer Behaviour", Pearson Publication.
4. Nair Suja "Consumer Behaviour in Indian Perspective", Himalya publishers.
5. Shah Kruti, "Advertising and Integrated Marketing Communications" McGraw Hill Education India, 2014.
6. Sheth and Mittal, "Customer Behaviour: A Managerial Perspective", Thomson Publication.

#### Teaching Learning Process

Teaching methodology must integrate concepts with discussions/activities and advertisements in the Indian context.

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Consumer Behaviour, Creative Advertising Strategy, Personality, Perception, Diffusion of Innovation.



## **Marketing Analytics**

### **(BBE DSE 5B)**

#### Course Objective

- i) To acquaint the students with the knowledge of data driven marketing by familiarizing them with the latest tools, techniques and metrics used by the contemporary digital organizations in improving their outreach.
- ii) To arouse ethical awareness of individuals by sensitizing them towards the privacy issues surrounding the collection of data for driving marketing decisions.

#### Course Learning Outcomes

Student will be able to:

- i) Explain the power of Marketing Analytics, Big Data and Search Engine Optimization.
- ii) Identifying valuable business opportunities for driving marketing decisions and improving return on investment.
- iii) Identify and explore the marketing opportunities, company examples, and organizational implications of marketing analytics.
- iv) Use marketing analytics as a tool to drive superior growth.
- v) Apply the concept and insights into well-designed products and offers that delight the customers by recognizing the digital marketing landscape.
- vi) Perform effective analysis of customers by identifying their true worth for an organization.
- vii) Deliver well designed focused marketing campaigns that improves the firm revenues and profitability in a sustainable manner.
- viii) Understand the essential metrics that quantifies the vast majority of marketing activities and recognize the relevance of building an online marketing strategy around SEO.
- ix) Predict the future of Analytics and understand the importance of business intelligence.

#### Unit 1: Introduction

Marketing Analytics- History, Concept and Nature, Challenges Faced by Marketing Decision Makers, Business analytics - Descriptive - Predictive and Prescriptive Analytics, Big Data.

## Unit 2: Web Marketing

Digital Marketing Mix, Search Engine Optimization: SEO (Working, Crawling and Indexing), Building Search Engine Friendly Designs, Keyword Research, Page Rankings, Digital Marketing: Indian Scenario.

## Unit 3: Metrics

Propensity Modeling, Market Basket Analysis, Decision Trees, Brand Awareness Recall, Test-drive, Churn, Customer Satisfaction (CSAT), Take Rate, Profit, Net Present Value, Internal Rate of Return, Payback, Customer Lifetime Value (CLTV), Cost Per Click (CPC), Transaction Conversion Rate (TCR), Return on Ad Money Spent (ROA), Bounce Rate, WOM (social media reach), using Near Time Data.

## Unit 4: Data Analytics

Market Segmentation and Targeting using Customer Analytics, Marketing Mix Analytics: Product- Pricing-Place and Promotion Analytics, Conjoint Analysis, Customer Lifetime Value, The future of Digital Data: Business Intelligence, Analytics and Ethics.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Hemann C and Burbary K, "Digital Marketing Analytics: Making Sense of Consumer Data in a Digital World" published by Que Publishing (Pearson Education, Inc).
2. Jeffery Mark, "Data-Driven Marketing: The 15 Metrics Everyone in Marketing Should Know", published by John Wiley & Sons, Inc.
3. Venkatesan R, Farris P & Wilcox R T, "Cutting Edge Marketing Analytics - Real World Cases and Data Sets for Hands On Learning-2018" , published by Pearson Education, Inc.

## Suggested Readings:

Latest editions of the following to be used:

1. Bhatia Puneet, "Fundamentals of Digital Marketing" , published by Pearson Education, Inc.
2. Kotler Philip, Kartajaya Hermawan , Setiawan Iwan, "Marketing 4.0: Moving from Traditional to Digital" , published by John Wiley & Sons, Inc.
3. McKinsey & Company, "Marketing & Sales Big Data, Analytics, and the Future of Marketing & Sales".
4. MOZ- The Beginners Guide to SEO.
5. Nargundkar Rajendra, Sainy Romi, "Digital Marketing: Cases from India", published by Notion Press.
6. Ofek Elie, "Customer Profitability and Lifetime Value" , Harvard Business Review.
7. Wedel M & Kannan P.K, " Marketing Analytics for Data-Rich Environments" , Sage Journal of Marketing.

## Teaching Learning Process

Case Discussions about marketing performances of leading analytics driven firms must be encompassed in teaching methodology. Class-Room interactions and regular discussions on ethical and other issues must be included. Theoretical concepts backed by relevant industry examples and revered research articles in both Indian and International context is highly recommended.

## Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Big Data, Marketing, Search Engine Optimization, Decision Trees, Customer Satisfaction, Take Rate, Profit, Net Present Value, Bounce Rate, WOM, Data Analytics, Customer Analytics, Marketing Mix Analytics, Analytics and Ethics.

## **Group 6: Applied Economics**

## **International Economics**

### **(BBE DSE 6A)**

#### Course Objective

This course aims at inculcating basic understanding of fundamentals of international economics. It will enable students to identify basis and gain from international trade with the help of different theoretical models and their applications to real world challenges and its solutions.

#### Course Learning Outcomes

Student will be able

- i) To understand basic concept and origin of International economics through the prism of classical and new classical trade theories
- ii) To understand different terms of trade and their applicability
- iii) To differentiate between Modern and Classical Trade theories .
- iv) To derive offer curve of a nation using general equilibrium approach o
- v) To analyze how demand and supply changes affect countries Term of Trade. To understand how international trade impact factor prices.
- vi) To understand the different trade instruments.
- vii) To analyze the effect of tariff and non- tariff barriers using the partial equilibrium approach.
- viii) To grasp theory of custom unions and its different model.
- ix) To know different components of Balance of payments and theories of balance of payments
- x) To gain knowledge about WTO and its roles.
- xi) To know about recent developments in trade talks under WTOs ministerial conferences.

## Unit 1: International Trade Theory

Introduction: The basis of international trade, difference between internal and external trade.

The classical theory of international trade: Theory of Mercantilism, Adam Smith's Theory of Absolute Advantage, David Ricardo's Theory of Comparative Advantage, Haberler's opportunity cost theory of Trade.

Neo-classical theory of international trade: The Edgeworth box and Production Possibility Curve, , Autarky Equilibrium, Consumption and Production Gains from Trade.

Terms of trade: Offer Curve and its derivation, Impact of change in demand and supply conditions on International Terms of Trade, Concepts and significance of Terms of Trade.

## Unit 2: Modern Theory Of International Trade

Introduction and Assumptions of Heckscher-Ohlin Theorem, General equilibrium framework of Heckscher- Ohlin Theorem , Interpretation of Heckscher Ohlin Theorem, , Factor price equalization , The Stolper –Samuelson theorem and Income Distribution Effects of Trade , Empirical Test of H-O Model: Demand Reversal and Factor -Intensity Reversal.

New Trade Theories: Difference in Technologies,, Economies of scale and International Trade, Monopolistic Competition and Trade.

## Unit 3: International Trade Policy

Instruments of Trade Policy: Import Tariffs, Measurements of Tariffs, Effective Rate of Protection, Export Taxes and Subsidies, Non-Tariff Barriers; Import Quotas, Voluntary Export Restraints, Domestic Content Provisions etc. Anti-Dumping.

Impact of Trade Policies: Partial and general equilibrium analysis of a trade restrictions. Arguments for Trade Policy: Terms of Trade Argument and Optimum Tariff.

Economic Integration: Types, The Theory of custom unions: Partial and general equilibrium analysis, The Lipsey model, The Vanek model, Bilateral Trade Agreements Vs Multilateral Trade Agreements.

#### Unit 4: Balance Of Payments and Foreign Exchange Rate

Fundamentals of Balance of Payments , Disequilibrium in Balance of Payment, Methods to Correct Balance of Payment Disequilibrium: Automatic price Adjustment under Gold Standard, Automatic Price Adjustment under Flexible Exchange Rate, , expenditure switching policy - elasticity approach -Price Adjustment mechanism, Marshall Lerner Condition . Fixed and Flexible Exchange Rates, Optimum currency areas.

#### Unit 5: World Trade Organization

Journey from GATT to WTO, Objectives, basic principles and areas of operation of WTO, Structure of the WTO, an overview of Ministerial conferences: issues, decisions and controversies, WTO and India. Recent ministerial conference and issues.

#### References

##### Essential Readings:

Latest editions of the following to be used:

1. Cherunilam Francis (1998) :International Economics (Vth Edition), McGraw Hill Education (India) Pvt Ltd.
2. Dennis R. Appleyard, Alfred J.Field, Jr (2017), " International Economics", 8th Ed, McGraw Hill Education (India) Pvt Ltd.
3. Ethier Wilfred J. (1995) :Modern International Economics (IIIrd Edition), WW Norton and Company : New Delhi.
4. Krugmen Paul R. & Obstfeld M. (2013) :International Economics :- Theory and Policy (IXth Edition), Pearson Education : New Delhi.
5. Salvatore D. (2008): International Economics, Pearson Education: New Delhi.
6. Robert J. Carbaugh (2010) Global Economics, South-Western College Publishing International Edition.
7. Robert J. Carbaugh (2014) International Economics,Cengage Learning, Inc; 15th edition.

##### Suggested Readings:

Latest editions of the following to be used:

1. Lindert Peter H. (1995) :International Economics (VIIIth Edition), New Delhi.

2. Mannur H.G. (1999) :International Economics(IIInd Edition),Vikas Publishing House Pvt Ltd: New Delhi.
3. Salvatore D. (2014): International Economics: Trade and Finance, 11ed, ISV (WSE)
4. Sikdar Soumyen. (2013) :Contemporary Issues in Globalization-An Introduction to Theory and Policy in India (IXth Edition), OUP: New Delhi.
5. Soderston Bo & Jeoffrey Reed. (1999) :International Economics (IIIrd Edition), Palgrave MacMillan: New Delhi.
6. Thomas A Pugel (2018), International Economics, 13th Ed, McGraw Hill Education (India) Pvt Ltd.

#### Teaching Learning Process

The outlined topics will be explained with the help of case studies & real world examples. A group discussion on select case study will give students first-hand information and better understanding of international economics. The latest development on international trade policy may be added in last unit in WTO section.

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

#### Keywords

Theories of Trade, Opportunity Cost, Offer Curve, Factor Intensity, Economic Integration, Balance of Payments, Exchange Rate, WTO.



## **Environmental Economics**

### **(BBE DSE 6B)**

#### Course Objective

This paper on Environmental Economics provides a compressive outline and analysis of the Environment-Economics interaction. The basic underlying treatment is based principles of Microeconomics. The problem of environmental degradation is the one in which economic agents imposes external costs upon society at large in the form of pollution. This course seeks to provide a systematic treatment of the theory of externalities and its implications for the design of an efficient and optimal environmental policy. The widespread concern over sustainability and issues of Climate Change and the global policy response are dealt in the last section.

#### Course Learning Outcomes

Student will be able to:

- i) understand the current developments in environmental economics
- ii) explain the basic terminologies of environmental economics
- iii) explain how economic principles can be applied to various environment related problems.

#### Unit 1: Environmental Problems and Issues

An Introduction to Environmental Economics; Economy–Environment interdependence, materials balance model of economy–environment interactions, The drivers of environmental Impact, Environmental Kuznets Curve Hypothesis; Poverty and inequality; Limits to growth.

#### Unit 2: Economics of Environment and Sustainability

Utilitarianism: Cardinal and ordinal utility functions, Pareto optimality, Social welfare functions and distribution; Inter-temporal distribution: The utilitarian inter-temporal social welfare function; The Arithmetic of discounting; Optimal growth; Concepts of sustainability: The Hartwick rule, Weak and strong sustainability, Resilience; Environmental Accounting-Concept, Common Property Resources and LDCs.

### Unit 3: Market Failure and Environment

Market Failure Analysis: Public Goods; Externalities, Production–production externality and Production–consumption externality.

### Unit 4: Environmental Pollution and Public Policy

Pollution flows, pollution stocks and pollution damage, Efficient level of pollution; Pollution Control Instruments; Cost efficiency and cost-effective pollution abatement instruments, Command and Control Approach, Market Based Policy- Pollution Charges and Environmental Subsidies, Deposit refund System, Pollution Permit Trading Systems. The Coase theorem.

### Unit 5: International Environmental Problems and Regulations

Climate Change, Ozone Depletion; International cooperation in climate change policy; Montreal and Kyoto Protocol, Paris Agreement; Environmental Regulations and Laws in India.

### References

#### Essential Readings:

Latest editions of the following to be used:

1. Charles Kolstad, "Intermediate Environmental Economics", Oxford University Press, 2nd edition, 2010.
2. R.N.Bhattacharya, "Environmental Economics, An Indian Perspective (Edited)", 2001 Oxford University Press.
3. Roger Perman, Yue Ma, James McGilvray and Michael Common, "Natural Resource and Environmental Economics", Pearson Education/Addison Wesley, 3rd edition, 2003.
4. Tom Tietenberg, "Environmental and Natural Resource Economics", 2004 (Sixth Edition), Pearson Education.

### Suggested Readings:

Latest editions of the following to be used:

1. Maureen L. Cropper and Wallace E. Oates(1992), "Environmental Economics: A Survey", Journal of Economic Literature, Volume 30:675-740.
2. Nick Hanley, Jason F. Shogren and Ben White,"Environmental Economics in Theory and Practice", Palgrave Macmillan, Second edition, 2007.
3. Robert N. Stavins (ed.), "Economics of the Environment: Selected Readings", W.W. Norton, 5th edition, 2005.
4. Thomas Callan, "Environmental Economics", 2007 Thomson Learning Inc. Indian Edition.

### Teaching Learning Process

The class room teaching process would be complimented with real life situation based narratives, visual emphasis, graphs, illustrations, problems and solutions, case-studies, simulations, etc.. The focus would be on economic literacy with policy-oriented, application-based content to be delivered in concise, accessible discussions. Current environmental issues of sustainability would be linked to the theoretical concepts to make it engaging and dynamic in nature.

### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

### Keywords

Environment, Sustainability, Market Failure, Environmental Pollution and Control, Valuation methodology, Climate Change, International Policy Agreements

# **General Elective (GE)**

## **Dynamics of New Ventures**

### **(BBE GE 1)**

#### Course Objective

To provide theoretical foundations and special challenges of starting new ventures by identifying new business opportunities, researching and developing a successful business concept and plan.

#### Course Learning Outcomes

Student should be able to

- i) Appreciate role of an entrepreneur
- ii) Recognize and analyze the business opportunities and related challenges in developing a new venture.
- iii) Understand preparation of business plan for a new venture.
- iv) Evaluate the feasibility of pursuing the opportunity recognized.
- v) Understand the sources of finance for new ventures and the ways large corporations and financial firms evaluate business plans and proposals for new ventures.

#### Unit 1: Laying Foundation of New Venture

Concept of entrepreneurship. Various models on entrepreneurship (John Kao) Concept of Manager, Intrapreneur / Corporate Entrepreneur , Social entrepreneur, entrepreneurship as a style of management, difference between an entrepreneur, manager and a leader, the changing role of an entrepreneur. Role of entrepreneurs in development of new ventures in India, Growth of new ventures in India and their contribution towards economic development, greenfield and brownfield projects.

Creativity: Role of creative thinking in development and growth of new ventures; Organisational actions that enhance/hinder creativity, Sources of Innovation in Ventures.

#### Unit 2: Idea Generation and Entry Strategies

Identification of Opportunities: idea generation, selection, and implementation, Search for new ideas: Techniques for generating Ideas: Scamper, Brainstroming, Mind Mapping, Storyboarding, Role playing, attribute listing, Synectics. Entry strategies: New product,

Franchising, Buying an existing firm, Franchising; advantages/disadvantages of franchising; types of franchise arrangements; franchise evaluation checklist.

### Unit 3: Feasibility Analysis of the New Venture

Feasibility Analysis: Marketing, Technical and Financial Feasibility analysis, Industry and Competition Analysis, Assessing a New Venture's Financial Strength and Viability. Economic environment and socio economic feasibility of the proposed new venture. Finalisation of the new venture project.

### Unit 4: Planning and Implementation of the New Venture

Intellectual property protection: Patents, copyrights, and trademark. Preparation of project report for the proposed venture, Project planning and scheduling using networking techniques of PERT /CPM.

### Unit 5: Role of Support Institutions and Financing of the New Venture

Financing entrepreneurial ventures; Managing growth; Valuation of a new company; Traditional sources of financing, Loan syndication, Consortium finance, role played by commercial banks, appraisal of loan applications by financial institutions.

Alternate Source of Funding: Venture capital, Angel Investment, Crowd Funding, Boot Strapping, Business Incubators, Government grants and Subsidies.

Financial schemes offered by various financial institutions and study of Government Schemes that support Entrepreneurs, Start ups, MSMEs, any new venture, rules and regulations governing support by these institutions.

How to apply for assistance from these institutions: procedures, forms and process

### References

Essential Readings:

Latest editions of the following to be used:

1. Agrawal, Rashmi and Mehra, Yogieta S. (2018),"Project Appraisal and Management", New Delhi: Taxmann Publications.

2. Holt D. H. (2004), "Entrepreneurship: New venture creation", Englewood Cliffs, NJ: Prentice Hall.
3. Raichaudhuri, Anjan. (2011), "Managing New ventures, concepts and cases on entrepreneurship", New Delhi. PHI learning and private limited.
4. Vasant Desai (2009), "The Dynamics of Entrepreneurial Development and Management", Delhi: Himalaya Publishing House.

#### Suggested Readings:

Latest editions of the following to be used:

1. Burns, P. (2001), "Entrepreneurship and small business". New Jersey: Palgrave.
2. Drucker, P. F. (2006), "Innovation and entrepreneurship: Practice and principles". USA: Elsevier.
3. Holt, H. David (1991), "Entrepreneurship: New Venture Creation, Prentice Hall.
4. Scarborough, N. M., Cornwall, J. R., & Zimmerer, T. (2016), "Essentials of entrepreneurship and small business management, Boston: Pearson.

#### Teaching learning plan

The subject is delivered by means of formal and participative lectures supported by the use of case studies and examples of successful ventures in India and in the World reflecting the importance of new ventures in an economy. Students should be provided with the essential environment for debates, group discussions, presentations etc.

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

#### Keywords

Ventures, creative thinking, idea, opportunity, feasibility analysis.

## **Digital Marketing**

### **(BBE GE 2)**

#### Course Objective

To acquaint the students with the knowledge of growing integration between the traditional and digital marketing concepts and practices in the digital era.

To familiarise the students with the tools and techniques used by the digital marketers for driving the marketing decisions to attain superior marketing performances and being sensitive towards the 'no go visit areas' of the customer privacy.

#### Course Learning Outcomes

Students will be able

- i) To identify and explore the marketing opportunities, company examples, and organizational implications of marketing.
- ii) To understand the integration of traditional marketing with Digital Marketing.
- iii) To explore current practice, theory and applied skills in Digital Marketing for individuals.
- iv) To use digital marketing as a tool to drive superior growth.
- v) To leverage the digital strategies to gain competitive advantage for business and career.
- vi) To harness the power of Digital Marketing as a core driver of the marketing strategy for any organisation.
- vii) To understand the technical know-how and insight to build & maintain an effective digital strategy.
- viii) To Examine various tactics for enhancing a website's position and ranking with search engines.
- ix) To understand the framework and digital tools needed to meet the challenges of our economy today and tomorrow.



### Unit 1: Marketing Fundamentals

Importance of marketing, Core marketing Concepts, Company Orientations, Segmentation-Targeting-Positioning, 7 P's Framework, PLC, Pricing strategies, Types of distribution channels, Promotion Mix.

### Unit 2: Online Marketing Mix

Digital Marketing Mix, STP and Online Tools, Digital Pricing Models, Digital Marketing Channels, IMC for Digital Platforms, Digital Marketing Communication Mix, Digital Advertising Plans, Online Branding.

### Unit 3: Digital Marketing

Digital Marketing Overview, Moving from Marketing 3.0 to Marketing 4.0, Applications and benefits of Digital Marketing, Engagement Marketing, Content Management, Email Marketing, Social Media Marketing : Facebook- Twitter and LinkedIn Marketing, Social Media Model, Campaign Management.

### Unit 4: Customers And Digital Marketing

WEB 2.0 and Marketing, Dynamics of Online Consumer Behaviour: Five A's Framework, The O Zone(O3) concept of Driving Customers, the Ethics of Digital Marketing.

### Unit 5: Search Marketing (SEO)

Traffic Building, Search Marketing Methods for traffic Building, Search Engine Marketing, Search Engine Optimization, Site Optimization, Keyword Advertising, Internet Marketing Metrics.

### References

#### Essential Readings:

Latest editions of the following to be used:

1. Ahuja Vandana (2015), "Digital Marketing", published by Oxford Higher Education.
2. Kotler Philip, Kartajaya [Hermawan](#), Setiawan Iwan (2017), " Marketing 4.0: Moving from Traditional to Digital, published by John Wiley & Sons, Inc.
3. The Ultimate Guide to Digital Marketing by DigitalMarketers.com

#### 4. MOZ- The Beginners Guide to SEO.

#### Suggested Readings:

Latest editions of the following to be used:

1. Bhatia Puneet, "Fundamentals of Digital Marketing", published by Pearson Education, Inc.
2. Digital Marketing Handbook 2012.
3. Gupta Seema (2017), "Digital Marketing" published by Mc Graw Hill Education.
4. Kotler P. & Keller K.L. (2012), "Marketing Management", published by Pearson Education, Inc.
5. Kotler P. Armstrong G., Agnihotri, P.Y. & Ul Haq E. (2010), "Principles of Marketing: A South Asian Perspective", , published by Pearson Education, Inc.
6. Nargundkar Rajendra, Sainy Romi (2018), "Digital Marketing: Cases from India", , published by Notion Press.

#### Teaching Learning Process

Case Discussions about the digital marketing strategies and performances of leading firms must be encompassed in teaching methodology. Class-Room interactions and regular discussions on recent developments in digital marketing domain must be included. Theoretical concepts backed by relevant industry examples, case-lets and revered research articles about the digital practices demonstrated in both Indian and International context is highly recommended.

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

#### Keywords

7 P's Framework, Digital Marketing, Five A's Framework, O Zone(O3) Concept, Ethics of Digital Marketing, Search Engine Optimization, Site Optimization.

## Statistical Techniques

### (BBE GE 3)

#### Course Objective

This statistics course is designed for the students from other streams and who want to learn basic statistics along with their main paper. The paper starts with detailed description and presentation of different types of data and analysis of data (primary and secondary). The emphasis is on measures of central tendencies like mean, median and mode, skewness and kurtosis. The unit on probability and sampling will help the student in their research work and analysis. Index numbers and Time series topics would provide key inputs for data analysis and project preparation.

#### Course Learning Outcomes

Students should be able to

- i) Learn tools and concepts of data analysis and interpretation.
- ii) Master the fundamentals of probability theory.
- iii) Develop skills in statistical computing, statistical reasoning and inferential methods.
- iv) Comprehend and analyse real data like real indices.

#### Unit 1: Descriptive Statistics and Exploratory Data Analysis

Types of Variables (Quantitative, Qualitative, discrete, continuous), Scales of Data Measurement (nominal, ordinal, Interval & Ratio), Variable-; Primary & secondary Data. Frequency distributions, Relative Frequency, Cumulative Distributions, Percentiles, Quartiles; Graphical representation of data- bar charts, pie, histograms, box plots.

Measures of central tendency: Mean, median, mode, Geometric Mean, Harmonic Mean, Weighted Mean & their properties. Selection of a measure of central tendency.

Measures of Dispersion: Range, inter-quartile range, quartile deviation, mean deviation, standard deviation, variance, coefficient of variance, properties of standard deviation, merits & demerits.

Skewness and Kurtosis: Meaning, measures- Karl Pearson, Bowley, Kelly's, Kurtosis-meaning, Moments, Kurtosis.

Bivariate Analysis: Cross-tabulations and Scatter diagram; Correlation, Association and Simple Regression.

### Unit 2: Probability

Axioms of probability; Review of counting rules, experiments, sample space, simple and complex events; Addition and multiplication rules; Concepts of Mutually exclusive events, Independent events; Concepts of Joint, marginal and conditional probability; Permutation and Combinations

Concept of Discrete and continuous Random Variables; Examples of Theoretical Discrete and Continuous Probability Distributions

### Unit 3: Sampling, Estimation and Hypotheses Testing

Population versus Sample; Sample Statistics versus population parameters; Definition and Statistical properties of a Random Sample; Point and Interval Estimation and Small Sample Properties of Estimators (unbiasedness, efficiency); Central Limit Theorem.

Basic concepts of Hypotheses Testing : Formulation of Null and Alternate Hypotheses; One-tailed and two-tailed Tests about population Mean; Concepts of Type I and Type II errors.

### Unit 4: Index Numbers

Index Numbers: Laspeyres and Paasche index numbers; Fixed and chain base index numbers; Base shifting, splicing and deflating. Construction of real indexes: Consumer Price Index and BSE index.

### Unit 5: Time Series Analysis

Components of a Time Series: Isolation of Secular Trend using Moving Average and of Seasonal Fluctuations.

Software Required: Spreadsheet software.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Spiegel, M.R.(2003), "Theory & Problems of Statistics", Schaum's outline series, McGraw Hill.
2. Levin, Richard I. and Rubin, David , "Statistics for Management", Pearson.
3. Gupta, S.P (2014), "Statistical Methods",. S Chand and Company.

### Suggested Readings:

Latest editions of the following to be used:

1. L. Nagar, A. L. and Das. R. K., "Basic Statistics": Oxford University Press.
2. P. H. Karmel and M. Polasek, "Applied Statistics for Economists", Pitman,
3. Richard J. Larsen and Morris L. Marx, "An Introduction to Mathematical Statistics and its Applications", Prentice Hall.

## Teaching Learning Process

The students would be introduced to the basic concepts of statistics and probability through classroom teachings and lecture presentations. Data interpretation would be explained through real time economic data complimented by class presentation and regular assignments.

## Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Descriptive Statistics, Exploratory Data Analysis, Probability, Hypothesis testing, Sampling techniques, Index Numbers, Time series.

## **Contemporary Issues in Indian Economy**

**(BBE GE 4)**

### Course Objectives

The paper, explains a wider aspects of global and Indian economic reforms, India reaching to the position of fastest growing economy, and simultaneously having dismal social and fiscal growth scenario.

Students will get wider perspective to understand and analyze the facts related to macro economic trends and fiscal trends. The knowledge of this paper will provide the students with a wider vision and deeper insight to think and actively work on the issues which are proving as the biggest hurdles in the overall growth and development of the business environment in the economy.

### Course Learning Outcomes

- i) To make students familiar with the different phases of Indian economy's transformation starting from Nehruvian era to the globalised era of economic reforms.
- ii) To make the students understand why there was policy change from state-led economy to the market led economy.
- iii) To provide facts to the students related to dismal growth which is evident in almost all spheres of economic and social fields.
- iv) To analyse the impact of global economic crisis and strategies adopted domestically and globally to resolve the crisis situation.
- v) To relate the Contemporary Economic issues with the current competitive business environment and to examine its impact on it.

### Unit 1: Globalization and Changing Indian Business Environment

Financial Globalization in India, Global financial crisis and India's private corporate sector, Structural change for India, Digitalisation, Demonetisation.

### Unit 2: Understanding Fiscal Issues

Fiscal federalism, 15<sup>th</sup> Finance Commission, India's new fiscal federalism, Challenges to Indian Federalism, Challenges before the Fifteenth Finance Commission, Tax challenges arising from digitalisation.

### Unit 3: Sectoral Issue

Agricultural land use, agrarian structure and technology, diversification in Indian Industrial sector, foreign trade, foreign Investment, trends and performance in services.

### Unit 4: Social and Economic Issues

Unemployment, Labour Markets in India, Labour Laws and their reforms, Inequality, Climate change and rural poverty, Child Under nutrition.

### References

#### Essential Readings:

Latest editions of the following to be used:

1. Achin Chakraborty(2015), Reforming Labour Markets in States: Revisiting the Futility Thesis, Economic and Political Weekly, May 16, 2015.
2. Ahmad Hamidov, Katharina Helming and Dagmar Balla (2016), Impact of Agricultural land use in Central Asia: a review, January.
3. Ashok Gulati and Shweta Saini (2017), 25 Years of Policy Tinkering in Agriculture, in Rakesh Mohan (ed), India Transformed, Penguin (Viing).
4. Bhagwati and Panagariya (2012), A Multitude of Labour Laws and their reforms in, India's Tryst with Destiny, Collins Business, Noida, Ch.8.
5. Biswajit Dhar (2015), India's New Foreign Trade Policy, EPW, May 24.
6. Dipak Mazumdar (2017), "Inequality in India – I , EPW ,Vol 52, Issue no 30, 29 July.
7. Dipak Mazumdar (2018), "Inequality in India – II, EPW ,Vol 52, Issue no 32, 12 August.
8. Gautam Prateek (2017), "Demonetisation : wefts and warps of the common man", EPW , Vol 52, Issue no 47, 25 Nov.
9. Jayan Jose Thomas (2018), Economic Growth without employment: The story of Indian Manufacturing in Hill and Patil (eds.), Employment Policy in Emerging Economies, Routledge, London and New York.
10. Jayan Jose Thomas (2012), " India's Labour Market during the 2000s: Surveying the Changes", EPW December 22.

11. K N Ninan (2019), "Climate change and rural poverty levels in India", EPW, Vol 54, Issue no 2, 12 January.
12. Nagesh Kumar (2014), Foreign Direct and Portfolio Investments Flows and Development: A Perspective on Indian Experience in Uma Kapila (ed.), Indian Eco Since Independence, 26<sup>th</sup> edition, 2015-16. Academic Foundation, Delhi, Ch.40.
13. Radhika Pandey ,Amey Sapre, Pramod sinha (2019), "What do we know about changing activity of firms", NIPFP Working paper No. 249, January.
14. Rahul Anand, Kalpana Kochhar and Saurabh Mishra (2015), Make in India: Which exports can drive the next wave of growth? IMF Working Paper, WP/15/119 (appendix excluded).
15. Rashmi Banga (2019), "Is India digitally prepared for international trade", EPW Vol 54, Issue No 5, 02 February.
16. Renu Kohli (2014), Financial Globalization in India, in Ashima Goyal (ed.) The Oxford Handbook of Indian Economy in the 21<sup>st</sup> Century, OUP, Delhi, Ch.8.
17. Roshni Tara, Vedanta Dhamija(2018), "Global financial crisis and India's private corporate sector", EPW ,Vol 53, Issue no 3, 20 January.
18. RupaChanda (2017), Services for Indian Manufacturing in Mahendra Dev, S (ed), India Development Report .
19. Russell Green(2019), " Structural change forecast for India" EPW, Vol 54, Issue No 12, 23 March.
20. Sunny Jose, Bheemeshwar Reddy A (2018), "Child Under nutrition in India", EPW Vol 53, Issue No 48, 8 December
21. Suranjali Tandon (2018), " Tax challenges arising from digitalisation" NIPFP Working paper 235, July.
22. Suresh K G, V Nagi Reddy (2018), Does FDI promote growth?: Evidence from Indian Manufacturing sector, EPW, Vol 53, Issue no 36, 8 September, 2018.
23. TM Thomas Isaac, R Mohan, Lekha Chakraborty (2019), "Challenges to Indian Federalism", vol 54, Issue No 9, 02 March.
24. V Bhaskar (2018), " Challenges before the Fifteenth Finance Commission", EPW ,Vol53, Issue no 10, 10 March.
25. Vijay Kelkar (2019),Towards India's new fiscal federalism, NIPFP Working paper No. 252, January 2019.



## Suggested Readings:

Latest editions of the following to be used:

1. Himangana Gupta, Rajani Ranjan Rashmi, J. R Bhall (2018) , “Does production based methodology reflect the global economic reality ? Estimating Green House Gas Emissions”, EPW, Vol 53, Issue No 43, 27 October.
2. Ila Patnaik, Shalini Mittal, Radhika (2019), “Examining the trade- off between price and financial stability in India”, NIPFP Working paper 248, January.
3. Papola T.S. (2012), Employment Trends, in Kaushik Basu and Annemie Maertens (ed.), The New Oxford Companion to Economics in India, vol. I, Delhi, Oxford University Press, pp. 169-173.
4. Swaminathan Akshay (2019), Burden of child malnutrition in India, EPW, Vol 54, Issue no 2, 12 Jan.
5. Government of India: Economic Survey (Annual), Ministry of Finance, New Delhi.
6. Economic and Political Weekly, Various Issues.

## Teaching Learning Process

The outlined topics will be explained with the help of factual information from the documented and reported sources of Government reporting agencies. It will cover the day today changes taking place nationally and internationally so that students can relate the situation analytically to understand the issues in which they have to compete and make society a better place to live.

## Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Economic reform, liberalization, global financial crisis, Demonetisation, digital reform Fiscal federalism, tax reform, foreign direct investment, inequality, malnutrition.

## **Fundamentals of Finance for Business**

### **(BBE GE 5)**

#### Course Objective

- i) To acquaint the students with the basics of finance and the structure, working and regulation of financial system in India.
- ii) Students will learn about emerging issues in Indian Financial system.
- iii) To enable students to take rational decisions in financial environment.

#### Course Learning Outcomes

- i) After studying this paper the student should be able to:
- ii) Describe the meaning, scope and sources of Finance.
- iii) Understand the types of financial markets and role of regulators in Indian financial system.
- iv) Define the depository and non-depository financial institutions in India.
- v) Describe the mutual fund industry with its scope, operation, types of funds offered with evaluation of fund performance.
- vi) Discuss the contemporary financial services in India.

#### Unit 1: Introduction to Finance and Investment

Nature, scope and objectives of Finance, Emerging role of Finance Managers in India and Agency problem. Sources of Finance: Equity & Preference Capital, Dividends and Retained earnings, Debt & Bonds & Long term loans, Short term advances from banks, public deposits, & advances from customers and trade creditors.

Concept of Time Value of Money, Compound Value, Present Value, Annuity, Perpetuity.

An overview of investment- Investment process, Investment options, Types of investors, Concept of Risk & Return (Single Asset and Portfolio).

## Unit 2: Financial Markets

Role and Importance of Financial Markets, Types of Financial Markets, Linkages between Economy and Financial Markets, Regulators in Financial System (RBI, SEBI).

Money Market: Functions, organisation, instruments and Trading Mechanism in money market, Trends in money market, Role of central bank in money market.

Capital/Securities Market: Functions, organisation, instrument, introduction to Indian equity market- primary and secondary, introduction to Indian debt market.

## Unit 3: Financial Institutions

Depository and non- depository institutions, Commercial Banking: Banking Structure, Risk Management in Banks, Regulation and Supervision, role of commercial banks in project financing, Introduction to Investment Banking.

## Unit 4: Mutual Fund Management

Meaning and structure of Mutual Funds, Mutual Fund Schemes: open ended and close funded schemes, growth and income schemes, Sectoral funds, Index funds, ETF, ELSS, Arbitrage and Fund of Funds, NAV of fund, Expense Ratio, Systematic Investment Plan and Systematic Withdrawal Plan (SIP & SWP).

## Unit 5: Contemporary topics in Business Finance

Lease Financing: Concept of leasing, Types of lease agreements, Difference between hire purchase and leasing, Advantages and Disadvantages of Leasing.

Insurance: Meaning and need of Insurance, types of Insurance, Re-insurance, Assignment and Endowment, Principles of Insurance: Utmost Good Faith, Insurable Interest, Proximate Cause, Indemnity, Subrogation, Contribution, Loss Minimization.

Credit Rating: Introduction, Meaning, and Methodology of rating, CIBIL & Various Credit Rating Agencies in India and their performance and Different Symbols used by them.

Private Equity and Venture Capital: Meaning, difference b/w Private Equity and Venture Capital, Angel Investment, Indian Scenario.

## References

### Essential Readings:

Latest editions of the following to be used:

1. Khan M. Y. and Jain P. K (2017)., Financial Management, Text and Problems, Tata McGraw Hill New Delhi.
2. Kumar Vinod Atul Gupta and Manmeet Kaur, " Financial Markets, Institutions and Financial Services, Taxmann
3. Rustagi, R.P, Financial Management (2018):Fundamentals of Financial Management: 13<sup>th</sup> Edition Taxmann..

### Suggested Readings:

Latest editions of the following to be used:

1. Gupta P.K.(2011), Insurance and Risk Management, Himalya Publishing House.
2. Pathak Bharati. 'Indian Financial System', Pearson, New Delhi.
3. Shahani Rakesh (2014)'Financial Markets in India : A Research Initiative' , Anamica Pub Co, New Delhi.
4. Singh Surender and Kaur Rajeev: Fundamentals of Financial Management, Scholar Publishers.

## Teaching Learning Process

The paper is taught in a classroom setting for lectures and tutorials. The students are guided with textbooks and case studies covering the theoretical and practical aspects of the paper.

The paper is delivered by means of formal and participative lectures supported by numerical reflecting the importance of financial concepts and their real-life applications.

## Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

## Keywords

Finance, Time value of money, Risk, Return, Financial System, Financial Markets, Financial Institutions, Mutual Funds, Lease, Insurance, Credit rating, Private Equity, Venture capital.

## **International Business**

**(BBE GE 6)**

### Course Objective

The course aims at providing the students with the knowledge of growing acceptance of the policy of economic liberalisation and globalisation which has led to the expansion of international business. It will enable the students to understand the global issues and their relevance to the business practices

### Course Learning Outcomes

Student will be able

- i) To understand the concept and examine the major drivers of international business.
- ii) To examine the different facets of the economic, political, legal and cultural environment of an international business.
- iii) To review the factors responsible for the emergence of India as a major outsourcing destination.
- iv) To understand various theories of international trade and its relevance in present.

### Unit 1: Introduction to International Business

International Business – Meaning, Nature, Importance and Scope; Globalization – Meaning and Drivers; Modes of Entry into International Business; Entry Decisions; International Business Environment – Economic, Political, Cultural and Legal Environment; Emerging Issues – Environmental and Labour issues for international business, Strategic Alliances, Merger and Acquisitions.

### Unit 2: International Trade

Reasons for International Trade; International Trade Theories – Mercantilism, Absolute Advantage, Comparative Advantage, Factor Endowment, Product Life Cycle Theory; Gains from Trade; Instruments of Trade Policy – Tariff vs. Non-Tariff Measures, Criticism of Trade Theory: Leontiff paradox, Porter's Diamond model.

### Unit 3: Global Regulatory Environment and Integration

Introduction to GATT, Uruguay Round and WTO; International Financial Institutions – IMF, World Bank and ADB; Levels of Integration – Free Trade Area, Customs Union, Economic Union, Common Market and Political Union; Structure of EU, NAFTA, ASEAN, SAFTA, APEC, BRICS; Foreign Direct Investment – Nature, Forms and Modes of FDI, Difference between FII and FDI.

### Unit 4: Balance of Payment

Balance of Payment : Meaning, Components (Current, Capital and Official Reserve), Reasons for disequilibrium in BOP, Measures to correct disequilibrium, Understanding India's BOP and comparing it with markets like USA, Japan and China.

### Unit 5: Ethics in International Business

Pollution haven hypothesis, International standards on CSR, Adherence to market discipline (adoption of IFRS by MNC's), Market pressure.

### References

#### Essential Readings

Latest editions of the following to be used:

1. Charles W.L. Hill and Arun Kumar Jain, International Business. Tata McGraw- Hill.
2. Cherunilum Francis, : International Economics, McGraw Hill Education.
3. Paul Justin,. International Business. Prentice Hall, India Ltd.
4. Verma Sumati, International Business, Pearson.

#### Suggested Readings:

Latest editions of the following to be used:

1. K. Aswathappa, International Business, Tata McGraw – Hill education.

2. Vyuptakesh sharan, International business: concept, Environment and strategy, pearson..

#### Teaching Learning Process

The teaching learning process will include Class Room teaching through Lecture, PPT's , Discussion etc. The case studies, group discussion and quiz will also be the part of the process

#### Assessment Method

1. Theory Examination: 75 marks
2. Internal Assessment: 25 marks

#### Keywords

Globalisation, Trade Theories, MNC's. FDI, FII, Balance of payments, Regional Integration