**DEPARTMENT OF ECONOMICS**

**SYLLABUS UNDER AUTONOMY**
**SEMESTER III & VI**

# SEMESTER III

## 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 Slustky& 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 points 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 the 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 the 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 ,I. *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'Bren, 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: 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 the relationship between law and economics

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

CO3: Review the legal arrangements of the functioning of the market.

CO4: Recreate a plan for 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 the 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*edPearson 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, labour markets, wage flexibility & Interregional labour 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. Krugman, 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 behavioural economics.
**CO2:**Distinguish between heuristics & biases with the help of examples of their own
**CO3:** Evaluate the importance of behavioural economics for policymaking
**CO4:**Design applications of behavioural economics to a given an 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 behavioural Economics for policy making (15 Hours)**

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

**Unit 3: Decision making under risk & uncertainty (15 Hours)**

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 (15 Hours)**

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://b.3cdn.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=2ahUKEwiJkPOyiMHkAhULPo8KHV77CvIQFjAGegQICBAB&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 the law of equi-marginal principle to environmental pollution reduction

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

CO6: Select appropriate tools of microeconomics 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 the 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. Titenberg 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/1262844796 1Luangmany_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/joaaec/155413.html

# SEMESTER IV

**Course Title: Macroeconomics**

**Course Code: ECO-IV.C- 6**

**Credits: 4**

**Marks: 100**

**Duration: 60 Hours**

**Course Objectives:**

The objective of this course is to familiarize students with pure macroeconomic theories. It offers a strong base for studying applied macroeconomic theories and principles. It also enables students to understand the process and dynamics of market-based macroeconomic decision-making.

**Course Learning Outcomes:**

Upon completion of the course, the student will be able to:

**CLO1**: Define various key macroeconomic variables; principles & tools; and national income concepts.
**CLO2**: Make use of macroeconomic concepts to develop an understanding of the workings of the economy
**CLO3:** Examine and analyze Keynesian and Monetarist macroeconomic framework
**CLO 4**: Estimate, imagine, and elaborate on the impact of macroeconomic policies on the state of the economy

**Course Content:**

**Module – I: Introduction to Macroeconomics & National Income (15 hours)**

Nature and scope of Macroeconomics; origin and growth of Macroeconomics limitations of macroeconomics; Definitions and Concepts of National Income, Components of National Income, Real and Nominal concepts of National Income, Methods of Measurement of National Income, and difficulties in measuring National Income.

**Module – II: Classical Theory of Output and Employment (15 hours)**

The Classical postulates, Say's the foundation of Classical Macroeconomics, and implications of Say's Law, Criticism of the Law of Markets; Classical Theory of Employment, the principles of effective demand and supply; Pigou's reformation of wage cuts for Full employment; Appraisal of Classical Theory of Output and Employment.

**Module III: Theories of Consumption & Investment (15 hours)**

Introduction to Keynesian economics, Keynesian absolute income hypothesis, Dusenbery's relative income hypothesis, Friedman's permanent income hypothesis, Ando & Modigliani's Life-Cycle hypothesis, The Keynesian approach of the theory of investment and capital accumulation: investment decision, change in interest rate, Marginal Efficiency of Capital and Capital accumulation, the multiplier, and accelerator theory of Investment; Appraisal of Keynesian theories of Consumption and Investment

**Module IV: Keynesian and Post-Keynesian Theory of Money and Interest (15 hours)**

The Keynesian Theory of Demand for Money – The Keynesian theory of interest – changes in the Money market and the interest rate – Criticism of the Keynesian theory of interest. Portfolio theory of demand for money – Baumol-Tobin's approach to the demand for money – Friedman's quantity theory of money.

**List of books recommended for reference**

**Mandatory Reading**


1. Dornbusch, Fischer and Startz. (2010). Macroeconomics, McGraw Hill, 11th edition.
2. Richard T Froyen Macroeconomics Theories And Policies


**Supplementary Reading**


1. Mankiw, N.G. (2010) *Macroeconomics,* Worth Publishers, New York.
2. Errol D' Souza. (2009). Macroeconomics, Pearson Education.
3. Samuelson, P.; Nordhaus, William (2010) *Economics*, McGraw Hill Education. Delhi


**Online resources:**

1. https://global.oup.com/uk/orc/busecon/economics/burda7e/
2. https://open.umn.edu/opentextbooks/textbooks/33

**Course Title: Research Methodology in Economics**
**Course Code: ECO- E- 20**
**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, and interview schedule.

**CO6:**Write a proposal for a 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 the testing of hypothesis, steps involved in the 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, Gutherie (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-3**
**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, the 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 Angles.

**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-15**
**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 labour regulatory mechanism and competition framework with respect to India.
**CO6:** Choose the right industrial structure for the 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 behavioural theory of the 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 and 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** **(15 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 policies and regulations stressing only their regulations on industries. Global changes and their impact on Marketing Strategies and Information Systems 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-21**
**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 the 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: 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 the corporate and banking sector.

CO3: Understand the 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)*CostAccounting,* 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/srsec320new E/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/

**Course Title: Human Resource Management (G.E.C.)**
**Course code: ECO-GEC-4**
**Credits: 4**
**Marks: 100**
**Duration: 60 Hours**
**Class: FY/SYBA/BSC**

**Course Objectives:** The aim of this course is to give students the knowledge, understanding and key skills that are required by today's human resource professionals and to enable students to effectively contribute to dynamic organizations.

**Course Learning Outcomes:**

Upon completion of this course students will be able to

**CLO1**: Understand the value and importance of human resources in an organization.
**CLO2**: Analyze the ways and means of hiring and appraising human resources.
**CLO3**: Administer and contribute to the design and evaluation of the performance management program.
**CLO4**: Develop, implement, and evaluate employee orientation, training, and development programs.
**CLO5:** Get hands on training with case studies.

**SYLLABUS**

**MODULE 1: Introduction to Human Resources Management (15 hours)**

Human resource management (H.R.M.) : Introduction, Definitions, Nature , Features , Scope , Objectives, Functions, and Principles. Global Challenges; Internal and External forces affecting the human resource function; H.R.M. department: Objectives, importance, global setting.

**MODULE 2: Recruitment and Selection Process (15 hours)**

Purpose, Importance and Sources of Recruitment; Planning and Forecasting; Factors governing recruitment process; Effective Recruiting Tools of selection and Selection Process;, Internal and External Sources of Candidates; Recruiting a Diverse Workforce; Employee Testing and Selection; Induction and Placement; Role of recruitment agencies, Dispute resolution and settlement mechanism.

**MODULE 3: Appraising and Managing Performance (15 hours)**

Performance appraisal: Introduction, definition, objectives, need and importance; Process of Performance Appraisal; Traditional and Modern Techniques of Performance Appraisal; Limitations of Performance Appraisal; Ethical aspects in Performance Appraisal.

**MODULE 4: Training and Development** **(15 hours)**

Training - need, objectives and importance of training; Need and importance of Management Development Programme; Designing an Effective Training and Development Programme; Evaluation of the Effectiveness of Training Programmes; Challenges before a Trainer; Self Development Mechanism, Knowledge Enrichment and Career Advancement.

*Practical Component

**Mandatory Readings:**

1. Aswathappa. K. (2008), Human Resource and Personnel Management (5th edition), Tata. McGraw-Hill Publishing Company Ltd., New Delhi.

2. Bernardin, H. J. (2007). Human Resource Management. An Experiential Approach. Tata McGraw Hill.

**Supplementary Readings:**

1. DeCenzo, D. A. & Robbins, S. P, (2008), Fundamentals of Human Resource Management, 8th edition, John Wiley & Sons Ltd, ISBN: 9812-53-171-8.

2. Dessler, G. (2008) Human Resource Management. Pearson Prentice Hall, Upper Saddle River.

3. Ivancevich, J. M. (2008), Human Resource Management, Tata McGraw Hill.

**Online Resources:**

**1.** Human Resource **https://www.aihr.com/blog/human-resource-basics/**

**2.** Human Resource management **https://www.managementstudyguide.com/human-resource-management.htm**

**3.** Performance appraisal **https://www.managementstudyguide.com/performance-appraisal.htm**

**4.** Training and Development **https://www.ibm.com/in-en/topics/training-development**

**5.** **https://www.toppr.com/guides/business-management-and-entrepreneurship/human-resource-management/training-and-development/**

## SEMESTER V

**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. Aurebach, 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: 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 the Indian economy from Independence till globalization.

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

**CO3:** Critically evaluate the policies of the Indian economy.

**CO4:** Review India's position on foreign trade FDI, FII, MNCs, and WTO globally.

**CO5:** Compare and contrast between the planning commission & NITI Aayog

**CO6:** Appraise the status of the Indian economy concerning the 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 till12th 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 the 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 the financial sector due to globalization;

**CO3:** Calculate annuity and types of annuity.

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

**CO5**: Apply probability theory to insurance

**CO**6: 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, the present value of perpetuity due, deferred perpetuity; annuity with a 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 the 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 the construction of mortality table.

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

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*, Chapmen 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 Corazzaet. 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

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: Introduction to Health Economics**

**Course Code: ECO-E-22**

**Credits: 04**

**Marks: 100**

**Duration: 60 Hours**

**Prerequisite Courses**: (NIL)

**Course Objectives**

The objective of this course is to provide a better understanding of the economic theory of health and healthcare with the help of economic models of microeconomics. The emphasis is on key economic concepts that health economists use to analyze health and healthcare markets. The course provides tools to evaluate and interpret empirical findings in health economics.

**Course Learning Outcomes**

Upon completion of the course, the student will be able to:

**CLO1**. Develop an understanding of the key concepts in health economics.

**CLO2**. Identify principles and concepts of economic evaluation in health systems.

**CLO3**. Evaluate the skills that recognize and address the challenges of limited resources within the health sector.

**CLO4**. Evaluate inter-related components of health systems from an economic perspective.

**Course Content**

**Module I: Health and Economic Development (15 Hours)**

Investment in human capital, Health, and Social Welfare, Determinants of Health; Economic growth, Economic development, and Health Linkages; Economic Analysis of Health care, Data on health and health-related aspects in India; Global burden of diseases; India and S.D.G. 3: Universal health care.

**Module II: Demand for Health Care Services (15 Hours)**

Demand for Health care; Issues of success to health care; Health expenditure: out-of-pocket expenditure on health, Measurement of Impoverishment, and catastrophic effects of out-of-pocket expenditure on health; WHO data on out-of-pocket expenditure on health for India.

**Module III Supply of Health care services (15 Hours)**

Supply of healthcare; Physicians and Medical Personnel as Health care providers, Non-labour inputs: Health infrastructure, Interaction of Demand and Supply of Health care, Private versus public health care provider; National Health accounts, Health infrastructure Statistics in India.

**Module IV: Health Insurance (15 lectures)**

Health policy of India; Health insurance market: asymmetric information, principal-agent relationship; Private & public health insurance scheme; Various State government health insurance schemes; Ayushman Bharat.

**List of the books recommended as references**

**Mandatory Reading:**


1. D. Jery Josephin, Jeyasingh, D. Solomon Raj, (2016), Health Economics, Creative Crows publishers
2. Nair K. S. ( 2022), Health Economics and Financing, New Century publication


**Supplementary Reading**


1. Banerjee, D. (1975), Social and Cultural Foundations of Health Service Systems of India, Inquiry, Supplement to Vol. XII, June.

2. Edwin G Dolan and John C Goodman, (1991), Economics of Public Policy: 4th Edition: West Publishing Company, New York.

3. Grossman M, (1991), 'The Shadow price of Health in the Economics of Health' Vol. 1 by A.J. Culyes (ed), Edward Elger publishing Ltd, U.K.

4. Volan Brian, (1993), Economics Incentives, Health Status and Health Services, Utilisation, Journal of Health Economics, Vol II.

5. William Jack, (1999), Principles of Health Economics for Developing Countries, World Bank Institute Development Studies.

6. World Development Report, (1993), Investing in Health, the World Bank.


**Online Resources:**

1. Key concepts in health economics: http://www.mcrhrdi.gov.in/FC2020/reading%20material/economics/Reading%20health%201.pdf
2. Introduction to health economics https://www.academia.edu/83748087/Introduction_to_Health_Economics
3. Future of health economics_https://www.sciencedirect.com/science/article/abs/pii/S0167629699000338?casa_token=Jb0a3bc2nUQAAAAA:hhAvmKMxZ8gPb2O78X14NJHhJt7_tAGI9t7aZRtZh2PgIwaR_vCAJ3cRPT71EhIk0Q8plDnZkQ4
4. Towards a definition of health economics https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1951624/
5. Essentials of health economics https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1499968/

## SEMESTER VI

## Course Title: International Trade and Policy(CORE)

## 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 the 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 of 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

**Course Title: Introduction to Operations Research for Economists**
**Course Code: ECO-E-10**
**Marks: 100**
**Credits: 04**
**Duration: 60 Hours**

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

**CO1**: To identify the 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 a 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. TulsianP.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-2**
**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 in 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 in 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, and 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.drishtiias.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 Eduction.
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: Introduction to Data Science (Elective)**
**Course Code: ECO-E-23**
**Credits: 4**
**Marks: 100**
**Semester: VI**
**Duration: 60 Hours**

**Course objectives:** The main objective of this course is to provide a gentle introduction to data science and tools used by data scientists.

**Course Learning Outcomes**: Upon completion of this course students will be able to learn.
**CLO1**: Basic Python programming
**CLO2**: Data visualization using Python
**CLO3**: Basics of R programming
**CLO4**: Data analysis using R
**CLO5**: Large data sets handling and analysis using R.

**Module I: Data handling using Pandas (15 Hours)**
Features of Python Pandas; Data structure; Series data structure; Data frame and Data structure; Descriptive statistics; Data frame operations. Modifying data frames; Handling missing data; combining data frames; grouping by () functions.

**Module II: Data Visualization (15 Hours)**
Using Pyplot of Matplotlib library; different types of plotting; creating line charts, scatter charts, bar charts, multiple bar plots, pie charts, histograms, frequency polygons, and box plots; customizing plots.

**Module 3: Introduction to R (15 Hours)**
Basic graphics in r; Objects and functions in R; Crane task view; Bivariate data analysis; simple linear regression, multiple linear regression; analysis of covariance; Longitudinal data analysis; summarizing categorical and continuous variable; R inbuilt functions for exploratory data analysis.

**Module 4: Large Data analysis using R. (15 Hours)**
R.B.I. data on the Indian Economy; N.F.H.S. data; World Bank data; WHO data

*Practical Components
(Continuous assessment of 40 marks using any data set and R for data analysis).

**List of books recommended for Reference:**

**Mandatory Readings:**

N.C.E.R.T. textbook on Information Practice, https://ncert.nic.in/textbook/pdf/leip1ps.pdf

Hatekar N(2010) Principles of Econometrics: An Introduction (Using R) SAGE Publications,

**Supplementary Readings:**

1. Dawson M( 2003) Python programming for absolute beginners, Premier press
2. S Chand, (2023), Code with Python S. Chand's publishers
3.Vickler Andy( 2022)R Programming, Ladoo Publishing
4. Pace, L. (2012). *Beginning R: An introduction to statistical programming*. Apress.
5. Pathak, M. A. (2014). *Beginning data science with R*. Springer.

**Online Resources:**

1. Teaching programming to beginners https://dl.acm.org/doi/abs/10.1145/800104.803365
2. R software https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7063554/
3. Beginning to programming https://www.mdpi.com/2075-1729/12/5/648
4. Python programming https://iopscience.iop.org/article/10.1088/1742-6596/423/1/012027/meta
5. Python https://orfee.hepl.ch/handle/20.500.12162/3342