

DEPARTMENT OF ECONOMICS

CORE COURSES

Course Title: Principles of Economics

Course Code: ECO-I.C-1

Marks: 100

Credits: 04

Duration: 60 Hours

COURSE OUTCOMES: Upon completion of the course student will be able to

CO1: Define basic concepts in Economics.

CO2: Recognize economic problems that require decision making.

CO3: Distinguish between concepts related to national income

CO4: Create hypothetical market demand & supply schedules & curves.

CO5: Differentiate & calculate different types, degrees of elasticity of demand & supply.

CO6: Arrange different market structure on the basis of degree of competition.

SYLLABUS

Unit 1: Thinking like an economist and ten principles of Economics (15 Hours)

Decision making; functioning of an economy; normative and positive economics; circular flow diagram; production possibility frontier.

Unit 2: Demand and Supply and Market Equilibrium (15 Hours)

Factors affecting demand and supply; market equilibrium; elasticity of demand and elasticity of supply; consumers' surplus and producers' surplus.

Unit 3: Market Structure (15 Hours)

Firms and markets; perfect competition, monopoly, Monopolistic competition, oligopoly.

Unit 4: Macroeconomic Concepts and Policies (15 Hours)

GDP; unemployment and inflation; growth and stabilization objectives; introduction to fiscal and monetary policy measures.

REFERENCES:

Mandatory:

1. Mankiw, N. Gregory, (2013) *Principles of Economics*, Thomson / South-Western, Seventh Edition.
2. Salvatore, Dominick, (2012) *Principles of Micro Economics*, Oxford International student edition, Eighth Edition.

Supplementary:

1. Tucker, I. *Economics for Today*, (2005), Cengage learning, Inc.
2. Pindyck, Robert S and Rubinfeld, Daniel L. (2012) *Microeconomics*, Pearson, Delhi

Web Based:

1. https://s.docworkspace.com/d/AHKfZ6DYjI4uwfvQ_JOdFA
2. https://www.google.com/url?sa=t&source=web&rct=j&url=https://mpira.ub.uni-muenchen.de/390/1/MPRA_paper_390.pdf&ved=2ahUKEwjFzsWugcHkAhUfTY8KHUQaABYQFjAPegQIBxAB&usg=AOvVaw2GV4rf2L5axBFyI3HuAu3J

3. https://mpra.ub.uni-muenchen.de/390/1/MPRA_paper_390.pdf
4. <https://econpapers.repec.org/bookchap/eeelabchp/5-11.html>

Course Title: Mathematical Techniques for Economic Analysis

Course code: ECO-I.C-2

Marks: 100

Credit: 4

Duration: 60 Hours

COURSE OUTCOMES: Upon completion of the course student will be able to

CO1: Identify and use the rules of calculus

CO2: Interpret graphs and tables

CO3: Apply mathematical techniques in economics

CO4: Analyze economic reality in a structured manner

CO5: Assess economic questions as mathematical problems

CO6: Design optimal solutions to simple economic problems

SYLLABUS

Unit1: Introduction to Basic Concepts

(15 Hours)

Importance of Mathematical and Statistical Methods in Economic Analysis Review of some Concepts; Algebraic Expressions; Equations; Exponents; Graphs of Lines and Non-Linear Equations; System of Simultaneous Equations; properties of sets, number systems; Coordinate geometry: straight line, rectangular hyperbolas, concave & convex, tangency.

Unit 2: Concept of Function and Types

(20 Hours)

Limit, Continuity and Derivatives; Rules of Differentiation; Marginal Concept; Marginal Cost; Revenue; Utility; Elasticities and Types; Partial and Total Differentiation and Applications; Some Simple Rules of Integration.

Unit 3: Optimization

(15 Hours)

Problems of Maxima and Minima in Single and Multivariable Functions; Constrained Optimization in Simple Economic Problems.

Unit 4: Matrix Algebra

(10 Hours)

Determinants & input-output analysis

REFERENCES:

Mandatory:

1. Knut Sydsaeter and Peter J Hammond (2005), *Mathematics for Economic Analysis*; Pearson Educational Asia: 4th Indian reprint.
2. Chiang, A.C. & Kevin Wainwright (2005), *Fundamental Methods of Mathematical Economics*; Fourth Edition, McGraw-Hill.
3. Dowling, Edward T. (1992), *Schaum's Outline of Theory and Problems of Introduction to Mathematics*; 3rd Edition, McGraw-Hill

Supplementary:

4. Zumruddin and Khanna, *Business Mathematics*, second edition, S Chand and sons Delhi. 2009
5. Mehta – Madnani (1973), *Mathematica for Economist*, S Chand and Sons Delhi.

Web Based:

1. <https://www.semanticscholar.org/paper/The-use-of-Mathematics-in-Economics-and-its-Eect-a-Espinosa-Rond%C3%B3n/3f7f08695495e297dcc2ee31e8c3d2ee67a15cbe>
2. <https://pdfs.semanticscholar.org/3f7f/08695495e297dcc2ee31e8c3d2ee67a15cbe.pdf>
3. https://www.google.com/search?safe=strict&ei=hJeJXZLxCp3Vz7sPwumS4Ag&q=Mathematical+Modelling+and+Ideology+in+the+Economics+Academy%3A+competing+explanations+of+the+failings+of+the+modern+discipline%3F&oq=Mathematical+Modelling+and+Ideology+in+the+Economics+Academy%3A+competing+explanations+of+the+failings+of+the+modern+discipline%3F&gs_l=psyab.12..0i362i308i154i357l6.27692.32493..36100...0.0..0.533.533.5-1.....1....1j2..gws wiz.....6.Od4MgZUFbQo&ved=0ahUKEwiSw9LhyjKAhWd6nMBHcK0BIwQ4dUDCA5

Course Title: Economics of Growth and Development

Course Code: ECO-II.C-3

Marks: 100

Credits: 4

Duration: 60Hours

COURSE OUTCOMES: Upon completion of the syllabus students will be able to:

CO1: Distinguish between the concept of economic growth & development

CO2: Calculation of Human development index

CO3: Mind-map the theories of growth and development on a timeline

CO4: State the patterns of growth based on classical & neoclassical theories of growth and development

CO5: Give examples of economies which have experienced the growth & development in line with any given theory.

CO6: Compare & contrast various growth & development models as applicable to India since 1947 till date.

CO7: Categorize intra and inter regional growth patterns in India

SYLLABUS

Unit 1: Growth and Development (15 Hours)

Growth and development, Components, Indicators, Approaches to development: Traditional and Modern; Sen's capabilities approach, Human development Index.

Unit 2: Patterns of Growth and Development (15 Hours)

Growth and development in different countries, Critique of classical theories of development: Rostow's model, Lewis model; international dependence revolution: neoclassical dependence model, fake paradigm model: dualistic development models.

Unit 3: New Growth Theories (15 Hours)

Exogenous growth theories: Solow model, Harrod-Domar model; Endogenous growth theories: Romer and Lucas endogenous model, Robinson model.

Unit 4: India's Development Experience (15 Hours)

India's development journey from planning commission to NITI Aayog. India on the eve of planning, Nehru Mahalanobis growth and development model, Liberalization, Privatization and Globalization; Inclusive growth; Interstate variations in development, Case studies: Economic models of few Indian States including Goa.

REFERENCES:

Mandatory:

1. Todaro M, Smith S.(2013), *Economic development*, Pearson, Noida, India .
2. Thirlwall A.,(2005), *Growth and development: with special reference to developing economies*, Palgrave, Macmillan, USA .

Supplementary:

1. Hayami Y, (2005), *Development economics: from the poverty to the wealth of nation*, Oxford India, Paperback, India
2. Ray Debraj, (2007), *Development economics*, Oxford India paperback, Noida, India

Web Based:

1. https://www.google.com/url?sa=t&source=web&rct=j&url=http://www.fao.org/docs/up/easypol/882/defining_development_paradigms_102en.pdf&ved=2ahUKEwiE-LqDhMHkAhWBL48KHUAKD0AQFjABegQIARAB&usg=AOvVaw3vGwR2K6i4nyzrnoyqPW5G
2. [LqDhMHkAhWBL48KHUAKD0AQFjABegQIARAB&usg=AOvVaw3vGwR2K6i4nyzrnoyqPW5G](https://www.google.com/url?sa=t&source=web&rct=j&url=http://www.fao.org/docs/up/easypol/882/defining_development_paradigms_102en.pdf&ved=2ahUKEwiE-LqDhMHkAhWBL48KHUAKD0AQFjABegQIARAB&usg=AOvVaw3vGwR2K6i4nyzrnoyqPW5G)
3. <http://hdr.undp.org/en/content/human-development-index-hdi>
4. <https://www.indiabudget.gov.in/economicsurvey/>

Course Title: Empirical Techniques for Economic Analysis.

Course Code: ECO-II.C-4

Marks: 100

Credits: 4

Duration: 60 Hours

COURSE OUTCOMES: Upon completion of the course students will be able to:

CO 1: Relate empirical methodology to economic enquiry

CO 2: Summarize, interpret and graph data appropriately

CO 3: Apply discrete and continuous probability distributions to various business problems

CO 4: Analyze statistical data using MS Excel

CO 5: Validate sampling measures

CO 6: Develop basic statistical inference using correlation, regression, indices, hypothesis testing and ANOVA

SYLLABUS

Unit 1: Correlation and Regression

(15 Hours)

Karl Pearson's coefficient of correlation and Spearman's Rank coefficient of correlation; properties of Pearson's coefficient of correlation; Linear regression: meaning, regression equations and lines; *Use of MS EXCEL/Other spreadsheet.

Unit 2: Time Series & Index Numbers

(15 Hours)

Definition and Utility of Time Series Analysis; Components of Time Series; Decomposition of Time Series; Methods of Measurement of Trend: freehand method, semi-averages, moving average, least squares method; Meaning and Concept of Index Numbers; Issues in Construction of Index Numbers; Classification of Index Numbers; Methods of Constructing Index Numbers: Weighted Index Numbers, Unweighted Index Numbers.

Unit 3: Probability Distributions

(15 Hours)

Meaning of probability; Fundamental Concepts and Approaches to Probability; Probability Laws: Addition Law, Multiplication Law, Applications of probability Law; Bayes' Theorem; Types of Probability Distribution; Concept of Random Variables; Discrete Probability Distribution: Binomial Distribution, Poisson Distribution; Continuous Probability Distribution: Normal Distribution, Characteristics of Normal Distribution, Importance and Application of Normal Distribution.

Unit 4: Population, Sampling and Hypothesis Testing

(15 Hours)

Population and sampling; Need for sampling, concept of 'Good Sample'; Methods of sampling: probability and non-probability sampling; sampling techniques; Optimum sampling; Nyman's sampling: problems to be solved based on sampling methods; Hypothesis; Level of significance, critical area; Type I and Type II errors, Z, t, F and χ^2 distribution; ANOVA (one way and two ways).

*Existing or Extra lectures on use of Excel (Mandatory)

REFERENCES:

Mandatory:

1. Gupta, S.P. 1999, Elementary Statistical Methods, Sultan Chand & Sons, New Delhi.
2. Arora, P.N. et.al. (2007), *Comprehensive Statistical Methods*, 1st edition, S. Chand, New Delhi.

Supplementary:

1. Anderson, David R. et.al. *Statistics for Business and Economics*, Cengage Learning India Edition.
2. Levine, D. M., Berenson, M. L., & Stephan, D. (1997). *Statistics for managers using Microsoft Excel*. Upper Saddle River, N.J: Prentice Hall.

Web links:

1. <https://www.itl.nist.gov/div898/handbook/prc/section1/prc131.htm>
2. <https://www.statisticshowto.com/probability-and-statistics/hypothesis-testing/>
3. <https://www.excel-easy.com/examples/descriptive-statistics.html>

Course Title: Microeconomics

Course Code: ECO-III.C-5

Marks: 100

Credits: 4

Duration: 60Hours

COURSE OUTCOMES: Upon completion of the course students will be able to:

CO1: Distinguish concepts related to consumer & producer behaviour theories

CO2: Construct Indifference curve and Budget lines under different scenarios

CO3: Distinguish between price effect, substitution effect and income effect using Slutsky & Hick's method for different types of goods.

CO4: Compute total, average & marginal concepts related to production, cost & revenue.

CO5: Compare & contrast competitive & non competitive market structures.

CO6: Categorize normal profit, supernormal profit, loss and shutdown point across different Market structures.

SYLLABUS

Unit 1: Consumer Behavior and Demand

(15 Hours)

Distinction between Cardinal and Ordinal Utility, Law of Utility, Indifference Curves, Budget Line, Substitution Effect and Income Effect; Hicksian and Slutsky's Analysis; Derivation of demand curve and Engel's Curve, Revealed preference theory.

Unit 2: Production

(15 Hours)

Production function – AP and MP, Non-linear production function, Production with one variable input, Production with two variable inputs, Isoquants – MRTS-elasticity of factor substitution, so-cost line - Ridge Line, Returns to Scale.

Unit 3: Cost and Revenue

(15 Hours)

Cost of Production, Behavior of cost, Short run and Long run Costs, Derivation of Average and marginal cost curves, Least cost input Combination, , Introduction to Modern Cost Curves: L shaped and inverted J shaped cost curves, Concepts of revenue: AR, MR, TR, Break-even analysis.

Unit 4: Perfect Market & imperfect market structure

(15 Hours)

Perfect markets, Behavior of profit maximizing firms and the production process; Price and output decisions; costs and output in short and long run;

Nature and types of imperfect market structures, Assumptions, Conditions of imperfections, Imperfect markets: price & output under Monopoly, monopolistic competition and Oligopoly.

REFERENCES:

Mandatory:

1. Salvatore, Dominick, *Principles of Micro Economics*, (Eighth Edition) Oxford International student edition,
2. Pindyck, Robert S and Rubinfeld, Daniel L. (2012) *Microeconomics*, Pearson, Delhi
3. Tucker, J. *Economics for Today*, (Eleventh edition), Cengage learning, Inc
4. Pindyck, Robert S and Rubinfeld, Daniel L. (2012) *Microeconomics*, Pearson, Delhi

Supplementary:

1. Hubbard, R. G. and O'Brien, A. P. (2012), *Microeconomics*, Pearson, Delhi.
2. O'Sullivan, A., Sheffrin S. M. and Perez S. J. (2012). *Microeconomics, Principal, Application and tools*, Pearson, Delhi.
3. Koutsyannis, A, *Modern MicroEconomics*, (Second Edition), Palgrave Macmilan

Web based:

1. https://www.researchgate.net/publication/276345195_Indifference_Curve_Analysis_The_Correct_and_the_Incorrect/link/584de00008ae4bc8993312cd/download
2. <https://economics.ucsc.edu/research/downloads/Friedman-Sakovics-MU23.pdf>
3. <http://etheses.lse.ac.uk/3053/1/U616008.pdf>
4. <http://www.oecd.org/daf/competition/1920526.pdf>

Course Title: Macroeconomics

Course Code: ECO-IV.C- 6

Marks: 100

Credit: 4

Hours: 60

COURSE OUTCOME: Upon completion of the course students will be able to

CO1: Define various key macroeconomic variables; principles & tools; and national income concepts.

CO2: Contrast between the long run & short run macroeconomic behavior; and various macroeconomic frameworks

CO3: Make use of macroeconomic concepts to develop an understanding of the working of the economy

CO4: Examine and analyze Keynesian and Monetarist macroeconomic framework

CO5: Justify the policy measures undertaken in a Keynesian system; especially those influencing consumption and expenditure decisions

CO 6: Estimate, imagine and elaborate the impact of macroeconomic policies on the state of the economy

SYLLABUS

Unit 1: Introduction to Macroeconomics (10 Hours)

Major Macroeconomic Issues: Business Cycle, Unemployment, Inflation, Long-run Economic Growth; Principles and Tools of Macroeconomic Analysis; Macroeconomic Variables; Long run and Short run Analysis in Macroeconomics.

Unit 2: National Accounts: Measuring Output and Income (10 Hours)

National income: concept and measurement: GDP, GNP, NDP, NNP; Methods of measurement: Value Added and Expenditure Approach; Price Indices and Deflator.

Unit 3: Keynesian Macro-economic Framework (20 Hours)

Keynesian analysis: Aggregate Demand- concepts, components and determinant's, Consumption Demand and its Determinants, Consumption Function and Consumption Line, Autonomous Consumption Demand, Marginal and Average Propensity to Consume, Saving Function and Saving Line, Marginal and Average Propensity to Save, Consumption Puzzle, Theories of Consumption, Investment Demand and its Determinants, Investment Function and Investment Demand Curve, Theories of Investment, Aggregate Expenditures in the Closed Private Economy, Planned Expenditures and Actual Expenditures, The 45°line and Equilibrium Output in the Two-sector Model in the Short run ("Keynesian Cross Model"), Non-equilibrium Situations, Multiplier Effect of Autonomous Spending on Output.

Unit 4: Monetarists Framework (10 Hours)

Origin of monetarist views: Milton Freidman; Origin of quantity theory of money.

Unit 5: The IS-LM Model (10 Hours)

IS-LM equations, Dynamics in the IS-LM model, Fiscal policy-effectiveness and LM curve, Fiscal policy- effectiveness and IS curve, Monetary policy- effectiveness and IS curve, monetary policy-effectiveness of LM curve, paradox of thrift, Policy objectives.

REFERENCES:**Mandatory:**

1. Begg, D., Dornbusch, R., Fischer, S. (2005) *Economics*, McGraw-Hill Book Co., London.

Supplementary:

1. Mankiw, N.G. (2010) *Macroeconomics*, Worth Publishers, New York.
2. Lipsey, R.G.; Chrystal, K. A. (2007) *Economics*, Oxford University Press, Oxford.
3. Samuelson, P.; Nordhaus, William (2010) *Economics*, MacGraw Hill Education. Delhi

Course Title: Public Economics

Course Code: ECO-V.C-7

Marks: 100

Credits: 04

Hours: 60

COURSE OUTCOME: Upon completion of the course students will be able to:

CO1: Understand the difference between public finance and Public economics.

CO2: Appreciate public economics & its rationale.

CO3: Discuss the nature of public economy, the functioning of markets and determinants of market failure.

CO4: Evaluate the welfare effect of taxes

CO5: Demonstrate the theory of public goods in reality.

CO6: Identify the major areas and roles for government activity

CO7: Describe the major items of government revenue and expenditure

CO8: Familiarize the students with concepts of welfare economics

SYLLABUS

Unit 1: Issues in Public Economics

(15 Hours)

Nature of the Public Economy; Public economy and markets: Pareto optimality and Market failure, fundamental theorem of welfare, Cases of violation of Pareto optimality; Asymmetric information and market failure: the problem of externality and their internalization; Pigouvian tax; Federal state v/s unitary.

Unit 2: Theory of Public goods

(15 Hours)

Public Choice theory: Public goods, Samuelson model, Lindahl model; Empirical theories of public goods: Wagner hypothesis, Wiseman-peacock hypothesis; Preference revelation mechanism for public goods.

Unit 3: Public Revenue

(15 Hours)

Principles of Taxation and classification of taxes: Impact and incidence of taxes, Benefit and ability to pay principle, deadweight loss, optimal taxation, partial and general equilibrium, examples; Excess burden of tax; tax evasion & tax avoidance.

Unit 4: Public Expenditure and Public debt

(15 Hours)

Principles of expenditure and classification of expenditure; Cost –Benefit analysis; Causes and Consequences of public debt; Debt sustainability analysis; Modigliani's burden thesis; Burden of internal & external debt; debt trap.

REFERENCES:

Mandatory:

1. Cullis J. and Jones P.(2009) Public Finance & Public Choice: Analytical Perspectives, Oxford

2. Aurbach, A. & M. Feldstein (eds) (1987) Handbook of Public Economics, Vol.I& II, Elsevier, New York
3. Baumol, W. J. (Ed.) (2001), Welfare Economics, Edward Elgar Publishing Ltd. U.K
4. Herber, B.P.. Modern Public Finance, Third Edn. 1975, Richard D. Irwin, Inc.
5. Atkinson, A.B and. Stiglitz J.E (2015), Lectures on Public Economics, McGraw–Hill, New York

Supplementary:

1. Musgrave, R. A. (1959), The Theory of Public Finance, McGraw Hill, New York.
2. Musgrave, R. and Musgrave P. (2004), Public Finance in Theory and Practice, McGraw–Hill.
3. Cornes, R. & T. Sandler (1986) The Theory of Externalities, Public Goods and Club Goods, Cambridge University Press, Cambridge
4. Hindriks J. and Myers G.D. () Intermediate Public Economics, Prentice Hall of India, New Delhi

Web Based

1. <https://dea.gov.in/external-debt>
2. <https://ocw.mit.edu/courses/economics/14-471-public-economics-i-fall-2012/lecture-notes/>
3. <https://www.startupindia.gov.in/content/sih/en/international/go-to-market-guide/tax-system-india.html>
4. https://www.indiabudget.gov.in/exp_budget.php

Course Title: International Trade and Policy

Course Code: ECO-VI.C-8

Marks: 100

Credits: 4

Duration: 60 Hours

COURSE OUTCOME: Upon completion of the course students will be able to

CO1: Define the conditions under which trade is beneficial for both individual nations and international community and identify gainers and losers from trade

CO2: Compare and evaluate alternative theories of international trade

CO3: Apply partial equilibrium and general equilibrium models in analyzing trade theories & the economic effects of trade policies

CO4: Analyze key issues raised under WTO & through regional trading arrangements

CO5: Evaluate the implications of trade on growth and income distribution under various circumstances

CO6: Adapt the theory to address the issues on globalization, economic integration, and trade Policy

CO7: Highlight the concept of Portfolio and direct investment

SYLLABUS

Unit 1: Classical Trade Theories

(15 Hours)

Introduction & importance of international trade, Introduction to international trade theories, Absolute Advantage; Comparative Advantage Theory and its refinements; Reciprocal demand and the international equilibrium model; Gains from Trade and Terms of Trade.

Unit 2: Modern Trade Theories and Extensions

(15 Hours)

Factor-Endowments (Heckscher-Ohlin) Theory; Factor-price Equalisation Theorem; Leontief Paradox; Factor Intensity Reversal; Intra-industry Trade: Trade based on Economies of Scale; Differentiated Products; Technological Gaps; Product Cycles; Differences in Tastes; Trade in Goods and Services.

Unit 3: Trade Barriers

(15 Hours)

Tariffs: Types and Effects; Non-tariff Barriers: Quotas, Exchange Controls, Dual Exchange Rates, Discriminatory Procurement, Local content requirement, Other Human-rights, Health and Hygiene Safeguards; Dumping; Voluntary Export Restraints; Export Subsidies; Counter trade; International Cartels.

Unit 4: Trade Issues of Developing Countries and Emerging Markets

(15 Hours)

Trade as an engine of Growth; Factors influencing Terms of Trade of Developing Countries; Prebisch Singer Thesis; Immiserising growth; Trade Disputes and WTO; Strategic trade policies; Regional

Economic Integration and Globalization; Emerging Markets and Global Resource Movements; foreign direct investments and Foreign Portfolio ; Multinational enterprises and world trade.

REFERENCES:

Mandatory:

1. Carbaugh, Robert J. (2002), *International Economics*, South-Western (Thomson Publishing), Bangalore, 8th edition (Latest available 15th edition)
2. Paul R. Krugman & Maurice Obstfeld (2009), *International Economics Theory and Policy*, Pearson Education Publication New Delhi.
3. Salvatore, Dominic (2014), *International Economics: Trade and Finance*, John Wiley & Sons, Delhi
4. Gandolfo, G (2006), *International Trade: Theory and Policy*, Springer (India) private limited.
5. Krugman, Paul R.; Obstfeld, Maurice (2011), *International Economics: Theory and Policy*, Pearson, New Delhi.

Supplementary:

1. Husted Steven and Michel Melvin (2009), *International Economics*, Addison-Wesley, New York.
2. Jones, K.A. (2015), *Reconstructing the World Trade Organization for the 21st Century: An Institutional Approach*, Oxford University Press, New York.
3. Thompson, Henry (2010), *International Economics*, Cambridge University Press India, New Delhi.
4. Bhagwati, J. (Ed.) (1981), *International Trade*, Selected Readings, Cambridge University Press, Mass

Web based:

1. <http://www.makeinindia.com/policy/foreign-direct-investment>
2. <https://study.com/academy/lesson/modern-approach-to-international-trade-theory.html>
3. https://ocw.mit.edu/courses/economics/14-54-international-trade-fall-2016/lecture-slides/MIT14_54F16_Lecture_8.pdf

ELECTIVE COURSES

Course Title: Economics and Law

Course Code: ECO-E-1

Marks: 100

Credits: 04

Duration: 60 Hours

COURSE OUTCOMES: Upon completion of the paper students will be able to

CO1: Understand relationship between of law and economics

CO2: Assess the behavioural consequences of introduction of or changes in legal rules/amendments.

CO3: Review the legal arrangements of functioning of market.

CO4: Recreate a plan for of e governance in law.

CO5: Evaluate the implications of the existing legal provision on the overall economic performance.

SYLLABUS

Unit 1: An Introduction to Law and Economics (15 Hours)

Economic analysis of law: Interrelationship between economics and law; The civil law and the common law tradition, Legal structure in India; Disputes and settlements; A brief introduction to different types of law: Property law, Contract law, Criminal law and Law of Torts.

Unit 2: Economic Theory of Property Rights (15 Hours)

Origin of the institution of property; Legal concept of property, Bargaining theory; Economic theory of property; Establishment and verification of property rights, Conflicting property rights, Public and private property, the public use of private property. The tragedy of the common property resources, Taking Property: Eminent domain.

Unit 3: Evaluation of the Existing Property Laws (15 Hours)

Intellectual Property Rights: Importance; Intellectual Property Rights and World Trade Organization. Copyrights Act, 1957: Purpose; Ownership of Copyrights; Rights of Owners and Rights of Others; Registration of Copyrights and its Infringement; Remedies under Copyrights Act, Patents Act, 1970: background; Concept of Patent; Procedural aspects of filing of patents; Procedure after filing of Patents; Other provisions of the Act.

Unit 4: Economic Laws in India (15 Hours)

Consumer Protection Act, 1986: Purpose, Salient Features, Organizational set-up; Grievance Redressal Mechanism. Competition Act, 2002 Purpose; Salient Features; Complaint; Procedures for redressal, Essential Commodities Act, 1955: Purpose; Scope; Penalties and Prosecution; Repeals and Savings; FEMA, Geographical indications of Goods Act. SEBI- (Acts); RBI as a regulatory body, Laws related to internet transactions; Negotiable Instruments Act; Prevention of Money Laundering Act, 2002

REFERENCES:

Mandatory:

1. Cooter, Robert and Ulen, Thomas. (2011), *An Introduction to Law and Economics*, 6th ed Pearson Series in Economics.
2. Gopalakrishnan, K.C. (2002), *Legal Economics (Interactional Dimensions- Economics and Law)*, Eastern Book Company, Lucknow.
3. Granstrand, Ove. (2003), *Law and Intellectual Property: Seeking Strategies for Research and Teaching in a Developing Field*, Kluwer Academic Publishers, Boston.
4. Medema, Steven G., Mercuro, Nicholas. (1998), *Economics and the Law: From Posner to Post-Modernism*, Princeton University Press, Princeton, New Jersey.
5. Reddy, G. B. (2002), *Law of Consumer Protection in India*, Gogia Law Agency, Hyderabad.

Supplementary:

1. Wadehra, B. L. (2003), *Intellectual Property Law Handbook: Law Relating to Patents, Trade Marks, Copyrights, Design & Geographical Indications*, Universal Law Publishing Co, Delhi.

Web based:

1. <http://copyright.gov.in/>
2. <http://www.wipo.int/patents/en/>
3. <https://www.india.gov.in/consumer-protection-act>
4. <http://www.mca.gov.in/MinistryV2/competitionact.html>
5. https://indiacode.nic.in/handle/123456789/1781?view_type=search
6. <http://dipp.nic.in/foreign-direct-investment/foreign-exchange-management-act>
7. <http://legislative.gov.in/sites/default/files/A1999-48.pdf>

Course Title: Regional Economics

Course Code: ECO- E-2

Marks: 100

Credits: 04

Duration: 60 Hours

COURSE OUTCOMES: Upon completion of the course students will be able to:

CO1: Identify the distribution of economic activities across space especially in India.

CO2: Understand the market structures

CO3: Assess the migration patterns.

CO4: Explain the problems involved in regional growth.

CO5: Examine the impact of migration on regional development.

SYLLABUS

Unit 1: Introduction to regional economics, Clustering & Agglomeration (15 Hours)

Regional economics: Meaning, Scope and Relevance; Types of regions: Homogeneous, heterogeneous; Regionalization: Development, planning & policies. Industrial clustering and returns to scale, Agglomeration economies: source, types, clustering & nature of transactions, Urban consumption, limited information, uncertainty and evolution of clusters.

Unit 2: Location Theory and Economic Activity (15 Hours)

Weber's theory of industrial location, Moses' location production model, Thunen's theory of location of agricultural activities, Christaller and Losch's central place theory, General equilibrium & Hotelling principle, Land competition (bid rent model).

Unit 3: Problems of Regional Economic Growth (15 Hours)

Mono centricity, land supply and landownership, labor markets, wage flexibility & Interregional labor migration, Balance of payments and regional growth.

Unit 4: Regional flows and economic growth (15 Hours)

Commodity and Service v/s Monetary & Capital flows; Migration: Types, Causes, Ramifications, Measures; Regional Growth theory; Migration and Regional policy in India.

REFERENCES:

Mandatory:

1. McCann, Philip. (2013), *Modern Urban and Regional Economics*, Oxford University press.
2. Shrivastava, O.S. (2009), *Regional Economics and Regional Planning*, Anmol Publications Pvt Ltd.
3. Hoover, Edgar M. (1968), *Spatial Economics: Partial Equilibrium Approach*, in Encyclopedia of the Social Sciences, Macmillan, New York.
4. Isard, Walter. (1956), *Location and Space-Economy*, The MIT Press, Cambridge.

Supplementary:

1. Krugmen, Paul *Geography and trade*, MIT press.
2. Martin, Beckmann. (1968), *Location Theory*, Random House, New York.
3. Moses, Leon (1968), *Spatial Economics: General Equilibrium Approach*, in Encyclopedia of the Social Sciences, Macmillan, New York.

4. Nijkamp, Peter, Mill, S Edwin. (2007), *Handbook of Regional and Urban Economics: Regional economics*, North- Holland publishers.
5. Nourse, Hugh O (1968), *Regional Economics*, McGraw-Hill, New York.
5. Richardson, W Harry (1978), *The State of Regional Economics*, International Regional Science Review, Fall.
6. Webber, J Michael. (1972), *Impact of Uncertainty on Location*, MIT Press, Cambridge.
7. Woglom, W. H. (1954), *The Economics of Location*, Yale University Press, New Haven.

Web based:

1. https://www.researchgate.net/publication/266457660_Application_of_the_Von_Thunen_Model_in_Determining_Optimal_Locations_to_Transport_Compost_for_Crop_Production_Outside_of_Yaounde_Cameroon
2. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2260059
3. <https://planningtank.com/settlement-geography/central-place-theory-walter-christaller>
4. https://www.maa.org/sites/default/files/pdf/ebooks/GTE_sample.pdf
5. https://www.researchgate.net/publication/249871420_Agricultural_location_theory_Von_Thunen's_contribution_to_economic_geography
6. <https://spinlab.vu.nl/wp-content/uploads/2016/09/ExerciseVonThunen.pdf>

Course Title: Behavioral Economics

Course Code: ECO- E- 3

Marks: 100

Credits: 04

Duration: 60 Hours

COURSE OUTCOMES: Upon completion of this course students will be able to

CO1: Understand the basic concepts in behavioral economics.

CO2: Distinguish between heuristics & biases with the help of examples of their own

CO3: Evaluate the importance of behavioral economics for policy making

CO4: Design applications of behavioral economics to a given Economics problem

CO5: Propose nudging to any given policy.

CO6: Analyze the effectiveness of flagship programs of GOI.

SYLLABUS:

Unit 1: Introduction to Behavioral economics

(15 Hours)

Meaning, Evaluating behavioral economics, historical context, methodology; basic concepts: probability judgment; Preferences: revealed, constructed, discovered or learned.

Unit 2: Some Principles of behavioral Economics for policy making

(15 Hours)

Other people's behavior matter, Habits are important, People are motivated to do right thing, People self expectations influence how they behave, People are loss averse, People are bad to computation, People need to feel involved & effective to make a change.

Unit 3: Decision making under risk & uncertainty

(15Hours)

Heuristics and Biases programme- Representativeness, Availability, Anchoring and adjustment, mental accounting Biases: Overconfidence, Confirmation bias, Framing, Status Quo Bias, Endowment Bias, Self-Control Bias Fallacies: conjunction and disjunction fallacies, gambler's fallacies.

Unit 4: Applications of Behavioral Economics

(15Hours)

Choice architecture: The role of nudging ;Applications: Labor Economics, Finance, Taxation, Public Policies: Psychological and social perspectives on policy in the area of Poverty, Health, Climate Change

References:

Mandatory:

1. Nick Wilkinson; Matthias Klaes(2012), *An Introduction to Behavioral Economics*, 2nd Edition, Palgrave Macmillan.
2. Erik Angner, "A Course in Behavioral Economics", Palgrave Macmillan
3. SanjitDhami, "The Foundations of Behavioral Economic Analysis", Oxford University Press (2016)
4. E. Cartwright, (2011), *Behavioral Economics*, Routledge

5. M. Altman (2007), *Handbook of Contemporary Behavioral Economics: Foundation and Developments* Prentice Hall India

Supplementary:

1. D. Kahneman (2011), *Thinking Fast and Slow* Allen Lane, Penguin Books
2. G. Loewenstein(2007), *Exotic Preferences: Behavioral Economics and Human Motivation* Oxford University Press
3. Colin F. Camerer, George Loewenstein, Matthew Rabin (ed.)(2004), *Advances in Behavioral Economics*, Princeton University Press.
4. Dan Ariely, Harper Perennial **Predictably Irrational: The Hidden Forces That Shape Our Decisions**, 2010, ISBN 0061353248, ISBN13 978-0061353246.

Reports:

World Development Report 2015: Mind, Society, and Behavior

Web based:

1. <http://www.its.caltech.edu/~camerer/ribe239.pdf>
2. https://b3cdn.net/nefoundation/cd98c5923342487571_v8m6b3g15.pdf
3. https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.researchgate.net/publication/305377222_Behavioral_Economics&ved=2ahUKEwiJkPOyiMHkAhULPo8KHV77CvIQFjAGegQICBA&usg=AOvVaw1H1HeBtjbyqdF7kq3w9sYo

Course Title: Environmental Economics

Course Code: ECO- E-4

Marks: 100

Credits: 4

Duration: 60Hours

COURSE OUTCOMES: Upon completion of the course students will be able to

CO1: Define basic concepts in environmental economics

CO2: List out the differences between national income accounting & green accounting procedures

CO3: Identify different environmental damage functions.

CO4: Apply law of equi-marginal principle to environmental pollution reduction

CO5: Choose an appropriate environment evaluation technique to a given environmental problem.

CO6: Select appropriate tools of Micro Economics for providing solutions to Environmental problems.

SYLLABUS

Unit 1: Economics and the Environment

(15 Hours)

Economic Perspectives on the Environment; National Income and Environmental Accounting; Economic activity and problem of residuals, Issues of Environmental economics; Externality and Market Failure.

Unit 2: Economics of Environmental Quality

(15 Hours)

Pollution Damage and Abatement Costs; damage and ambient functions; Efficient Level of Emissions; Application of Equi-marginal Principle to Emission Reductions; Enforcement Cost; Pollution control models.

Unit 3: Environmental Evaluation

(15 Hours)

Use and non-use value of environmental resources; Market and non-market evaluation techniques; Impact analysis, Cost-effectiveness analysis, Benefits and Costs analysis.

Unit 4: Environmental Policy

(15 Hours)

Criteria for Evaluating Environmental Policies, Decentralized Policies: Liability Laws, Property Rights, Moral Suasion, Command-and-Control Strategies: The Case of Standards; Incentive-Based Strategies: Emission Charges and Subsidies, Transferable Discharge Permits.

REFERENCES:

Mandatory:

1. Field, Berry and Field, Martha (2001), *Environmental Economics*, McGraw-Hill/Irwin
2. Hanely, Nick, Shorgen, Jason F. and White, Ben (1999), *Environmental Economics: In Theory and Practise*, MacMillian.
3. Kolstad, C. D. (2003), *Environmental Economics*, Oxford University Press.
4. Matthew Kahn, *Fundamentals of Environmental Economics: Solving Urban Pollution Problems*, (Kindle Edition).

5. Tietenberg Tom and Lynne, Lewis (2012), *Environmental and Natural resource economics*, 9th edition, Pearson

Supplementary:

1. Wallace Oates (Editor) (2006), *The RFF Reader in Environmental and Resource Policy*, 2nd edition, RFF Press

Web based:

1. http://eepseapartners.org/pdfs/pdfs/12628447961Luangmany_et_al_-_Valuing_Environmental_Services.pdf
2. <https://www.cbd.int/financial/finplanning/g-costestimate-worldbank.pdf>
3. http://www.eemj.icpm.tuiasi.ro/pdfs/vol7/no6/39_Petru%20%20Condrea.pdf
4. <https://pdfs.semanticscholar.org/27ab/f13c63e7ac46fc324b2566c83ba83a11a646.pdf>
5. https://www.researchgate.net/publication/261874311_Environmental_cost-benefit_analysis_of_decentralised_wastewater_treatment_and_re-use_A_case_study_of_rural_Jordan
6. <https://ideas.repec.org/a/ags/joaac/155413.html>

Course Title: Research methodology in Economics

Course Code: ECO- E- 5

Marks: 100

Credits: 04

Duration: 60Hours

COURSE OUTCOMES: Upon completion of the course students will be able to

CO1: Write null & alternate hypothesis.

CO2: Apply the research methods to any given problem in social research.

CO3: Recognize the use of primary & secondary data.

CO4: Distinguish between probability and non probability sampling techniques.

CO5: Design Questionnaire, interview schedule.

CO6: Write a proposal for social research project in Economics

SYLLABUS

Unit 1: Social Research:

(15 Hours)

Social research: meaning, definition, Aims, importance, steps in social research; Characteristics of good social research; Problems. **Hypothesis:** Meaning, Importance, sources, forms & types; testing of hypothesis: concepts involved in testing of hypothesis, steps involved in formulation of hypothesis, difficulties.

Unit 2: Research methods

(15 Hours)

Social survey, Case study; Experimental; Interdisciplinary methods; Statistical method: (Meaning, types, characteristics, merits & demerits)

Unit 3: Empirical investigations:

(15 Hours)

Choice of data: Primary or secondary; sources of data; sample versus census survey; sample survey method: probability & non probability sampling methods, characteristics of good sample design; sampling & non sampling errors.

Unit 4: Collection & data analysis

(15Hours)

Selection of appropriate method of primary data collection: observation methods, interview method, questionnaire versus schedule; collection of secondary data; Data editing, tabulation and data analysis: use of parametric & non parametric tests.

References:

Mandatory

1. Kothari C.R (2013), *Research Methodology: Methods and Techniques*, New Age International Publishers. New Delhi.
2. Goode, W.J and Hatte, P.K (1981), *Methods in Social Research*, McGraw- Hill, Singapore.
3. Young Pauline V. (1996), *Scientific Social Surveys and Research*, Prentice-Hall of India New Delhi.

4. Gerard, Guthrie (2010), *Basic Research Methods An Entry into to Social Science Research*, Sage Publications India, New Delhi.

Supplementary:

1. Baronov, David (2004), *Conceptual Foundations of Research Methods*, Paradigm Publishers, Boulder, US.
2. Cooper, R. Donald and Pamela S. Schindler (2003), *Business Research Methods*, Tata McGraw-Hill.
3. Fink, A (2009), *Conducting Research Literature Reviews: From the Internet to Paper*, Sage Publications, New Delhi.
4. Flick, U (2011), *Introducing Research Methodology: A Beginner's Guide to doing a Research Project*, Sage Publications India, New Delhi.
5. Shipman, Keith F, (1996), *Introduction to Social Research*, Sage, London.

Web based:

1. https://www.unicef.org/easterncaribbean/ECAO_Barbados_Report_Social_Survey_on_Violence_against_Children_and_Women.pdf
2. https://www.researchgate.net/publication/235953309_Case_Study
3. https://www.researchgate.net/publication/316532311_Research_design_the_methodology_for_interdisciplinary_research_framework
4. https://www.researchgate.net/publication/320010397_Primary_Sources_of_Data_and_Secondary_Sources_of_Data
5. https://www.researchgate.net/publication/314239004_Sampling_-_Probability_Vs_Non-Probability

Course Title: Emerging Market Economies

Course Code: ECO-E-6

Marks: 100

Credits: 04

Duration: 60 Hours

COURSE OUTCOMES: Upon completion of the course students will be able to

CO1: Identify the emerging market economies in the world.

CO2: Understanding the progress of the emerging markets over time..

CO3: Critically evaluate different institutions functions in these economies

CO4: reviewing the Emerging market economies implications on the world economy

CO5: Evaluate the overall growth process of the two major emerging markets India and China.

SYLLABUS

Unit 1: Emerging Market Economies: An overview (15 Hours)

Concept and definition of the emerging markets, the historical background, Emerging market indices; Developed vs Emerging markets: the political economy of development, globalization, competitiveness and emerging markets.

Unit 2: Policies & systems in Emerging Markets (15 Hours)

Processes: Governance, Fiscal, Monetary & regulatory mechanisms to gain global competitive edge; Cases of Emerging markets (Other than India & China): Importance, Growth, Evaluation.

Unit 3: Financialisation and Emerging Markets: (15 Hours)

The process of financial liberalization and innovation in emerging markets, Forms & functions of finance in emerging markets, Global financial crisis and the emerging markets: Involvement, impact and recovery.

Unit 4: The emerging markets of India and China: (15 Hours)

Neo-liberalism and emergence of India as a market economy, Analysis of India's post reform growth, performance of Indian economy post 1997; Rise of China as a market economy: recent Economic policies, Emergence of China as a world leader in export: Evaluating the impact of technological and institutional factors.

REFERENCES:

Mandatory:

1. Hoen, Herman W. (2014), *Globalization and institutional change: are emerging market economies in Europe and Asia converging?* Academic Publishers, Adleton.
2. Kohli, Harinder S, (2008), *Growth and Development in Emerging Market Economies: International Private Capital Flows, Financial Markets and Globalization*, Sage Publication India Pvt Ltd, Los Angeles.

Supplementary:

1. Zhu, Xiaodong, (2012), *Understanding China's growth: Past, Present and Future*. Journal of Economic Perspectives Vol 7, No.4, Pp 103-124.

2.Li, Hongbin, Li, Lei, Wu, Binzhen and Xiong, Yanyan. (2012), *The journal of Economic Perspectives* Vol 26, No.4, Pp 57-74.

Web based:

1. https://media.economist.com/sites/default/files/pdfs/Emerging_Markets_3e.pdf
2. <https://www.ibef.org/economy/indian-economy-overview>
3. <https://www.worldbank.org/en/publication/global-economic-prospects>
4. <https://www.bis.org/review/r170811d.pdf>
5. https://fnce.wharton.upenn.edu/wp-content/uploads/2018/10/Quadrini_GrowthPaper-LowerCredit-msb11377.pdf

Course Title: Introduction to Industrial Economics

Course Code: ECO- E-7

Marks: 100

Credits: 04

Duration: 60 Hours

COURSE OUTCOMES: upon completion of the course students will be able to

CO1: Define the scope of industrial economics.

CO2: Discuss the theories of firms.

CO3: Identify various market structures, their conduct and performance

CO4: Examine the industrial policies in India post globalization and their relevance

CO5: Analyze labor regulatory mechanism and competition framework with respect to India.

CO6: Choose the right industrial structure for Indian economy in the globalised world.

SYLLABUS

Unit 1: Introduction to Industrial economics and Theory of the Firm (15 Hours)

Meaning, scope, need and significance of industrial economics; Factors Affecting Industrial Development, Industry and Sectoral Linkages, Industrial Organization and Ownership Structure- Public; Private; Joint and Cooperative Sectors, Significance of Size- Traditional Industries and Modern Industries- IT sector, FMCG, Defence, health sector and tourism, Export oriented industries , Agro-processing Industries, MSMEs- Small-Scale Industries; Cottage and Village Industries and Rural Industrialization, Role of MSMEs, public and private and their contribution in economy and problems faced, Recent trends in Indian industrial growth , Startups-theory and concept

Theory of the Firm: Concept, optimum size and objectives of the firm; Alternative approaches: transaction cost theory and behaviorial theory of firm, Separation of ownership and control – implications.

Unit 2: Structure, Conduct and Performance and market structure (15 Hours)

Price and non-price competition: differentiation between price and non-price competition, Non Price Competition: Meaning & Product Differentiation- Horizontal and vertical Product Differentiation, Brand Proliferation as an Entry Deterrence Strategy, Firm Behavior & Market Outcomes. i Collusion ii Merger iii Acquisition , iv Joint Ventures: their performance and sustainability.

Market Performance and Growth of the firm – Size, growth, & profitability of a firm; Productivity, Efficiency and capacity utilization. Constraints on the above.

Unit 3: Industrial Location Analysis

(10 Hours)

Meaning of Industrial Location, Theories of industrial location – Weber and Sargent Florence- modern Approach, Determinants of Industrial Location: Factors affecting location

Unit 4: Industrial Policy, MNCs and Regulatory Mechanisms

(15 Hours)

India's industrial policy pre and post globalization need for reforms in regulatory mechanisms: Industrial policy for inclusive growth, labour reforms, Industrial policy in a global economy, Corporate Governance and Business Ethics Corporate Social Responsibility Act 2013

Regulatory Mechanism: Competition Act 2002, SEBI, TRAI, RBI, SIDBI, other centre and state polices and regulations stressing only on their regulations on industries. Global changes and their impact on Marketing Strategies and Information System for Indian Industries– structure and recent initiatives, FEMA; Export-Import (EXIM) Policy.

REFERENCES:

Mandatory readings:

Mandatory Reading:

1. Barthwal, R. R. (2021), Industrial Economics (14th Edition) , Wiley Eastern Ltd., New Delhi.

Supplementary Reading:

1. McCann, Philip. (2013), Modern Urban and Regional Economics, Oxford University press
2. Bhatia S.K, (2006)*Industrial relations and collective bargaining, Theory and practice*, deep and Deep Publications, New Delhi,
3. Mamoria C.B &Mamoria S, (2021),*Dynamics of Industrial Relation (sixteenth edition* ,Himalaya Publishing House, Mumbai.
4. SenRatna,(2003), *Industrial Relations In India*, Macdonald and Evans, G. Britain.

Web links

1. <https://www.ibef.org/industry>
2. <https://msme.gov.in/>
3. <https://www.sciencedirect.com/topics/economics-econometrics-and-finance/location-theory>
4. <https://www.dgft.gov.in/CP/?opt=ft-policy>

Course Title: Introduction to Money and Banking

Course Code: ECO-E-8

Marks: 100

Credits: 04

Duration: 60 Hours

COURSE OUTCOMES: Upon successful completion of this course, the students will be able to

CO1: Define money and its role in the economy.

CO2: Describe different types of financial instruments.

CO3: Understand the concept of financial intermediation.

CO4: Describe the principles of portfolio management, asset and liability management

CO5: Explain role of monetary policy in stabilizing the economy.

UNIT 1. OVERVIEW OF HISTORY OF MONEY AND BANKING

Introduction and nature of Money; Role of Money in an Economy; Financial Instruments, Markets and Institutions; Introduction to Monetary theory, Monetary policy; Central and Commercial Banking:- Functions and overview.

UNIT 2. FINANCIAL INSTRUMENTS, MARKETS AND PRINCIPLES OF BANKING

Financial Banking: Financial in intermediation, instruments and markets; capital and money markets and system; interest rate structure; portfolio management; bank lending, managing bank assets and liabilities:-Balance sheet.

UNIT 3. MONETARY POLICY

Money creation; money multiplier; Central Banking: credit control measures; monetary base; bank reserves and monetary base equations; goals, targets, role and performance of monetary policy.

***include numerical problems.**

UNIT 4. INTERNATIONAL FINANCIAL INSTITUTIONS

Objectives, role and functions of International Bank for Reconstruction Development; International Monetary Fund, Asian development bank, Introduction to US FED Reserve system.

Mandatory readings:

1. Baye M.R. and Jansen D.W. (1996): *Money, Banking and Financial Markets*; AITBS.
2. Mishkin F.S. and Eakins S.G. (2009): *Financial Markets and Institutions*; Pearson Education, 6th edition.
3. Bhole L.M. and Mahukud J. (2011): *Financial Institutions and Markets*; Tata McGraw Hill; 5th edition.

Web references:

1. [tunxi. Edu/wp-content/uploads/2012/03/Money-and-Banking-14-24pdf](#)
2. [academicworks.cunny.edu/cgi/viewcontent.cgi?article=1021&context=kb__oers](#)

Course Title: Introduction to Econometrics

Course Code: ECO- E-9

Marks: 100

Credits: 4

Duration: 60Hours

COURSE OUTCOMES: Upon completion of the syllabus students will be able to:

CO1: Understand the concepts used in sampling in particular and in Econometrics at large

CO2: Use OLS for calculating parameters in regression.

CO3: Construction of point and confidence interval estimate.

CO4: Formulate, test and draw inferences from hypothesis.

CO5: Use R programming to run multiple regression models.

CO6: Interpret the results obtained for linear & multiple regression model

SYLLABUS

Unit 1: Basic Ideas of Linear Regression: The Two-Variable Model (15 Hours)

Population Regression Function; Classical Linear Regression Model. Linear Regression Method: Sample Regression Function, Meaning of “Linear” Regression. Method of Ordinary Least Squares for Two-variable regression; Least Squares Residuals, Variances and Standard Errors of Ordinary Least Squares [OLS] Estimators; BLUE Properties of OLS Estimators: The Gauss-Markov Theorem.

Unit 2: The Two-Variable Model: Hypothesis Testing. (15 Hours)

Hypothesis Testing: Test of Significance Approach; Confidence Interval Approach; Analysis of Variance and Correlation: Sum of Squares; Use of F-ratio to Test the Regression Equation; Use of r^2 to obtain the Goodness of Fit.

Unit 3: Multiple Regressions: Estimation and Hypothesis Testing (15 Hours)

Three-variable Regression Model; Meaning of Partial Regression Coefficients; Assumptions of the Classical Linear (Multiple) Regression Model, Multiple Regression Equation; Estimation of Parameters of Multiple Regression, (OLS Estimators); Variances and Standard errors of OLS Estimators. Properties of OLS Estimators of Multiple Regression, Testing the slope of an individual estimator; Testing the Regression Equation. F test, R Square, Adjusted R Square, Comparing two R^2 Values, Partial Correlation.

Unit 4: Multiple Regression Problems and Forecasting (15 Hours)

Multicollinearity: Perfect and Imperfect Multicollinearity; Consequences of Multicollinearity, Detection of Multicollinearity*, Corrections for Multicollinearity. Heteroscedasticity*; Nature of Heteroscedasticity, Consequences of Heteroscedasticity, Detection of Heteroscedasticity*, Corrections for Heteroscedasticity*. Serial Correlation; Nature of Serial Correlation, Consequences of Serial Correlation, Detection of Serial Correlation*, Corrections for Serial Correlation*, Regression on Dummy Explanatory Variables*, Forecasting with a Single-Equation Regression Model.

* In class exercise using software packages.

REFERENCES:

Mandatory:

1. Gujarati, Damodar N. (2009), *Basic Econometrics*, McGraw Hill, Singapore.
2. Ramanathan, Ramu (1998), *Introductory Econometrics with Applications*, Thomson Asia Pte Ltd., Singapore.
3. Koutsyannis, A.(1990), *Theory of Econometrics*, Palgrave Macmilan.
4. Journal of Econometrics

Supplementary:

1. Gujarati, Damodar N. (1999), *Essentials of Econometrics*, Irwin/McGraw Hill, Singapore.
2. Studenmund, A. H. (1997), *Using Econometrics: A Practical Guide*, Adisson-Wesley, Reading, Mass.

Web References:

1. <https://instruction.bus.wisc.edu/jfrees/jfreesbooks/Longitudinal%20and%20Panel%20Data/Book/Chapters/FreesFinal.pdf>
2. https://www.researchgate.net/publication/7222561_Study_Design_III_cross-sectional_studies/link/00463530cc57333de4000000/download
3. https://www.reed.edu/economics/parker/312/tschapters/S13_Ch_1.pdf

Course Title: Indian Economy

Course Code: ECO- E-1

Marks: 100

Credits: 04

Duration: 60Hours

COURSE OUTCOMES: upon completion of the course students will be able to:

CO1: Describe structural changes in Indian economy from Independence till globalization.

CO2: Identify & explain key issues & challenges faced by Indian economy.

CO3: Critically evaluate the policies with regard to Indian economy.

CO4: Review India's position with regard to foreign trade FDI, FII, MNC's, WTO globally.

CO5: Compare and contrast between planning commission & NITI Aayog

CO6: Appraise the status of Indian economy with regard to current economic situation.

SYLLABUS

Unit 1: Structural Changes in the Indian Economy (15 Hours)

India on the eve of independence, Pre reform period (1951-1991)-Need for planning (brief introduction and highlights of all plans), Structural adjustment programme: need, impact, Liberalization, Privatization, and Globalization; Primary -Secondary -Tertiary sector Linkages – trends

Unit 2: Key Issues of Indian Economy (15 Hours)

Key issues: Population-theory of demographic transition demographic dividend, gender ratio; poverty-Absolute and relative and its extent, Health, Education, inequality, gini coefficient, inequality, unemployment-types organised and unorganized, labour force participation; (causes and trends of each issue); Challenges: Inclusive growth: social; Parallel Economy; Rural development, urbanization, migration; Environment & Sustainable development.

Unit 3: Policy Perspectives (15 Hours)

Shift from Planning commission to NITI Aayog (Planning commission to be briefly assessed till 12th plan); Impact of policy shifts on decisions: finance, infrastructure, Evaluation of the

performance of NITI Aayog, investments; Flagship Missions of GOI (MNREGA, PMJDY, Digital India, Swachh Bharat Abhiyan, PMUY, NHM, Make in India), Fiscal Federalism.

Unit 4: India's Foreign Trade (15 Hours)

India's foreign Trade post 1991: Features, value, composition, direction; India's position in the world economy: Foreign Trade: Features and trends; Capital movements: FDI, FII, MNC's; WTO-structure, its impact on Indian economy, Agreements.

REFERENCES:

Mandatory:

1. Government of India: Economic Survey (various years), Government of India, New Delhi.
2. Chaudhary, C.M. (2012), Dynamics of Indian Economy, Oxford book company, New Delhi.
3. Datt, R.; Sundaram. K.P.M. (2018), Indian Economy, S. Chand & Company Ltd., New Delhi.

Supplementary:

1. Kapila, Uma. (2007), India's Economic development since 1947, Academic Foundation, New Delhi.
2. Rajan, K. (2006), Indian Economy Post Reform Scenario, Serials Publication, New Delhi

Web based:

1. <https://www.indiabudget.gov.in/economicsurvey/>
2. <https://www.adb.org/sites/default/files/publication/28930/understanding-poverty-india.pdf>
3. <http://www.iegindia.org/upload/publication/Workpap/wp349.pdf>
4. <https://dbie.rbi.org.in/DBIE/dbie.rbi?site=home>
5. <https://www.india.gov.in/website-niti-aayog>
6. https://www.researchgate.net/publication/262126139_Economic_Growth_and_Human_Development_in_Indian_States

Course Title: Actuarial Economics

Course Code: ECO-E-11

Marks: 100

Credit: 4

Duration: 60 Hours

COURSE OUTCOMES: upon completion of the course students will be able to:

CO1: Understand concepts in actuarial economics

CO2: Identify the changes in financial sector due to globalization;

CO3: Calculate annuity and types of annuity.

CO4: Interpret life table for the purpose of calculation of premium.

CO5: Apply probability theory to insurance

CO6: Outline the role of regulatory bodies like IRDA

SYLLABUS

Unit 1: Introduction to Actuarial Economics (15 Hours)

a. Origin, nature and scope of Actuarial Economics: Its importance; Link between financial planning and risk management; Utility and risk preference.

b. Annuity and its Calculations

Annuity: ordinary annuity, annuity due, deferred annuity; Perpetuity: present value of immediate perpetuity, present value of perpetuity due, deferred perpetuity; annuity with frequency different from that with which interest is convertible; varying rates of interest; redemption of loan; average interest yield on the life fund.

Unit 2: Pricing (15 Hours)

Basic elements in computation of life insurance premium; premium calculation; formulae for calculation of net premium.

Unit 3: Mortality Tables (15 Hours)

Probability theory in insurance; mortality table; types: select and ultimate tables; stages involved in construction of mortality table.

Unit 4: Product Design and Actuarial Profession (15Hours)

Basic methodology and setting assumptions; product design; actuarial standards and regulations, role of IRDA.

REFERENCES:

Mandatory:

1. Mishra K.C. & Kumar C.S., (2009), *Elements of Actuarial Science*, Cengage Learning, Delhi
2. Booth, P.M. et al., (1999), *Modern Actuarial Theory and Practice*, Chapman and Hall, London
3. Newton Bowers et al., (1997), *Actuarial Mathematics*, Society of Actuaries, (second edition), Illinois.
4. Sherris, Michael, (2001), *Principles of Actuarial Science*, **PDF**
5. Marco Corazza et al. (2016), *Mathematical and Statistical Methods for Actuarial Science and Finance*, Springer International Publisher.

Web-based:

1. [https://www.researchgate.net/publication/306082366_Knowledge_and_Perceptions_of_Actuarial Science_Among_Students_and_Academics_Evidence_from_JABU](https://www.researchgate.net/publication/306082366_Knowledge_and_Perceptions_of_Actuarial_Science_Among_Students_and_Academics_Evidence_from_JABU)
2. <https://www.casact.org/library/astin/vol36no1/1.pdf>
3. https://faculty.wharton.upenn.edu/wp-content/uploads/2013/05/Lemaire_2005_Actuarial_1.pdf

Course Title: Microeconomic Analysis

Course Code: ECO-E-12

Marks: 100

Credits: 4

Duration: 60 Hours

COURSE OUTCOMES: Upon completion of the course students will be able to:

CO1: Map the theories of distribution from classical to neo classical.

CO2: Classify theories of distribution in competitive and non -competitive market structures.

CO3: Distinguish between general equilibrium & welfare economics.

CO4: Compare & contrast partial equilibrium with general equilibrium.

CO5: Examine market failure and causes of it.

CO6: Construct Edgeworth box.

SYLLABUS

Unit 1: Oligopoly

(15 Hours)

Cournot & kinked demand curve models, Collusion: cartel & price leadership model; long run adjustments & efficiency implications of oligopoly; other oligopolistic pricing practices; Prisoners' dilemma; Price & non price competition & cartel cheating.

Unit 2: Pricing & employment of inputs

(15 Hours)

Perfect competition: Demand & supply curve for input, pricing & employment of input; analysis of labor market; Imperfect competition: Demand curve of firm for an input, monopsony pricing & employment of one variable input; analysis of imperfect input markets.

Unit 3: Equilibrium Analysis

(15 Hours)

Partial equilibrium; Walrasian general equilibrium of exchange & production; Pareto optimality; perfect competition; economic efficiency & equity; Rawls' theory of justice.

Unit 4: Welfare Economics

(15 Hours)

Pigouvian welfare economics; Utility possibility frontier, Pareto optimal conditions; Value judgment; Social welfare, Social policy criteria: Compensation principle, Arrow's impossibility theorem; Inability to obtain optimum welfare: Imperfections, market failure, decreasing costs, uncertainty and non-existent and incomplete markets.

REFERENCES:

Mandatory:

1. Salvatore, Dominick, Principles of Microeconomics, Oxford International student edition, Eighth Edition.
2. Cowell A Frank (2006) Microeconomics: Principles and Analysis, Oxford University Press, New York.
3. Gravelle Hugh and Ray Rees (2008), Microeconomics, Pearson Education Inc.and Dorling Kindersely Publishing Inc., New Delhi.
4. Hal R Varian, (2010), Microeconomic Analysis, W W Norton & Company, New York.
5. Baumol W.J (1987), Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.

Supplementary:

1. Gravelle, H and Ray Rees, (2004), *Microeconomics*, Pearson Education Limited, England.
2. Maddala G.S and Ellen Muller(1989), *Microeconomics: Theory and Applications*, McGraw Hill, Singapore.
3. Mas-colell, A, Michael D. Wiston and Jerry G. Green (1995), *Microeconomics*, 3rd edition, Prentice Hall Longman, London.
4. Sen, A.(1999), *Microeconomic Theory*, OUP, New York.
5. Stigler, G., (1996), *Microeconomics: Theory and Applications*, Oxford University Press, New Delhi.
6. Varian, H., (2004), *Theory of Price*, (4th Edition), Prentice Hall of India, New Delhi.

Web based:

1. <https://www.youtube.com/watch?v=R7GL4wFpGHQ>
2. <https://www.youtube.com/watch?v=XlhoCeksmX4>

Course Title: Introduction to Operations Research for Economists

Course Code: ECO-E-13

Marks: 100

Credits: 04

Duration: 60 Hours

COURSE OUTCOMES: Upon completion of the course students will be able

CO1: To identify best techniques to solve a specific problem

CO2: To understand the mathematical tools that are needed to solve optimisation problems.

CO3: To explain a real-world problem, given in words, into a mathematical formulation

CO4: To analyze the best choice using decision tree

CO5: To evaluate linear programming, transportation and assignment problems

CO6: To interpret and discuss the results of solutions to the problems

SYLLABUS

Unit 1: Linear Algebra (15 Hours)

Systems of equations; Matrices and determinants; Matrix inversion method and its uses.

Unit 2: Linear Programming (15 Hours)

Elements of Linear Programming; Solution to LPP: Graphical, Simplex and the Big M methods.

Unit 3: Transportation and Assignment Problems (15 Hours)

Initial allocation methods; Optimization methods.

Unit 4: Statistical Decision-Making (15 Hours)

Probability analysis; Decision Trees; Expected Value; Economic and commercial applications.

REFERENCES:

Mandatory:

1. Kantisawrup et al, (2005), *Operations Research*, S Chand & sons, New Delhi
2. Tulsian P.C., Pandey V., (2006), *Quantitative Techniques*, Pearson India.

Supplementary:

1. Taha H., (2006), *Operation Research: An Introduction*, Pearson, 7th Edition

Web based:

1. <https://arxiv.org/ftp/arxiv/papers/1410/1410.4774.pdf>
2. https://www.researchgate.net/journal/0377-2217_European_Journal_of_Operational_Research
3. <https://www.sciencedirect.com/science/article/abs/pii/S0377221705005047>

Course Title: Economics of Foreign Exchange

Course Code: ECO- E-14

Marks: 100

Credits: 4

Duration: 60 Hours

COURSE OUTCOMES: Upon completion of the course students will be able to:

CO1: Identify the factors that influence the price of currency derivatives

CO2: Explain the organization and institutional details of foreign exchange and international money markets.

CO3: Apply the theories and models covered to the various issues of international banking

CO4: Analyze the impact of fiscal and monetary policies on exchange rates and international resource movements.

CO5: Show the structure of the balance of payments and the role of international financial institutions and multinational enterprises on the movement of financial & non-financial resources.

CO6: Formulate strategies to manage foreign exchange risks and use the theories of international finance and monetary issues to real world situations.

SYLLABUS

Unit 1: Foreign Exchange and Exchange Rate Determination

(15 Hours)

Foreign exchange market: types & participants; foreign exchange quotations*; Derivative markets: Forward*, Futures* and Options*; Exchange rate determination: Demand and supply of foreign exchange; Appreciation and depreciation of currency; effective exchange rates*; arbitrage*; forward rates*; interest arbitrage*; Role of speculation and foreign exchange rates*.

Unit 2: Exchange Rates and Balance of Payments

(15 Hours)

Effects of exchange rate changes on costs, prices; Effects of currency appreciation, depreciation and balance of payments; Devaluation and Revaluation: Requirements for a successful devaluation; Elasticity approach to exchange rate adjustment; Absorption approach to exchange rate adjustment; Monetary approach to exchange rate adjustment.

Unit 3: Exchange Rate Systems and International Banking.

(15 Hours)

Exchange rate practices; Fixed exchange rate systems; Floating exchange rates; Managed floating rates(Ex. RBI mechanism); Exchange controls; Nature of international reserves; International Monetary Fund and facilities for borrowing reserves; Basel Norms(emphasis on latest).

Unit 4: Exchange rate and International Resource Movement

(15 Hours)

Role of exchange rate and Movement of capital: International lending and borrowing; Foreign direct investment, Foreign institutional investment; International movement of labour; Transfer of technology; Multinational enterprises; Role of commercial banks & financial institutions.

*Students have to solve numerical problems on these subtopics.

REFERENCES:

Mandatory:

1. Salvatore, Dominic (2014), *International Economics: Trade and Finance*, John Wiley & Sons, Delh
2. Krugman, P.R. and M. Obstgeld (2011), *International Economics: Theory and Policy*, Glenview, Foresman.

Supplementary:

1. Carbaugh, Robert J. (2002), *International Economics*, South-Western (Thomson Publishing), Bangalore.
2. Pilbeam, Keith (2013), *International Finance*, Palgrave Macmillan, London

Web based:

1. <https://www.drishtias.com/to-the-points/paper3/basel-norms#:~:text=The%20Basel%20norms%20is%20an,banks%20and%20the%20financial%20system>.
2. <https://www.kotaksecurities.com/ksweb/Research/Investment-Knowledge-Bank/what-is-derivative-trading>

Course Title: Financial Economics

Course Code: ECO- E-16

Marks: 100

Credits: 04

Duration: 60 Hours

Course outcomes: Upon completion of the course students will be able to

CO1: State the different types of financial instruments and techniques of asset management

CO2: Interpret various ratios used in the course

CO3: Develop insights into the role played by time, uncertainty, information and inflation in evaluating financial instruments

CO4: Classify various instruments and inspect the feasible

CO5: Measure risks, returns, value of investments & assets,

CO6: Propose solutions to specific financial issues or problems of corporate financial decisions

SYLLABUS

Unit 1: Types of Financial Securities

(15 hours)

Introduction to financial economics; types of financial markets their features; Types of money market securities; Capital market securities: common and preferred stock; Rights and Warrants; Bonds: corporate, government and public sector bonds; Mutual funds.

Unit 2: Valuation of Financial Securities

(15 Hours)

Discount rates and the time value of money: Present value (PV) and net present value(NPV); Mechanics of NPV calculations; Compound interest, annuity and perpetuity formulas; Real vs. nominal cash flows, Fixed income markets, Bond Valuation; Discount bond and Coupon bond.

Unit 3: Return and Risk Analysis

(15 Hours)

Investment and returns: Interest rates, dividends, capital gains; Time value of money; Inflation and returns; Measuring investment returns; Risk and Risk factors; Measuring investment risks; Diversification; Systematic and idiosyncratic risk; Portfolio mean and variance; Covariance and correlation of returns; feasible combinations of mean and variance; Portfolio optimization; Efficient risk/return trade-offs.

Unit 4: Financial Statement Analysis

(15 hours)

Introduction to Financial Statements; Importance of Financial ratios; Calculations and Interpretation of Liquidity ratios, Leverage ratios, Turnover ratios, Profitability ratios, Capital Gearing ratios: Limitations.

REFERENCES:

Mandatory:

1. Francis J C & R.W Taylor (1992), Theory and Problems of Investments, McGraw Hill, Schaum's Outline Series, Singapore.
2. Bodie, Zvi Kane, Alex Marcus Alan (2012), Essentials of Investments, 9th Edition, McGraw Hill Higher Education.
3. Eichberger J and Ian.R. Harper,(1997), Financial Economics, Oxford University Press,Oxford.
4. Avadhani V. A 2012, Financial Economics, Theory and Practice, Himalaya Publications
5. PilbeamKeith(1998), Finance and Financial Markets, Palgrave , New Delhi.

Supplementary:

- 1.D.E. Fisher and R.J. Jordan –(2001) Security Analysis and Portfolio Management, Prentice-Hall/Pearson Edu., 6th Edition,
2. Reilly Frank K and Keith C. Brown,(2007) Investment Analysis and Portfolio Management, 8th edition, Thomson Learning
- 3.Kohn, Meir (1994), Financial Institutions and Markets, McGraw Hill, New York.
- 4.Richard A. Brealey and Stewart C. Myers (2002), Principles of Corporate Finance, McGrawHill, 7th edition.
- 5.Thomas E. Copeland, J. Fred Weston and KuldeepShastri (2003), Financial Theory and Corporate Policy, Prentice Hall, 4th edition.

Web based:

1. <https://www.bseindia.com/>
2. <https://www.nseindia.com/>
3. <https://www.sebi.gov.in/>
4. <https://economictimes.indiatimes.com>

Course Title: Macroeconomic Analysis

Course Code: ECO- E-17

Marks: 100

Credit: 4

Duration: 60 Hours

Course Outcomes: Upon completion of the course students will be able to:

CO1: Describe consumption, investment, business behaviors; & concepts of inflation, monetary policy, unemployment, interest rate determination.

CO2: Explain and summarize the various macroeconomic theories included in the course.

CO3: Utilize the macroeconomic frameworks to develop insights into the dynamics of the Economy.

CO4: Examine the working of banking sector, the inflation-unemployment trade off and the liquidity trap.

CO5: Evaluate the merits and limitations of monetary and fiscal policy

CO6: Solve macroeconomic problems with the insights gained from the course

SYLLABUS

Unit 1: Theories of Consumption and Investment

(15 Hours)

General theories of spending behavior, Absolute, Relative Permanent Income Hypothesis, Life cycle hypothesis; Motivation for Investment: Marginal Efficiency of capital, supply price; expected income streams; MEC and rate of interest; Principle of Acceleration

Unit 2: Frameworks for Interest Rate Determination

(15 Hours)

Keynesian theory of interest; determination of rate of interest; Changes in levels of income, speculative demand and money supply and their effect on equilibrium rate of interest; liquidity trap and policy implications; IS-LM approach to the determination of equilibrium rate of interest; elasticity of LM schedule and shift in LM curve; interest elasticity of IS schedule and equilibrium.

Unit 3: Theory of Inflation and Business Cycle

(15 Hours)

Theories of Inflation: demand pull, cost push, wage push, profit push; the Phillips curve, trade-off between inflation and unemployment, stagnation; concept and phases of trade cycle; Innovation theory; Hicks' theory.

Unit 4: Banking System

(15 Hours)

Role of Central Bank: functions, Money measures, credit control methods; monetary policy; Commercial banking: functions, credit creation, social banking; banking sector reforms in India.

REFERENCES:

Mandatory:

1. Begg D., Dornbusch R., Fischer S. Economics, McGraw-Hill, 9th edition.
2. Harris, C.L. (1961), *Money and Banking*, Allyn and Bacon, London.
3. Laliwala, J.I. (1984), *The Theory of Inflation*, Vani Educational Book, New Delhi.
4. Mishra, S.S. (1981), *Money, Inflation and Economic Growth*, Oxford & IBH Publishing Company, New Delhi.
5. Ackey, G (1976), *Macro Economics Theory and Policy*, Macmillan Publishing Company, New York.
6. Ahuja H. L. (2002), *Macroeconomics Theory and Policy*, Chand and Co. Ltd New Delhi

Supplementary:

1. Mankiw N. G. (2010), *Macroeconomics*, 7th edition, Worth Publishers, NY
2. Bhole L.M. (1999), *Financial Institutions and Markets*, Tata Mcgraw Hill
3. Lipsey R.G., Chrystal K. *An Introduction to Positive Economics*, Oxford University Press.
4. Reddy Y.V. (2000), *Monetary and Financial Sector Reforms in India*, UBSPD, New Delhi

Web based:

1. <https://indianmoney.com/articles/banking-system-in-india#:~:text=The%20banking%20system%20in%20India%20has%20four%20tiers%3A,bank%20of%20India%20act%2C%201934.&text=Regional%20rural%20banks%3A%20these%20banks,banks%20operating%20in%20rural%20areas.>
2. <https://www.macrotrends.net/countries/IND/india/inflation-rate-cpi#:~:text=India%20inflation%20rate%20for%202019,a%200.93%25%20decline%20from%202015.>

SKILL ENHANCEMENT COURSES

Course Title: Entrepreneurship

Course Code: ECO-SEC -1

Marks: 100

Credits: 4

Duration: 60 Hours

COURSE OUTCOME: Upon completion of the course students will be able to:

CO1: Identify and evaluate business opportunities

CO2: Evaluate risks

CO3: Pursue innovations

CO4: Production and marketing of goods to understand the economics of entrepreneurship

CO5: Prepare/Create a business plan.

SYLLABUS

Unit I. Introduction to entrepreneurship

(15 hours)

Entrepreneurship: meaning, definition, Types, qualities, skills and functions; Risk and uncertainty; Analysis of Business Environment & Policies: Market, Resources & Competition. Use of SWOT and Porter's Five Forces Analysis; Difference between Entrepreneurship & start ups,

Unit 2: Risk & Innovations

(15 Hours)

Importance and management of risk; market/commercial risk, technological risk, financial risk, social risk, political risk, personal risk; Innovations: Concept & theory, Types and forms of innovations; innovation & imitation; Branding, Patents and Copyrights, Support for startups: Purpose of Incubators & Accelerators.

Unit 3: Sources of funds and Costing, Pricing and Marketing

(15 Hours)

Financial Resources - Sources of funds; Uses of funds; Fixed and Working Capital; Material Resources: Supply and distribution chains; Government and local resources; Human Resources. Costing Strategies – Absorption and marginal costing; Costing for inventories; Pricing and pricing strategies (skimming price, penetration price, mark-up, marginal-cost price); Break- even analysis and break- even chart; Marketing techniques and strategies.

Unit 4: Preparing the Business Plan*

(15 Hours)

Components and Uses of the Business Plan; Creating a Business Plan; Sources of funds; Marketing Plan Expenditures and Revenues; Profitability; Growth Rate of the business and the Rate of Return.

*students will submit a business plan: (15 hours)

REFERENCES:

Mandatory:

1. Charantimath, Poornima M. (2014), *Entrepreneurship Development and Small Business Enterprises*, Pearson, Chennai.
2. Colombo Plan Staff College for Technical Education, Manila (1999), *Entrepreneurship Development*, Tata McGraw Hill, New Delhi.

3. Chandra, Prasana (1995), *Projects: Planning, Analysis, Selection, Implementation & Review*, Tata McGraw Hill, New Delhi.
4. Kuriloff, Arthur H; Hemphill, John M. (1988), *Starting and Managing the Small Business*, McGraw-Hill, New York.
5. Mukherjee AbhikKumar;RoyShaunak, (2019)*Entrepreneurship Development and Business Ethics*,Oxford University Press,New Delhi

Web based:

1. <https://up.startupindia.gov.in/content/sih/en/home-page.html>
2. <http://www.ciba.org.in/>
3. <https://www.goa.gov.in/wp-content/uploads/2017/09/Goa-IT-Start-up-Policy-2017.pdf>
4. <https://www.forbes.com/pictures/mgj45fgmd/100-best-websites-for-entrepreneurs-3/#1c3d2dd71e87>
5. <https://www.india.gov.in/people-groups/community/entrepreneur>
6. <https://www.entrepreneur.com/magazine>

Course Title: Accounting for Non-accountants

Course Code: SEC-2

Marks: 100

Credits: 4

Duration: 60 Hours

Course Outcomes: Upon completion of the course students will be able to

CO1: Identify the concept of Financial, Cost and Management accounting

CO2: Develop the understanding and skills to prepare Accounts of corporate and banking sector.

CO3: Understand company's final accounts.

CO4: Record transactions and prepare financial statements for a business entity.

CO5: Prepare cost sheets.

CO6: Examine the meaning of material control with pricing methods

CO7: Understand the know-how and concept of marginal costing with practical problems

SYLLABUS

Unit 1: The Accounting Process

(15 Hours)

Theoretical Framework of Accounting; Generally Accepted Accounting Principles, Concepts and Conventions; Capital and Revenue transactions: capital and revenue expenditures, capital and revenue receipts; Measurement, Valuation and Accounting estimates; Double entry system, Books of prime entry, Subsidiary Books; Recording of Cash and Bank transactions; Preparation of Ledger Accounts; Preparation of Trial Balance: interpretation and usefulness; Rectification of Errors; Opening entries, Transfer entries, Adjustment entries, Closing entries.

Unit 2: *Issues in Accounting

(15 Hours)

Creating new ledgers/Company; Reconciliation Statements and Accounting for Depreciation: definition and causes of depreciation ,need for depreciation , methods of calculating the amount of depreciation, straight line method, diminishing balance method; Bank Reconciliation Statement; Receivables / Payables Reconciliation Statement; Stock Reconciliation Statement.

Unit 3:* Preparation of Final Accounts

(15 Hours)

Profit making concern: (for sole proprietorship concern and partnership firm only): Preparation of Trading Account, Profit & Loss Account and Balance Sheet; Accounting treatment of bad debts; reserve for bad and doubtful debts; provision for discount on debtors and provision for discount on creditors; Not-for-Profit making concern: Preparation of Receipts and Payments Account; Preparation of Income and Expenditure Account; Preparation of Balance Sheet.

Unit 4: Fundamentals of Cost and Management Accounting

(15 Hours)

Cost and Management Accounting: Generally Accepted Cost Accounting Principles; Accounting for Material cost (including Accounting of Inventory: LIFO, FIFO, Weighted, Average Cost Methods); Accounting for Labour costs, Direct Expenses and Overheads; Preparation of Cost Statements: Cost Data collection, Cost Sheet formats; Preparation of Cost Sheets (historical cost sheets and estimated cost sheets). Marginal Costing and Break- even analysis; basic knowledge; Application of Marginal Costing for decision-making.

*Practical component to be taught using accounting software

REFERENCES:

Mandatory:

1. Kansal, Amit (2014), *NCERT solutions Accountancy*, Arihant, Meerut
2. T.S. Reddy & A. Murthy (2011), *Financial Accounting*, Margham Publications, Sixth Revision Edition
3. P.C. Tulsian (2003), *Financial Accounting*, Tata MC Graw Hill Ltd
4. Manosh Dutta (2010), "Cost Accounting", Dorling Kindersley (India) Pvt. Ltd
5. T.S. Reddy & Y. Hari Prasad Reddy, (2014) "Cost Accounting", Margham Publications

Supplementary:

1. Gibson, Charles H. (2013), *Financial Statement Analysis*, Cengage Learning, Delhi.
2. Singal, Santosh (2012), *Accounting and Financial Analysis*, International Book House, New Delhi.
3. M.C. Shukla, T.S. Grewal, Dr.M.P.Gupta (2010) *Cost Accounting*, S.Chand & Company Ltd.

Web based:

1. <https://corporatefinanceinstitute.com/resources/knowledge/accounting/types-depreciation-methods/>
2. <https://quickbooks.intuit.com/in/resources/finance-and-accounting/depreciation-methods/>
3. https://www.google.com/url?sa=t&source=web&rct=j&url=http://download.nos.org/srsec320newE/320EL28a.pdf&ved=2ahUKEwiDiJuG45bkAhUGbisKHb8MA_YQFjAMegQIARAB&usg=AOvVaw28Anp7XnANz-jweoiTFmRC
4. <https://cleartax.in/s/cost-accounting>
5. <https://www.toppr.com/guides/principles-and-practice-of-accounting/accounting-concepts/>
6. <https://corporatefinanceinstitute.com/resources/knowledge/accounting/bank-reconciliation/>

GENERIC ELECTIVE COURSES

Course Title: Taxation for All

Course Code: ECO-GEC-1

Marks: 100

Credits: 4

Duration: 60 Hours

Course outcomes: Upon completion of the course students will be able to

CO1: Explain the importance of different types of taxes in India

CO2: Interpret provisions of direct and indirect tax legislations

CO3: Apply the tax laws to derive solutions

CO4: Analyze direct and indirect tax structures

CO5: Assess different types of taxes

CO6: Formulate tax returns for individuals and corporations

SYLLABUS

Unit 1. Introduction to Taxation

(15 Hours)

Importance of taxation; Principles of taxation; Impact and incidence of a tax; equity and ability-to-pay; tax rates and structure of tax rates; direct and indirect taxes, advantages and disadvantages; efficient and inefficient taxes; Shifting and Evasion, Legal basis for the introduction of a Tax.

Unit 2. Income Tax

(15 Hours)

Importance of Income Tax; Legislation supporting the Imposition of Income Tax: Features and Important Provisions; Income tax Rate structure; Taxable Incomes; Avoidance and Evasion of Taxes; *Calculation of Income Tax and Corporate Tax and Filing Tax Returns.

Unit 3. Goods and Service Tax

(15 Hours)

Evolution of Indirect Taxation in India; Types of Indirect Taxes in India; Importance of Goods and Service Tax; Legislation supporting the Imposition of Goods and Service Tax: Features and Important Provisions; GST Tax Structure; *Calculations of Taxes under GST and Filing of Tax Returns.

Unit 4. Customs Duties

(15 Hours)

Importance of Customs Duties; Legislation supporting the Imposition of Custom Duties: Features and Important Provisions; Treatment of Exports and Imports; Custom Valuation Procedures; Structure of Customs Duties; *Calculations and Clearance of Custom Duties. Auctions and Customs.

*practical component

REFERENCES:

Mandatory:

1. Jain R K (2017) Customs Tariff of India 2017-18, Vol. 1 and Vol. 2, CENTAX

2. Rosen S.H., 'Public Finance', Irwin /McGraw- Hill.

Supplementary:

1. Saraogi CA Vishal (2017) Goods and Services Tax Laws Practice & Procedure with Commentary, Lawpoint Publications

2. Singhania, Monica; Singhania Vinod K (2017) Student's Guide to Income Tax (University Edition), Taxman

3. Sreekantaradhya B.S., 'STRUCTURE AND REFORMS OF TAXATION IN INDIA', Deep & Deep, New Delhi.

Web based:

1. <https://www.incometaxindia.gov.in/Pages/acts/income-tax-act.aspx>

2. Taxmann Goods and Service tax <https://gst.taxmann.com/>

3. Cleartax on GST <https://cleartax.in/s/gst-law-goods-and-services-tax>

4. GST India <http://www.gstindia.com/about/>

5. <https://www.taxmann.com/blogpost/2000001834/gst-rates-2019-gst-council-meeting-updates-latest-gst-tax-slabs.aspx>

6. <https://cleartax.in/s/customs-duty-india>

Paper Title: Financial Investment for All
Paper: GEC
Paper code: ECO-GEC-2
Total Contact Hours: 60
Credits: 4
Class: S.Y.B.A/BSC

COURSE OBJECTIVE:

- CO1:** State the different types of financial markets and financial instruments
- CO2:** Explain the organization and institutional details of financial markets and banks
- CO3:** Apply the theoretical concepts to the actual working of the financial markets
- CO4:** Analyze the fundamental operations of financial markets, instruments and derivatives
- CO5:** Evaluate returns, value of investments & assets, and various financial ratios
- CO6:** Formulate strategies to create & manage an initial investment portfolio

Syllabus

Unit 1: Introduction to the financial system (15 Hours)

Meaning; financial system: an overview, flow of funds, financial institutions, financial markets, financial instruments, financial services, regulators; Primary markets: types of issues, public issues: IPO-FPO, right issues, bonus issue: private placement, preferential allotment, qualified institutions placement, documents, prospectus, letter of offer, placement document, types of financial markets: security markets, money markets, foreign exchange markets, commodity markets, insurance market, differences between investing in low risk vs. high risk instruments.

Unit 2: The Banking system: (15 Hours)

Time value of money: present and future value, *calculation, importance of a banking system; bank deposits as low risk asset class; types of bank deposits; bank loans; types of loan instruments; interest rate spread, *EMI calculations; other facilities provided by the banks; effects of interest rates on the banking system; role of central bank as a regulator of the banking system; Cryptocurrency & crypto currencies: Bitcoin's; Recent changes in banking sector in India.

Unit 3: Security markets: (15 Hours)

Definition of securities; functions of security markets; Market segments in security markets: primary and secondary markets; Participants in security markets: investors, issuers, intermediaries, regulators; Offer document; SEBI regulations, issue requirements; Corporate actions: dividends, stock split, buy back, mergers and acquisitions, rights issues, bonus issues. Demat account.

Unit 4: Stock market and Mutual Funds (15 Hours)

Meaning of a stock market Index: Sensex, Nifty; Stock market indicators: fundamental and technical analysis market capitalization, turnover, turnover ratio, market capitalization ratio trade value ratio, types of financial derivatives; Meaning and types of mutual funds; Systematic Investment Plans; benefits of investing in mutual funds; tax benefits on selected mutual fund investments; types of MF/schemes; *Calculation of NAV; *Steps in creation of an initial investment Portfolio.

Mandatory References:

1. Chandra. P. (2014), *Investment Analysis and Portfolio Management*, Tata McGraw-Hill, New Delhi
2. Khan M. Y. ; Jain P. K. (2015), *Financial Management*, Tata McGraw-Hill Publishing, New Delhi

Supplementary

1. Graham, B. (2008), *The Intelligent Investor*, Harper
2. Siegel, Jeremy J. (1998) *Stocks for the Long Run*, McGraw-Hill. New York
3. L.M. Bhole (3rd Edition, 2002): *Financial Institutions and Markets*, Tata McGraw Hill, Delhi.

Web links

1. <https://www.bseindia.com/>
2. <https://www.nseindia.com/>
3. <https://www.sebi.gov.in/>
4. <https://economictimes.indiatimes.com>

Course Title: Gandhian Economic Thought

Course Code: ECO-GEC -3

Marks: 100

Credits: 4

Duration: 60Hours

Course Outcomes: Upon completion of the course students will be able to

CO1: Define Gandhian economics

CO2: Explain basic principles of Gandhian economy

CO3: Apply Gandhi's theory of Agriculture and industrialization to Indian situation

CO4: Analyse the principle of trusteeship

CO5: Recognize Gandhian ideas of sarvodaya

CO6: Propose alternative solution based on Gandhian economic thought to any economic problem.

CO7: Evaluate the sources which influenced Gandhi to formulate his economics ideas

CO8: Illustrate the Gandhian concepts of Economics

SYLLABUS

Unit 1: Basic Principles of Gandhian Economy (15 Hours)

Background of Gandhian Economic thought, Concept of bread Labor, Views on distribution of wealth, Principles of Trusteeship; Swadeshi and its present relevance to India; Principle of Sustainability: Economic, environmental and social; Policy of education, vocational training and status of women.

Unit 2: Decentralized Economy (15 Hours)

Decentralization of economic power; self-sufficient village economy, Role of agriculture; Solutions to issues of poverty and unemployment in India.

Unit 3: Industrial Economy (15 Hours)

Industrial economy: Efficiency, power, tractors, electricity, diffusion, work, development of personality. Agro and Village industries: Introduction, Purpose, Public Utilities; Importance of Village and Cottage Industries in National Economy, Comparative study of large and small scale industries, Economics of Khadi, Charkha, and its relevance to Indian economy.

Unit 4: Principle of Sarvodaya (15 Hours)

Sarvodaya Economics: Bhoodan, Gramdan, Contribution of VinobaBhave to Sarvodaya movement; Sarvodaya and Globalization: Relevance.

REFERENCES:

Mandatory:

1. Kumarappa, J.C.(1987), *Gandhian economic thought*, SarvaSevaSanghPrakasham, Rajghat, Varansi.

Supplementary:

1. Bose, N.K. (1966), *Gandhi the man and his mission*, BhartiyaVidyaBhawan, Bombay.
2. Datta, Amlan. (1986), *The Gandhian Way*, N.E. Hill University publications, Shillong.
3. Diwarkar, R.R. (1963), *Gandhiji's basic Ideas and some modern problems*, BharatiyaVidyaBhawan.
4. Iyer, Raghavan(1963), *Moral and Political Thought of Gandhi*, Oxford Univ. Press, New York

Web based:

https://www.mkgandhi.org/articles/gandhian_economics.html