PG & RESEARCH DEPARTMENT OF ECONOMICS

BOARD OF STUDIES FOR PG

ON

21-09-2023

TO APPROVE THE SYLLABUS FOR THE STUDENTS ADMITTED FROM THE ACADEMIC YEAR OF 2023 – 2024 ONWARDS

The Syllabus has been covered by the syllabi framed and published by
TAMIL NADU STATE COUNCIL FOR HIGHER EDUCATION.

POOMPUHAR COLLEGE (AUTONOMOUS)

MELAIYUR – 609 107

PG & RESEARCH DEPARTMENT OF ECONOMICS

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The Board of Studies Meeting was held in the Department of Economics on 21-09-2023 Thursday. The Board was constituted with the following personalities. All the Constituents were present those under signed. The Syllabus that to be approved by the Board has to follow and instruct the students of Post Graduate, admitted from the academic year of 2023 – 2024. The prime aims of the meeting of the Board of studies were:

- To analyse, examine and modify the syllabus framed by the Department
- To correct, re-place, order and enrich the syllabus as per instructions, suggestions given by the all the members of board after the elaborate discussion on the spot.
- To insert the vital and current issues in the syllabus for the sake of the students' community with the recommendations made by the board, on the spot.
- To approve after finalising syllabus to follow and instruct the students admitted from the academic year 2023 -2024 in the PG level.

The Syllabus has been covered by the syllabi framed and published by **TAMIL NADU STATE COUNCIL FOR HIGHER EDUCATION and Implemented by Annamalai University**

CONSTITUENTS OF THE BOARD OF STUDIES -- PG

S.No	Name & Address	Contact Number	Designation	Signature
01	**Mr. K. RAJU,** Asst. Professor & Head, Dept. of Economics, Poompuhar College, Melaiyur – 609 107	9942744041	Chairman	
02	**Dr. K. RAMU** Associate Professor & Head, Dept. of Economics, D.G.G.A. College for Women, Mayiladuturai.	9487380759	V.C. Nominee Member	

03	**Dr. R. RAJARAJAN,** Associate Professor & Head Dept. of Economics Govt. Arts College for Men Kumbakonam	9442531214	Academic Council Nominee
04	**Dr. S. MUTHUKUMARASAMY** Asst. Professor, Dept of Economics Best College, Sirkali.	9715280776	Alumni Member
05	**Dr. A. NAVIN KUMAR,** Associate Professor, Dept. of Economics, Poompuhar College, Melaiyur – 609 107	8098195543	Member
06	**Dr. R. BALASUBRAMANI,** Associate Professor, Dept. of Economics, Poompuhar College, Melaiyur – 609 107	7397272405	Member
07	**Dr. S. PACKIALAKSHMI,** Asst. Professor, Dept. of Economics, Poompuhar College, Melaiyur – 609 107	9942744041	Member

Programme Structure and Scheme of Examination (under CBCS)
(Applicable to the candidates admitted from the academic year 2023 -2024 onwards)

Part	Course Code	Study Components & Course Title	Credit	Hours/Week	Maximum Marks		
					CIA	ESE	Total
		SEMESTER – I					
Part A		**Core – I:**Advanced Micro Economics	5	7	25	75	100
		Core – II: Indian Economic Development and Policy	5	7	25	75	100
		Core – III: Statistics for Economists	4	6	25	75	100
		Elective – I: Rural Economics	3	5	25	75	100
		Elective– II: Regional Economics	3	5	25	75	100
			20	**30**			**500**
		SEMESTER – II					
Part A		**Core – IV:** Monetary Economics	5	6	25	75	100
		Core – V: Labour Economics	5	6	25	75	100
		Core – VI: Mathematical Economics	4	6	25	75	100
		Elective – III: Urban Economics	3	5	25	75	100
		Elective– IV: Economics of Climate Change	3	5	25	75	100
Part B		**Skill Enhancement Course – I:** Social Ethics and Responsibilities – Women Empowerment, Disability, Social Inclusion.	2	2	25	75	100
			22	**30**			**600**

SEMESTER: I CORE-I PART: A	ADVANCED MICRO ECONOMICS	CREDIT: 5 HOURS: 7/W

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 – Consumer surplus - Marshall's and Hicksian measures - 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 – Solution to principal agent problem- Hidden action (Moral Hazard) - Signaling and Screening.

Unit III: Market Structure Models
  a. Perfect competition – Price and output determination – Optimum firm-
  b. Monopoly – Short run and long run equilibrium - Price discrimination monopoly control, and regulation – Contestable Market-
  c. Oligopoly -collusive Models - Cartels and mergers -Price leadership
  d. Monopsony – Price and output determination – Workable competition.

Unit -IV: Alternative Theories of Firm
 Full Cost Pricing Rule- Limits pricing theory-Modigliani's Models- Input-output model -Linear programming applications in decision making – Administered Pricing- Purchasing Power Parity Price.

Unit -V: Distribution Theories
Neo-classical approach – Marginal productivity theory - Modern theory of distribution - Determination of Wages –Labour supply and wage determination – Role of trade unions and collective bargaining- Theories of Interest- Theories of Profit.

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

References:
1. Hal R. Varian (2004), Intermediate Micro Economics (East-West Press: New Delhi).
2. Ruffin Roy. J (1992), Intermediate Micro Economics Harper & Collins Publishers.
3. 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 CORE-II PART: A	INDIAN ECONOMIC DEVELOPMENT AND POLICY	CREDIT: 5 HOURS: 7/W

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- role of erstwhile Planning Commission and NITI Aayog- Two phases of growth (1950-1980 and 1980 onwards), - 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 - 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-- GST: rationale and impact- Evolution of the financial sector in post-liberalization period- External sector performance:- 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-- Role of Education and health-- 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 – Eva

luate, 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 CORE-III PART: A	STATISTICS FOR ECONOMISTS	CREDIT: 4 HOURS: 6/W

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: Probability

Probability - Addition and Multiplication Theorems - Conditional Probability - Discrete and Continuous - Random Variables - Mathematical Expectations -- Theoretical Distributions - Binomial, Poisson and Normal.

Unit II: Sampling and Hypothesis Testing

Sampling Theory - Types of Sampling - Sampling Distributions - Parameter and Statistic - Testing of Hypothesis - Level of Significance - Type I and Type II Errors - Standard Error .

Unit III: Test of Significance Large and Small Sample

Difference between Large and Small Samples - Test of Significance for Large Samples - Test for Two Means and Standard Deviations - Proportion and Confidence Interval - Small Sample Test – t-test - Paired t- test - Chi-square Test.

Unit IV: Analysis of Variance

F test: Assumptions in F test - Analysis of Variance: Assumptions – One-Way and Two-Way Classifications.

UnitV: Statistical Decision Theory

Definitions – Concepts – Maximin - Minimax - Bayes Criterion - Expected Monetary Value - Decision Tree Analysis: Symbols - Steps - Advantages and Limitations.

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

3. DAVID BORMAN, Statistics 101: from Data Analaysis and Predictive Modeling to Measuring Distribution and Determining Probability, your Essential Guide to Statistics.

4. SABINE LANDAN and BRIAN S .EVERITT .A Handbook of Statistical Analysis using SPSS. A CRC Press Company, Boca Raton, London, New York, Washington D.C

References:

1. Aggarwal. Y.P (2002), "Statistics Methods – Concepts Application and Computation", Sterling Publishers Private Ltd., New Delhi.

2. VittalP.R.,Mathematical Statistics, Margham Publications

3. Pillai R.S.N. andBagavathi 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 Probability rules and understand theoretical distributions.	K1 & K2
CO2	Acquire knowledge on the various sampling methods and testing of Hypotheses	K2 & K3
CO3	Use t test and chi square for analysis	K4
CO4	Understand the importance of one and two way ANOVA	K5
CO5	Know the various Decision making tools available	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 Elective-I PART: A	RURAL ECONOMICS	CREDIT: 3 HOURS: 5/W

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 - - 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 - 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 Distribution in Rural India.

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 – BPL/APL/Methodology.

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 Organizations, Co-Operative Institutions, Non-Government Organizations.

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 Elective-II PART: A	REGIONAL ECONOMICS	CREDIT: 3 HOURS: 5/W

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: – 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.

Unit III: Theories of regional economic growth
Neoclassical models – Dualistic models: Social dualism – Labour surplus model of Arthur Lewis- Migration and development: Harris-Todaro – 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 - 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--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: II Core: IV PART: A	MONETARY ECONOMICS	CREDIT: 5 HOURS: 6/W

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 – process and limitations role of commercial banks after nationalization – 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 Core: V PART: A	LABOUR ECONOMICS	CREDIT: 5 HOURS: 6/W

Course Objectives:

1. To enable and acquire the knowledge the relating to the significance of labour market
2. To understand the man power in Economic Development

Unit I: Labour Market and Policies

Labour Market- Nature and Characteristics, Demand for Labour in relation to size and pattern of investment-- labour policies Supply of Labour, Growth of Labour Force, Labour Market Policies.

Unit II: Employment and Wage Determination

Employment and Development relationship- poverty and unemployment, Unemployment-Types, concepts and measurement, Employment Policy Wage Determination- Concepts of minimum wage and efficiency wage; Non-wage component

Unit III: Trade Union Movement

Trade Union Movement– AITUC – INTUC – HMS – UTUC – Association of Indian Trade Unions with International Trade Unions –Problems of Trade Unions – Essentials for success of a Trade Union -- Recent policies relating to Trade union act—Role of ILO.

Unit IV Industrial Relation

Need for Industrial Relation Machinery--Collective Bargaining, Arbitration and Adjudications-industrial Democracy, the concept of Workers participation in management- Role of State in Industrial Relations.

Unit V: Social Security and Reforms

Social Security- Concepts and evolution, Social assistance and insurance, Review and Appraisal of State Policies, Special Problems- Child labour, discrimination, bonded labour-Labour market Reforms- Exit Policy, safety requirements, National Commission on Labour.

Text books

1. Pant C.(1978),Indian Labour Problems,(Allahabad,Chaitanya Publishing House).
2. Singh S.S., and Metha S.(1989),Labour Economics,(Ajanta Prakasham New Delhi).

References

1. Tyagi P.B.(1995),Labour Economics and Social welfare,(JaiprakashNath&Co.Meerut),
2. Baholiwal T.N.(1981), Economics of Labour and Industrial Relations,(SahityBhawan, Agra).
3. Giri V.V.(1985),Labour Problems in Indian Industry (Asia Publishing House,Bombay).

Web resources

1. https://fac.ksu.edu.sa › sites › default › files › Moder..
2. http://students.aiu.edu › resources › onlineBook › q...
3. http://assets.vmou.ac.in › PGDLL06

Course Outcomes (Cos):

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

No.	Course Outcomes	K-Levels
CO1	study the recent trends of labour and their productivity	K1, K3, K4
CO2	assess the determination of employment and wages	K3,K4
CO3	Understand the trade unions and their impact on labour market	K1, K4,K5
CO4	evaluate the Industrial relation	K3,K4
CO5	analyze the current trends of social security measures	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	3	2	3	2	3
CO3	3	2	3	2	3	3
CO4	2	2	3	2	3	3
CO5	3	2	3	2	3	2
Weightage	12	12	15	14	13	14
Weighted percentage of Course Contribution to Pos	2.4	2.4	3	2.8	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: II Core: VI PART: A	MATHEMATICAL ECONOMICS	CREDIT: 4 HOURS: 6/W

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 equation-- input-output model, Hawkins - Simon condition.

Unit II: Differential Calculus

Introduction to Functions, Limits and Continuity, Derivatives –Concept ofmaxima& minima, elasticity and point of inflection. Profit & revenue maximization under perfect competition, under monopoly.Maximizing excise tax revenue in monopolistic competitive market.

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.

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)-Multiplier model-Cobweb model.

Textbooks:

1. Geoff Renshaw,(2016)Maths for Economics, 4E Oxford University Press.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 Elective: III PART: A	URBAN ECONOMICS	CREDIT: 3 HOURS: 5/W

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 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 - Concepts of City Structure -Location Equilibrium of an Urban Firm - The Concentric Zone Hypothesis - Urban Residential Land Use Models: Alonso, Muth.

Unit IV: Urbanization and Labour Market
Urbanisation and Labour Market - Pull and Push Factors for Urbanisation in India - High Wages and Improved Infrastructure -- 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 Infrastructure: transport Water Supply, Sanitation and Solid waste management - Need for Urban Planning – 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 Elective: IV PART: A	ECONOMICS OF CLIMATE CHANGE	CREDIT: 3 HOURS: 5/W

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 Skill Enhancement Course-1 PART: B	SOCIAL ETHICS AND RESPONSIBILITIES (Women Empowerment, Disability, Social Inclusion)	CREDIT: 2 HOURS: 2/W

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.

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 – 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