GOVERNMENT COLLEGE FOR WOMENS (AUTONOMOUS)

KUMBAKONAM - 612 001

DEPARTMENT OF ECONOMICS

PG REVISED SYLLABUS

EFFECTIVE FROM 2023-2024 ONWARDS

2023 – 2024

M.A.,

ECONOMICS

MODEL SYLLABUS

AUGUST- 2023

TAMILNADU STATE COUNCIL FOR HIGHER EDUCATION,

CHENNAI – 600 005

GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)KUMBAKONAM(Curriculum–M.A., ECONOMICS–2023-2024)

Department: ECONOMICS **Programme Code: PAEC**

SEMESTER–I

Part	CourseType	CourseCode	TitleoftheCourse	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	CC- I	P23ECC101	Advanced Micro Economics	**6**	**5**	**3**	**25**	**75**	**100**
I	CC- II	P23ECC102	Indian Economic Development and Policy	**6**	**5**	**3**	**25**	**75**	**100**
I	CC-III	P23ECC103	Statistics for Economicsts	**6**	**4**	**3**	**25**	**75**	**100**
I	EC - I	P23ECDE1	**Financial Economics**	**5**	**3**	**3**	**25**	**75**	**100**
		P23ECDE2	Modern Economic Thought	**5**	**3**	**3**	**25**	**75**	**100**
		P23ECDE3	Rural Economics	**5**	**3**	**3**	**25**	**75**	**100**
I	**EC-II**	P23ECDE4	**Economics of Infrastructure**	**5**	**3**	**3**	**25**	**75**	**100**
		P23ECDE5	Regional Economics	**5**	**3**	**3**	**25**	**75**	**100**
		P23ECDE6	Welfare Economics	**5**	**3**	**3**	**25**	**75**	**100**
II	SEC-I	P23EC1SE1	Managerial Skills	2	2	**3**	**25**	**75**	**100**
Total				**30**	**22**				**600**

SEMESTER–II

Part	CourseType	CourseCode	TitleoftheCourse	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	CC- IV	P23ECC204	Monetary Economics	**6**	**5**	**3**	**25**	**75**	**100**
I	CC- V	P23ECC205	Agricultural Economics	**6**	**5**	**3**	**25**	**75**	**100**
I	CC-VI	P23ECC206	Mathematical Economics	**6**	**4**	**3**	**25**	**75**	**100**
I	EC – III	P23ECDE7	**Behavioural Economics**	**5**	**3**	**3**	**25**	**75**	**100**
		P23ECDE8	Gender Economics	**5**	**3**	**3**	**25**	**75**	**100**
		P23ECDE9	Urban Economics	**5**	**3**	**3**	**25**	**75**	**100**
I	**EC-IV**	P23ECDE10	**Environmental Economics**	**5**	**3**	**3**	**25**	**75**	**100**
		P23ECDE11	Resource Economics	**5**	**3**	**3**	**25**	**75**	**100**
		P23ECDE12	Economics of Climate Change	**5**	**3**	**3**	**25**	**75**	**100**
II	SEC-II	P23EC2SE2	Social Ethics and Responsibilities	2	2	**3**	**25**	**75**	**100**
			Total	**30**	**22**				**600**
II	ECC-I		MOOCS/SWAYEM Course	**-**	**2/3**				

SEMESTER–III

Part	CourseType	CourseCode	TitleoftheCourse	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	CC- VII		Advanced Macro Economics	**6**	**5**	**3**	**25**	**75**	**100**
I	CC- VIII		Public Economics	**6**	**5**	**3**	**25**	**75**	**100**
I	CC-IX		Core Industry Module	**6**	**4**	**3**	**25**	**75**	**100**
I	CC-X		Research Methodology						
I	EC-V		**Economics in Everyday Life**	**5**	**3**	**3**	**25**	**75**	**100**
			Entrepreneurial Development	**5**	**3**	**3**	**25**	**75**	**100**
			Industrial Economics	**5**	**3**	**3**	**25**	**75**	**100**
II	SEC-III		Personality Development	2	2	**3**	**25**	**75**	**100**
II	ECC-II		Moocs/Swayam Course						
II	AEC		Internship/Industrial training		2				
Total				**30**	**26**				**600**

SEMESTER–IV

Part	CourseType	CourseCode	TitleoftheCourse	Hrs/ Week	Credits	Exam Hrs	Marks		
							CIA	ESE	Total
I	CC- XI		International Economics	**6**	**5**	**3**	**25**	**75**	**100**
I	CC- XII		Development Economics	**6**	**5**	**3**	**25**	**75**	**100**
I	CC-XIII		Project with Viva-voce	8	5	**3**	**25**	**75**	**100**
I	EC – VI		**Health Economics**	**5**	**3**	**3**	**25**	**75**	**100**
			Maritime Economics	**5**	**3**	**3**	**25**	**75**	**100**
			Economics of Social Issues	**5**	**3**	**3**	**25**	**75**	**100**
II	SEC-IV		Role of MSMEs	2	2	**3**	**25**	**75**	**100**
II	EA		Extension Activity	-	1				
			Total	**30**	**21**				**600**

Semester	-	I	Hours - 6
Core course Code	-	P23ECC101	Credit - 5

ADVANCED MICRO ECONOMICS

Course Objectives:

1. To make the students to understand consumer behavior with the theories of Demand and Production.
2. To elaborate various market structure and the theories of distribution.

Unit I: Consumer Choice

Cardinal and ordinal utility - Indifference curve approach – Slutsky's Decomposition of price effect into substitution effect and income effect – Consumer surplus - Marshall's and Hicksian measures – Compensatory Demand Curve- Revealed Preference Theorem- and derivation of Marginal Utility schedule for money income.

Unit II: Economics of Information

Informational asymmetry –- Choice under Uncertainty - N-M Index – Inter-temporal choice -Market for lemons- Adverse selection – Insurance market and adverse selection – Solution to principal agent problem

Unit III: Price and Output determination

Perfect competition and Imperfect Competition - Price and Output determination under perfect competition- Monopoly - Monopolistic competition - Oligopoly and Monopsony.

Unit -IV: Alternative Theories of Firm

Full Cost Pricing Rule- Limits pricing theory- Bains Theory- Sylos-Labini Model- Modigliani's Models- Input-output model -Linear programming applications in decision making- Peak Load Pricing – Administered Pricing- Purchasing Power Parity Price.

Unit -V: Distribution Theories

Neo-classical approach – Marginal productivity theory- Modern theory of distribution -Ricardian Theory – Theory of Wages –Subsistence theory of wages - Theories of profit - Dynamic Theory of Profit.

Text Books:

1. Jhingan M.L, (2004 Reprint)Advanced EconomicTheory(Vrindha Publications (P) Ltd., New Delhi.
2. Agarwal, H.S. Micro Economic Theory, (Ane's Books Pvt. Ltd.,) New Delhi.

References:

3. Hal R. Varian (2004), Intermediate Micro Economics (East-West Press: New Delhi).
4. Ruffin Roy. J (1992), Intermediate Micro Economics Harper & Collins Publishers.
5. Koutsyiannis A. (1978), Modern Micro Economics, (Macmillan- London).

Web Resources:

1. http://open.oregonstate.education/intermediatemicroeconomics/chapter/module-1
2. http://saylordotorg.github.io/text_introduction-to-economic analysis/s16-monopoly.html
3. http://saylordotorg.github.io/text_introduction-to-economic analysis/s17-games-and -strategic-behaviour.html

Course Outcomes (Cos):

Upon Completion of this course, the Students will be able

No.	Course Outcomes	K-Levels
CO1	To illustrate and analyse the theories of consumer behavior	K1, K2, K4
CO2	To illustrate and identify the choice under uncertainty.	K2, K3
CO3	To compare how price and output is determined in different market situations and evaluate the market structures	K2, K4, K5
CO4	To identify and examine the alternative theories of firms.	K3, K4
CO5	To define, explain, and compare the theory of distribution.	K1, K2, K4

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low, 2 – Medium, 3 – High, 0 – No Correlation

Semester	-	I	Hours - 6
Core course Code	-	P23ECC102	Credit - 5

INDIAN ECONOMIC DEVELOPMENT AND POLICY

Course Objectives:

1. To provide a macroeconomic understanding of the Indian Economy.
2. The students become aware of various challenges of the Indian Economy.

Unit 1: Introduction

Growth and Structural Change Indian economy at Independence- The policy framework: statist policy, transition to market-oriented policy, role of erstwhile Planning Commission and NITI Aayog- Two phases of growth (1950-1980 and 1980 onwards), factors underlying turnaround- Structural change in Indian economy.

Unit 2:Agricultural and Industrial Sector

Agricultural and Industrial Sectors - Agricultural Sector Performance of agricultural sector, factors determining agricultural growth - Factors underlying food inflation- Agricultural price policy and food security Industrial Growth - Industrial growth before and after reforms - Dualism in Indian manufacturing- Issues in performance of public sector enterprises and privatization.

Unit 3:Fiscal Developments

Fiscal Developments, Finance and External Sector Expenditure trends- GST: rationale and impact- Evolution of the financial sector in post-liberalization period- External sector performance: emergence of India as major exporter in services, performance of manufacturing sector.

Unit 4:Poverty and Inequality

Poverty and Inequality - Measuring poverty in India: Selection of poverty lines- Poverty in pre and post liberalization periods- Impact of growth on poverty- PDS vs cash transfers, feasibility of universal basic income in India - Inequality in India in pre and post liberalization periods.

Unit 5:Social Sector

Social Issues Gender gap in India and trends in female labour force participation rates, factors determining female labour force participation- Employment: changing nature of employment in India, "jobless growth"- Labour in informal sector- India's graphic transition.

Text Books :

1. Sundaram K P M.,(2002),Indian Economy , 42 revised edition., S.Chand Publications
2. Misra,S, &Puri, V.,(2020.), Indian Economy, Revised Edition., S.Chand Publications

Reference Books:

1. KaushikBasu (Ed.) (2012), Oxford Companion to Indian Economy, 3rd Edition, OUP, New Delhi.
2. Uma Kapila (Ed.) (2018), Indian Economy since Independence, Academic Foundation, New Delhi, 29th Edition.
3. AshimaGoyal (Ed.) The Oxford Handbook of the Indian Economy in the 21st Century: Understanding the Inherent Dynamism, Oxford University Press.

Web References:

1. https://www.adb.org/countries/india/economy
2. https://www.oecd.org/economy/india-economic-snapshot/
3. https://www.indiabudget.gov.in/economicsurvey/

Course Outcomes (Cos):

Upon Completion of this course, the Students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the Structural change in Indian economy	K_1, K_2, K_3, K_4
CO2	Assess the Performance of agricultural and Industrial sector	K_1, K_2, K_3, K_4
CO3	Ability to learn the trends in the economy	K_1, K_2, K_3, K_4, K
CO4	Understand the Impact of Poverty	K_1, K_2, K_3, K_4
CO5	Identify Social Issues like Unemployment, Gender disparities	K_1, K_2, K_3, K_4

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	2	3
CO5	3	3	3	2	3
Weightage	15	15	15	13	15
Weighted percentage of Course Contribution to Pos	3	3	3	3	2.6

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low, 2 – Medium, 3 – High, 0 – No Correlation

Semester	-	I	Hours - 6
Core course Code	-	P23ECC103	Credit - 4

STATISTICS FOR ECONOMISTS

Course Objective:

1. To provide a strong foundation in statistical concepts and develop skills in data handling and research.
2. The course facilitates in inferring the intensity of relationship between multiple variables and building appropriate statistical models. The models thus formulated can be tested for their significance and can be used for forecasting

Unit-I

Sampling–Random Sampling–Randomized Experiments–Data Collection- Primary and Secondary Data – Sampling Methods – Classification of Data –Graphic and Diagrammatic Representation

Unit-II

Descriptive Statistics – Centre of Distribution – Mean, Median and Mode –Use of Various Measures of Average – Spread of a Distribution –Range –Quartile Deviation– Mean Deviation – Standard Deviation

Unit-III

Relationship between variables–Correlation Techniques–Regression Analysis – Fitting Least Squares Lines – Standard Error of the Estimates –Index Numbers– Time Series Analysis

Unit-IV

The Significance of Mean and other statistics–Standard Error of Mean–Standard Error of Standard Deviation – The Distribution of 't' – Degrees of freedom–Level of Significance

Unit-V

Hypothesis Testing – Testing Procedures – Hypothesis Testing using confidence intervals – Using 't' Distribution – Prob. Value (Two – Sided) –SPSS: An Introduction.

Text Books

1. Gupta S.P., Statistical Methods, Sultan Chand and Sons, New Delhi, 2017.
2. Anderson, Sweeney and Williams, "Statistics for Business and Economics", Cengage, 2014.

References:

1. Aggarwal. Y.P (2002), "Statistics Methods – Concepts Application and Computation", Sterling Publishers Private Ltd., New Delhi.
2. Vittal P.R.,Mathematical Statistics, Margham Publications
3. Pillai R.S.N. and Bagavathi V (2010), Statistics, Sultan & amp; Chand Sons, NewDelhi.

Web Resources

1. https://www.statista.com.
2. https://techjury.net
3. https://dss.princeton.edu/online_help/analysis/interpreting_regression.htm

Course Outcomes:

Upon Completion of this course, the Students will be able to

No.	Course Outcomes	K-Levels
CO1	Summarize the basic concepts of Data Collection and Sampling methods.	K1 & K2
CO2	Know the various measuring methods of Central Tendencies	K2 & K3
CO3	Understand the importance of correlation and regression techniques	K4
CO4	To know the level of Significance	K5
CO5	Acquire knowledge about Testing of Hypothesis	K6

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	3	2	2
CO2	3	2	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	2	3	3	2	3
Weightage	14	13	15	13	14
Weighted percentage of Course Contribution to Pos	2.8	2.6	3	2.6	2.8

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low, 2 – Medium, 3 – High, 0 – No Correlation

Semester	-	I	Hours - 5
Elective Course Code	-	P23ECDE1	Credit - 3

FINANCIAL ECONOMICS

Course Objectives:

1. To enhance the knowledge and skills of the students in different functional areas of economy with special reference to financial market and to work effectively in economic & financial sector institutions.
2. To enable students apply various theories in Financial Markets.

Unit I: Introduction to Financial Markets

Capital Markets - Consumption and Investments with and without Capital Markets - Market Places and Transaction Costs and the Breakdown of Separation - Fisher Separation Theorem - The Agency Problem - Maximization of Shareholder's Wealth.

Unit II: Theory of Uncertainty

Axioms of Choice Under Uncertainty - Utility Functions - Expected Utility Theorem - Certainty Equivalence - Measures of Risk-Absolute and Relative Risk Aversions - Stochastic Dominance-First Order, Second Order and Third Order - Measures of Investment Risk-Variance of Return - Semi-Variance of Return - Shortfall Probabilities.

Unit III: Portfolio Theory

Measuring Portfolio Return and Risks - Effect of Diversification, Minimum Variance Portfolio - Perfectly Correlated Assets - Minimum Variance Opportunity Set - Optimal Portfolio Choice - Mean variance Frontier of Risky and Risk-Free Asset - Portfolio Weights.

Unit IV: Index Models

Models of Asset Returns - Multi Index Models - Single Index Model - Systematic and Specific Risk - Equilibrium Models-Capital Asset Pricing Model - Capital Market Line - Security Market Line - Estimation of Beta - Arbitrage Pricing Theory.

Unit V: Fixed Income Securities

Bond Prices - Spot Prices - Discount Factors and Arbitrage - Forward Rates and Yield-To-Maturity - PriceSensitivity -Hedging.

Text Books:

1. Copeland, T. E. and J. F. Weston(1992), Financial Theory and Corporate Policy, Addison Wesley.
2. Brealey, R. and Myers S (1997), Principles of Corporate Finance, fifth edition, New York, McGraw Hill.

References

1. Roy E.Baiky: The Economics of Financial Markets, Cambridge University Press.

2. JaksaCvitanie and Zapatiro Fernando: Introduction to the Economics and Mathematics of Financial Markets, MIT Press.
3. Chris Jones (2008),Financial Economics, the Taylor & Francis Group.

Web Resources:

1. https://www.worldscientific.com/worldscinet/afe
2. https://libraries.etsu.edu/research/guides/economicsandfinance/oerhttps:/ /www.hrexaminer.com
3. https://www.teacheron.com/online-financial_economics-tutors

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the outline of Financial Economics and basic concepts therein.	K1, K2
CO2	Know the Theory of Uncertainty.	K2, K4, K5
CO3	Analyze the trends in Portfolio Management.	K1, K3, K4
CO4	Identify the various Index Models.	K2, K4
CO5	Gain insight on Securities Market.	K3, K2,K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	3	3	2	3	3
CO2	3	3	3	2	3	3
CO3	3	3	3	2	3	3
CO4	3	3	2	3	3	3
CO5	3	3	2	3	2	3
Weightage	15	15	13	12	14	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	2.6	2.4	2.8	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

Semester	**-**	**I**	**Hours**	**- 5**
Elective Course Code	**-**	**P23ECDE2**	**Credit**	**- 3**

MODERN ECONOMIC THOUGHT

Course Objectives:

1. To trace the ideas of Modern Economists
2. To understand the contribution of the Economists.

Unit I: Classical Economic Thought

Economic ideas of Irving Fisher –The Quantity theory of Money- Theory of Interest. Joseph Alois Schumpeter - Method of Study –Deductive Method –Inductive Method-Theory of Economic Development- Role of Entrepreneur – Innovation-Business Cycles – Capitalism and Socialism . J.K. Galbraith – The objective of Economic Progress- Concept of Countervailing Power.

Unit II: Neo Classical Economic Thought

RagnarNurske – Foreign Resources – Capital Formation –Disguised Unemployment ,Mrs- Joan Robinson –Imperfect Competition – F.Y .Edgeworth –Mathematical Economic Analysis –Three Dimensional Utility

Unit III: Keynesian Economic Thought

Lord Lionel Robbins – Definition of Economics-Causes of Depression -Milton Friedman – Quantity Theory of Money –Permanent Income Hypothesis ,Friedman and Savage Hypothesis , Paul A.Samuelson –Impact of Keynesian Economics –Revealed Preference Theory –Business Cycles –Social Welfare Function-Samuelson's Utility Possibility Approach

Unit IV: Post Keynesian Economic Thoughts

Ideas of Modern Indian Economists-R.K.Mukerjee- Institutional theory of Economics-Regional Economics - Ecological Theory of Population -Planning in India, J.K.Mehta – Static and Dynamic Economics -Economics of Welfare -Economics of Growth and Development-Economics of Fast

Unit V:Indian Economists

C.N.Vakil -Planning- Wage -Goods Model-Role of Technological Progress-Poverty - Deficit Financing and Public Expenditure, V.K.R.V.Rao -Economic Activities -Institutional Development-Deficit Financing-Fiscal Policy-Human Factor in Economic Growth-Amartya Kumar Sen – Poverty and Famine ,Poverty and Inequality-Concept of Capability-Entitlement -Choice of Techniques.

Text Books:

1. Dr.U.C.Kulshrestha (1994) ,History of Economic Thought ,Lakshmi NarainAgarwal
2. Dr.S.Sankaran (2006) ,A History of Economic Thought ,Margham Publications

Reference Books:

1. Eric Roll (1956) A History of Economic Thought,PrenticeHall,Inc,U.S.A,
2. Dr.PankajSrivastava (2018) Economic Thinkers , DND Publications ,Jaipur
3. M.L.Jhingan,M.Girija and L.Sasikala (2011),History of Economic Thought, Vrindha Publications

Web Resources:

1. https://ebrary.net/112930/history/a brief history of economic thought
2. https://www.exploring-economics.org
3. https://www.econlib.org

Course Outcomes (COs):

Upon completion of this Course, the students will be able to

S.No	Course Outcomes	K-Levels
CO1	Understand modern economic concept of role of Entrepreneur Innovation, BusinessCycles and Capitalism and Socialism.	K_1, K_2, K_4
CO2	Ability to understand about Capital Formation, Disguised UnemploymentImperfect Competition and Mathematical Economic Analysis	K_1,K_2, K_3,K_4
CO3	Understand the ideas ofPermanent Income Hypothesis, Revealed Preference Theory, Social Welfare Function and Samuelson's Utility Possibility Approach	K_1,K_2, K_4
CO4	Gain knowledge about the ideas of Modern Indian Economists-Regional Economics, Ecological Theory of Population - Economics of Growth and Development-Economics of Fast	K_1, K_2, K_4
CO5	Understand economic ideas like role of Technological Progress-Poverty - Deficit Financing and Public Expenditure, Human Factor in Economic Growth and Inequality and Concept of Capability	K_1,K_2,K_3,K_4

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3	3	3	3	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low, 2 – Medium, 3 – High, 0 – No Correlation

Semester	-	I	Hours - 5
Elective Course Code	-	P23ECDE3	Credit - 3

RURAL ECONOMICS

Course Objectives:

1. To understand rural economicdevelopment in India
2. To know about the Rural Empowerment Programs initiated by Government of India

Unit I: Introduction to Rural Economics

Nature and Scope of Rural Economics - Inter-disciplinary approach of Rural Economics –Components - Structure and Characteristics -Pre and Post-independence - Rural Development: Meaning, Nature and Scope - Factors Affecting Rural Growth

Unit II: Rural Resources and Rural development theories

Rural Resources: Nature, Types and Magnitude - Rural Resources Management and Development - Application of Technology in Rural Development – Problems and prospects -W.W. Rostow's - Lewis-Fei-Ranis and Gandhian Approach to Rural Development.

Unit III: Rural Demography and Occupational Structure

Demography: Population Size, Sex and Age Composition - Density of Population- Population Problems and Challenges – Family Welfare Measures in Rural India - Occupational Structure: Nature of Rural Occupations - Occupational Distribution in Rural India – The Concept of Work Participation Rates.

Unit IV: Rural Poverty and Unemployment

Rural Poverty: Meaning, Estimates, Causes and Consequences – Unemployment: Meaning, Types and Magnitude of Rural Unemployment - Causes and Consequences - National Programmes for Rural Development - Community Development Programmes and Employment Guarantee Schemes.

Unit V: Rural Empowerment Programmes

Bharat Nirman, Provisions of Urban Amenities in Rural Area (PU RA), Mahatma Gandhi National Rural Employment Guarantee Act - Agencies for Rural Development: Government, Semi-Government Organisations, Co-Operative Institutions, Non-Government Organisations and Voluntary Agencies for Rural Development.

Text Books:

1. Vasant Desai: Rural Development in India, Himalaya Publishing House, Mumbai, 2012.
2. Dutt and Sundaram- Indian Economy, S.Chand Publications, New Delhi, 2013-07-02.

References Books:

1. Singh, K., &Shishodia, A. (2016). Rural development: Principles, policies, and management. SAGE Publishing India.

2. Hoff, K., Braverman, A., &Stiglitz, J. E. (1993). The economics of rural organization. Oxford: Oxford University Press.
3. Hill, B., & Ray, D. (1987). Economics for agriculture: food, farming and the rural economy. Basingstoke, UK: Macmillan Education.

Web Resources:

1. https://www.kobo.com/us/en/ebooks/public-finance
2. https://www.amazon.in/PUBLIC-FINANCE-AMBAR-GHOSH-ebook/dp/B07W5F2P1Q
3. https://www.niti.gov.in/sites/default/files/2021-08/11_Rural_Economy_Discussion_Paper_0.pdf

Course Outcomes (Cos):

Upon Completion of this course, the Students will be able

No.	Course Outcomes	K-Levels
CO1	To label and interpret the nature and scope of rural economics.	K1,K2,
CO2	To define and demonstrate the theories of rural development and rural resources.	K1,K2,
CO3	To recall, outline and determine rural demography and occupation structure.	K1,K2,K5,
CO4	To organize, examine and evaluate rural poverty and unemployment.	K3,K4,
CO5	To summarize, develop and explain the rural empowerment programs.	K2,K3,K5,

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5					
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low, 2 – Medium, 3 – High, 0 – No Correlation

Semester - I Hours - 5

Elective Course Code- P23ECDE4 Credit - 3

ECONOMICS OF INFRASTRUCTURE

Objective:

1. The main objective of this course is to familiarize the students with role of infrastructure in economic development and growth and key issues in financing, governance and inter-regional disparities.
2. This paper also aims to exposit main categories of infrastructure, including physical and social with special reference to the Indian situation.

Unit I: Introduction

Introduction - Infrastructure and economic development — Infrastructure as a public good; Social and physical infrastructure; Special characteristics of public utilities. The peak-load – Off-Load Problem – Dual Principle Controversy; Economies of scale of Joint supply ; Marginal Cost Pricing vs. other methods of pricing in public utilities.

Unit II: Transport Economics

Transport Economics – The structure of Transport Costs and Location of Economic Activities. Demand for Transport – Models of Freight and Passenger Demand – Model Choice; Cost Functions in the Transport Sector – Principle of Pricing – Special Problems of Individual Modes of Transport; Inter-modal condition in the Indian Situation.

Unit III: Energy Economics - I

Energy Economics – Primacy of Energy in the Process of Economic Development – Factors Determining Demand for Energy; Effects of Energy Shortages – Energy Conservation – Renewable and Nonconventional Sources of Energy – Energy Modelling– The Search for an Optimal Energy Policy in the Indian Context.

Unit IV: Energy Economics - II

Electricity, Gas and Water Supply- Bulk Supply and Pricing of Electricity – The Relative Economics of Thermal, Hydel and Nuclear Power Plants – The Case for a National Power Grid – Financing Water Utilities – Urban and Rural Water Supply – The Exploitation of Natural Gas – Pricing Problem.

Unit V: Social Infrastructure

Social Infrastructure – Education and Economic Growth – The Case for Universal, Free, Primary Education; Structure of higher education and problems of its financing in India – Human Resources and Human Capital Development - Health dimensions of development; Determinants of Health - poverty, malnutrition, illiteracy and lack of information; Demand and supply of health care; Financing of health care; Inequalities in health - class and gender perspectives; Institutional issues in health care delivery.

Text Books:

1. Becker, G.S. (1974), Human Capital (2nd Edition), National Bureau of Economic Research, New York.
2. Crew, M.A. and P.R. Kleindorfer (1979), Public Utility Economics, Macmillan, London.

References:

1. India Infrastructure Report, Urban Infrastructure, 3i Network, 2006
2. Jha, R., Chandiramani, J., Perspectives in Urban Development: Issues in Infrastructure, Planning and Governance, Capital Publishing Company, New Delhi, 2012.
3. McKinsey Global Institute. Urban World: **Mapping the economic power of cities**. McKinsey & Company. 2011.

Web Reference:

1. www.niua.org
2. https://censusindia.gov.in/
3. https://onlinecourses.nptel.ac.in/noc22_hs64/preview

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	To define and explain the consequences of growth on the demand for infrastructure and dual principal controversies	K1, K2
CO2	To demonstrate and identify the importance of the cost and mode of transportation	K2, K3, K5
CO3	Illustrate, explain and examine the role of energy and its infrastructure in economic development	K2, K4, K5
CO4	Examine how the power supply and explain and dissect its pricing problems	K1, K2, K4. K5
CO5	Explain, discuss and analyse the social Infrastructure and its relevance in the economy	K2, K4, K5, K6

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create. **CO-PO Mapping (Course Articulation Matrix)**

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	3	3	3
CO2	3	2	2	3	3
CO3	2	3	2	3	2
CO4	3	3	2	3	3
CO5	3	3	3	3	3
Weightage	14	13	12	15	14
Weighted percentage of Course Contribution to Pos	2.8	2.6	2.4	3	2.8

Level of Correlation between PO's and PSO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low, 2 – Medium, 3 – High, 0 – No Correlation

Semester -	I	Hours - 5
Elective Course Code-	P23ECDE5	Credit - 3

REGIONAL ECONOMICS

Course Objectives

1. To equip the analytical skills required to analyse the regional economic issues
2. To understand Regional economic growth in India

Unit I: Introduction to Regional Economics

Nature and scope of regional economics – Regional economics and regional science – Regional and Urban Economics: Need for a separate study of regional economics – Concept and types of regions: Administrative, Planning, Agro-climatic, Economic and Functional regions.

Unit II: Approaches to regional growth

Approaches to regional growth: Models of regional, inter-regional and multi-regional models; Export base models – Location Theory - Gravity models – Shift-share analysis

Unit III: Theories of regional economic growth

Neoclassical models – Dualistic models: Social dualism – Labour surplus model of Arthur Lewis- Migration and development: Harris-Todaro – Core-Periphery models: Myrdal's Cumulative Casuation Hypothesis – Regional Input-output models - New Economic Geography models: Paul Krugman's model of industrial location and development

Unit IV: Regional economic growth in India

Administrative regions in India: State, District, Taluk and Village; Urban and Rural regions - Concept, definition and measure of State Income (GSDP) – Rural and urban GDP – Differences in estimation of national income (GDP) and State Income (GSDP) - Measurement of interregional economic growth at State level

Unit V: Regional Aspects of Stabilization and Growth Policy

Post-war Regional Cyclical Behaviour and Policy Measures for Stabilization, Theories to Explain Regional Differences in Growth, Fiscal Programmes, Tax and Transfer Programmes, Fiscal Responses of Power Level Governments, Regional Orientation to Policy Programmes and Central Responsibility.

Text books

1. Capello Roberta. (2016). Regional Economics. Routledge (New York).
2. Temple, M. (1994). *Regional economics*. St. Martin's Press.

References

1. Harry W Richardson (1973): Regional Growth Theory, Macmillan.
2. Harry W. Richardson. (1970). Elements of Regional Economics. Penguin Books (New York).
3. Harry W Richardson (1969): Regional Economics: Location theory, Urban structure and regional change, Weidenfeld & Nicolson (London)

Web resources

1. http://www.rri.wvu.edu/WebBook/Giarratani/contents.htm
2.https://researchrepository.wvu.edu › cgi › viewcontent
3. https://ddceutkal.ac.in › Syllabus › MA_Economics

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	understand the Nature and scope of regional economics and its need	K1, K3, k4
CO2	Discuss the Models of regional, inter-regional and multi-regional models	K4,K5
CO3	Evaluate the various theories of regional economic growth	K2, K3,K4
CO4	Describes the Measurement of interregional economic growth at State level	K4,K4
CO5	apply Regional Aspects of Stabilization and Growth Policy	K1,K4,K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	3	3	3	2	3
CO2	3	2	2	3	2	3
CO3	3	2	3	2	2	2
CO4	3	3	3	2	3	3
CO5	3	2	2	2	3	2
Weightage	14	12	14	14	12	13
Weighted percentage of Course Contribution to Pos	2.8	2.4	2.8	2.8	2.4	2.6

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

Semester	-	I	Hours - 5
Elective Course Code	-	P23ECDE6	Credit - 3

WELFARE ECONOMICS

Course Objective:

1. To enable students to understand the fundamentals as well as development in the field of Welfare Economics.
2. To show the importance of welfare Economics compared to that of wealth Economics

Unit 1:Introduction to Welfare Economics

Welfare Economics :Meaning- Concepts: Individual and Social Welfare- Value Judgments- Preferences and Utility - Utility function: Properties - Interpersonal comparisons of utility: degrees of interpersonal comparability. –Social Welfare Function: – Bentham's Utilitarianism- Pigouvian Welfare Economics.

Unit II: Approaches to Welfare

Cardinal and Ordinal Approaches- Hicks's Four Measures of Consumers' Surplus- Partial and General Equilibrium- Edgeworth Box Diagram- General Equilibrium of Production and Exchange.

Unit III: Pareto Optimality Conditions

Pareto-Optimality Criterion -Definition-Marginal Conditions of Pareto Optimum – Perfect Competition and Pareto Optimality- Exceptions –Externalities – Public Goods and Market Failure – Theory of Second Best.

Unit IV: New Welfare Economics

New Welfare Economics – Kaldor- Hicks Compensation Criterion – Utility Possibility Curve -Shortcomings – Scitovsky Paradox – Scitovsky's Double Criterion of Welfare– Little's Criterion.

Unit V: Theories of Social Choice

Utility Possibility Curve and Frontier Grand Utility Possibility Curve- Iso Welfare Curves- Arrow's Impossibility Theorem –Amartya Sen and Capability Theorem – Rawls Theory of Social Justice

Text Books

1. Verma K.N (2012) Microeconomic Theory ,Vishal Publishing House
2. Per –Olov Johannson(2009) An introduction to Modern Welfare Economics, Cambride University Press

References

1. Arrow, Kenneth J (1963) Social Choice and Individual Values, Cowles Foundation Monograph 12, 2nd ed. Yale University

2. Bossert, Walter and Kotaro Suzumura (2010) Consistency, Choice and Rationality, Harvard University Press: Cambridge MA
3. Broadway, R.W. and N. Bruce (1984), Welfare Economics, Basil Blackwell, Oxford.

Web Resources

1. https://conceptually.org/concepts/pareto-principle
2. https://web.stanford.edu/~jdlevin/Econ 202/General Equilibrium.pdf
3. https://policonomics.com/lp-welfare-economics1-general-equilib…

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Summarize the Contribution to Welfare Economics	K1,K2
CO2	Analyse the different approaches to Welfare Economics	K3,K4,
CO3	**Interpret** the development of Pareto Optimality Conditions	K1,K2,K3
CO4	Explain the compensation Criteria of Economics	K2,K5
CO5	Evaluate theories of Social Choice.	K2,K4,K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	3	3
CO2	2	3	2	3	2
CO3	3	3	2	3	2
CO4	2	3	2	3	2
CO5	2	3	2	3	3
Weightage	12	15			
Weighted percentage of Course Contribution to Pos	2.4	3	2	3	2.4

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low
2 – Medium
3 – High
0 – No Correlation

Semester	-	I	Hours - 2
SEC Code	-	P23EC1SE1	Credit - 2

MANAGERIAL SKILLS

(Learning of Managerial Skill and Office Assistance – Clerical Job**)**

Course Objectives:

1. To develop administrative skills
2. To acquire modern management techniques

Unit I: Communication

Definition - characteristics of communication - purpose of communication - importance-Process of communication - Barriers to communication - Principles of effective communication-Benefits of effective communication-Formal Business report-Business letter format

Unit II: Role of Manager in organization

Interpersonal roles-informal role-Decision Making roles, Levels of Management-Top Management- Upper Middle Management - Middle Management- Operating Management.

Unit III: **Types of Managerial Skills**

Technical skill, Human or Psychological Skill, Conceptual Skill, Diagnostic Skill, Design Skill, Analytical Skill, Decision making skill-Digital Skill, Interpersonal Skill, Planning and Administration Skill ,Teamwork Skill, Strategic Action skills, Global Awareness Skill, Self-management skill. Personal skills – Dedication, Persistence, Assertiveness.

Unit IV: Emotional Intelligence

Meaning, Personal Competencies, Self-Awareness, Self-regulation, Self-Motivation, Social Competencies, Empathy, Social Interpersonal Skills. Attitude –Meaning, Features of Attitude, sources of Attitude-Formation of attitudes-Values-Characteristics –types of Values

Unit V: Problem solving:

Steps in Analytical problem solving –attributes of good problem solving –Generating Alternatives –Evaluation and selection of an alternative. Team building-Developing Team and Team work-advantages

Text Books:

1. Dr.K.Alex (2015) Managerial Skills S,Chand New Delhi
2. S.A Rahmath Ameena Begum, Managerial Skill Development , Charulatha Publications, India

Reference:

1. E.H.McGrath ,S.J (2011) Basic Managerial Skills for All ,Prentice Hall India Learning PvtLtd,India

2. Cynthia MenezesPrabhu (2022) Managerial skills 2, Pen to print Publishing, India
3. Meir Liraz, How to Improve Your Leadership and Management Skills - Effective Strategies for Business Managers, Liraz Publishing

Web References:

1. https://elearningindustry.com/tips-improving-management-skills-in-online-training
2. https://corporatefinanceinstitute.com/resources/careers/soft-skills/management-skills/
3. https://www.itm.edu/blog/pgdm-what-makes-pgdm-in-operations-and-supply-chain-a-good-option-for-candidates-with-good-managerial-skills

Course Outcomes (COs):

Upon Completion of this course, the Students will be able

S.No	Course Outcomes	K-Levels
CO1	Understand the importance of communication	K_1, K_2, K_3 K_4
CO2	Learn about the pattern of Management	K_1,K_2, K_3,K_4
CO3	Types of Managerial skills and Personal skills	K_1,K_2, K_3 K_4
CO4	PracticeEmotional Intelligence and Values	K_1, K_2, K_3K_4
CO5	Adopt Problem solving methods	K_1,K_2,K_3,K_4

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3	3	3	3	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

Semester - II Hours - 6
Core Course Code -P23ECC204 Credit - 5

MONETARY ECONOMICS

Course Objectives:

1. The course is devoted to the main issues in modern monetary economics.
2. The factors behind money demand and supply are studied through the set of comprehensive monetary models.

Unit I: Classical Theories of Money

Demand for Money Quantity theories of money – Fisher and Cambridge- Keynesian monetary theory- James Tobin's portfolio analysis of money demand- Don Patinkin`s Integration– Real Balance Effect- Milton Friedman's reformulated quantity theory.

Unit II: Supply of Money

Supply of Money Types and determinants of money supply – money multiplier- Theories of interest rate – classical – Keynes – Hicks – Hansen.

Unit III: Money and Capital Market

Money and Capital Market Significance and functions of Money market and capital market- Role of financial intermediaries – Effects of financial intermediation- Non-banking financial institutions – Gurley and Shaw theory.

Unit IV: Banking and its functions

Banking Functions of Commercial banks - Credit creation – process and limitations Role of Commercial banks after nationalization – after reforms- Role of RBI – Regulation of money supply and credit- Narasimham Committee Reports– 1991 and 1998- RaguramRajan Committee Report -2007.

Unit V: Monetary Policies

Monetary Policy Objectives and Instruments of Monetary policy– Limitations of monetary policy- Monetarism and Keynesianism – Comparison - Supply side policies.

Text Books:

1. Bain, Keith and Howells, Peter: Monetary Economics: Policy and its theoretical Basis, Palgrave Macmillian, 2nd Edition, 2009
2. Mishkin .S. Frederic-The Economics of Money ,Banking and Financial Markets, Pearson Publication, 11th Edition, 2015

References:

1. Jhingan, M.L. (2005), Monetary Economics[Konark Publication, New Delhi].
2. Sundaram, K.P.M. (2003), Money, Banking and International Trade [Vikas, New Delhi].
3. Vaish, M.C. (2004), Money, Banking and International Trade [New Age International, New Delhi].

Web Resources:

1. https://www.amazon.in/Handbook-Monetary-Economics-Benjamin-Friedman-ebook/dp/B00EXOTZ96
2. https://link.springer.com/book/10.1057/9780230280854
3. https://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	To list out and outline the theories of money.	K1,K2,
CO2	To explain construct and distinguish various determinate of money supply and multiplier.	K2,K3,K4,
CO3	To label, explain and evaluate the capital market.	K1,K2,K5
CO4	To define, illustrate and importance of banking sector.	K1,K2,K5,
CO5	To interpret and make use of monetary policy.	K2,K3,

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

Semester	-	II	Hours - 6
Core Course Code	-	P23ECC205	Credit - 5

AGRICULTURAL ECONOMICS

Course Objectives

1. To provide knowledge base on the features and issues of Agriculture.
2. The course enables the students to understand and evaluate the cropping pattern in an Economy

Unit I: Agricultural Economics

Introduction, Scope and Significance of Agricultural Economics- Inter-Sectoral Linkages – Production Function Analysis - Relevance to Farm Production Economics- Productivity Trends; Low production and Productivity: Causes, Consequences and Measures- Farm size, productivity and efficiency in Indian Agriculture-A.K. Sen's Hypothesis- Role of Technology in Agriculture - Structural Changes in Agriculture.

Unit II: Agricultural Labour

Agricultural Labour: Definition and Characteristics – Rural Labour Market- Rural Unemployment: Types, Consequences and Remedial Measures- Agricultural Wages in India – Male -Female Wage Differentials.

UNIT III: Agricultural Prices and Finance

Agricultural Prices-Reasons for Fluctuations in Prices-Procurement /Support Prices-Minimum Support Price - Buffer Stocks- Commission for Agriculture Cost and Prices: objectives, functions and role in stabilization of Agriculture Prices- Commodity Markets- Agricultural Finance: Meaning, Types, Sources- and Commercial Banks and NABARD- Farm Capital - Meaning, Types, and Marginal Efficiency of Farm Capital and Capital formation in Agriculture

Unit IV Information Technology and Agriculture

Role of Information Technology and telecommunication in marketing of agricultural commodities – Weather Forecasting- electronic auctions**-** Digital Mandi -Kisan Call Centres -e- Choupal- Use of Geographic Information System and Global Positioning System- Remote Sensing and Drones

Unit V:Globalisation and impact on Agriculture

Role of MNCs- Globalisation of Indian Economy: Problems and Prospects of Indian Agriculture- Impact of WTO on Indian Agriculture- Agreement on Agriculture (AoA) -WTO Agriculture Subsidies Boxes and Criticisms.

Learning Resources

Textbooks

1. Subba Reddy S ,Raghu Ram P ,T.V NeelakantaSastry and I.Bhavani Devi(2019) Agricultural Economics , Second Edition ,Oxford & IBH Publishing Co Pvt.Ltd
2. Dantwala M.L (ed) (1991), Indian Agricultural Development since Independence(Oxford and IBH Publishing company private limited, New Delhi).

References:

1. Barkley, A., & Barkley, P. W. (2016). Principles of agricultural economics. Routledge.
2. Sloman, J., Norris, K., & Garrett, D. (2013). Principles of economics. Pearson Higher Education AU.
3. Colman, D., & Young, T. (1989). Principles of agricultural economics: markets and prices in less developed countries. Cambridge University Press.

Web resources:

1. http://www.rvskvv.net › images › Principles-of-Agri...
2. https://zalamsyah.files.wordpress.com › 2018/02 › 2...
3. http://archive.mu.ac.in › myweb_test › M.A. PAR...

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the Relevance of Agricultural Economics	K1, K2, K4
CO2	Review the role of Agricultural Labour	K4, K5
CO3	Analyze the trends in Agricultural Prices and the importance of Finance in the Agricultural Sector	K1, K3, K4
CO4	Evaluate the importance of Marketing in Agriculture	K1, K3
CO5	Identify the impact of Globalisation and WTO on Indian Agriculture	K5, K4

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	3	3	3	2	3
CO2	3	3	2	2	3	2
CO3	3	3	2	2	3	3
CO4	3	3	2	2	3	2
CO5	3	2	2	2	3	2
Weightage	14	14	12	13	14	12
Weighted percentage of Course Contribution to Pos	2.8	2.8	2.4	2.6	2.8	2.4

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low, 2 – Medium, 3 – High, 0 – No Correlation

Semester	-	II	Hours - 6
Core Course Code	-	P23ECC206	Credit - 4

MATHEMATICAL ECONOMICS

Course Objectives:

1. The paper aims to introduce students to the basic building blocks of mathematical analysis used in modern economic theory.
2. To equip the students with mathematical tools and to optimize both static and dynamic economic environment.

Unit I: Introduction to Linear Algebra

Sets-Basic concepts-Ordered sets-Relations-Order relations-Metric Spaces-open and closed sets– Convergence - Linear Algebra , Vectors, matrices, inverse, simultaneous linear equations, Cramer's rule for solving system of linear equations, input-output model, - open and closed models , quadratic equation, characteristic (eigen) roots and vectors

Unit II: Differential Calculus

Introduction to Functions, Limits and Continuity, Derivatives –Concept of maxima & minima, elasticity and point of inflection. Profit & revenue maximization under perfect competition, under monopoly.

Unit III: Optimization Techniques with Constraints

Functions of several variables, Partial and total, economic applications, implicit function theorem, higher order derivatives and Young's theorem, properties of linear homogenous functions, Euler's theorem, Cobb – Douglas Production Function - Vector and Matrix Differentiation - Applications-Utility maximization, Profit maximization and Cost minimization.

Unit IV: Linear and Non-Linear Programming

Optimization with Inequality Constraints- Linear Programming–Formulation-Primal and Dual- Graphical and Simplex method-Duality Theorem-Non-Linear Programming-Kuhn-Tucker Conditions- Economic Applications.

Unit V: Economic Dynamics

Differential Equations-Basic Ideas-Types-Solution of Differential Equations (Homogenous and Exact)-Linear Differential Equations with Constant Coefficients (First and Second Order)- Applications- Solow's Model- Applications to Market models-Difference Equations - Types-Linear Difference Equations with Constant Coefficients (First and Second order) and solutions – Applications- Samuelson's Accelerator-Multiplier model.

Textbooks:

1. Geoff Renshaw,(2016)Maths for Economics, 4E Oxford University Press.
2. Mabbet A J(1986) Workout Mathematics for Economists, Macmillan Master Series, 4th Edition London.

References:

1. Carter, M. (2001). Foundations of Mathematical Economics, MIT Press.
2. Chiang, A. C. and Wainwright, K. (2005). Fundamental Methods of Mathematical Economics, McGraw-Hill Education.
3. Dowling E. T., Mathematics for economists, Schaum Series (latest edition).

Web Resources

1. https://www.udemy.com/course/mathematics-for-economists-functions-and-derivatives/
2. https://www.classcentral.com/course/swayam-mathematical-economics-14187
3. https://www.coursera.org/learn/introduction-to-calculus

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the mathematical structure of standard economic theoretical framework	K1, K2, K4
CO2	Equip students with mathematical tools to solve optimization problems appear in economic theory	K2, K4, K5
CO3	Equip students with tools to read the technical writing appear in standard economic journals	K1, K3, K4
CO4	analyse the dynamics of macroeconomic policies in an economy	K1, K2, K4
CO5	analyse mathematically the dynamics of the growth process in an economy	K3, K2,K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3	3	3	3	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low, 2 – Medium, 3 – High, 0 – No Correlation

Semester -	II	Hours - 5
Elective Course Code-	P23ECDE7	Credit - 3

BEHAVIOURAL ECONOMICS

UNIT I : Introduction

History and Evolution of Behavioural Economics - Neoclassical Concept and Criteria for Economic Rationality - Causes of irrationality – Herbert Simon -Bounded Rationality Methods used in Behavioural Economics

UNIT II : Heuristics & Biases

Advantages and Disadvantages of Heuristics - Availability Heuristic - Anchoring Heuristic - Representative Heuristic - Self Evaluation Biases and Projection Bias

UNIT III : Animal Spirits and its impact on Economic Decisions

Confidence – its feedback mechanism that amplifies disturbances - Fairness – Its influence in setting wages and prices - Corruption and Antisocial behaviour - Money Illusion – Improper interpretation of inflation and deflation

UNIT IV : Prospect Theory

Conventional approaches to modifying Expected Utility theory - Prospect theory and Endowment effect - Reference points and Loss Aversion - Shape of the utility function - Decision weighting

UNIT V : Mental Accounting

Nature and Components of mental accounting - Framing and Editing - Budgeting and Fungibility - Choice Bracketing and Dynamics

Textbooks

1. Phillip Corr and AnkePlagnolBehavioral Economics: The Basics 1st Edition, Kindle Edition, Routledge, 2018
2. Dan Ariely Predictably Irrational: The Hidden Forces That Shape Our Decisions, Harper Collins, 2009.
3. David CorrellBehavioral Economics: Psychology, Neuroscience, and The Human Side of Economics (Hot Science) Icon Books Ltd, 2021
4. SanjitDhami.,The Foundations of Behavioral Economic Analysis, Oxford University Press,2016
5. Brandon Lehr, “Behavioral Economics Evidence, Theory, and Welfare”, Talyor & Francis, 2021.

Reference Books

1. Nick Wilkinson and Matthias Klaes (2012) An Introduction to Behavioural Economics 2nd Edition, Palgrave Macmillan, London
2. David R. Just(2014) Introduction to Behavioural Economics, Wiley Publication, New Jersey
3. Colin F.Camerer, George Loewenstein and Matthew Rabin(2003) Advances in Behavioural
4. Frank Robert H (2015) Microeconomics and Behaviour, McGraw Hill Education, New York, 2015

5. Thaler, Richard H (2016) The Making of Behavioural Economics - Misbehaving, WW Norton & Co, Penguin, London

Web Resources

1. www.behavioraleconomics.com/BEGuide2017.pdf
   academic.oup.com/restud/pages/behavioral_economics
2. https://www.behavioraleconomics.com/
3. https://www.exploring-economics.org/en/orientation/behavioral-economics/
4. https://www.povertyactionlab.org/

Course Outcomes		**Programme Outcome**
CO	On completion of this course, students will	
1	Understand the flexibility and limitations of the economic approach to modelling behaviour and demonstrate knowledge of the evolution and methods used in behavioural economics	PO1,PO3
2	Identify ways in which individuals are systematically irrational	PO1,PO2
3	Know how to use existing behavioural models to understand new economic phenomena and analyse how deviations in rationality impact economic decisions.	PO2,PO3
4	Apply Prospect Theory to understand how people make decisions when presented with alternatives that involve risk, probability and uncertainty.	PO3,PO4,PO7
5	Understand and apply in policy the different aspects of the concept of mental accounting	PO3,PO7,PO8

Mapping with Programme Outcomes:

	PO 1	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**PO 6**	**PO 7**	**PO 8**
CO 1	2	3	3	3	3	3	3	3
CO 2	3	3	3	3	3	3	3	3
CO 3	3	3	2	2	3	3	3	3
CO 4	3	3	3	3	3	2	3	3
CO 5	3	3	3	3	3	3	3	3
Weightage	14	15	14	14	15	15	15	15
Weighted percentage of course contribution to POS	2.8	2.8	3.0	2.8	3.0	3.0	2.8	3.00

S-Strong-3 M-Medium-2 L-Low-1

Level of Correlation between PSO's and CO's

CO /PO	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**
CO1	3	3	3	2	2
CO2	3	3	3	2	2
CO3	3	3	3	2	2
CO4	3	3	3	3	3
CO5	3	3	2	3	3
Weightage	15	15	14	12	12
Weighted percentage of Course Contribution to PSOs	3	3	2.8	2.4	2.4

S-Strong-3 M-Medium-2 L-Low-1

Semester	-	II	Hours - 5
Elective Course Code	-	P23ECDE8	Credit - 3

GENDER ECONOMICS

Course Objectives:

1. To evaluate sources of socio-economic and demographic information for analyzing the impact of the gender factor on demographic processes and economic development
2. It enables to foresee the contributions of women as active economic agents and strategies to empower women and reduce gender inequalities.

Unit I: Introduction

Definition- Objectives of Gender Studies - Importance of gender Studies -Women and work: unpaid, underpaid and casual work - Women in primary, secondary and tertiary sectors - Classification of work in Indian census and NSSO – Main workers, marginal workers, non-workers - Invisibility of women's work, problems in measurement - Non-recognition of women's work in national income accounting

Unit II: Gender Inequality in Labor Market

Segmented Labor Market and Occupational Segregation - Gendered jobs and Social Inequality - Sex Segregation at Work Place - Globalisation and its impact on gender - Issues of wage discrimination and exploitation in unogranised sector - Women's participation in organised sector - Gender Discrimination - Gender issues at the work place

Unit II: Social Empowerment

Women in Higher Education - Gender issues in Health, Environment, Family welfare Measures - Indecent representation of Women in media - Women in Difficult circumstances; Constitutional.

Unit IV: Economic Empowerment

Introduction - organized sector, unorganized sector - Role of Women in Economic Development – Female Poverty and Poverty alleviation programmes - Status of Women farmers and land rights - Women Entrepreneurs - Impact of Globalization on working women - National Policy for the empowerment of women 2001.

Unit V: Social issues and Women in Indian Planning

Issues in the Unorganized sector of Employment - Women's work: Status and problems - problems of Dalit women - Invisibility of women in official data system - Absence of gender disaggregated data - Initiatives towards recognition of women as agents of development from sixth five year plan.

Text books

1. Eswaran, M. (2014). *Why gender matters in economics*. Princeton University Press.
2. Becchio, G. (2019). *A History of Feminist and Gender Economics*. Routledge.

References

1. Humphries, J. (1995). *Gender and economics*. Edward Elgar Publishing.
2. Dijkstra, G., &Plantenga, J. (2013). *Gender and economics: a European perspective*. Routledge.
3. Negra, D., & Tasker, Y. (2014). Introduction. Gender and recessionary culture. In *Gendering the Recession* (pp. 1-30). Duke University Press.

Web Resources

1. https://www.academia.edu › 9_Ch_1_Gender_Economi...
2. https://ftp.iza.org › .
3. https://www.oecd.org › derec › worldbankgroup

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the Gendered jobs and Social Inequality	K1, K3
CO2	describes the Issues of wage discrimination and exploitation in unogranised sector	K3,K4
CO3	Explain the Gender issues in Health, Environment, Family welfare Measures	K4,K5
CO4	Evaluate the Impact of Globalization on working women and National Policy for the empowerment of women 2001	K1, K3,K4
CO5	Assess the Initiatives towards recognition of women as agents of development from sixth five year plan.	K1,K4,K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	3	3	3	2	3
CO2	2	2	2	3	2	3
CO3	3	2	3	3	2	3
CO4	2	2	2	2	3	3
CO5	3	2	3	2	3	2
Weightage	12	11	14	15	12	14
Weighted percentage of Course Contribution to Pos						

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low, 2 – Medium, 3 – High, 0 – No Correlation

Semester	-	II	Hours - 5
Elective Course Code	-	P23ECDE9	Credit - 3

URBAN ECONOMICS

Course Objectives

1. To equip with theory and measurement of urban economic growth and development, spatial structure of cities and urbanization.
2. The course outlines the issues of urban poverty and its impact on urbanization.

Unit I: Introduction

Definition and Scope of Urban Economics - Sources of Urban Growth –International migration, Trends in growth of urban population in the world - Urban reclassification and physical expansion of urban boundaries –Urbanization and agglomeration economies – industrialization and services sector growth –Urbanization and urban economic growth – Urbanization and globalization.

Unit II: Economics of Urbanization

The Process of urbanization: Nature and dimensions, factors initiating and perpetuating urbanization process - Characteristics of an economy passing through different stages of urbanization - Classification of urban areas by demographic, geographical and economic criteria- Process of sub-urbanization

Unit III: Theories of Urban Growth and spatial structure

Christaller's Central Place Theory - The Human Ecological Approach to Urban Growth - Urban Size: Ratchet-Rank Size Rule - Migration and urban economic growth: Harris-Todaro Model – Concepts of City Structure - The Minimization of Costs of Friction Hypothesis -Location Equilibrium of an Urban Firm - The Concentric Zone Hypothesis - Urban Residential Land Use Models: Alonso, Muth, Siegel, Park Burgess.

Unit IV: Urbanization and Labour Market

Urbanisation and Labour Market - Pull and Push Factors for Urbanisation in India - High Wages and Improved Infrastructure - Employment Opportunities and Educational facilities - Growth of formal and Informal economic activities - Labour Force Participation and Distribution of Workers

Unit V: Urban Problems and Urban Planning

Over Population and congestion - Urban housing problem - Urban environment: Air, Water and Noise Pollution - Urban poverty and inequality - Urban Infrastructure: transport Water Supply, Sanitation and Solid waste management - Need for Urban Planning: Objectives and Techniques - Emerging Planning Process - Comprehensive Development Plan – Master Plan – Jawaharlal Nehru National Urban Renewal Mission - Smart Cities

Text books

1. Shukla, V. (1996) Urbanization and Economic Growth, Himalaya Publishers Pvt. Ltd (New Delhi).
2. Robert L Bish and Hugh O Nourse (1975), Urban Economics and Policy Analysis, McGraw Hill Kogakusha Ltd (Tokyo).

References

1. O' Sullivan (2012), Urban Economics, McGraw Hill Higher Education (Boston).
2. Edwin S. Mills. (1987). Handbook on Regional and Urban Economics, Volume 2: Urban Economics. North-Holland (Amsterdam).
3. Duranton, G., & Strange, W. C. (1986). *Handbook of regional and urban economics: applied urban economics* (Vol. 3). Elsevier.

Web resources

1. https://link.springer.com › bfm:978-1-349-15661-0 › 1.pdf
2. https://www.academia.edu › Urban_economics_Arthur_O..
3. https://www.ysk-books.com › show › book › regional-a..

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	understand scope of urban economics and urban economic growth	K1, K2, K3
CO2	Describe the process of urbanisation and classification or urban areas	K3, K5
CO3	Evaluate the various theories of urban growth and spatial structure	K2, K4
CO4	Explain the urban Labour Market, Labour Force Participation and Distribution of Workers	K1, K2
CO5	Familiarize the urban problems and planning process.	K1, K4, K5

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	3	3	3	2	3
CO2	3	3	3	3	2	3
CO3	3	2	3	2	2	3
CO4	3	2	2	2	3	3
CO5	3	2	2	2	3	3
Weightage	14	12	13	14	12	15
Weighted percentage of Course Contribution to Pos	2.8	2.4	2.6	2.8	2.4	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low, 2 – Medium, 3 – High, 0 – No Correlation

Semester	- II	Hours - 5
Elective Course Code	- P23ECDE10I	Credit -3

Environmental Economics

Course Objectives:

1. To make the students to understand consumer behavior with the theories of Demand and Production.
2. To elaborate various market structure and the theories of distribution.

Unit–I: Economy and the Environment

The interaction between the economic system and the environmental system –The Material Balance model- Effects of pollution: Local and global air pollution (acid rain, ozone depletion, global warming), water pollution, municipal solid waste.

Unit–II: Market and the Environment

Marketfailureandenvironmentaldamage–Environmentaldamageasanexternality–Environmentalgoodsaspublicgoods-PollutioncontrolPolicies–Command-and-controlpolicy .

Unit–III: Environmental Valuation

Cost-Benefit analysis- Methods of environmental valuation–Revealed preference methods: Hedonic pricing method, travel cost method: -Stated preference approach; Contingent Valuation Method.

Unit–IV: Natural Resource Economics

Types of natural resources, -Allocating non-renewable resources: The Hotelling Theorem –Renewable resources–Forests: Frontier model and immiserisation models of deforestation; Consequences of deforestation; Common Property Resources (CPRs) – Characteristics of CPRs –Dissipation of Hotelling rents ("tragedy of the commons") - Ostrom's "design principles" for sustainable local CPR governance.

Unit–V:EconomicGrowthandthe Environment

The environmental Kuznets curve- The "limits to growth" Club of Rome model.– Theories of sustainable development :weak sustainable development and strong sustainable development – sustainability rules:"green national accounts";genuine savings-Link between poverty and environmental degradation- Economics of Climate Change.

Textbooks

1. Karpagam. M, (2017), Environmental Economics–Third Edition, Sterling Publication Pvt. Ltd, Noida.
2. Nick Hanley, Jason Shogren and Ben White, (2013), Introduction to Environmental Economics, Second Edition, Oxford University Press, Oxford.
3. Eugine .T Environmental Economics, Oxford University Press, New Delhi. (2014),
4. Hanley N, Shogren JF, White B "Environmental Economics in Theory and Practice", 2nd Edition. Palgrave Macmillan, 2007
5. Kolstad, Charles D, (2000), Environmental Economics, New York: Oxford University Press,

Reference Books

1. Maureen L. Cropper and Wallace E. Oates, "Environmental Economics: A Survey", Journal of Economic Literature, Volume 30, 1992,
2. Barry C. Field, (1994)Environmental Economics: An Introduction, Singapore, McGraw-Hill,

3. Hussen, Ahmed.M.(1999), Principles of Environmental Economics: Economics, Ecology and Public Sector. London: Routledge.
4. Dr.S.Sankaran(2012) Environmental Economics Margham Publications.
5. Mark Maslin(2014) "Climate Change: A Very Short Introduction 3rd Edition Oxford University Press.

Web Resources

1. https://unfccc.int/
2. https://www.undp.org/
3. http://moef.nic.in/
4. https://www.envis.nic.in
5. https://www.unep.org

Course Outcomes		Programme Outcomes
CO	On completion of this course, students will	
1	Have a better understanding of Environment-Economy Linkages.	PO1, PO2,PO5
2	Apply environmental concepts to Economic Theories.	PO2,PO3
3	Create economic policies incorporating Environmental Issues.	PO5, PO7
4	Analyse the methods to value Environment Pollution.	PO2,PO3
5	Evaluate the need for reduction of Pollution.	PO2,PO7

Mapping with Programme Outcomes:

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1	3	3	3	3	3	3	3	3
CO 2	3	3	3	3	3	3	3	3
CO 3	3	2	3	2	2	3	3	3
CO 4	3	3	3	3	3	2	3	3
CO 5	3	3	3	3	3	3	2	3
Weightage	15	14	15	14	15	14	14	15
Weighted percentage of course contribution to POS	3.0	2.8	3.0	2.8	2.8	2.8	2.8	3.00

S-Strong-3 M-Medium-2 L-Low-1

Level of Correlation between PSO's and CO's

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	2	3
CO2	3	3	2	2	3
CO3	3	3	2	3	3
CO4	2	3	2	3	3
CO5	3	3	2	3	3
Weightage	14	15	10	13	15
Weighted percentage of Course Contribution to PSOs	2.8	3	2	2.6	3

S-Strong-3 M-Medium-2 L-Low-1

Semester -	II	Hours - 5
Elective Course Code-	P23ECDE11	Credit - 3

RESOURCE ECONOMICS

Course Objectives:

1. To trace the resources in the country
2. To understand the quality of the available natural resources.

Unit I: Introduction

Land Resources in India - Types of soil- Land resource Classification -Forest ,Barren land, Pastures and grazing land, cultural Waste Land, Fallow Land, Agricultural Land -Net Sown Area - Land degradation and soil Erosion-Preventive Measures.

Unit II: Role of Resources in Economic Development

Forest Resources-Role of Forests in Economic Development-Forest cover in India-Deforestation-Effects of Deforestation-Urban Forestry - Objectives of Urban Forestry-Social Forestry-Constraints in Social Forestry - Collective Participatory Forest Management – Recent National Forest Policy Act

Unit III: Water Resources in India

Water Resources in India -Surface Water –Ground Water –Water Demand and Utilisation- Water Resource Planning- Multi –objective Approach-Benefit Cost Ratio-Capital outlay-Environmental Impact Assessment (EIA)-Manageability of the project-Sustainable Water Management-Recent National Water Policy

Unit IV: Mineral Resources

Mineral Resources- Metallic Minerals-Non Metallic Minerals –Mineral Fuels-Environmental Costs of Extracting Mineral Resources-Environmental Impacts of Mineral Resource Extraction and Use-Mineral Conservation and Development Rules (1988)

Unit V: Conservation and Management of Natural Resources

Conservation and Management of Natural Resources - Meaning and objectives of Conservation. Conservation of Renewable Resources: Soil conservation- Water conservation-Forests conservation-Fish Conservation-Biodiversity Conservation. Conservation of Non Renewable Resources: Energy Conservation-Mineral Conservation

Text Books:

1. M.L.Jhingan, ChandarK.Sharma (2007) Environmental Economics Theory, Management and Policy, Vrindha Publications, New Delhi
2. G.Paneerselvam (2008) Economics of Natural Resources in India , Abhijeet Publications ,New Delhi

Reference Books:

1. Jon .M.Conrod (2010), Resource Economics ,Cambridge University Press,U.K

2. John C.Bergstrom& Alan Randall (2010), Resource Economics –An Economic Approach to Natural Resource and Environmental Policy, Edward Elgar Pub,Ltd
3. Judith Rees (2019) Natural Resources Allocation Economics and Policy,Routledge,UK

Web Resources:

1. https://www.india.gov.in/topics/environment-forest/natural-resources
2. https://ibm.gov.in/writereaddata/files/09182018162439Mineral%20Scenario%20pdf.pdf

Course Outcomes (COs):

Upon Completion of this course, the students will be able to

S.No	Course Outcomes	K-Levels
CO1	Ability to understand land resources in India and the issues related to it	K_1, K_2, K_3K_4
CO2	Assess the availability of Forest resources and understand the methods to conserve the resources	K_1,K_2, K_3 K_4
CO3	Understand the water resources in the country and related environmental issues	K_1,K_2, K_3K_4
CO4	Trace the mineral resources in the country	K_1, K_2, K_3K_4
CO5	Ability to know about conservation of Natural Resources	K_1,K_2,K_3,K_4

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
CO5	3	3	3	3	3
Weightage	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3	3	3	3	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

Semester	-	II	Hours - 5
Elective Course Code	-	P23ECDE12	Credit - 3

ECONOMICS OF CLIMATE CHANGE

Course Objectives

1. The objective of this course is to analyses climate change from an economic perspective.
2. The problem is characterized as one of regulating a global stock externality in an intertemporal setting and in the presence of uncertainty and irreversibility.

Unit I:Introduction

Science of climate change; global and regional climate predictions; uncertainty in science; physical impacts of climate change – agriculture, sea level rise, health, extreme events; policy debate.

Unit II: Climate Change Policy - Mitigation

Efficiency, public goods, externalities; environmental policy instruments – emissions trading, carbon tax, emission trading versus tax; stock pollutants and discounting; decisions under risk and uncertainty;

Unit III: Integrated Assessment

Costs and benefits of greenhouse gas mitigation; integrated assessment models; simulation exercises based on DICE model and its variants; sensitivity and uncertainty analysis; Stern review.

Unit IV: Climate Change Policy - Adaptation

Climate change impact assessment – applications for agriculture, sea level rise and health; vulnerability assessment; economics of adaptation; measurement of adaptation cost; issues in financing adaptation.

Unit V:Climate Change Negotiations and Equity

Criteria for distribution of emission reduction burden; distribution criteria for adaptation fund; inter and intra-generational equity issues; discounting in climate change context

Text Books:

1. Perman, R., Ma. Y., Common, M., Maddison, D., Mcgilvray, J., Natural Resource and Environmental Economics, Pearson Education Limited, 2011 (4th Edition).
2. Intergovernmental Panel on Climate Change – Fifth Assessment Report, 2011 Stern, N., The economics of climate change – The Stern Review, Cambridge University Press, 2006.

Reference:

1. F. Ackerman, E. Stanton: Climate Economics: State of the Art. Routledge (2013)

2. W. Nordhaus: A Question of Balance. Yale University Press (2008)
3. D. Acemoglu, P. Aghion, Leonardo Bursztyn, D Hemous. (2012). "The environment and directed technical change," American Economic Review, 102(1): 131-166.

Web Resources:

1. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjc
2. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjc-

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

CO Code	Course Outcomes	K-Levels
CO1	To define and explain the science of climate change.	K1, K2
CO2	To explain and identify the climate change policy.	K2, K3
CO3	To illustrate and analyses the integrated assessment of climate changes.	K2, K4
CO4	To classify, compare and evaluate climate change impact assessment.	K4, K5
CO5	To estimate and illustrate the climate change negotiations and equity.	K5, K6

K_1 – Knowledge, K_2 - Understand, K_3 – Apply, K_4 – Analyse, K_5 – Evaluate, K_6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	3	3	3	3	3
CO2	3	3	3	3	3	3
CO3	3	3	3	3	3	3
CO4	3	3	3	3	3	2
CO5	3	3	3	3	3	3
Weightage	15	15	15	15	15	15
Weighted percentage of Course Contribution to Pos	3.0	3.0	3.0	3.0	3.0	3.0

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low

2 – Medium

3 – High

0 – No Correlation

Semester	-	II	Hours - 2
SEC Code	-	P23EC2SE2	Credit - 2

SOCIAL ETHICS AND RESPONSIBILITIES
(Women Empowerment, Disability, Social Inclusion)

Course Objective:

1. To understand the importance of Ethical Values.
2. To equip the students with social responsibilities

Unit 1: Introduction

Social Ethics – Definition - -Ethical Model: Golden Rule Model and Kantian Model- Ethical Decision-making, Ethical Dilemmas in Organization, Corporate Governance- Types of Ethical Issues - Theft - Bribery and Corruption - Exploitation of Employees – Discipline - Whistle Blowing.

Unit 2: Workplace and Professional Ethics

Ethical Issues in Workplace- Types - Accountability - Employee Favoritism -Bad Leadership Behavior- Gender Ethics- Sexual Harassment and Discrimination.

Unit 3: Social Responsibility of Business

Social Responsibility of Business towards Shareholders, Employees, Customers, Dealers, Community & Government – Social Audi Social Responsibility of Business – Shareholders-Employees –Customers Community and Government - Corporate Social Responsibility Initiatives Dimensions-Ethics of Environment Protection & Pollution Control.

Unit 4: **Social Inclusion**

Meaning of Social Inclusion and Exclusion – Dimensions of Social Inclusion- Gender Inclusion and Equality

Unit 5: Opportunities for Disabled

Mainstreaming Disability- Provision of Employment Opportunities for disabled – Indian Government Schemes – Ministry of Social Justices and Empowerment

Textbooks:

1. Jenny Teichman (1996) Social Ethics A Student's Guide Wiley Blackwell
2. John S.Feinburg and Paul D.Feinburg(2010) Ethics for a Brave New World, Crossway.

References

1. Denis Collins and PatriciaKanashiro (2017) Business Ethics: Best Practices for Designing and Managing Ethical Organizations SAGE Publications, Inc; Third edition
2. William H.Shaw (2016) Business Ethics : A textbook with Cases Cengage Learning.

3. Govindarajan M.,Senthilkumar M.S. Natarajan (2013)Professional Ethics and Human Values, PHI

Web Resources

1. https://pachamama.org/social-justice/social-responsibility-and-ethics
2. http://www.fimt-ggsipu.org/study/bbabi310.pdf
3. https://www.socialworkers.org/About/Ethics/Ethics-Education-and-Resources

Course Outcomes (Cos):

Upon Completion of this course, the students will be able to

No.	Course Outcomes	K-Levels
CO1	Understand the importance of Ethics and outlining the various types of Ethical Issues in an organization	K1, K2, K4
CO2	Categories the ethical issues in the workplace	K2, K4, K5
CO3	Evaluate the need for Corporate Social Responsibility	K1,K4
CO4	Design Policies for Social inclusion	K4,K5
CO5	Know various schemes for disabled	K5,K6

K1 – Knowledge, K2 - Understand, K3 – Apply, K4 – Analyse, K5 – Evaluate, K6 – Create.

CO-PO Mapping (Course Articulation Matrix)

CO /PO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3
CO2	3	3	2	3	3
CO3	3	3	3	3	3
CO4	3	3	3	2	3
CO5	3	3	3	3	3
Weightage	15	15	14	14	15
Weighted percentage of Course Contribution to Pos	3	3	2.8	2.8	3

Level of Correlation between PSO's and CO's

(Suggested by UGC as per Six Sigma Tool – Cause and Effect Matrix)

Assign the value

1 – Low 2 – Medium 3 – High 0 – No Correlation

Semester	-	2	Hours -
ECC	-	1	Credit - 2/3

MOOCS / SWAYEM COURSE