ANNAMALAI UNIVERSITY

(Accredited with 'A' Grade by NAAC)

FACULTY OF AGRICULTURE

(Accredited by ICAR)

DEPARTMENT OF AGRICULTURAL ECONOMICS

Academic Regulations and Syllabi

MASTER OF SCIENCE IN AGRICULTURAL ECONOMICS

Under Choice based credit system (CBCS) with Outcome based Education

2022-2023 Onwards

DISTRIBUTION OF COURSES

M.Sc. (Ag) in Agricultural Economics

Major Courses: 20 credits

S. No.	Course No.	Title	Credit Hours T+P
1.	AEC-501*	Micro Economic Theory and Applications	(2+1)
2.	AEC-502*	Agricultural Production Economics	(1+1)
3.	AEC-503*	Agricultural Marketing and Price Analysis	(2+1)
4.	AEC-504*	Macro Economics and Policy	(2+0)
5.	AEC-505*	Econometrics	(2+1)
6.	AEC-506	Agricultural Development and Policy Analysis	(2+0)
7.	AEC-507*	Agricultural Finance and Project Management	(2+1)
8.	AEC-508	Linear Programming	(1+1)
9.	AEC-509*	Research Methodology for Social Sciences	(1+1)
10.	AEC -510	Indian Economy: History and Contemporary Issues	(2+0)
11.	AEC -511	International Economics	(2+0)

*courses to be taken compulsorily

Minor Courses: 08 credits

S. No.	Course No.	Title	Credit Hours T+P
1.	AEC 512	Institutional Economics	(2+0)
2.	AEC-513	Natural Resource and Environmental Economics	(1+1)
3.	AEC-514	Commodity Future Trading	(2+0)
4.	AEC-515	Development Economics	(2+0)
5.	AEC-516	Rural Marketing	(2+0)
6.	AEC-517	Evolution of Economic Thought	(2+0)

Supporting Courses: 6 credits

S. No.	Course No.	Title	Credit Hours T+P
1.	STA -502	Statistical Methods for Social Sciences	(2+1)
2.	COM-501	Information Technology in Agriculture	(2+1)

Common Courses: 05 credits

Course code	Course Title	Credit hours
PGS 501	Agricultural Research, Research Ethics and Rural Development Programmes	(1+0)
PGS 502	Technical Writing and Communications Skills	(0+1)
PGS 503	Basic Analytical Techniques	(0+1)
PGS 504	Library and Information Services	(0+1)
PGS 505	Intellectual Property and its management in Agriculture	(1+0)
AEC 591	**Seminar**	(0+1)
AEC 599	**Research**	30

AEC-501 Micro Economic Theory and Applications (2+1)

Objectives

- The course envisages the concepts and principles embodying micro-economics.
- The economic problems, functioning of price mechanism, theory of household behaviour and consumer's demand function.
- Theory of firm, supply determinants, determination of price under different market structures and factor pricing (microeconomic components).

Theory

Unit I: Basic Concepts: A review

Scarcity and Choice; Production possibility frontier, Positive and normative economics; concepts of opportunity cost, Demand and Supply: determinants of individual demand/supply; demand/ supply schedule and demand/ supply curve; market versus individual demand/ supply; shifts in the demand/ supply curve

Unit II: Consumer Choice

Cardinal Utility Approach – Ordinal Utility Approach -Budget sets and Preferences under different situations – Hicks and Slutsky income and substitution effects –Applications of Indifference curve approach – Revealed Preference Hypothesis –Consumer surplus – Derivation of Demand curve – Elasticity of demand – Demand and supply together; how prices allocate resources; controls on prices – price floor and price ceiling – applications in agriculture.

Unit III: Market Forms

Behaviour of profit maximizing firms and the production process- Perfect competition: Equilibrium of the market. Long run industry supply, applications effects of taxes and subsidies; Monopoly: Equilibrium; supply; multiplant firm monopoly power; deadweight loss; price discrimination; Monopolistic Competition: Product differentiation; equilibrium of the firm in the industry-with entry of new firms and with price competition. Comparison with pure competition. Duoploy: Cournot model and reaction curves; Stackelberg's model, Bertrand model; Oligopoly.

Unit IV: Factor Markets

Labour and land markets - basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product); demand for labour; input demand curves; shifts in input demand curves; competitive labour markets; Economic rent and quasi rent.

Unit V: General Equilibrium and Welfare Economics

General Equilibrium Theory – 2 X 2 X 2 general equilibrium model. Derivation of general equilibrium conditions using Edgeworth box approach and mathematical approach. Welfare Economics - Pareto Optimality – Social welfare criteria- Uncompensated and compensated Consumer Welfare - Arrow's General Possibility Theorem- Amartya Sen's Capability Approach to well being.

Practical

Theory of consumer behaviour - discussion and exercises in demand analysis - derivation of elasticity of demand - estimation of various demand functions - equilibrium price analysis - production function analysis - analysis of short run and long run costs - profit function - analysis and discussions of market structure - performance under various parameters of imperfection through graphical and mathematical means - cost function - economies of size and scale - price discrimination - factor pricing analysis - income distribution analysis - discussion of economic rent - Pareto optimality concept - models on partial and general equilibrium.

Theory schedule

1. Scarcity and Choice
2. Production possibility frontier
3. Positive and normative economics
4. Concepts of opportunity cost,
5. Demand and Supply:
6. determinants of individual demand/supply;
7. demand/ supply schedule and demand/ supply curve;
8. market versus individual demand/ supply;
9. shifts in the demand/ supply curve - **First Test**
10. Cardinal Utility Approach – Ordinal Utility Approach
11. Budget sets and Preferences under different situations
12. Hicks and Slut sky income and substitution effects
13. Applications of Indifference curve approach – Revealed Preference Hypothesis
14. Consumer surplus – Derivation of Demand curve – Elasticity of demand
15. Demand and supply together; how prices allocate resources; controls on prices
16. price floor and price ceiling – applications in agriculture.
17. **Mid- Semester Examination**
18. Behaviour of profit maximizing firms and the production process
19. Perfect competition: Equilibrium of the market
20. Long run industry supply, applications: effects of taxes and subsidies;
21. Monopoly: Equilibrium; supply; multiplant firm; monopoly power; deadweight loss;
22. price discrimination; Monopolistic Competition: Product differentiation;
23. equilibrium of the firm in the industry-with entry of new firms and with price competition. Comparison with pure competition. Duoploy: Cournot model and reaction curves; Stackelberg's model, Bertrand model; Oligopoly.
24. Labour and land markets - basic concepts (derived demand, productivity of an input, marginal productivity of labour, marginal revenue product);
25. demand for labour; input demand curves;
26. shifts in input demand curves; competitive labour markets;
27. Economic rent and quasi rent.

28. 2 X 2 X 2 general equilibrium model.
29. Derivation of general equilibrium conditions using Edgeworth box approach and
30. Mathematical approach.
31. Welfare Economics - Pareto Optimality
32. Social welfare criteria- Uncompensated and compensated Consumer
33. Welfare - Arrow's General Possibility Theorem-
34. Amartya Sen's Capability Approach to well being.

Practical schedule

1. Theory of consumer behaviour
2. Demand analysis - elasticity of demand
3. Estimation of demand functions
4. Equilibrium price analysis
5. Production function analysis
6. Analysis of short run costs
7. Analysis of long run costs
8. Price determination under perfect market situation
9. Price determination under imperfect market situation
10. Cost function
11. Economies of size and scale
12. Exercises on monopolistic competition
13. Price discrimination
14. Factor pricing analysis
15. Income distribution analysis
16. Partial and general equilibrium theory
17. Pareto optimality criteria

Course Outcomes

At the end of the course students will be able to

1. Understand the basic concepts related to consumer behaviour.
2. Identify the way to maximize profit through cost minimisation.
3. Know the different market structures and to identify long run and short run equilibrium.
4. Analyse factor pricing methods under perfect and imperfect market situation.
5. Apply micro economic principles for the welfare of farming community.

CO – PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	2	2	2	2	2
CO2	3	3	0	0	3
CO3	2	3	0	3	2
CO4	0	0	0	2	3
CO5	3	0	3	2	3

Reference books

1. Ahuja H.L., 2017. Principles of Micro Economics, S.Chand Publication
2. Barthwal, R.R., 2005. Microeconomic Analysis, Wiley Eastern, New Delhi.

3. Dewitt K.K., 2002. Modern Economic Theory, Sultan Chand and Co., New Delhi.
4. Hal R. Varian, 1999. Microeconomic Analysis, W.W. Norton and Company, New York.
5. Henderson, J.M. and R.E. Quandt, 2000. Microeconomic Theory: A Mathematical Approach, Tata McGraw Hill, New Delhi.
6. Koutsoyiannis, A., 2003. Modern Microeconomics, The Mac Millan Publication, London.
7. Mas Colell, 2012, Microeconomic Theory, Oxford University Press.
8. Chauhan, S.P.S, 2008. Microeconomics Theory and Applications, Prentice Hall India Learning Private.
9. Choudhury, K.R, 2010. Principles of Micro Economics, Khosla Publishing House.
10. Anindya, S, 2006. Microeconomics Theory and Applications, OUP India.

E.Resources:

1. http://ocw.mit.edu/courses/economics/
2. http://jgc-econ.intrasun.tcnj.edu/Micro%20Links.htm
3. http://www.oswego.edu/~kane/eco101.htm
4. http://catalog.flatworldknowledge.com/bookhub/13
5. http://microeconomic.edu.in

AEC 502 Agricultural Production Economics (1+1)

Objectives

- To expose the students to develop the concept, significance and uses of production economics.
- To understand the relationships between factors and output.
- To learn how to decide the combination of inputs to be used as per the resources available.

Theory

Unit I: Concepts of production economics

Nature, scope and significance of agricultural production economics- Agricultural Production processes, character and dimensions-spatial, temporal - Centrality of production functions, assumptions of production functions, commonly used forms -Properties, limitations, specification, estimation and interpretation of commonly used production functions.

Unit II: Factors and theory of production

Factors of production, classification, interdependence, and factor substitution- Determination of optimal levels of production and factor application –Optimal factor combination and least cost combination of production - Theory of product choice; selection of optimal product combination.

Unit III: Concepts of cost

Cost functions and cost curves, components, and cost minimization -Duality theory– cost and production functions and its applications -Derivation of firm's input demand and output supply functions -Economies and diseconomies of scale.

Unit IV: Dynamics of economic assessment

Technology in agricultural production, nature and effects and measurement -Measuring efficiency in agricultural production; technical, allocative and economic efficiencies - Yield gap analysis-concepts-types and measurement.

Unit-V: Risk and Uncertainty

Elements of risk and uncertainty in agriculture - measurement of risk and adjustment to risk - incorporation of weather uncertainty in decision making -Nature and sources of risk, modelling and coping strategies. - **Current trends in production economics.**

Practical

Different forms of production functions, Specification, estimation and interpretation of production functions, Returns to scale, factor shares, elasticity of production, Physical optima-economic optima, Least cost combination, Optimal product choice, Cost function estimation, interpretation, Estimation of yield gap, Incorporation of technology in production functions, Measuring returns to scale-risk analysis.

Theory Schedule

1. Nature, scope and significance of agricultural production economics
2. Agricultural Production processes, character and dimensions-spatial, temporal - Centrality of production functions,
3. assumptions of production functions,
4. commonly used forms -Properties, limitations, specification,
5. Estimation and interpretation of commonly used production functions.
6. Factors of production, classification, interdependence, and factor substitution-
7. Determination of optimal levels of production and factor application
8. Optimal factor combination and least cost combination of production
9. **Mid Semester examination**
10. Theory of product choice; selection of optimal product combination.
11. Cost functions and cost curves, components, and cost minimization -Duality theory–
12. cost and production functions and its applications
13. derivation of firm's input demand and output supply functions
14. Economies and diseconomies of scale.
15. Technology in agricultural production, nature and effects and measurement
16. Measuring efficiency in agricultural production; technical, allocative and economic efficiencies
17. Yield gap analysis-concepts-types and measurement. Elements of risk and uncertainty in agriculture –
18. Measurement of risk and adjustment to risk - incorporation of weather uncertainty in - decision making -Nature and sources of risk, modelling and coping strategies. - **Current trends in production economics**

Practical schedule

1. Principle of diminishing marginal returns
2. Estimation of different forms of production functions using farm level data
3. Estimation of different forms of production functions using farm level data (cont.)
4. Estimation of elasticity of production
5. Estimation of isoquant and least cost combinations of factors
6. Product - product relationship
7. Cost function analysis
8. Factor share analysis
9. Decomposition analysis
10. Technical efficiency estimation and frontier production functions
11. Technical efficiency estimation and frontier production functions (cont.)
12. Linear programming - maximization
13. Linear programming -minimization
14. Dual problems
15. Dual problems (cont.)
16. MOTAD
17. Goal programming

Course Outcomes

At the end of the course students will be able to

1. Know the physical and economic optimum point of output.
2. Suggest efficient way of usage of agricultural resources.
3. Make decision on individual farm production effectively.
4. Analyse agricultural production function using programming techniques.
5. Identify the policy measures to enhance profit through risk management.

CO – PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	2	3
CO2	2	2	3	3	2
CO3	1	3	3	2	3
CO4	2	3	2	1	3
CO5	3	1	1	2	3

Reference books:

1. Baumol WG. 1973. *Economic theory and operations analysis*. Practice Hall of India Private Limited, New Dehli.626 p.
2. David, L., Debertin, 2012. *Agricultural Production Economics*, (Second edition), Macmillan Publishing Company, New York.
3. Doll, John P. and Frank Orazem, 1978. *Production Economics - Theory and Applications*, John Wiley and Sons, New York.
4. Gardner BL &Rausser GC. 2001. *Handbook of Agricultural Economics* Vol. I Agricultural Production. Elsevier.
5. Heady EO & Dillon JL. 1961. *Agricultural Production functions.* Kalyani Publishers,Ludhiana, India. 667 p.
6. Heady. E.O. 1964, *Economics of Agricultural Production and resources use*.
7. Olajuwon Olayide, S and Earl Orel Heady 1982, Introduction to Agricultural Production Economics, Ibadan University Press, University of Ibadan.
8. Palanisami, K., P. Paramasivan and C.R. Ranganathan, 2002. *Agricultural Production Economics - Analytical Methods and Applications*, Associate Publishing Company, New Delhi.
9. Peter, B.R., Hazell and Roger D. Nortan, 1986. *Mathematical Programming for Economic Analysis in Agriculture*, Macmillan Publishing Company, New York.
10. Sankhayan, P.L., 1998. *Introduction to the Economics of Agricultural Production*, Prentice Hall of India, New Delhi.

E Resources:

1. http://ocw.mit.edu/courses/economics
2. https://www.msu.edu/course/ECO/855
3. http://www.uky.edu/~deberti/prod/agprod5.pdf
4. http://www.csuchico.edu/ag/_assets/documents/syllabi/ABUS/ABUS%20301%20AG%20Production%20Econ%20Analysis.pdf
5. https://economics.ubc.ca/files/2014/05/pdf_course_erwin-diewert-ECON594Ch3.pdf

AEC 503 Agricultural Marketing and Price Analysis (2+1)

Objectives

- The course is designed to acquaint the students about the basics of dynamics of agricultural marketing.

- The content includes supply, demand and marketing of farm production, marketing functions and channels, marketing costs, margins and efficiency, agricultural prices, new marketing formats like e-marketing, e-NAM future trading, supply chain management, market intelligence etc.

Theory

Unit I: Introduction to agricultural marketing

New Concepts in Agricultural Marketing - Characteristics of Agricultural product and Production – Problems in Agricultural Marketing from Demand and Supply and Institutions sides. Market intermediaries and their role - Need for regulation in the present context - Marketable & Marketed surplus estimation. Marketing Efficiency - Structure Conduct and Performance analysis - Vertical and Horizontal integration - Integration over space, time and form-Vertical co-ordination.

Unit II: Aspects of agricultural marketing

Different Forms of marketing: Co-operative marketing – APMC – Regulated Marketing - Direct marketing, Farmer Producer Companies, e-NAM and marketing under e-NAM, e-marketing. Contract farming and Retailing, Organized retailing -Supply Chain Management - State trading, Warehousing and other Government agencies -Performance and Strategies - Market infrastructure needs, performance and Government role - Value Chain Finance.

Unit III: Future marketing and government

Introduction to Commodities markets and future trading - Basics of commodity futures - Operation Mechanism of Commodity markets – Price discovery – Hedging and Basis - Fundamental analysis - Technical Analysis – Role of Government/SEBI in promoting commodity trading and regulatory measures.

Unit IV: Use of Information Technology

Role of Information Technology and Market Intelligence in marketing of agricultural commodities, -electronic auctions (e-bay), e-Chaupals, Agmarknet and Domestic and Export market Intelligence Cell (DEMIC).

Unit V: Dynamics of price

Price forecasting – time series analysis – time series models – spectral analysis. Price policy and economic development – non-price instruments.

Practical

Supply and demand elasticities in relation to problems in agricultural marketing. Price spread and marketing efficiency analysis. Market structure analysis through concentration ratios. Performance analysis of Regulated market and marketing societies. Analysis on contract farming and supply chain management of different agricultural commodities, milk and poultry products. Supply Chain Analysis - quantitative estimation of supply chain efficiency. Market Intelligence – Characters, Accessibility, and Availability Price forecasting. Online searches for market information sources and interpretation of market intelligence reports – commodity outlook. Technical analysis for important agricultural commodities. Fundamental analysis for important agricultural commodities. Presentation of the survey results and wrap-up discussion.

Theory Schedule

1. New Concepts in Agricultural Marketing
2. Characteristics of Agricultural product and Production
3. Problems in Agricultural Marketing from Demand and Supply and Institutions sides.
4. Market intermediaries and their role
5. Need for regulation in the present context
6. Marketable & Marketed surplus estimation.
7. Marketing Efficiency
8. Structure Conduct and Performance analysis
9. Vertical and Horizontal integration
10. Integration over space, time and form
11. Vertical co-ordination.
12. Different Forms of marketing
13. Co-operative marketing
14. APMC
15. Regulated Marketing
16. Direct marketing
17. **Mid Semester Examination**
18. Farmer Producer Companies
19. e-NAM and marketing under e-NAM, e-marketing.
20. Contract farming and Retailing, Organized retailing
21. Supply Chain Management
22. State trading, Warehousing and other Government agencies
23. Performance and Strategies -Market infrastructure needs, performance and Government role - Value Chain Finance
24. Introduction to Commodities markets and future trading - Basics of commodity futures
25. Operation Mechanism of Commodity markets – Price discovery
26. Hedging and Basis - Fundamental analysis - Technical Analysis
27. Role of Government/SEBI in promoting commodity trading and regulatory measures.
28. Role of Information Technology and Market Intelligence in marketing of agricultural commodities
29. Electronic auctions (e-bay), e-Chaupals, Agmarknet and Domestic and Export market Intelligence Cell (DEMIC)

30. Price forecasting
31. Time series analysis
32. Time series models
33. Spectral analysis. Price policy and economic development
34. Non-price instruments

Practical schedule:

1. Supply and demand elasticities in relation to problems in agricultural marketing
2. Price spread and marketing efficiency analysis
3. Market structure analysis through concentration ratios
4. Performance analysis of Regulated market and marketing societies
5. Analysis on contract farming and supply chain management of different agricultural commodities, milk and poultry products
6. Supply Chain Analysis - quantitative estimation of supply chain efficiency
7. Market Intelligence – Characters, Accessibility
8. Availability Price forecasting
9. Online searches for market information sources and interpretation of market intelligence reports commodity outlook
10. Technical analysis for important agricultural commodities
11. Fundamental analysis for important agricultural commodities
12. Presentation of the survey results and wrap-up discussion
13. Estimation of index number - price index - WPI
14. Visit to regulated market
15. Visit to agro processing unit
16. Case study on rice, wheat and other major food grains
17. Case study on horticultural crops

Course Outcomes

At the end of the course students will be able to

1. Estimate the marketing efficiency.
2. Know the role of ICT in agricultural marketing.
3. Forecast the price, demand and supply.
4. Discuss the ways to minimize market risk.
5. Identifying the role of different organizations in international trade and the share of agriculture in total export.

CO – PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	3	2	1	3
CO2	3	1	2	2	1
CO3	2	3	2	1	3
CO4	1	2	3	2	3
CO5	3	2	3	1	3

Reference books

1. Acharya, S.S. and N.L. Agarwal, 2004. *Agricultural Prices - Analysis and Policy*, Oxford and IBH, New Delhi.
2. Acharya, S.S. and N.L. Agarwal, 2008. *Agricultural Marketing in India*, Oxford and IBH, New Delhi.
3. Bailey Norwood, F and Jayson L.Lusk,(2008) Agricultural Marketing and Price analysis, Pearson/Prentice Hall.
4. Dhal, C. Dale and Hammond W. Jerome, 1997. *Market and Price Analysis - The Agricultural Industries*, McGraw Hill Book Company, New York.
5. Francis Cherunilam, 2006. *International Trade and Export management*, Himalaya Publishing House, Mumbai.
6. Gulati, Ashok, 1996. *Agricultural Price Policy in India - An Econometric Approach*, Concept Publishing Company, New Delhi.
7. Kahlon, A.S and Mammootil Varughese George, (1985)Agricultural Marketing and Price Policies, Allied Publishers
8. Mohan Raj, J (2009) Agricultural Marketing Strategies In India, Abhijeet Publications
9. Nilabja Ghosh, (2013), India's Agricultural Marketing: Market Reforms and Emergence of New Channels (India Studies in Business and Economics), Springer edition.
10. Richard L. Kohls and Joseph N. Uhl (1980), *Marketing of Agricultural products* MacMillan Publishing company, Mumbai.

E Resources

1. https://lss.at.ufl.edu/.
2. http://www.oerafrica.org.
3. https://www.waveland.com
4. https://agmarknet.gov.in
5. https://reeis.usda.gov.in

AEC-504 Macro Economics and Policy (2+0)

Objectives

- The course envisages the concepts and principles of macroeconomics from classical to Keynesian theories.
- The other component deals with the monetary system - money, credit and banking system, value of money and economic activities, national income accounting and approaches to estimate national income theory of income and employment determination and inflation.

Theory

Unit I: Introduction: Measurement and Concepts

Basic concepts and scope of Macro-economics, National Income Accounting: Methods of measurement of key macro-economic aggregates, relationship of national income and other aggregates (with numerical exercises), real and nominal income

Unit II: Classical Macroeconomics

Say's Law, Quantity Theory of Money, aggregate labour supply and demand of labour, Classical theory of determining output, wages and prices.

Unit III. Income and Spending: Keynesian Framework

Simple Keynesian model of income determination; Keynesian Multiplier- aggregate spending, taxation, transfer payments, foreign spending, balanced budget; budget surplus (with numerical exercises).

Unit IV: Money, Interest and Income

Goods market equilibrium-IS curve; Demand for money, the Liquidity Preference Theory – Liquidity Trap; asset market equilibrium- LM curve; simultaneous equilibrium in goods and asset market- effect of fiscal and monetary policy

Unit V: Theories of Aggregate Consumption and Inflation

Absolute income hypothesis, relative income hypothesis, fisher's inter-temporal choice model, Life-Cycle and Permanent Income Hypotheses; Profits and Accelerator theory. Inflation: Nature, Effects and control; Types of inflation – demand pull, cost push - stagflation, core inflation, hyperinflation; Phillips curve. Current streams of thought

Theory schedule

1. Basic concepts and scope of Macro-economics

2. National Income Accounting
3. Methods of measurement of key macro-economic aggregates
4. Relationship of national income and other aggregates (with numerical exercises)
5. Real and nominal income
6. Say's Law
7. Quantity Theory of Money
8. Aggregate labour supply and demand of labour
9. Classical theory of determining output, wages and prices
10. Simple Keynesian model of income determination
11. Keynesian Multiplier
12. Aggregate spending
13. Taxation
14. Transfer payments
15. Foreign spending
16. Balanced budget
17. **Mid Semester Examination**
18. Budget surplus (with numerical exercises).
19. Goods market equilibrium
20. IS curve
21. Demand for money
22. The Liquidity Preference Theory
23. Liquidity Trap
24. Asset market equilibrium
25. LM curve
26. Simultaneous equilibrium in goods and asset market
27. Effect of fiscal and monetary policy
28. Absolute income hypothesis
29. Relative income hypothesis
30. Fisher's inter-temporal choice model
31. Life-Cycle and Permanent Income
32. Hypotheses; Profits and Accelerator theory. Inflation
33. Nature, Effects and control; Types of inflation – demand pull, cost push - stagflation, core inflation, hyperinflation
34. Phillips curve. Current streams of thought

Course Outcomes

At the end of the course students will be able to

1. Understand the concepts of national income and methods for measurement of national income.
2. Analyse the relationship between consumption, saving and investment.
3. Understand the nature of inflation and ways to control it.
4. Analyze monetary and fiscal policies.
5. Identify barriers in international trade.

CO – PO MAPPING

	PO1	PO2	**PO3**	**PO4**	**PO5**
CO1	3	2	3	1	1

CO2	3	1	1	3	3
CO3	2	3	2	1	1
CO4	1	1	3	2	3
CO5	3	3	1	1	3

Reference books

1. Ahuja, H.L., 2007. *Macro Economics - Theory and Policy*, S. Chand and Co. Ltd., New Delhi.
2. Branson, H. William, 1986. *Macroeconomic Theory and Policy*, Harper Collins, New Delhi.
3. Dernburg, T.F and D.M. McDougall, (2013) *Macro Economics*, McGraw-Hill.
4. Dornbusch, 2006. *Macroeconomics*, McGraw Hill Publication, New Delhi.
5. Gardner Hugh Ackley. (1961) *Macroeconomic Theory*, Macmillan, New York.
6. Robert L. Heilbroner (1972) *Understanding Macroeconomics*, Prentice Hall; 4th edition
7. Shapiro, Edward, 1989. *Macroeconomic Analysis*, Galgotta Publications, New Delhi.
8. Sirkin, Gerald (1965), Introduction to Macroeconomic Theory, Richard D.Irwin, Inc.
9. Stonier, W.Alfred and Douglas C. Hague (2004), A Textbook of Economic Theory 5th Edition, Pearson
10. Vaish M.C. (1983) *Macroeconomic Theory*, Vikas Publishing House Pvt Ltd. 14th edition.

E Resources

1. https://www.ssb.no
2. https://www.imf.org
3. www.investopedia.com
4. https://nils.lecture.ub.ac.in
5. https://en.m.wikipedia.org

AEC 505 Econometrics (2+1)

Objectives

- The course provides knowledge of the econometric methods like time series analysis, linear regression models and their application in economic analysis.

- The course provides an insight into the econometric problems in analyzing time series and cross section data.

Theory

Unit I: Introduction

Econometrics - definition -Relationship between economic theory, mathematical economics, models and econometrics, methodology of econometrics-regression analysis. PRF and SRF - linearity of regression model - significance of stochastic error term.

Unit II: Classical Linear Regression

Basic two variable regression – assumptions, estimation and interpretation approaches to estimation – OLS and their properties –Gauss-Markov theorem. Goodness of fit - coefficient of determination- extensions to multi-variable models-multiple regression estimation and interpretation- regression through origin- test for structural stability of regression model.

Unit-III: Hypothesis testing

Hypothesis - null, alternative - R^2 and adjusted R^2 - inference in multiple regression analysis. Hypothesis testing - individual regression coefficient - overall significance of the model - F-test, t-test and z test. ANOVA, ANOCOA and chi-square test.

Unit IV: Breaking down of Classical assumptions

Violation of assumptions – identification, consequences and remedies for multicollinearity, heteroscedasticity, autocorrelation – data problems and remedial approaches - Durbin-Watson test. – model misspecification- tests of specification errors

Unit V: Qualitative variables and simultaneous equation models

Dummy variable regression models - intercept and slope dummy - estimation and interpretation. Dummy dependent variable models. Linear probability models - logit and probit models - estimation and interpretation. Simultaneous equation models - structural equations - reduced form equations - identification and approaches to estimation.

Practical

Single equation two variable model - specification and estimation - hypothesis testing - restrictions on parameters - transformations of functional forms and OLS application - estimation of multiple regression model - hypothesis testing - testing and correcting specification errors - testing and managing multicollinearity - testing and managing

heteroscedasticity - testing and managing autocorrelation - estimation of regressions with dummy explanatory variables - intercept and slope dummy variable models. Estimation of regression with limited dependent variable - logit and probit models. Identification of equations in simultaneous equation models.

Theory Schedule

1. Econometrics definition
2. Relationship between economic theory
3. Mathematical economics
4. Models and econometrics
5. Methodology of econometrics
6. Regression analysis.
7. PRF and SRF
8. Linearity of regression model
9. Significance of stochastic error term.
10. Basic two variable regression
11. Assumptions, estimation and interpretation approaches to estimation
12. OLS and their properties
13. Gauss-Markov theorem.
14. Goodness of fit
15. Coefficient of determination
16. Extensions to multi-variable models-multiple regression estimation and interpretation.- regression through origin- test for structural stability of regression model.
17. **Mid Semester Examination**
18. Hypothesis - null, alternative
19. R^2 and adjusted R^2 - inference in multiple regression analysis.
20. Hypothesis testing - individual regression coefficient
21. Overall significance of the model
22. F-test, t-test and z test. ANOVA, ANOCOA and chi-square test.
23. Violation of assumptions – identification, consequences and remedies for multicollinearity
24. Heteroscedasticity, autocorrelation – data problems and remedial approaches
25. Durbin-Watson test. – model misspecification- tests of specification errors
26. Dummy variable regression models
27. Intercept and slope dummy
28. Estimation and interpretation.
29. Dummy dependent variable models.
30. Linear probability models - logit and probit models - estimation and interpretation.
31. Simultaneous equation models
32. Structural equations
33. Reduced form equations
34. Identification and approaches to estimation.

Practical schedule

1. Single equation two variable model - specification and estimation
2. Hypothesis testing
3. Restrictions on parameters
4. Transformations of functional forms - OLS application
5. Estimation of multiple regression model
6. Hypothesis testing

7. Testing and correcting specification errors
8. Testing and managing multicollinearity
9. Testing and managing heteroscedasticity
10. Testing and managing autocorrelation
11. Estimation of regressions with dummy explanatory variables
12. Intercept dummy variable model
13. Slope dummy variable model
14. Estimation of regression with limited dependent variable
15. Logit model
16. Probit model
17. Identification of equations in simultaneous equation models

Course Outcomes

At the end of the course students will be able to

1. Deduct the problems in relaxing the assumptions of classical regression model.
2. Formulate and estimate non-linear models.
3. Identify the variables for regression.
4. Run the dummy variable regression models independently.
5. Test the hypothesis and interpret the results.

CO – PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	3	1	2	3
CO2	1	2	3	3	3
CO3	1	3	1	3	1
CO4	3	1	3	1	3
CO5	1	2	1	3	3

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AEC-506 Agricultural Development and Policy Analysis (2+0)

Objectives

- Concept of economic development and policy, theories of development, performance of Indian agriculture.

- The process and implementation of policies over a period of time.

Theory

Unit I: Introduction

Role of agriculture in economic/ rural development – Evolution of thinking on agriculture and development; Agricultural development – meaning, stages and determinants – Population and food supply – criteria for under development - obstacles to economic development - economic and non economic factors of economic growth- need for sound agricultural policies

Unit II: Theories of Agricultural Development

Resource exploitation model- Conservation model- Location (Urban impact) model- Diffusion model- High pay-off input model-Induced Innovation Model- Agricultural R&D and linkages -Recent experiences of developing country - economies in transition - role of state in economic development - government measures to promote economic development - introduction to development planning.

Unit III: Performance of Indian Agriculture

Agrarian structure and land relations; trends in performance and productivity; agrarian structure and technology; credit, commerce and technology; capital formation; subsidies; pricing and procurement; Post Green Revolution agriculture; Production and productivity crisis in agriculture; Regional differences; Food Security, PDS system and Malnutrition.

Unit IV: Agricultural Policy: Process and Implementation

Instruments of Agricultural Policy; Process of agricultural policy formulation, implementation, Monitoring and Evaluation in India; Global experiences in participatory approach to Agricultural policy process; critical review of various elements of Indian agricultural policy-resource policies – credit policies – input and product marketing policies – price policies;

Unit-V: Agricultural development and free trade

Globalization and the relevance of development policy analysis - the dilemma of free trade - free trade versus protectionism - arguments for protection - arguments against protection - role of protection in developing countries. WTO – Agreement on Agriculture; Planning models. Planning for utilization of resources and Indian Five Year Plans -contradictions of free trade - proponents and opponents policies in vulnerable sectors like agriculture - lessons for developing countries. **Current streams of thought**

Theory schedule

1. Role of agriculture in economic/ rural development
2. Evolution of thinking on agriculture and development
3. Agricultural development – meaning, stages and determinants
4. Population and food supply – criteria for under development
5. Obstacles to economic development
6. Economic and non economic factors of economic growth- need for sound agricultural policies
7. Resource exploitation model- Conservation model
8. Location (Urban impact) model
9. Diffusion model
10. High pay-off input model-Induced Innovation Model
11. Agricultural R&D and linkages
12. Recent experiences of developing country - economies in transition - role of state in economic development g
13. Government measures to promote economic development - introduction to development planning.
14. Agrarian structure and land relations
15. Trends in performance and productivity
16. Agrarian structure and technology; credit, commerce and technology
17. **Mid Semester Examination**
18. Capital formation; subsidies; pricing and procurement
19. Post Green Revolution agriculture
20. Production and productivity crisis in agriculture; Regional differences; Food Security, PDS system and Malnutrition.
21. Instruments of Agricultural Policy
22. Process of agricultural policy formulation, implementation, Monitoring and Evaluation in India
23. Global experiences in participatory approach to Agricultural policy process
24. Critical review of various elements of Indian agricultural policy-resource policies – credit policies
25. Input and product marketing policies – price policies;
26. Globalization and the relevance of development policy analysis - the dilemma of free trade
27. Free trade versus protectionism - arguments for protection - arguments against protection
28. Role of protection in developing countries. WTO – Agreement on Agriculture
29. Planning models.
30. Planning for utilization of resources and Indian Five Year Plans–
31. Contradictions of free trade
32. Proponents and opponents policies in vulnerable sectors like agriculture
33. Lessons for developing countries.
34. **Current streams of thought**

Course Outcomes

At the end of the course students will be able to

1. Understand economic growth and development.

2. Analyze indicators of economic development.
3. Know the role of agriculture in economic development.
4. Discuss various development issues and identify the policy options for sustainable agricultural development.
5. Identify the impact of globalization on economic development.

CO – PO MAPPING

	PO1	PO2	PO3	PO4	PO5
CO1	3	3	2	1	3
CO2	3	1	1	1	3
CO3	1	3	3	2	3
CO4	3	3	1	3	1
CO5	1	1	3	3	3

Reference books

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AEC 507 Agricultural Finance and Project Management (2+1)

Objectives

- This course is designed with an objective to deliver knowledge of the principles, procedures, problems and policies relating to financing agricultural firms.

- In addition to this, the students are also given knowledge about the research developments in the subject. The approach is analytic.

Theory

Unit I: Basic concepts: A Review

Role and importance of agricultural finance. Financial institutions and credit flow to rural/priority sector. Agricultural lending – Direct and indirect financing -Financing through Co-operatives, NABARD, commercial banks and RRBs. District Credit Plan and lending to agriculture/priority sector. Micro-Financing and Role of MFI, NGO, and SHG.

Unit II: Credit and its aspects

Lending to farmers – The concept of 5 C's, 7 P's and 3 R's of credit. Estimation of Technical feasibility, Economic viability and repaying capacity of borrowers and appraisal of credit proposals. Understanding lenders and developing better working relationship and supervisory credit system. Credit inclusions – credit widening and credit deepening.

Unit III: Financial analysis

Financial decisions – Investment, financing, liquidity and solvency. Preparation of financial statements - Balance sheet, Cash flow statement and Profit and loss account. Ratio analysis and Assessing the performance of farm/ firm.

Unit IV: Project Overview

Project approach in financing agriculture. Financial, economic and environmental appraisal of investment projects. Identification, preparation, appraisal, financing and implementation of projects. Project appraisal techniques – Undiscounted measures. time value of money – Use of discounted measures - B-C ratio, NPV and IRR. Agreements, supervision, monitoring and evaluation phases in appraising agricultural investment projects. Net work techniques – PERT and CPM.

Unit V: Risk and its Management

Risks in financing agriculture. Risk management strategies and coping mechanism. Crop Insurance programmes – review of different crop insurance schemes – yield loss and weather based insurance and their applications.

Practical

Visit to commercial bank, co-operative bank, SHG, NGO and RRB - An overview, Rural Lending Programmes of Commercial Banks, Lead Bank Scheme; Preparation of District Credit Plan, Rural Lending Programmes of Co-operative Lending Institutions; Preparation of financial statements using farm/firm level data, Farm credit appraisal techniques and farm financial analysis through financial statements; Performance of Micro Financing Institutions; NGO and Self-Help Groups, Identification and formulation of investment projects; Project appraisal techniques – Undiscounted Measures and their limitations; Project appraisal techniques – Discounted Measures; Network techniques – PERT and CPM for project management; Case Study Analysis of an Agricultural project; Financial Risk and risk management strategies – crop insurance schemes; Financial instruments and methods – E banking, Kisan Cards and core banking.

Theory Schedule:

1. Role and importance of agricultural finance.
2. Financial institutions and credit flow to rural/priority sector.
3. Agricultural lending
4. Direct and indirect financing
5. Financing through Co-operatives, NABARD, commercial banks and RRBs. District
6. Credit Plan and lending to agriculture/priority sector.
7. Micro-Financing and Role of MFI, NGO, and SHG.
8. Lending to farmers
9. The concept of 5 C's, 7 P's and 3 R's of credit.
10. Estimation of Technical feasibility
11. Economic viability and repaying capacity of borrowers and appraisal of credit proposals.
12. Understanding lenders and developing better working relationship and supervisory credit system.
13. Credit inclusions
14. Credit widening and credit deepening.
15. Financial decisions
16. Investment, financing, liquidity and solvency.
17. **Mid Semester Examination**
18. Preparation of financial statements
19. Balance sheet, Cash flow statement and Profit and loss account.
20. Ratio analysis and Assessing the performance of farm/ firm.
21. Project approach in financing agriculture.
22. Financial, economic and environmental appraisal of investment projects.
23. Identification, preparation, appraisal, financing and implementation of projects.
24. Project appraisal techniques
25. Undiscounted measures. time value of money
26. Use of discounted measures
27. B-C ratio, NPV and IRR. Agreements, supervision, monitoring and evaluation phases in appraising agricultural investment projects.
28. Net work techniques
29. PERT and CPM.
30. Risks in financing agriculture.
31. Risk management strategies and coping mechanism.
32. Crop Insurance programmes

33. Review of different crop insurance schemes
34. Yield loss and weather based insurance and their applications.

Practical schedule

1. Demand and supply of institutional agricultural credit
2. District credit plan
3. Preparation of scale of finance for selected crops
4. Preparation of financial statements using farm/firm level data
5. Farm credit appraisal techniques
6. Farm financial analysis through financial statements
7. Financial instruments and methods - E banking, kisan cards and core banking
8. Time value of money
9. Identification and formulation of investment projects
10. Project appraisal techniques - undiscounted measures and their limitations
11. Discounted measures
12. Sensitivity analysis
13. Network techniques - PERT and CPM for project management
14. SWOC analysis
15. Decision tree analysis
16. Social cost and benefit analysis
17. Environmental Impact Assessment (EIA)

Course Outcomes

At the end of the course students will be able to

1. Understand nature and scope of financial management in agribusiness.
2. Identify the tools for credit, repayment and down payments.
3. Assess the performance of farm using financial ratios.
4. Do the appraisal of projects by measurement of costs benefits and sensitivity analysis.
5. Assess yield loss and to identify risk management strategies.

CO – PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	2	2
CO2	3	3	1	1	1
CO3	1	3	3	1	3
CO4	3	1	1	2	3
CO5	3	2	2	3	3

Reference books

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AEC-508 Linear Programming (1+1)

Objectives

- The course deals with basic concepts of LP and applications of various LP model in agriculture.

Theory

Unit I Introduction

Decision making – introduction to linear programming – Use of LP in different fields – formulation of problem – slack and surplus variables – basic assumptions – graphical solution – initial basic feasible solution.

Unit II Theory of Simplex Method

Concepts – Solving profit maximization and cost minimization problems – special cases of simplex method application – optimality conditions.

Unit III Duality Theory

Definition – fundamental properties of dual problem – construction of dual problem – relationship between primal & dual problems – economic interpretation of duality – changes affecting feasibility and optimality.

Unit IV LP Models

Variable resource and price programming, recursive programming, dynamic programming, transportation model – definition, methods to solve transportation problem, Assignment model – Hungarian method, special cases in assignment problem, network model – simulation model.

Unit V Game Theory

Concepts – two person constant sum, zero sum game, saddle point, solution to mixed strategies.

Practical

Farm Survey, Formulation of problem using farm situations, Graphical solution of maximization model, Graphical solution of minimization model, Solving maximization problem using simplex method, Solving minimization problem using simplex method, Solving dual problem, Transportation model, Assignment model, Network model, Dynamic programming, Recursive programming, Variable resource and price programming, Simulation model, Decision making under risk & uncertainty, Game theory.

Theory

1. Decision making
2. Introduction to linear programming
3. Use of LP in different fields
4. Formulation of problem
5. Slack and surplus variables

6. Basic assumptions – graphical solution
7. Initial basic feasible solution.
8. Concepts – Solving profit maximization and cost minimization problems
9. **Mid Semester Examination**
10. Special cases of simplex method application
11. Optimality conditions.
12. Definition – fundamental properties of dual problem
13. Construction of dual problem
14. Relationship between primal & dual problems
15. Economic interpretation of duality
16. Changes affecting feasibility and optimality.
17. Concepts – two person constant sum, zero sum game, saddle point, solution to mixed strategies.

Practical Schedule

1. Farm Survey
2. Formulation of problem using farm situations
3. Graphical solution of maximization model
4. Graphical solution of minimization model
5. Solving maximization problem using simplex method
6. Solving minimization problem using simplex method
7. Solving dual problem
8. Transportation model
9. Assignment model
10. Network model
11. Dynamic programming
12. Recursive programming
13. Variable resource and price programming
14. Simulation model
15. Decision making under risk & uncertainty
16. Decision making under risk & uncertainty
17. Game theory

Course Outcomes:

After completion of the course, the students will be able to

1. Suggest the best decision for allocating production resources.
2. Understand choice in situations among competing players and improve their decision-making skills.
3. Obtain the most optional solution for a problem with given constraints.
4. Learn to applying LP for real world problem.
5. Learn to apply LP for product mixture and blending.

CO – PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	2	3
CO2	2	2	3	3	2
CO3	1	3	3	2	3
CO4	2	3	2	1	3
CO5	3	1	1	2	3

Reference Books

1. Operations Research – problems & solutions – V.K. Kapoor Sultan Chand & Sons, New Delhi, 2002
2. G. Hadley (1962), Linear Programming, Oxford & IBH Publishing co.pvt.Ltd, New Delhi
3. Hamdy A. Taha (2004), Operations Research – An Introduction, Prentice Hall of India Private Ltd., New Delhi
4. Namgopal Mandal and Biswadip Pal (2021), Linear Programming and game theory, Techno World, Kolkata
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AEC 509 Research Methodology for Social Sciences (1+1)

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Objectives

- The course deals with scientific methods of research, the initiation of an inquiry, formulation of research problems and hypotheses.
- The role of induction and deduction in research, collection and analysis of date and interpretation of results

Theory

Unit I: Concepts of research methodology

Importance and scope of research in agricultural economics. Types of research – Fundamental vs. Applied. Concept of researchable problem – research prioritization– selection of research problem. Approach to research – research process.

Unit II: Hypothesis: Framing and Testing

Hypothesis – meaning – characteristics – types of hypothesis – review of literature– setting of Course Objective and hypotheses – testing of hypothesis.

Unit III: Sampling

Sampling theory and sampling design – sampling error - methods of sampling – probability and non-probability sampling methods - criteria to choose. Project proposals – contents and scope – different types of projects to meet different needs– trade-off between scope and cost of the study. Research design and techniques– Types of research design.

Unit IV: Data Collection

Data collection – assessment of data needs – sources of data collection – discussion of different situations. Mailed questionnaire and interview schedule – structured, unstructured, open ended and closed-ended questions. Scaling Techniques. Preparation of schedule – problems in measurement of variables in agriculture. Interviewing techniques and field problems - methods of conducting survey –Reconnaissance survey and Pre testing.

Unit V: Data Analysis

Data coding, tabulation, cleaning. –Multivariate analysis –factor analysis' PCA'cluster analysis. Universal procedures for preparation of bibliography – writing of research articles.

Theory Schedule:

1. Importance and scope of research in agricultural economics
2. Types of research –Fundamental vs. Applied
3. Concept of researchable problem – Research prioritization– selection of research problem
4. Approach to research – research process

5. Hypothesis – meaning – characteristics
6. Types of hypothesis – review of literature– setting of Course Objective and hypotheses – testing of hypothesis
7. Sampling theory and sampling design – sampling error - methods of sampling – probability and non-probability sampling methods - criteria to choose
8. Project proposals – contents and scope – different types of projects to meet different needs– trade-off between scope and cost of the study
9. **Mid Semester Examination**
10. Research design and techniques– Types of research design
11. Data collection – assessment of data needs – sources of data collection – discussion of different situations
12. Mailed questionnaire and interview schedule – structured, unstructured, open ended and closed-ended questions
13. Scaling Techniques. Preparation of schedule – problems in measurement of variables in agriculture
14. Interviewing techniques and field problems - methods of conducting survey – Reconnaissance survey and Pre testing
15. Data coding, tabulation, cleaning
16. Multivariate analysis –factor analysis ' PCA' cluster analysis
17. Universal procedures for preparation of bibliography – writing of research articles

Practical

1. Exercises in problem identification
2. Project proposals – contents and scope
3. Formulation of Objective and hypotheses
4. Assessment of data needs – sources of data – methods of collection of data
5. Methods of sampling – criteria to choose – discussion on sampling under different
6. Situations
7. Scaling Techniques – measurement of scales
8. Preparation of interview schedule
9. Field testing. Method of conducting survey
10. Exercise on coding, editing, tabulation and validation of data
11. Preparing for data entry into computer
12. Hypothesis testing – Parametric and Non-Parametric Tests
13. Exercises on format for Thesis/ Report writing
14. Presentation of the results

Course Outcomes

At the end of the course students will be able to

1. Understand the role and importance of research in the social science.
2. Identify the appropriate research design for different research problem.
3. Know the different methods to collect data and selection of variables.
4. Use econometric software in data analysis.
5. Interpret the results and write research report & research articles.

CO – PO MAPPING

	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	3	2
CO2	1	2	1	3	3
CO3	3	3	2	3	1
CO4	2	2	1	3	3
CO5	1	2	1	3	3

Reference books

1. Cohen MR and Nagel R. 2007. *An Introduction to Logic and Scientific Method, Read Books Publisher*
2. Creswell, J.W., 1999. *Research Design - Qualitative and Quantitative Approaches*, SAGE Publication, New Delhi.
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AEC-510 Indian Economy: History and Contemporary Issues (2+0)

Objectives

- To introduce the students to the economic history over a period of time.
- It also highlights the contemporary issues of Indian economy.

Theory

Unit I: India from Independence to Liberalization

An overview of the economic developments during the period 1947-1980; Objective sand strategies of planned economic development and the role of the State; Sectoral growth performance; savings and investment; Demographic trends and issues; education; health and malnutrition; Trends and policies in poverty; inequality and unemployment.

Unit II: India Since 1980's (Liberalization and Beyond): Overview

Policy Changes since 1980s. The 1990 Crisis. Causes and Effects of liberalization. Regional differences: infrastructure, primary, secondary and tertiary sector.

Unit III: Macro Trends Since 1990

Growth; Savings and Investment, Employment; productivity; diversification; Agro based industries; competition policy; foreign investment, Regional differences.

Unit IV: Contemporary Issues -Expenditure

Monetary and Financial trends- areas of government spending in India, Capital expenditure, revenue expenditure, plan expenditure, non plan expenditure, Deficits (fiscal, primary, revenue), impact of fiscal deficit on economy.

Unit V: Contemporary Issues –Revenue

Capital receipts, revenue receipts, tax and non tax revenue, direct and indirect taxes, need to rationalize tax structure. Goods and Services Tax (GST). Union Budget, Zero base budgeting, Gender budgeting, Fiscal devolution and centre state financial relations in India, WPI, CPI implicit deflators. Foreign Trade policy.

Theory Schedule

1. An overview of the economic developments during the period 1947-1980
2. Objectives and strategies of planned economic development and the role of the State
3. Sect oral growth performance; savings and investment
4. Demographic trends and issues; education; health and malnutrition
5. Trends and policies in poverty
6. Inequality and unemployment
7. Policy Changes since 1980s
8. The 1990 Crisis

9. Causes and Effects of liberalization
10. Regional differences: infrastructure, primary, secondary and tertiary sector
11. Growth; Savings and Investment, Employment
12. Productivity; diversification
13. Agro based industries
14. Competition policy
15. Foreign investment
16. Regional differences
17. **Mid Semester Examination**
18. Monetary and Financial trends
19. Areas of government spending in India
20. Capital expenditure
21. Revenue expenditure
22. Plan expenditure
23. Non plan expenditure
24. Deficits (fiscal, primary, revenue)
25. Impact of fiscal deficit on economy
26. Capital receipts
27. Revenue receipts, tax and non tax revenue
28. Direct and indirect taxes, need to rationalize tax structure
29. Goods and Services Tax (GST). Union Budget, Zero base budgeting
30. Gender budgeting
31. Fiscal devolution and centre state financial relations in India
32. WPI
33. CPI implicit deflators
34. Foreign Trade policy

Course outcomes

After the completion of the course the student will be able to

1. Visualize how the Indian economy has evolved.
2. Get acquainted with the basic steps involved in the working of the national economy.
3. Understand the macro trends since 1990.
4. To explore the contemporary issues of revenue and expenditure.
5. To know the foreign trade policy

CO – PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	3	2
CO2	1	2	1	3	3
CO3	3	3	2	3	1
CO4	2	2	1	3	3
CO5	1	2	1	3	3

Reference books

1. Agrawal, A.N.,1990, Indian Economy, New Age International Pub. (P) Ltd.
2. Aman Soni (2020) Indian Economy, Disha Publication, New Delhi.
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AEC 511 International Economics (2+0)

Objectives

- The major objective of this course is to give an insight of the interactions between national economies.
- What are the theories governing the trade across national boundaries.
- The methods involved to regulate the international trade and institutions involved.

Theory

Unit I: Concepts of International Economics

Scope and Significance of International Economics –Features of Global economy-Global trade - General Equilibrium in a Closed Economy (Autarky Equilibrium) – Equilibrium in a Simple Open Economy - Possibility of World Trade - Trade gains, Problems of trade and Trade Equilibrium - Mill's Doctine.

Unit II: Theories of trade

Production possibility curve - Offer curves -Ricardian Model of Trade- Absolute cost theory Comparative cost theory - Opportunity cost theory-Specific Factors Model- Heckscher - Ohlin Model - Trade Creation and Trade Diversion – Export Supply Elasticity and Import Demand Elasticity -Competitive advantage of Nations.

Unit III: Barriers to trade

Globalisation -Tariff barriers- NTB -, Producer Subsidy, Export Subsidy, Quotas-Import Quota and Export Voluntary Restraints- The Case of Small Country and Large Country Case.

Unit IV: Rates and Terms of trade

Official Exchange Rate and Shadow Exchange Rate - Walra's Law and Terms of Trade – Trade Blocks - Economic integration -Benefits and disadvantages- Features of NAFTA.

Unit V: Trade Institutions

IMF and Development organisations -Functions -, World Bank - purposes- IDA, IFC, ADB – UNCTAD- International Trade agreements – Uruguay Round – GATT – WTO -IPR - Anti-dumping measures.

Theory schedule:

1. Scope and Significance of International Economics
2. Features of Global economy-Global trade
3. General Equilibrium in a Closed Economy (Autarky Equilibrium)
4. Equilibrium in a Simple Open Economy
5. Possibility of World Trade - Trade gains
6. Problems of trade and Trade Equilibrium

7. Mill's Doctine
8. Production possibility curve
9. Offer curves
10. Ricardian Model of Trade
11. Absolute cost theory
12. Comparative cost theory
13. Opportunity cost theory
14. Specific Factors Model- Heckscher - Ohlin Model
15. Trade Creation and Trade Diversion
16. Export Supply Elasticity and Import Demand Elasticity
17. **Mid-Semester Examination**
18. Competitive advantage of Nations
19. Globalisation
20. Tariff barriers- NTB
21. Producer Subsidy, Export Subsidy
22. Quotas- Import Quota and Export
23. Voluntary Restraints
24. The Case of Small Country and Large Country Case
25. Official Exchange Rate and
26. Shadow Exchange Rate - Walra's Law and
27. Terms of Trade – Trade Blocks
28. Economic integration -Benefits and disadvantages
29. Features of NAFTA
30. IMF and Development organisations -Functions
31. World Bank, purposes- IDA, IFC, ADB – UNCTAD
32. International Trade agreements
33. Uruguay Round – GATT
34. WTO -IPR -Anti-dumping measures

Course Outcomes

After successful completion of the course the student will be able to

1. Understand how trade take place between nations.
2. Be able to work out strategies to maintain favourable trade balance.
3. Understand how the institutions play role in regulating the cross-country trade and deal with the issues.
4. To understand the theories of trade
5. To know the trade institutions and impact of WTO

CO – PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	3	2
CO2	1	2	1	3	3
CO3	3	3	2	3	1
CO4	2	2	1	3	3
CO5	1	2	1	3	3

Reference books

1. Brouwer F. 2016. *International Trade and Food Security*, CABI Publishing.
2. Dominick Salvatore, (2013), International Economics, John Wiley & Sons Inc.
3. Dwivedi, D N, 2013, International Economics, Theory and Policy, Vikas Publishing House, New Delhi.
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AEC 512 Institutional Economics (2+0)

Objectives

- To develop critical and informed understanding about institutions, their role in the working of economy.

- Exposure of issues, policies & regulations and its application in agricultural system

Theory

Unit I: Basics of Institutional Economics

Old and New Institutional Economics – Institutional Economics vs Neo-classical Economics. Definition of institutions – Distinction between institutions and organizations – Institutional evolution.

Unit II: Institutional changes & Resource allocation

Institutional change and economic performance - national and international economic institutions. Transaction cost economics – Transaction costs and the allocation of resources. Transaction costs and efficiency. Asymmetric information - Moral hazard and Principal-Agent problem.

Unit III: Group and collective Approach

Free rider problem – path dependency – Interlinked transactions. Collective action and the elimination of free-rider problem - The logic of collective action and its role in reducing free rider problem – theory of Groups. Rent seeking – interest groups and policy formulation.

Unit IV: Property rights

Economic analysis of property rights- property rights regimes – private property –State Property - Common property Resources (CPRs) – public goods and club goods.

Unit V: Agrarian Institutions

Special features of institutional arrangements in agriculture – Transaction costs in agriculture - Case Studies - Theories of agrarian institutions - tenancy institutions.

Theory Schedule

1. Old and New Institutional Economics
2. Institutional Economics vs Neo-classical Economics
3. Definition of institutions
4. Distinction between institutions and organizations
5. Institutional evolution
6. Institutional change and economic performance
7. national and international economic Institutions
8. Transaction cost economics

9. Transaction costs and the allocation of resources.
10. Transaction costs and efficiency
11. Asymmetric information
12. Moral hazard and Principal
13. Agent problem
14. Free rider problem – path dependency
15. Interlinked transactions
16. Collective action
17. **Mid Semester Examination**
18. Elimination of free-rider problem
19. The logic of collective action and
20. its role in reducing free rider problem
21. Theory of Groups
22. Rent seeking
23. interest groups and policy formulation
24. Economic analysis of property rights-
25. Property rights regimes
26. private property
27. State Property
28. Common property Resources (CPRs)
29. Public goods and club goods
30. Special features of institutional arrangements in agriculture
31. Transaction costs in agriculture
32. Case Studies
33. Theories of agrarian institutions
34. Tenancy institutions

Course outcomes

After successful completion of this course the student will be able to

1. Understand institutions and their roles in economic development.
2. Know about the policies and their issues in an institutions.
3. To understand about the Transaction costs and the allocation of resources
4. To know about Common property Resources (CPRs).
5. Understand the Special features of institutional arrangements in agriculture

CO–PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3				3
CO2	2		3		
CO3			2		3
CO4			1		2
CO5		2		2	3

Reference Books

1. Eric Brourse and Jean-Michel Glachant (2008), New Institutional Economics a Guidebook – Cambridge University.

2. Stefan Volgt (2019), “Institutional Economics an Introduction” Cambridge University Press, England.
3. Bernard Chavance (2008), Institutional Economics – Routledge Frontiers of Political Economy Book.
4. Claude Menard and Mary M. Shirley (2008), “Handbook of New Institutional Economics” Springer Publisher, India.
5. Douglass C. North (1990), “Institutions, Institutional Change and Economic Performance (Political Economy of Institutions and Decisions)”, Cambridge University Press.
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AEC 513 Natural Resource and Environmental Economics (1+1)

Objectives

- To understand about economics of environment and social costs incurred due to economic development.
- Work out methods to maintain environment quality and reduce social costs.

Theory

Unit I: Basic Foundation

Concepts, Classification and Problems of Natural Resource Economics – Economy Environment interaction – The Material Balance principle, Entropy law-Resources Scarcity - Limits to Growth - Measuring and mitigating natural resource scarcity– Malthusian and Recardian scarcity – scarcity indices - Resource Scarcity and Technical Change.

Unit II: Theories and economics of natural resources

Theory of optimal extraction renewable resources –economic models of oil extraction efficiency- time path of prices and extraction - Hotelling's rule, Solow-Harwick's Rule. Theory of optimal extraction exhaustible resources – economic models of forestry and fishery.

Unit III: Environmental Issues

Market failures - externalities – types - property rights– transaction costs – Coase's theorem and its critique - public goods – common property and open access resource management - Collective action. Environmental perspectives - biocentrism, sustainability, anthropocentrism -Environmental problems and quality of environment - Sources and types of pollution-air, water, solid waste, land degradation – environmental and economic impacts-Economics of pollution control - efficient reduction in environmental pollution.

Unit IV: Environmental Regulations

Environmental regulation – economic instruments - pollution charges – Pigovian tax - tradable permits – indirect instruments – environmental legislations in India.

Unit V: Sustainability aspects

Concept of sustainable development – Economic Perspective – Indicators of sustainability Relation between development and environment stress-Environmental Kuznet's curve Environmental Accounting – resource accounting methods –International Environmental Issues – climate change – likely impacts – mitigation
efforts and international treaties.

Theory Schedule

1. Concepts, Classification and Problems of Natural Resource Economics – Economy Environment interaction

2. The Material Balance principle, Entropy law -Resources Scarcity - Limits to Growth - Measuring and mitigating natural resource scarcity
3. Malthusian and Ricardian scarcity – scarcity indices
4. Resource Scarcity and Technical Change and theory of optimal extraction renewable resources
5. Economic models of oil extraction efficiency- time path of prices and extraction - Hotelling's rule, Solow-Harwick's Rule.
6. Theory of optimal extraction exhaustible resources – economic models of forestry and fishery.
7. Market failures - Externalities – types - property rights
8. Transaction costs – Coase's theorem and its critique
9. **Mid Semester Examination**
10. Public goods – common property and open access resource management - Collective action
11. Environmental perspectives - biocentrism, sustainability, anthropocentrism
12. Environmental problems and quality of environment
13. Sources and types of pollution-air, water, solid waste, land degradation environmental and economic impacts
14. Economics of pollution control - efficient reduction in environmental pollution.
15. Environmental regulation – economic instruments
16. Pollution charges – Pigovian tax
17. Tradable permits – indirect instruments – environmental legislations in India.

Practical schedule

1. Exhaustible resource management – optimum rate of oil extraction.
2. Renewable resource management – optimum harvest of Forestry/fishery.
3. Exercise on pollution abatement-I.
4. Exercise on pollution abatement-II.
5. Concepts in valuing the environment.
6. Taxonomy of valuation techniques.
7. Productivity change method – substitute cost method
8. Hedonic price method –
9. Travel cost method
10. Contingent valuation methods.
11. Discount rate in natural resource management.
12. Environment impact assessment
13. Visit to Pollution Control Board.

Course Outcomes

After successful completion of this course, the student will be able to-

1. Gain knowledge on basic concepts of environmental economics.
2. Identify the optimal extraction level of renewable resources using economic models.
3. Assess the ways to manage common property resources.
4. Understand environmental legislations in India.
5. Analyse economic problems related to natural resource use including climate change problems.

CO–PO MAPPING

	PO1	PO2	PO3	PO4	PO5
CO1	3				3
CO2	2		3		
CO3			2		3
CO4			1		2
CO5		2		2	3

Reference books

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2. Kerr, J.M., Marothia D.K., Katar Singh, Ramasamy C. and Bentley W.R., 1997. N*atural Resource Economics: Theory and Applications in India*, Oxford and IBH, New Delhi.
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6. http://pubs.iied.org/
7. http://www.unep.org/publications/
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AEC 514 Commodity Future Trading (2+0)

Objectives

- To disseminate the knowledge about risk mitigating measures especially future trading.
- The future trading in agricultural commodities is increasing day by day therefore the role of SEBI, functioning of commodity exchanges are discussed.

Theory

Unit I: Concepts of commodity future trading

History and Evolution of commodity markets – Terms and concepts: spot, forward and futures Markets – factors influencing spot and future markets. Speculatory mechanism in commodity futures.

Unit II: Technical aspects

Transaction and settlement – delivery mechanism - role of different agents - trading strategies -potential impact of interest rate, Foreign Exchange, FDI in Commodity Markets.

Unit III: Risk and its Management

Risk in commodity trading, importance and need for risk management measures - managing market price risk: hedging, speculation, arbitrage, swaps - pricing and their features.

Unit IV: Commodity Exchange – A review

Important global and Indian commodity exchanges - contracts traded – special features -Regulation of Indian commodity exchanges - FMC and its role.

Unit V: Analysis of commodity market

Fundamental Vs Technical analysis – construction and interpretation of charts and chart patterns for analyzing the market trend – Market indicators – back testing. Introduction to technical analysis software – analyzing trading pattern of different commodity groups.

Theory Schedule

1. History and Evolution of commodity markets
2. Terms and concepts: spot, forward and futures Markets
3. Factors influencing spot and future markets
4. Speculatory mechanism in commodity futures
5. Transaction and settlement
6. Delivery mechanism
7. Role of different agents
8. Trading strategies

9. Potential impact of interest rate
10. Foreign Exchange
11. FDI in Commodity Markets
12. Risk in commodity trading
13. Importance for risk management measures
14. Need for risk management measures
15. Managing market price risk
16. Hedging
17. **Mid Semester Examination**
18. Speculation
19. Arbitrage
20. Swaps
21. Pricing and their features
22. Important global and Indian commodity exchanges
23. Contracts traded
24. Special features
25. Regulation of Indian commodity exchanges
26. FMC and its role
27. Fundamental Vs Technical analysis
28. Construction of charts
29. Interpretation of charts
30. Chart patterns for analyzing the market trend
31. Market indicators
32. Back testing
33. Introduction to technical analysis software
34. Analyzing trading pattern of different commodity groups

Course Outcomes

After successful completion of this course, the student will be able to

1. The basic concepts of commodity markets.
2. FDI in Commodity markets
3. FMC and its role
4. Risk management measures - hedging and swaps
5. The national and international commodity markets.

CO – PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	3	2
CO2	1	2	1	3	3
CO3	3	3	2	3	1
CO4	2	2	1	3	3
CO5	1	2	1	3	3

Reference Books

1. Andreas F. Clenow (2012), "Following the Trend Diversified Managed Futures Trading", Wiley, Hoboken, New Jersey (U.S.)
2. Charles Le Beau and David W. Lucas, (1991), "Technical Traders Guide to Computer Analysis of the Futures Market", Mc Graw Hill, Illustrates Edition, New York.
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9. Niti Nandhini Chatnani (2019), "Commodity Markets and Derivatives", Cengage Learning India Pvt Ltd., New Delhi.
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AEC-515 Development Economics (2+0)

Objectives

To develop concept of growth and development. Methods and theories of measuring development. Study of different developed economies will give exposure toward measures to create economic up liftment.

Theory

Unit I: Conceptions of Development

Development Economics – Scope and Importance - Economic development and economic growth - divergence in concept and approach - Indicators and Measurement of Economic Development –GNP as a measure of economic growth.

Unit II: Welfare measures

New Measures of Welfare – NEW and MEW – PQLI – HDI – Green GNP - Criteria for underdevelopment – Obstacles to economic development –Economic and Non-Economic factors of economic growth- Development issues, poverty, inequality, unemployment and environmental degradation.

Unit III: Theories of Economic growth and development- I

Classical theories- Adam smith - Ricardo- Malthus, Marx's theory of economic development; Schumpeter's theory, Approaches to development- low income equilibrium trap - critical minimum effort- The Strategy of economic development-Balanced vs. Unbalanced growth, choice of technique, investment criteria, big push theory.

Unit IV: Theories of Economic growth and development- II

Rostow's stages of Economic Growth, unlimited supply of labour; social and technological dualisms; roles of capital accumulation, human capital and technological change in economic development, Models of economic growth Harrod-Domar, Kaldor, Mahalanobis, Lewis, Fei Ran is, Input-Output, multisectoral models.

Unit V: Comparative Economic Development

Countries selected for case studies -USA, Japan, China and India; Overview of economic development is selected countries; agrarian surplus and the role of the peasantry in economic development; industrial revolution; division of labour, organisation of work and industrial production, the role of the State in developmental transition.

Theory Schedule

1. Development Economics
2. Scope and Importance
3. Economic development
4. Economic growth

5. Divergence in concept and approach
6. Indicators of Economic Development
7. Measurement of Economic Development
8. GNP as a measure of economic growth
9. New Measures of Welfare – NEW and MEW
10. PQLI – HDI
11. Green GNP
12. Criteria for underdevelopment
13. Obstacles to economic development
14. Economic and Non-Economic factors of economic growth
15. Development issues, poverty, inequality, unemployment and environmental degradation
16. Classical theories- Adam smith - Ricardo- Malthus, Marx's
17. **Mid Semester Examination**
18. Theory of economic development
19. Schumpeter's theory
20. Approaches to development- low income equilibrium trap - critical minimum effort
21. The Strategy of economic development
22. Balanced vs. Unbalanced growth
23. Choice of technique, investment criteria, big push theory
24. Rostow's stages of Economic Growth
25. Unlimited supply of labour
26. Social and technological dualisms
27. Roles of capital accumulation, human capital and technological change in economic development
28. Models of economic growth Harrod-Domar, Kaldor, Mahalanobis, Lewis, FeiRanis
29. Input-Output, multi sectoral models
30. Countries selected for case studies -USA, Japan, China and India
31. Overview of economic development is selected countries
32. Agrarian surplus and the role of the peasantry in economic development
33. Industrial revolution; division of labour, organisation of work and industrial production
34. The role of the State in developmental transition

Course outcomes

After successful completion of this course, the student will be able to

1. Scope of development and indicators
2. Measure the development using different methods
3. Understand the theories of development and relate it to real world.
4. Understand the theories of economic growth
5. Understand the over view of the economic development in USA and China

CO–PO Mapping

	PO1	PO2	PO3	PO4	PO5
CO1	3				3
CO2	2		3		
CO3			2		3
CO4			1		2
CO5		2		2	3

Reference Books

1. Ahuja, H. L. (2016), Development Economics, S. Chand Publishing, A division of S. Chand & Company Pvt Ltd., New Delhi
2. Jain T.R. (2021), "Development Economics", VK Global Publications Pvt Ltd., Haryana
3. Jhingan M.L.& B.K. Jhingan, 2014, "The Economics of Development and Planning", Vrinda Publications (p) Ltd., New Delhi
4. Michael P. Todaro and Stephen C. Smith (2017), "Economic Development", Pearson Education, Chennai
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5. https://www.sciencedirect.com

AEC 516 Rural Marketing (2+0)

Learning Objectives

- To develop an understanding on the issues in rural markets and marketing environment
- To analyse consumer behaviour, distribution channels and marketing strategies

Theory

Unit-I: Overview of rural marketing

Concept and scope of rural marketing - nature and characteristics of rural markets - potential of rural markets in India - rural communication and distribution.

Unit-II: Factors affecting rural marketing

Environmental factors, socio-cultural, economic, demographic, technological and other environmental factors affecting rural marketing.

Unit-III: Consumer's behaviour

Rural consumer's behaviour - behaviour of rural consumers and farmers - buyer characteristics and buying behaviour. Rural Vs urban markets - customer relationship management - rural market research - implications of rural market research.

Unit-IV: Rural marketing strategy

Rural marketing strategy - marketing of consumer durable and non-durable goods - services in the rural markets with special reference to product planning - product mix - pricing policy and pricing strategy - distribution strategy.

Unit-V: Promotion strategy

Promotion and communication strategy - media planning - planning of distribution channels - organizing personal selling in rural market in India - innovations in rural marketing.

Current streams of thought

Theory schedule

1. Concept and scope of rural marketing
2. Nature of rural markets
3. Characteristics of rural markets
4. Potential of rural markets in India
5. Rural communication and distribution
6. Environmental factors affecting rural marketing
7. Socio-cultural factors affecting rural marketing
8. Economic factors affecting rural marketing
9. Demographic factors affecting rural marketing
10. Technological factors affecting rural marketing
11. Other environmental factors affecting rural marketing
12. Rural consumer's behaviour

13. Behaviour of rural consumers
14. Behaviour of rural farmers
15. Buyer characteristics and buying behaviour
16. Rural Vs urban markets
17. **Mid semester examination**
18. Customer relationship management
19. Rural market research
20. Implication of rural market research
21. Rural marketing strategy
22. Marketing of consumer durable goods
23. Marketing of non-durable goods
24. Marketing of services in the rural markets with special reference to product planning
25. Product mix
26. Pricing policy and pricing strategy
27. Distribution strategy
28. Promotion strategy
29. Communication strategy
30. Media planning
31. Planning of distribution channels
32. Organizing personal selling in rural market in India
33. Innovations in rural marketing - I
34. Innovations in rural marketing - II

Course outcome

At the end of the course students will be able to

1. Gain conceptual knowledge about rural marketing.
2. Understand the rural market distribution and factors affecting it.
3. Know about the consumer behavior and trend in rural marketing.
4. Know in detail about the service sector and apply the 7P's of service marketing.
5. Identify recent innovations in rural marketing.

CO –PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**
CO1	3			3
CO2	3			3
CO3			3	
CO4		2		
CO5				3

Reference books

1. Acharya, S.S. and N.L. Agarwal, 2008. *Agricultural Marketing in India*, Oxford and IBH, New Delhi.
2. Balram Dogra and K. Ghuman, 2007. Rural Marketing: Concepts and Practices, McGraw Hill Education.
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AEC - 517 Evolution of Economic Thought (2+0)

Objectives

- To understand about development of economic ideas, origins, interrelations and manifestations.
- Most of the economic ideas are relative by time, place and circumstances.
- It basis for comparison of different ideas.
- To know about what period the principles were enunciated

Theory

Unit- I: Introduction and Ancient Economic Thought

Nature and Importance of Economic thought -Theoretical approaches- Importance of Economic Thought. Ancient economics thought – Nature and significance- The Hebrew economic thought. The Greek thought: Plato- Aristotle- The Roman thought- the Islamic thought.

Unit -II: Medieval Economic Thought

Mercantilism -The Physiocrats- -Adam smith-Thomas Robert Malthus-David Ricardo-J.B.Say-Johan Stuart Mill. The Historical School –Roscher –Hildebrand- Karl Knies – Schmoller -Christain Socialism-Anarchism- Marxian Socialism- Communism.

Unit - III: Neo -Classicism

Karl Marx- The Austrian School-Alfred Marshall-Indifference Curve Analysis – Iso-Product Curves. Neo Classicism – Wicksell- J.B. Clark- Irving Fisher- Taussig

Unit- IV: The Keynesian Revolution

The Keynesian Revolution - Joseph A. Schumpeter -Neo- Keynesian Economics-Welfare Economics- –Hobson- Pigou- Pareto-J.R. Hicks- Comparative Economic Systems

Unit- V: Recent Indian Economic Thought

Recent Indian Economic Thought- R.C. Dutt- Dadabhai Naoroji- - Gopal Krishna Gokhale- Gandhian Economics- Jawaharlal Nehru- P.C. Mahalanobis –B.R. Ambedkar – C. Rajagopalachari- - D.R. Gadgil- Indira Gandhi- Periyar E.V.Ramasami.

Theory Schedule:

1. Nature and Importance of Economic thought
2. Theoretical approaches - Importance of Economic Thought
3. Ancient economics thought
4. Nature and significance
5. The Hebrew economic thought.
6. The Greek thought: Plato- Aristotle

7. The Roman thought- the Islamic thought
8. Mercantilism -The Physiocrats-
9. Adam smith-Thomas
10. Robert Malthus
11. David Ricardo
12. J.B.Say- Johan Stuart Mill
13. The Historical School
14. Roscher –Hildebrand
15. Karl Knies – Schmoller
16. Christain Socialism-Anarchism
17. Marxian Socialism-
18. Communism - Karl Marx
19. The Austrian School
20. Alfred Marshall-Indifference Curve Analysis – Iso- Product Curves.
21. **Mid Semester Examination**
22. Neo Classicism – Wicksell- J.B. Clark- Irving Fisher- Taussig
23. The Keynesian Revolution - Joseph A. Schumpeter
24. Neo- Keynesian Economics
25. Welfare Economics- –Hobson- Pigou
26. Pareto-J.R. Hicks
27. Comparative Economic Systems
28. Recent Indian Economic Thought- R.C. Dutt- Dadabhai Naoroji
29. Gopal Krishna Gokhale
30. Gandhian Economics
31. Jawaharlal Nehru- P.C. Mahalanobis
32. B.R. Ambedkar
33. C. Rajagopalachari- D.R. Gadgil
34. Indira Gandhi- Periyar E.V.Ramasami

Course outcome

At the end of the course students will be able to

1. Understand the nature and importance of economic thought
2. Know about the medieval economic thought
3. Understand the the Keynesian Revolution
4. To know the comparative economic systems
5. Know in detail about recent Indian economic thought

CO –PO MAPPING

	PO1	**PO2**	**PO3**	**PO4**
CO1	1			
CO2				1
CO3			1	
CO4		2		
CO5				1

Reference books

1. Bnatia, HL, 2007. History of Economic thought, S.Chand
2. Hajela, T.N, 2008. History of Economic thought, Ane Books Ltd.,
3. Heinz D.Kurz, 2010. Economic Thought: A Brief History, Columbia University Press
4. Hsrry Landreth and David C. Colander, 2002.History of Economic Thought, Houghton Mifflin press.
5. Isaac Lyich Rubin, 2007. History of Economic Thought, Pluto Press
6. Jhingan, M.L., M.Girija and Sasikala, L. 2011. History of Economic Thought**,** Vrinda Publisher.
7. Jurgen Backhaus,2011. Handbook of the History of Economic Thought. Springer Science & Business Media
8. Lionel Robbins, 1998. History of Economic Thought, Princeton University Press
9. Lokanathan, V.2010. A History of Economic Thought, S. Chand & company Ltd., New Delhi.
10. Satish Y. Deodhar, 2007. Economic Sutra Ancient Indian Antecedents To Economic Thought IIMA series.

E-Resources:

1.https://www.abebooks.com/9781441983350/Handbook-History-Economic-Thought-Insights-144198335X/plp
2. https://www.etcases.com/media/clnews/14691015651653847523.pdf
3. https://www.umass.edu/economics/sites/default/files/tonak_econ306-02-sp21.pdf
4. https://www.historyeconomic.com
5. https://welfareeconomics.in