KANNUR UNIVERSITY

(Abstract)

M.A Development Economics Programme (CBCSS) -Under Private Registration- w.e.f 2023 admission- Change of Course code - Approved- Orders issued.

ACADEMIC C SECTION

Acad.C5/1010/PR/M.A.Economics/2020 Dated: 30.12.2024

Read:-1. U.O. No. Acad.C5/1010/PR/M.A. Economics/2020 dtd: 14/02/2024

2. EXC I/ASO EXC I-II/21137/2024 dtd: 05/08/2024

3. Minutes of the Meeting of the BoS, Economics (PG) held on 27/09/2024

4. E-mail from Dr Rajeev M - Member-BoS Economics (PG), dtd :12/10/2024 forwarding modified syllabus of the M.A. Development Economics Programme

5. Minutes of the meeting of the Standing Committee of Academic council held on 13/112024

6. The Orders of Vice Chancellor in file of even No.dated 27/12/2024

ORDER

1.The Scheme, Syllabus & Pattern of Question Paper of the M.A. Development Economics Programme was implemented under Private Registration with effect from 2023 Admission vide paper read (1) above.

2.Meanwhile, the Examination Branch, vide paper read (2) intimated that the Course code of the M.A. Development Economics programme implemented under Private Registration vide paper read 1 starts with "ECO," which is similar to the Code of M.A. Economics Programme implemented under Private Registration w.e.f.2020 admission and requested to modify the Course Code of the M.A. Development Economics programme implemented under Private Registration w.e.f.2023 admission.

3.Subsequently the matter was placed before the Board of Studies (BoS), Economics (PG), for consideration.

4. Accordingly, the meeting of the BoS Economics (PG) vide paper read 3 authorized Dr.Rajeevan M, Member BoS to modify the Course Code and subsequently, he forwarded Scheme & Syllabus, after changing the Course Code as 'DEC' instead of ECO (paper read 4).

5.Considering the matter, the Vice Chancellor ordered to place the Syllabus with modified Course Code, before the Standing Committee of Academic Council.

6.The Standing Committee of Academic Council held on 13/11/2024 vide paper read (5) considered the matter and recommended to approve the modifications made in the Course Code in the Syllabus of the M.A. Development Economics programme implemented under Private Registration programme w.e.f.2023 admission.

7.The Vice Chancellor after considering the recommendation of the Standing Committee of Academic Council and in exercise of the powers of the Academic Council conferred under Section 11(1) of the Chapter III of Kannur University Act 1996, ***accorded sanction to modify the Course Code of the M.A. Development Economics Programme implemented under Private Registration of the University with effect from 2023 admission, subject to reporting to the***

Academic Council.

8.The modified Scheme & Syllabus of the M.A. Development Economics programme under Private Registration are appended with this U.O. and uploaded in the University website (www.kannuruniversity.ac.in).

9.The U.O read vide paper (1) above stands modified to this extent.

Orders are issued accordingly.

Sd/-

ANIL CHANDRAN R

DEPUTY REGISTRAR (ACADEMIC)

For REGISTRAR

To: EX CI Section

Copy To: 1. Examination Branch (Though PA to CE)
2. The Director (School of Life Long Learning)
3. EG 1/AR IV/ AR I (Exam)
4. PS to VC/PA to R
5. DR /AR (Acad)
6. The Computer Programmer, IT Cell
7. SF/DF/FC

Forwarded / By Order

SECTION OFFICER

KV

KANNUR UNIVERSITY
CAMP STATION P.O.
KANNUR
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THAVAKKARA

KANNUR UNIVERSITY

M.A. DEVELOPMENT ECONOMICS

(PRIVATE REGISTRATION)

2023-24 ADMISSION ONWARDS

KANNUR UNIVERSITY

PROGRAMME STRUCTURE			
Sl. No	**Category of Course**	**Number of courses**	**Credits**
1	Core Courses	16	64
2	Elective Courses	4	16
Total		**20**	**80**

WORK AND CREDIT DISTRIBUTION STATEMENT – SEMESTER WISE					
Sem	**Course Title**	**Credits**	**Contact Hours per Week**	**Total Credit**	**Total Hours**
I	Core 1- Micro Economic Theory I	4	5	20	25
	Core 2- Macro Economic Theory I	4	5		
	Core 3- Quantitative Techniques for Economic Analysis I	4	6		
	Core 4- Environmental Economics	4	4		
	Core 5- Indian Economy – Structural Changes and Growth	4	5		
II	Core 6- Micro Economic Theory II	4	5	20	25
	Core 7- Macro Economic Theory II	4	5		
	Core 8- Quantitative Techniques for Economic Analysis II	4	6		
	Core 9- Basic Econometrics	4	5		
	Core 10- Indian Economy – Development Issues with Special Reference to Kerala	4	4		
III	Core 11- Public Economics	4	5	20	25
	Core 12- Economics of Growth and Development I	4	5		
	Core 13- Advanced Econometrics	4	5		
	Elective-1 Research Methodology and Data Analysis	4	5		
	Elective-2 International Trade Theories and Policies	4	5		
IV	Core 14- Economics of Growth and Development II	4	6	20	25
	Elective – 3 Agricultural Economics	4	6		
	Elective – 4 Financial Economics	4	6		
	Core 15- Project	4	7		
	Core 16- Viva	4	-		
Total				**80**	**100**

CORE COURSES				
COURSE CODES & MARK DISTRIBUTION STATEMENT				
Course Code	**Course Title**	**Exam Hours**	**Marks IE**	**Marks ESE**
DEC1C01	Core 1- Micro Economic Theory I	3	15	60
DEC1C02	Core 2- Macro Economic Theory I	3	15	60
DEC1C03	Core 3- Quantitative Techniques for Economic Analysis I	3	15	60
DEC1C04	Core 4- Environmental Economics	3	15	60
DEC1C05	Core 5- Indian Economy – Structural Changes and Growth	3	15	60
DEC2C06	Core 6- Micro Economic Theory II	3	15	60
DEC2C07	Core 7- Macro Economic Theory II	3	15	60
DEC2C08	Core 8- Quantitative Techniques for Economic Analysis II	3	15	60
DEC2C09	Core 9- Basic Econometrics	3	15	60
DEC2C10	Core 10- Indian Economy – Development Issues with Special Reference to Kerala	3	15	60
DEC3C11	Core 11- Public Economics	3	15	60
DEC3C12	Core 12- Economics of Growth and Development I	3	15	60
DEC3C13	Core 13- Advanced Econometrics	3	15	60
DEC4C14	Core 14- Economics of Growth and Development II	3	15	60
DEC4P15	Core 15- Project	-	-	100
DEC4V16	Core 16- Viva	-	-	50

ELECTIVE COURSES				
COURSE CODES & MARK DISTRIBUTION STATEMENT				
SEMESTER – III				
Course Code	**Course Title**	**Exam Hours**	**Marks IE**	**Marks ESE**
DEC3E01	Research Methodology and Data Analysis	3	15	60
DEC3E02	International Trade Theories and Policies	3	15	60
SEMESTER – IV				
DEC4E03	Agricultural Economics	3	15	60
DEC4E04	Financial Economics	3	15	60

End Semester Course Evaluation Pattern	
Assessment	**For Core and Elective**
EXTERNAL	80%
INTERNAL	20%

Assessment Pattern for Continuous Internal Evaluation		
Component	**Mark**	**Remarks**
Assignments	**15**	Internal assessment **(20%)** of each course/paper is based on Assignments. Students shall answer **4** essay type questions for **10** marks each, out of **6** questions, covering the syllabus of the course or as per the instructions given in the question paper. The marks secured by the candidates out of **40** marks shall be converted in to **20%** and awarded into **15** marks.

Assessment Pattern for End Semester External Evaluation Exam				
Sl. No	**Type of Questions**	**No. of Questions to be attended**	**Marks**	**Total Marks**
3-hour examinations	Short Answer Questions (3 marks each)	5 (out of 6)	15	60
	Short Essay Questions (6 marks each)	3 (out of 5)	18	
	Essay Questions (9 marks each)	3 (out of 5)	27	

PART A: SYLLABUS – CORE COURSES

CORE COURSE -1: MICRO ECONOMIC THEORY I

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
1	DEC1C01	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- demonstrate a thorough understanding of core microeconomic principles, consumer choice theory, production theory, production and cost functions and market structures.
- analyse decision-making under uncertainty and risk, including the concept of expected utility and risk aversion.
- examine the profit-maximizing behaviour of firms under oligopoly and differentiate it with other different market structures, including perfect competition, monopoly, and monopolistic competition.
- identify instances of market failures, such as asymmetric information, public goods, and externalities, and evaluate potential remedies.
- evaluate the implications of externalities and public goods on market outcomes and discuss potential policy interventions.
- apply game theory concepts to analyse strategic interactions among individuals and firms in various economic settings.

Module I: Uncertainty and Choice

Sub Unit – I: The expected utility analysis: St. Petersburg paradox and Bernoulli‘s solution to the paradox, Neumann – Morgenstern Theorem and expected utility maximization – Different preference towards risk: Risk aversion, risk loving and risk neural - Risk aversion: Risk aversion and fair bets, Risk aversion and insurance.

Sub Unit – II: The demand for risky assets: trade-off between risk and return – The portfolio or investor‘s choice problem: Choice between risk and return – The state preference approach to choice under uncertainty: Risk aversion under state preference model

Module II: Production and Cost

Sub Unit – I: Production functions: fixed proportions, Cobb Douglas and CES production functions (properties) – Production function with two outputs: Economies and diseconomies of scope, Degree of economies of scope – Technical progress: measurement, growth accounting –

technical progress in Cobb-Douglas production function: input augmenting technical progress

Sub Unit – II: Cost functions: properties of cost functions – Fixed Proportions, Cobb-Douglas and CES cost functions – Input substitution: Elasticity of Substitution – Dynamic changes in cost: The Learning curve

Module III: Game Theory and Oligopoly

Sub Unit – I: Gaming and strategic decisions – Co-operative Vs Non-co-operative games – dominant strategies – Nash Equilibrium and the product choice problem – maxi-mini strategies – mixed strategies: The battle of sexes – Repeated game: Tit for tat strategy, finite and infinitely repeated games – Sequential games – Commitment and credibility: bargaining strategy – Entry deterrence

Sub Unit – II: Equilibrium in oligopoly – Cournot Nash Equilibrium, Stackelberg and first mover advantage - Bertrand‘s Equilibrium: the Nash equilibrium in prices – Competition Vs Collusion: The prisoner‘s dilemma – Implication of prisoner‘s dilemma for oligopoly pricing: Price rigidity and kinked demand curves

Module IV: Information Asymmetry and Market Failure

Sub Unit – I: Efficiency of the competitive markets – Why markets fail: Market power, externalities, public goods, incomplete information and information asymmetry – Quality, uncertainty and the market for lemons: market for used cars – implications of asymmetric information: adverse selection, market for insurance and market for credit

Sub Unit – II: Market signalling: model of job market signalling – Principal-Agent problem: case of public and private enterprises, incentives in the Principal-Agent framework – moral hazard and hidden actions model – asymmetric information in the labour markets: efficiency wage theory – Imperfect information and the ―Winner‘s Curse‖.

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3. Pindyck, R. S., Rubinfeld, D. L., & Mehtha P L. *Microeconomics*. Pearson Educación. Latest Edition
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CORE COURSE -2: MACRO ECONOMIC THEORY I

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
1	DEC1C02	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- demonstrate a comprehensive understanding of advanced macroeconomic theories, including theories of consumption, Investment, growth, business cycles, monetary and fiscal policy, and open economy macroeconomics.
- evaluate various macroeconomic models, such as the Keynesian model, IS-LM model, to analyse economic phenomena and policy implications.
- evaluate the effectiveness of fiscal policy in stabilizing the economy, understanding government budget constraints, and assessing the implications of public debt.
- apply macroeconomic concepts and models to analyze real-world economic issues and assess the effectiveness of macroeconomic policies.
- critically evaluate macroeconomic theories and policy proposals, recognizing their strengths, limitations, and empirical relevance.

Module I: Behavioural Foundations of Macroeconomics

Sub Unit I: Theories of Consumption - The Psychological Law of Consumption–Kuznets _s Consumption Puzzle–Fisher‘s Intertemporal Choice Model–Permanent Income Hypothesis–Life Cycle Hypothesis – The Random Walk Hypothesis.

Sub Unit II: Theories of Investment - The Keynesian Investment Theory- Neoclassical Theory of Business Fixed Investment–The Accelerator Theory of inventory Investment–The financial theory of investment -Tobin _s Q Theory

Module II: Neo-classical Keynesian Synthesis

Sub Unit I: IS-LM Model- The Interaction of Real and Monetary Sector–The Neoclassical and Keynesian version of IS-LM Model–Fiscal and Monetary Policy Analysis in IS-LM Model–Fiscal Policy and Crowding out–Ricardian Equivalence. Unemployment and Labour Market – Neoclassical Labour Market Equilibrium – Keynesian Labour Market – Under Employment Equilibrium.

Sub Unit II: The Aggregate Supply in the Short and Long Run – Aggregate Demand and Price Determination– Keynes Effect, Pigou Effect and Real Balance Effect in the IS-LM Model. The Open Economy IS-LM - Mundell–Fleming Model- Marshall-Lerner Conditions

Module III: Theories of Business cycle and Stabilization Measures

Sub Unit I: Business Cycle: Great Depression and alternative view on causes- Accelerator-multiplier Interaction Model – Real Business Cycle Theory – Political Business Cycle-Minsky's financial instability theory.

Sub Unit II: Fiscal policy and Macroeconomic stabilization- Fiscal stimulus and stabilization- Monetary policy and stabilization measures.

Module IV: Theories of Money Demand and Supply

Sub Unit I: Theories of Money Demand- A Restatement of Quantity Theory of Money (Milton Friedman)- Inventory Theoretic Approach (William Baumol) – Liquidity Preference as Behavior Towards Risk (James Tobin) — The Buffer Stock Notion (David Laidler).

Sub Unit II: Theories of Money Supply- The Concept and Measurement of High-Powered Money – Sources of Variation in High Powered Money – The Money Multiplier Model – Factors affecting Money Multiplier – Behavioral Model of Money Supply

References

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CORE COURSE - 3: QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS - I

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
1	DEC1C03	6	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- understand fundamental statistical and mathematical concepts, including matrix algebra, probability, sampling methods, hypothesis testing, and confidence intervals.
- differentiate various discrete and continuous probability distributions and their properties
- formulate and test economic hypotheses using appropriate statistical tests, and interpret the results in an economic context.
- learn to construct confidence intervals for population parameters using different confidence levels, and interpret the intervals

Module I

Sub Unit I: Determinant of a square matrix - Solution of a system of equations - Inverse method and Crammer's rule, Rank of a matrix, Characteristic equations and characteristic roots and vectors – Eigen value - Cayley- Hamilton theorem

Sub Unit II: Application of matrix algebra in Input-Output Analysis – basic concepts in input-output analysis - Structural co-efficient matrix – Hawkins-Simon conditions - Determination of final demand – Basic problem solving

Module II

Sub Unit I: Permutations and Combinations, Definitions of Probability – classical, empirical and axiomatic approaches – Addition and multiplication laws, conditional probability –Bayes' theorem, Random variables – probability distribution – Mathematical expectation – moments

Sub Unit II: Probability Distributions – Discrete Probability Distributions, Binomial, Poisson, Uniform, Multinomial – problem solving - Continuous probability distributions – basics of Normal, Lognormal, Pareto and Exponential Distributions – problem solving with normal distribution

Module III

Sub Unit I: Statistical Inference – meaning and scope - Concept of population, sample – Relevance of random sampling in statistical inference – properties of random sampling - determination of sample size – alternative views - sampling and non-sampling errors.

Sub Unit II: Sampling distributions – concept of law of large numbers and Central limit theorem - Standard error – Distributions of sample mean, Sample variance – chi square Student‘s t, and F distributions – Small and large sample properties of z, t, chi. square and F

Module IV

Sub Unit I: Estimations of populations parameters – point and Interval estimation – Properties of estimators – unbiasedness, consistency, efficiency and sufficiency -Confidence interval for Mean and Proportion and variance - Basic introduction to method of moments and maximum likelihood – assumptions, merits, demerits and uses (without proof and no problem solving required)

Sub Unit II: Testing of hypothesis – simple and composite hypotheses – Null and alternative hypotheses – directional and non-directional hypotheses - Type I and Type II error, Critical region – Level of significance, and exact level of significance – Test procedure – Degrees of freedom - Test of significance in respect of Mean and difference of means – conditions for applying z and t tests in a given context

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CORE COURSE - 4: ENVIRONMENTAL ECONOMICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
1	DEC1C04	4	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- demonstrate a thorough understanding of key environmental economic concepts, such as externalities, public goods, and market failures.
- analyse the concept of sustainable development, recognizing the interdependence between economic growth, social well-being, and environmental protection.
- integrate ecological principles into economic analysis, considering the interconnections between ecosystems and the economy.
- evaluate the effectiveness of various economic valuation methods (e.g., contingent valuation, hedonic pricing, and travel cost method) to estimate the economic value of environmental goods and services.
- understand the economic dimensions of climate change, including mitigation and adaptation strategies, and assess the costs and benefits of climate policies.
- evaluate the effectiveness of various environmental policy instruments, such as taxes, subsidies, cap-and-trade systems, and command-and-control regulations.

Module I: Environmental Economics & Economics of resource use

Sub Unit I: Environmental Economics- Multi-disciplinary nature-Environment and Ecology-structure of Eco-system-inter-linkages between Economy and environment-Material balance Model-Environmental cost of economic growth - Environmental Kuznets curve--environmental ethics and its basic approaches.

Sub Unit II: Growth pattern and management of renewable and non-renewable rsources-theories of optimal use of resources-Economics of Natural resource use- Need for conservation of natural resources.

Module II: Sustainable Development and Environmental Accounting

Sub Unit I: Sustainable development and its indicators – equity concerns of sustainable development-Key approaches to sustainable development: Hart wick` - Solow approach, Safe Minimum Standard Approach - Daley's operational principle -SDGs -sustainable development challenges and solutions- progress of India towards sustainable development goals.

Sub Unit II: Accounting for the environment and green accounting, green economy, green manufacturing-green finance, green marketing, and green tourism-Tools of Corporate Environmental Management-environmental management system-environmental performance auditing -life cycle assessment-ISO standards-industrial ecology.

Module III: Environmental valuation and impact assessment.

Sub Unit I: Valuing the environment-meaning and types of environmental values- environmental love, environmental awareness, environmental respect, environmental Responsibility, environmental conservation, environmental co-existence, environmental sensitivity- Measures of economic valuation-market valuation- surrogate markets, wage-differential approach, opportunity cost method, choice modelling technique.

Sub Unit II: Expressed preference methods for valuing the environment: Contingent valuation method, trade off game method, costless choice method, Delphi method – Revealed preference methods for valuing the environment: hedonic price method, property value method. Environment impact assessment (EIA)- procedures, methods and limitations- EIA in India.

Module IV: Market Failure and Environmental Policies

Sub Unit I: Market failure and environmental goods-approaches and causes of market failure-market failure and externality- attributes of externality- internalizing externalities, Instrument for environmental protection- Direct Economic Instruments: Pollution fee and polluter pay principle, emission trading rights (tradable market permits), Deposit refund system, performance-based liability- Indirect economic instruments: taxes and subsidies.

Sub Unit II: Climate change and food security-impacts of climate change on agriculture with special reference to Kerala-adaptation and mitigation of climate change through credit subsidies - India‘s environmental policies-International summits on combating climate change- CMP 16, CMA 3 and COP26 – climate change performance index (CCPI)

(Note: compulsory field visit to various eco spots/ecologically sensitive places Not More Than 5 days. Report of field visit may be considered as assignment of this paper)

References:

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CORE COURSE - 5: INDIAN ECONOMY: STRUCTURAL CHANGES AND GROWTH

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
1	DEC1C05	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- demonstrate an in-depth knowledge and understanding of the nature, problems and functioning of Indian economy.
- study the major sectors of the Indian economy, including agriculture, industry, and services, and evaluate their contributions to economic growth and employment.
- evaluate India's trade policies, trade patterns, and foreign direct investment inflows, and understand the role of India in the global economy.
- analyse and interpret macroeconomic indicators, such as GDP growth, inflation, and unemployment, to assess the overall performance of the Indian economy.
- examine the patterns and determinants of poverty and income inequality in India and evaluate policies aimed at poverty reduction and inclusive growth.
- understand the economic reforms initiated in India since the 1990s and assess their impact on the Indian economy.

Module-1 Economic Growth, Structure and Reforms

Sub Unit I: Structural Changes in Indian Economy- Contribution of different sectors to output, income and employment- Growth rate across region/states- NITI Aayog and discontinuation of Central Planning- Debate on market v/s planned economy- Neo liberalism.

Sub Unit II: Structural Adjustment Reforms - Liberalisation, Privatisation and Globalisation- Evaluation of Economic Reforms- Global Economic Crisis and its impact on Indian economy- Second Generation Reforms- Inclusive Growth; Recent policy initiatives

Module II Sector wise analysis- Agriculture

Sub Unit I: Importance of agriculture- Trends, pattern and performance of agricultural growth- Changes in land use and cropping pattern- Crisis of Indian agriculture- New agricultural policy- WTO and Indian agriculture- - Agricultural Credit, marketing and subsidies.

Sub Unit II: Revolutions in agriculture- Evergreen revolution- Concept of food security- National food security Mission- Debate on GM crops- - Agricultural Sustainability

Module III Sector wise analysis- Industry and service sectors

Sub Unit I: Growth and pattern of Industrial development in India- Structural changes in Indian industries- Inter-state disparities in Industrial development- Role of FDI in India‘s Industrial Performance- New Industrial Policy- Public sector enterprises and their performances- Debate on privatisation and disinvestment- Micro and small-scale industries- Industrial labour- - Industrial

financing- Industrial growth and environment.

Sub Unit II: An over view of service sector in India- Transport and communication- IT- Tourism (Growth, performance, market size and exports)- Contribution of service sector to India‘s GDP- FDI inflow in service sector- Role of WTO in service sector - Global energy crisis- Role of IT sector- Infrastructure and economic development- Public investment in infrastructure.

Module IV India and Global economy

Sub Unit I: India‘s share in global trade- Share of global trade and capital flows- BOP position- Balance of trade (export and imports)- Foreign trade policy- - Foreign capital and MNC‘s in India- Inflation- Debate on WPI v/s CPI.

Sub Unit II: FDI and FPI- Role of FDI in India‘s Economic Development- Regional economic integration (SAARC, BRICS and G-20)- India as an emerging global economic power.

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CORE COURSE - 6: MICRO ECONOMIC THEORY II

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
2	DEC2C06	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- define and assess Pareto efficiency and understand its importance in welfare economics as a benchmark for economic efficiency.
- evaluate various welfare criteria, such as Pareto optimality, social welfare functions, and the Kaldor-Hicks criterion, to assess the desirability of policy outcomes.
- understand the key concepts related to factor markets, including factors of production, factor prices, factor demand, and factor supply.
- examine monopsony and monopsonist competition in factor markets, identifying how they affect factor prices and employment levels.
- understand the concept of markup pricing and how firms set prices based on cost-plus pricing or target markup strategies.
- analyse prospect theory and how it deviates from traditional expected utility theory in explaining risk preferences and decision-making under uncertainty.
- understand the core concepts and principles of institutional economics, including the role of institutions in shaping economic behaviour.

Module I: General Equilibrium and Economic Efficiency

Sub Unit I: Perfectly competitive price system: The law of one price – Economic efficiency and welfare analysis: consumer surplus and producer surplus approach – The first fundamental theorem of welfare economics: Pareto efficiency and simple general equilibrium model – Equity and Efficiency – Distributional dilemma and second fundamental theorem of welfare economics: exchange with initial endowments

Sub Unit II: Partial and general equilibrium framework – Existence of general equilibrium prices: Excess demand functions – Walras‘ Law: Walras‘ proof of the existence of general equilibrium price, Brower‘s fixed-point theorem – Departing from the competitive assumptions: Theory of second best – Inefficiency and Dead Weight Loss

Module II: Product Pricing and Competitive Strategies

Sub Unit I: Modern Theories of the Firm – Baumol‘s sales revenue maximization hypothesis – Williamson‘s model of managerial discretion – Marris‘ model of managerial enterprise

Sub Unit II: Theory of product pricing – Marginalist controversy – Hall and Hitch report and the Full Cost Pricing principle – Average cost pricing and mark-up rule – Barriers to entry: Bain‘s

limit-pricing model – Sylos-Labini Model – Extended model of Franco Modigliani – Predatory Pricing and entry deterrence.

Module III: Factor Market and Employment of Factor Inputs

Sub Unit I: Competitive factor markets – Demand for factor with one variable input – Market demand and supply of inputs – Income and substitution effect of a change in wage rate: Backward bending supply curve for labour, Slutsky‘s equation of labour supply – Competitive labour market equilibrium – Marginal productivity theory and adding up controversy – Economic rent in the labour market

Sub Unit II: Imperfections in the factor market – Monopsony in labour market: Pricing in a Monopsony labour market – Monopoly power in the labour market: labour unions and equilibrium with union‘s goals – Modelling wage discrimination: Unionized Vs Non-unionized workers

Module IV: Behavioural Extension and Institutions

Sub Unit I: Behavioral economics: Behavioral economics and the economic man – Expected utility paradox: Allais paradox – Prospect theory: The value function, Decision weight function, Allais paradox and prospects theory – Endowment effect – Bounded Rationality – Intuitive judgment and biases: Anchoring effect and Framing effect – Neuroeconomics

Sub Unit II: Institutional Economics: Subject matter of institutional economics – Notion of ‗Institutions‘: Formal and Informal institutions, social and economic institutions – New Institutional Economics: Contributions of North and Williamson.

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CORE COURSE - 7: MACRO ECONOMIC THEORY II

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
2	DEC2C07	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- understand the rational expectations hypothesis and how it affects the behaviour of economic agents in decision-making.
- examine the Lucas critique and its implications for the evaluation of economic policies, highlighting the importance of accounting for agents' responses to policy changes
- understand the concept of sticky prices and how nominal rigidities can lead to short-run fluctuations in output and employment.
- study the role of menu costs in delaying price adjustments and its impact on aggregate demand and supply dynamics.
- analyse the role of fiscal policy in influencing aggregate demand, taking into account the concept of Ricardian equivalence.
- understand the need for coordination between fiscal and monetary policy to achieve macroeconomic stability.

Module 1: The Post Keynesian and New Classical Macroeconomics

Sub Unit I: The Post Keynesian and New Classical Macroeconomics –Monetarism: Basic elements of monetarism – Monetarists proposition.

Sub Unit II: New Classical Macroeconomics- Efficient Market Hypothesis Rational Expectation Hypothesis- The Lucas surprise supply function- Policy ineffective Theorem- The Lucas Critique- Rational Expectation and implication of Monitory policy-Supply side economics

Module II: New Keynesian and Neo-Keynesian Macroeconomics

Sub Unit I: New Keynesian Model - Basic framework, price stickiness (Calvo and Rottenberg)- Micro foundations of macroeconomics – Small menu cost model – Efficiency wage theories – Insider-Outsider model- The Random Walk of GDP.

Sub Unit II: Walrasian General Equilibrium-Re-interpretation of Keynes by Clower and Leijonhuvad-The Dual decision hypothesis- Neo-Keynesian quantity constrained models.

Module III: The Inflation- Unemployment Trade off

Sub Unit I: Inflation and Unemployment- Various theories of inflation-Monetarist view on inflation-Concept of core inflation-measures of inflation (CPI, WPI, Core, Headline, GDP deflator).

Sub Unit II: The Phillip's Relationship – Theoretical Underpinnings of Phillip's Curve –Natural Rate Hypothesis -NAIRU– Theory of Adaptive Expectation – Expectation Augmented Phillip's

Curve –Modified Philips Curve- Cost of Inflation-Anti-inflationary measures- Search theory-DMP Model- Okuns law-sacrifice ratio

Module IV: Macroeconomic Policy

Sub Unit I: Monetary policy-Instruments of monetary policy-Monetary targeting- Inflation targeting- Interest rate targeting. Rule vs. discretion in the conduct of monetary policy- central bank-measures of monetary control.

Sub Unit II: Fiscal policy and Macroeconomic stabilization- Nature and scope of fiscal policy – Concept and definition of fiscal stabilization- Instrument of fiscal policy: Taxation, expenditure and debt – Fiscal stimulus and stabilization –Crowding-out effect – Ricardian Equivalence Theorem

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CORE COURSE - 8: QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS II

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
2	DEC2C08	6	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- understand the concept of functions and their representation in various economic contexts.
- apply the rules of differentiation to find derivatives of various functions used in economics, such as demand, supply, and cost functions.
- understand the concept of marginality in economics, particularly in the context of demand, supply, cost, revenue, and production functions.
- use optimization techniques to economic problems, such as profit maximization, cost minimization, and utility maximization.
- understand the basic concepts of game theory, including players, strategies, payoffs, and the concept of Nash equilibrium
- apply hypothesis testing techniques to one-sample, two-sample, and paired data scenarios.
- familiarize with non-parametric hypothesis testing methods suitable for situations with non-normal or ordinal data.

Module I

Sub Unit I: Functions, limit of a function, continuity of a function, Derivative of a function - Rules of Differentiation, Higher order derivatives, differentiation of logarithmic functions, exponential functions and implicit functions –

Sub Unit II: Application of Derivatives – Meaning of a Derivative – rate of change – slope of a curve – Marginal concepts related to demand, supply, cost, revenue and production functions - Maxima and minima – Economic applications.

Module II

Sub Unit I: Functions of several variables - Partial differentiation –Total and Partial derivatives – Total derivatives – Rules of integration – Definite integral, area under a curve –estimation of producer and consumer surplus

Sub Unit II: Optimisation of economic functions- Optimisation of multivariable functions – unconstrained optimization – maximization of profit - constrained optimization with Lagrange multipliers – Consumers and producers equilibrium using constrained optimization.

Module III

Sub Unit I: Optimisation with inequality constraints - Linear programming -Characteristics of Linear Programming Problem (LPP) - Formulation of LPP - Solution of LPP using Simplex

method – Duality - Uses of dual LPP and Shadow prices.

Sub Unit II: Essentials of game theory – basic concepts – zero sum game – non-zero-sum game – co-operative and competitive games – pay off matrix – pure and mixed strategy – maxmin and minimax – saddle point – solution of mixed strategy game – Nash equilibrium.

Module IV

Sub Unit I: Testing of hypothesis with Proportion, difference of proportions, Variance and Correlation coefficient – Testing the significance of regression co-efficient - Chi Square test of goodness of fit, and test for independence of attributes - ANOVA F test – One way and Two-way procedures – problem solving using Chi square and F statistics

Sub Unit II: Non --parametric tests – difference between parametric and non-parametric tests – advantages and disadvantages of non-parametric tests - sign test, Wilcoxon – Mann Whitney U Test, signed rank test – uses

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CORE COURSE - 9: BASIC ECONOMETRICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
2	DEC2C09	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- understand the concepts of the simple and multiple linear regression models and their interpretations in economic contexts.
- acquire the skills to estimate the parameters of a linear regression model using least squares estimation and interpret the estimated coefficients.
- understand the issues of autocorrelation, multicollinearity and heteroscedasticity in regression analysis and their sources, consequences and the remedial measures
- understand the concept of residuals and their significance in regression analysis as indicators of model fit.
- identify dummy and categorical variables in regression models and learn to interpret their effects in a regression model.
- differentiate between structural and reduced form equations and comprehend their roles in the analysis of simultaneous equation systems.
- identify endogeneity and simultaneity bias issues in simultaneous equation models and learn about techniques to address them.

(Bridge Course Content (Not for examination): Meaning and Definitions of econometrics – Basics of bivariate regression – Sample Regression Function and Population Regression Function - cross section and timeseries models - review of OLS method – Assumptions of classical linear regression model – Gauss Markov theorem and BLUE property – R^2 and adjusted R^2)

Module I: Simple Linear Regression

Sub Unit I: Testing the significance of the OLS estimators in simple linear regression models – Individual and overall significance - Violation of the assumptions of classical linear regression model – Serial/Auto correlation, Heteroscedasticity – causes, consequences, detection methods and solutions – HAC standard error

Sub Unit II: Basics of regression diagnostics – Ramsey‘s RESET – Error Normality tests – tests for linearity - regression through the origin – interpretation of regression co-efficients in different functional forms (linear, log linear, semi-log, reciprocal and log reciprocal) – regression co-efficients as elasticity and growth rates

Module 2: Multiple Linear Regression

Sub Unit I: Introduction to multiple linear regression analysis using OLS – Assumptions underlying classical linear regression model as applicable to multiple regression – OLS Estimation and interpretation of co-efficients - testing of individual and overall significance – use of adjusted

R^2

Sub Unit II: BLUE property and Gauss-Markov theorem as applicable to multiple regression analysis using OLS (Matrix notation) - violation of CLRM assumptions in multiple regression analysis with reference to multicollinearity – causes, consequences, detection and solutions

Module 3: Regression involving Qualitative Variables

Sub Unit I: Regression with dummy explanatory variables – major applications and basic structural form – ANOVA and ANCOVA models - interpretation of slope and intercept in dummy variable regression– interactive effects – seasonal analysis - piecewise linear regression – structural stability and structural break – Chow test and applications – Dummy variable trap

Sub Unit II: Models with qualitative dependent variable (Binary choice models) – Linear Probability Model –logit and probit models – Multi response models (brief explanation regarding multinomial logit and ordered probit models) – Truncated and censored regressions – Tobit model

Module 4: Simultaneous Equation Models

Sub Unit I: Simultaneous equation models –Structural and reduced form equations of a simultaneous equation system – simultaneous equation bias – Instrumental variable estimation – Identification problem – Rank and order conditions

Sub Unit II: Estimation of simultaneous equation system – Recursive methods and OLS - Indirect Least Squares – 2 SLS and 3 SLS – Seemingly unrelated regression (SUR) model and feasible generalised least squares

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CORE COURSE - 10: INDIAN ECONOMY – DEVELOPMENT ISSUES WITH SPECIAL REFERENCE TO KERALA

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
2	DEC2C10	4	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- understand the current population size of India, its distribution across different age groups, gender composition and the population density in India.
- understand the concept of demographic dividend and its potential benefits for economic growth and development.
- understand different methods and approaches to measure poverty in India, including the use of poverty lines and multidimensional poverty indices.
- evaluate the effectiveness of various poverty alleviation programs and social welfare policies implemented by the government to reduce poverty.
- evaluate the impact of economic policies, labour market reforms, and social welfare programs on poverty, inequality, and unemployment.
- analyse the performance of different sectors of the Kerala economy, such as agriculture, industry, and services, and their contributions to overall economic growth.
- examine the state's fiscal management practices, debt levels, and the implications of public borrowing on the economy.

Module-I Demographic Profile

Sub Unit I: Major demographic features of India‘s population- Demographic changes; trends and pattern- Census 2021 reports- Basic measures of demography: rates, ratios, data sources, Census, surveys and vital statistics

Sub Unit II: Sex, Age, Density structure of Indian population; Birth rate, death rate, Life expectancy and Infant Mortality; Trends and pattern- New Population Policy- Family planning and family welfare programmes in India and its evaluation- Demographic dividend- Human resource management.

Module II Development Issues: Poverty, Unemployment and Inequality

Sub Unit I: Poverty in India- Estimation of Poverty and their limitations- Recent Committee reports- Tendulkar, Saxena, Hashim and Rangarajan- Poverty Eradication Programmes- Trends in employment- Measurement Issues- Unemployment nature and problems- Recent employment guarantee programmes

Sub Unit II: Changing nature of labour market- Recent debates on poverty and employment during reforms- National urban livelihood- MGNREGA, PMGSY, Indira Avas Yojana; an evaluation- Inequality; concept, types and measurement- Attempt towards inclusive growth- Right

based approaches in employment, education and food.

Module III Structure and Growth of Kerala Economy

Sub Unit I: Structural changes in Kerala economy- Agricultural performance- Changes in the cropping and land use pattern- Problems faced by agricultural sector

Sub Unit II: Industrial backwardness- Development of infrastructure- IT, Power, Tourism, Health and Higher Education- Urbanisation; trends, pattern, causes and consequences

Module IV Development Issues of Kerala Economy

Sub Unit I: Demographic changes- Aging- Poverty- Educated Unemployment- Women Empowerment- Peoples Plan- Role of Panchayat Raj- Role of Micro finance.

Sub Unit II: Fiscal management in Kerala- Decentralisation- E-governance initiatives- Impact of migration and foreign remittances- In-migration workers in Kerala- Kerala and WTO.

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CORE COURSE - 11: PUBLIC ECONOMICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
3	DEC3C11	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- comprehend the changing dimensions of public finance and the role of government in achieving economic goals such as allocation, distribution, and stabilization.
- critically analyse the determinants of public expenditure, its impact on the economy, and the challenges in designing efficient and equitable expenditure policies.
- evaluate different theories of taxation and understand the criteria for optimal taxation, including commodity taxation, income taxation, and their effects.
- examine the tax reforms in India, including GST, and evaluate their implications on the economy and the taxation system.
- Comprehend the principles of public debt management, debt sustainability, and the challenges associated with public debt in India.
- understand the role of fiscal federalism in India, intergovernmental transfers, and their implications.
- analyse the divisions of powers and functions between the central and state governments in India, and assess vertical and horizontal imbalances.
- equip with the essential knowledge required to assess, design, and implement effective public policies that address diverse economic challenges.

Module 1: An Introduction to Public Economics

Sub Unit I: Changing Dimensions of Public Finance - The role of government: Allocation, Distribution, and Stabilization functions- Issues related to market failure and government intervention - Changing Role of the State in a Globalized World.

Sub Unit II: Theory of Public and Private Goods- Lindahl‘s Equilibrium Model- Samuelsson‘s Theory of Optimal Allocation between Public and Private Goods- Peace and security as global public goods - Market failure and externalities: Negative and Positive externalities - Free rider problem and its implications - Non-private goods: Club goods, Merit goods and Demerit goods - Theory of public choice.

Module 2: Public Expenditure

Sub Unit I: Size of Public Expenditure - Maximum Social Advantage - The Median Voter Theorem: Basic Idea and Applications to Public Finance - Public Sector Pricing: Pricing of Public Utilities

Sub Unit II: Changing Pattern of Combined (Centre and State) Public Expenditure in India - Major Recommendations of the Expenditure Reform Commission - Concepts, Measurement, and

Magnitude of Subsidies in India- Fiscal Responsibility and Budget Management Act: An Assessment.

Module 3: Public Revenue

Sub Unit I: Theory of Taxation - Theory of Optimal Taxation: Criteria and Features - Optimal Commodity Taxation: Ramsey Rule and Inverse Elasticity Rule - Optimal Income Taxation: Model with Behavioral Response – Model without Behavioral Response (Mirrlees Model) - Impact of Taxation on Factors of Production: Labor and Capital

Sub Unit II: International Taxation: Tax Competition, Tax Havens, Base Erosion, and Profit Shifting - Direct and Indirect Taxes in India- Reforms of Direct and Indirect Taxes in India - GST (GST Law from a Constitutional Perspective, Main Features, Structure of GST-Dual Model, GST-Council, Performance of GST in India)

Module 4: Public Debt and Fiscal Federalism

Sub Unit I: Public Debt in India: Emerging Issues, Debt Burden and Future Generation - Principles of Public Debt Management - Debt Sustainability - Combined (Central and State) Public Debt in India-

Sub Unit II: Fiscal Federalism in India - Rationale for Intergovernmental Transfers - Vertical and Horizontal Imbalance - Intergovernmental Transfer Mechanism: Central Finance Commission – Trends in Finance Commission Transfers in India –Recommendations of Recent Finance Commission - State Finance Commissions – Transfer from Union Ministries- Centrally Sponsored Schemes and their Implications for Federalism – Fiscal performance of Kerala - Highlights of the Current Year Union Budget.

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CORE COURSE - 12: ECONOMICS OF GROWTH AND DEVELOPMENT- I

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
3	DEC3C12	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to

1. understand development economics as a subject and its significance in addressing socio-economic challenges faced by developing economies.
2. analyse development models and growth models understanding the implications for developed and underdeveloped economies.
3. compare the development experiences of different regions and countries along with the growth and development experience of India.
4. equip to developing critical analytical skills and an awareness of various development challenges and policy options.

Module-I Approaches and Measurement of Growth and Development

Sub Unit I: Development Economics as a subject -Academic Interest in Development - The New Empirical Development Economics - Sustainable Development Goals - Globalization and interdependence of the World economy - The meaning of Development and the challenge of Development Economics - The perpetuation of Underdevelopment

Sub Unit II: Measuring Growth and Development: Meaning of Economic Growth - Meaning of Economic Development: Traditional and Modern View - GNP as a Measure of Development - Per capita income as a Measure of Development - Welfare and Social Indicators: Basic needs approach, Physical Quality Life Index (PQLI) - Human Development Index (HDI) - Human Poverty Index (HPI) - Multidimensional Poverty Index (MPI) - Degrowth - Measure of Economic Welfare (MEW), Net Economic Welfare (NEW) - Gender related Development Index - Gender Empowerment Measure - Global Hunger Index - Global Happiness Index (Measurement and Calculation)

Module-II Theories of Economic Development

Sub Unit I: The Classical Theory of Economic Development: Adam Smith and Ricardo - Malthus Theory of Economic Development - Marxian Stages and Theory of Capitalist Development - Schumpeter‘s Theory of Development - Vicious Circle Theory - Big Push Strategy of Economic Development - Critical Minimum Effort Thesis - Rostow‘s Stages of Economic Growth - Balanced and Unbalanced Growth Strategies

Sub Unit II: Denis Goulet‘s Core values of Development - Amartya Sen‘s Entitlements and

Capability Approach - O-Ring Theory of Economic Development - Dualistic development and process of structural transformation: Concept of Dualism -Technological, Social, and Financial dualism - Lewis model with unlimited supply of labour - Fei-Ranis model – Harris -Todaro model of Migration

Module-III Theories of Economic Growth & International Dependence Models

Sub Unit I: Harrod- Domar Growth Model – Neo-classical growth models: Solow-Swan growth models and its extension - Ramsey Growth model (Ramsey-Cass-Koopmans model - Meade Model of Growth - Joan Robinson‘s Model of Growth - Endogenous Growth Theory: Romer model with knowledge spillovers and increasing returns to scale, AK model, Uzava model, Lucas model with human capital, models with endogenous technical change, R&D based growth theory.

Sub Unit II: International Dependence Models - Centre-Periphery Thesis - Myrdal‘s Theory of International trade: Backwash effect and Spread effect - Prebish-Singer Thesis - Dual Gap analysis - The False-Paradigm model - Approaches to Dependency: Marxian Theory of Dependency and Structuralist Theory of Dependency

Module – IV Development Experience: National, Regional and International

Sub Unit I: Relationship between Human development and Economic growth, and its regional, national and International Comparison

Sub Unit II: Brief Outline of International, National and Regional Development Models - Latin American Development Experience - Scandinavian development Experience - East Asian Miracle - South Asian Enigma - Development realities of Sub-Saharan Countries - Nehruvian Views on Development - Neo-liberal Economic Policies and Development Experience of India in the last 30 years – Sen - Bhagwati Debate - Development Experience of Kerala

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CORE COURSE - 13: ADVANCED ECONOMETRICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
3	DEC3C13	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to

- understand the characteristics of time series data, including trends, seasonality, and cyclical patterns.
- learn various time series models, such as autoregressive AR, MA, ARMA, ARIMA, VAR, ARCH, GARCH models.
- learn techniques to estimate and remove trends from time series data to focus on underlying patterns and explore methods for seasonal adjustment to isolate the seasonally adjusted component of a time series.
- understand the concepts of unit roots and cointegration and their relevance in long-run relationships between time series variables.
- learn Granger causality tests to examine causal relationships between variables.
- fit an OLS and run diagnostic tests to check the adequacy of time series models, such as tests for autocorrelation, heteroscedasticity and multicollinearity.

Model 1: Basics of Time Series Modelling

Sub Unit I: Introduction to time series models – Time series as a stochastic process– Basics of time series regression model – CLRM assumptions underlying a time series model – interpretation of OLS estimates - Stationarity and Non-Stationarity – trend stationarity – Deterministic and stochastic trends

Sub Unit II: Random walk and unit root– Random walk with drift - Testing stationarity – Correlogram – ACF and PACF – Augmented Dicky-Fuller test – Non-parametric PP test - differencing for stationarity –non-stationarity and spurious regression

Module 2: Advanced Time Series Econometrics

Sub Unit I: Level of integration of non-stationary variable - Co-integration analysis – Meaning of co-integration – Testing co-integration - Engel-Granger two-step procedure – Johansen - Juselius test procedure (Basic steps and concepts without derivation) – Trace and eigen value alternatives - Error Correction Mechanism and Vector Error Correction Mechanism (Basic steps and concepts without derivation) – VAR model – structure and uses.

Sub Unit II: AR model, MA model, ARMA model, ARIMA model – basic structure and uses - significance of lag selection – Akaike and Bayesian Information criteria –Basics of forecasting – Forecasting techniques in econometrics

Module 3: Volatility Modelling and Panel Data Analysis

Sub Unit I: Volatility analysis – ARCH and GARCH models –structure and estimation – Interpretation of ARCH and GARCH terms - Variance-Covariance Matrix - Volatility clustering/ volatility persistence – ARCH in Mean model - relevance of volatility modelling in financial market analysis

Sub Unit II: Introduction to panel data analysis – Assumptions - Basic structure - Estimation – Fixed effects model and random effects model

Module 4: Other advanced topics

Sub Unit I: Introduction to dimensionality reduction techniques - basics of Principal Component Analysis (PCA) – steps in obtaining principal components – covariance matrix- eigen vectors and eigen values

Sub Unit II: Basics of Factor Analysis (FA) – differences between PCA and FA - factors and variables – Latent variables - factor loading – Eigen values – Factor score – Criteria for determining number of factors – Rotation method – Explanatory and confirmatory factor analysis - Basics of simple linear discriminant analysis (Basic steps and uses only)

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CORE COURSE - 14: ECONOMICS OF GROWTH AND DEVELOPMENT- II

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
4	DEC4C14	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

1. Understand the concept of development gap and income distribution in the global economy and the potential consequences on economic growth.
2. Assess the significance of human capital in economic development and evaluate the importance of education, health and nutrition in economic development.
3. Students will be equipped to critically analyze development challenges and suggest potential solutions for promoting inclusive and sustainable development in economies.

Module-I Inequality, Poverty and Development

Sub Unit I: International inequality - Development Gap and Income distribution in the World economy -Measurement of Income inequality - Lorenz Curve and Gini Coefficient - Kuznet‘s Inverted U shape Hypothesis - Thomas Piketty‘s views on Economic inequality - Lucas Chancel and Thomas Piketty views on the issues of Indian Income inequality

Sub Unit II: Poverty and Economic Development - International Poverty line - Empirical Evidence on Deprivation index and Multidimensional Poverty Index - Randomized Control Trails (RCT)

Module-II Human Capital Formation and Development

Sub Unit I: Importance of Human capital in Economic development - Education and Health - Estimating the rate of return to education - Measuring the contribution of Education to Economic growth - Role of Women in Economic Development - Women‘s Education - Women‘s Health - Mother‘s Index - Policies to reduce Gender gap

Sub Unit II: Importance of Health and Nutrition in Economic Development - Amartya Sen‘s approach to Health and Nutrition - Return on investment in Health - Measurement of Nutritional Status: Calorie intake approach and Anthropometric measurement - Impact of ill health on growth and development

Module – III: Population and Development

Sub Unit I: Population Growth and Economic Development - Costs and benefits of Population Growth - Malthus and other views on Population - Optimum Theory of Population - Theory of Demographic Transition - Model of low-level equilibrium trap

Sub Unit II: Demographic transition in India and Demographic dividend - Population trends of India and China: Recent developments - Determinants of Fertility - Missing Women Mystery - Need for a Population policy in a developing economy

Module – IV: Planning and Development Strategies

Sub Unit I: Rationale for Planning – Types of Planning - Process of Plan formulation - Mahalanobis Model - Fel'dman Model - Need for Investment criteria - Investment Criteria: Capital-Output ratio (COR) Criterion, Social Marginal Productivity (SMP) Criterion, Marginal Per capita Reinvestment Quotient (MRQ) Criterion, Time Factor Criterion and Labour Absorption Criterion - Cost-Benefit analysis and Project evaluation - Choice of Techniques: Labour intensive techniques and Capital intensive techniques

Sub Unit II: Administrative Reforms: Right to Information - Measures towards Good Governance - A New Thrust to Planning: NITI Aayog and Aftermath - Mohammed Yunus' ideas on Development and Bangladesh Rural Bank model - Decentralized planning experience in Kerala – Methodology of preparing Development Plans at the local level in Kerala.

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CORE COURSE - 15: PROJECT

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
4	DEC4P15	5	4	

COURSE OUTCOMES:

At the end of the course, the student will be able to

- demonstrates ability to design and conduct independent research, including formulating research questions, selecting appropriate methodologies, and analysing data.
- improve the ability in analysing data, using appropriate statistical or qualitative methods, and drawing meaningful conclusions
- apply economic theories and concepts to real-world issues or problems, illustrating the practical relevance of economic knowledge.
- identify and address challenges or limitations encountered during the research process.
- contribute new insights, perspectives, or empirical evidence to the existing body of knowledge in the field of economics.

Guidelines for Project Submission

1. The project report shall be prepared according to the guidelines approved by the university. One typed copy of the project report shall be submitted to the SDE, two weeks before the commencement of the ESE of the final semester.

2. The external evaluation of the project work shall be carried out at the end of the programme. The title and the credit with marks awarded for the project workshouldbeenteredinthegrade/marksheetapprovedbytheuniversity.

3. Every student has to do the project work independently. No group projects are accepted. The project should be unique with respect to title, project content and project layout. No two project report of any student should be identical, in any case, as this may lead to the cancellation of the project report by the university.

Evaluation of Project work:

1. Evaluation of the project work shall be conducted by external examiners.

2. Evaluation of the Project Report shall be done under Mark System.

3. External Examiners will be appointed by the University from the list of IV semester Board of Examiners in consultation with the Chairperson of the Board.

4. Chairman Board of Examinations, may at his discretion, on urgent requirements, make certain exception in the guidelines for the smooth conduct of the evaluation of project.

12.8 Pass conditions

1. The Project report submitted by the student shall be evaluated by the external examiners. No marks shall be awarded to a candidate if she/he fails to submit the Project report for external evaluation.

2. A student shall be declared to pass in the Project report course if she/he secures minimum

   40 % marks

3. The student should get a minimum of 40 % marks for pass in the project. In an instance of inability of obtaining a minimum of 40% marks, the Project work may be redone and the report may be resubmitted along with subsequent exams through parent department.

4. There shall be no improvement chance for the Marks obtained in the Project Report.

Annexure -II

PROJECT-

i) *Arrangement of contents*

The project should be arranged as follows-

1. Cover page and Titlepage
2. Bonafide certificate/s
3. Declaration by the student
4. Acknowledgement
5. Table of contents
6. List of tables
7. List of figures

8. List of symbols, Abbreviations and Nomenclature
9. Chapters
10. Appendices
11. References

12 Page dimension and typing instruction

The dimension of the Project report should be in A4 size. The project report should be printed in bond paper and bound using flexible cover of the thick white art paper or spiral binding. The general text of the report should be typed with 1.5 line spacing. The general text shall be typed in the font style‘ Times New Roman‘ and font size 12. Paragraphs should be arranged in justified alignment with margin 1.25‘‘ each on top. Portrait orientation shall be there on Left and right of the page. The content of the report shall be around 40pages.

13 A typical specimen of BonafideCertificate

KANNURUNIVERSITY

(Font Style Times New Roman-size 18)

BONAFIDE CERTIFICATE

(Font Style Times New Roman-size 16)

Certified that this project report― .....**TITLE OFTHE PROJECT**…….‖ is the bonafide work of– .....**NAME OFTHE CANDIDATE .....** ‖ who carried out the project work (Font Style Times New Roman-14)

Place

Date

SIGNATURE

<<Name>>

EXAMINER

<< AcademicDesignation>>

<<Department>>

<< Seal with full address>>

14Declaration by the student

DECDECLARATION

I,……..…,(Name of the candidate with Register Number) hereby declare that the Project work entitled ..... (Title of the project), ... has been prepared by me and submitted to Kannur University in partial fulfilment of requirement for the award of Master of Degree in ……..……is a record of original work done by me under the supervision of Dr/Prof… ..... (Name and full official address of the supervising teacher)

I also declare that this Project work has not been submitted by me fully or partly for the award of any Degree, Diploma, Title or recognition before any authority.

Place

Date Signature of the candidate

External Project Evaluation (100 marks).

Rubrics For External Evaluation		
	Components	**Marks**
1	Relevance of the Topic	5
2	Statement of the Objectives	10
3	Methodology/Reference/Bibliography	15
4	Presentation of facts/figures/language Styles/diagrams etc.	25
5	Quality of Analysis/Use of Statistical Tools	15
6	Findings and Conclusion	10
7	Viva	20
	Total	**100**

PART B: SYLLABUS – ELECTIVE COURSES

Elective Courses

ELECTIVE COURSE - 1: RESEARCH METHODOLOGY AND DATA ANALYSIS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
3	DEC3E01	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to

- understand the process of formulating research questions and hypotheses, selecting appropriate research designs, and identifying the most suitable methodology.
- familiarize with different data collection techniques commonly used in economics, such as surveys, experiments, archival data, and interviews.
- understand the ethical considerations in economic research, including privacy, confidentiality, and the responsible use of data.
- learn to identify and access relevant data sources, including primary and secondary data, economic databases, government reports, and academic literature.
- learn to conduct a comprehensive literature review, critically evaluating existing studies, and identifying research gaps.
- create a well-structured research proposal, including the justification for the research, research objectives, methodology, and expected contributions.

Module 1: Introduction to Social Science Research

Sub Unit I: Understanding the Science - Rationalism, Empiricism: Positive Science, Difficulties of Positive Science, Methodological Holism in Objectivist Social Science- Functionalism and 'Social Facts', Subjectivist Approaches – Methodological Holism, Methodological Individualism; Perennial Debates in social science- Explanation and Understanding: Reconciliation, Fact vs. Values in Social Research, Rationality vs. Relativism.

Sub Unit II: Research methodology fundamentals: The relation between theory and research – Research methods vs Methodology. Types of research – Applied vs. Fundamental; Descriptive vs. Analytical; Quantitative vs. Qualitative; conceptual vs. Empirical. Scientific and Social Science research – Approaches in social science research.

Module II: Tools for Research

Sub Unit I: Research design: Basic principles of research design-Types of research designs

(experimental, quasi-experimental, correlational, survey etc.)-Sampling techniques and sample size determination- Quantitative method-qualitative methods- Mixed method approach.

Sub Unit II: Fundamentals of data and analysis: Data collection tools and techniques - Validity and reliability of measurement tools- Handling Data- Understanding economic data- Data management - Levels of measurement (nominal, ordinal, interval and ratio) - Data analysis techniques – Univariate - bivariate and multivariate analysis- Data analytics with MS Excel- Building functions in Excel- Data analytics with SPSS and Gretl

Module III: Research Process

Sub Unit I: Research proposal development: Structure of research proposal- Introduction, Review of Related Literature, The Problem, Objectives, Hypotheses, data and Methodology, Scope, Tentative Chapterisation, Limitations. Components of a research proposal- formulating research objectives and research questions- Literature view -Need, scope, use and precaution – gap in literature review - Developing of working hypothesis.

Sub Unit II: Reporting writing: Structure and components of scientific reports - Types of report – Technical reports and thesis – Different steps in the preparation – Layout, structure and Language of reports – Illustrations and tables - Bibliography, referencing and footnotes.

Module IV: Ethics in Research

Sub Unit I: Research Ethics: Ethics with respect to research- intellectual honest and research integrity- scientific misconduct: falsification, fabrication, and plagiarism-selective reporting and misinterpretation of data-Use of plagiarism software like Turnitin, Urkund and other open-source software tools.

Sub Unit II: Publication ethics: Introduction and importance-best practices- Conflicts of interest-Publication misconduct: Concept-Violation of publication ethics, Authorship and contributorship -Identification of publication misconduct- Credibility of journals: predatory publishers and journals - UGC Care List: Concept and scope - Web of Science Index: Arts and Humanities Index, Social Science Citation Index - Scopus Index

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ELECTIVE COURSE - 2: INTERNATIONAL TRADE THEORIES AND POLICIES

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
3	DEC3E02	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to

At the end of the course, the students are able to:

- evaluate the contributions of trade theories in explaining the patterns and gains from trade.
- develop an understanding of the functioning of the international trading apparatus.
- help to understand the functioning of the international monetary and financial system.
- analyse the recent developments in the field of international economics.
- analyse different exchange rate systems; fixed exchange rates, floating exchange rates, and managed floating; and understand their advantages and disadvantages.
- evaluate the effects of different exchange rate regimes on currency stability and international trade.
- study the role of the international monetary system in influencing global imbalances and currency stability.

Module 1: Classical and Neoclassical Trade theories & Market

Sub Unit I: Theories of Absolute advantage and comparative advantage- gains from trade – Terms of trade and trade multiplier-– Opportunity cost approach- Heckscher-Ohlin model-factor endowments- relationship between factor and commodity prices- Specific factor model-Specific factors and income distribution- Empirical evidence on H-O model - the Leontief Paradox.

Sub Unit II: Stolper-Samuelson Theorem-Rybezynsky Theory-Immiserising growth theory-demand and supply-Reciprocal demand theory- offer curve-International trade under imperfect competition- Monopolistic competition and trade -Intra industry trade - Measuring

and models- trade and welfare.

Module II Modern trade theories & policies

Sub Unit I: Kravis-Linder theory-Technology gap theory-product cycle theory-Kemp Model-Krugman model- country similarity trade-global strategic rivalry theory-Porter's National competitive advantage theory.

Sub Unit II: The case for free trade - policies - negotiations - GATT, Tokyo and Uruguay rounds - Customs union - Trade restrictions – tariffs and non-tariff - partial and general equilibrium analysis of tariffs- theory of tariff structure - optimum tariff - quotas and other non-tariff barriers – dumping-Protectionism and effective rate of protectionism-general equilibrium analysis-small country and large country cases – optimum tariff-Metzler Paradox.-Lerner symmetry theory.

Module III- Foreign Exchange& Balance of payment &Foreign Exchange

Sub Unit I: Balance of payment accounting-disequilibrium in international transactions-corrective measures-theories of balance of payment disequilibrium-elasticity, absorption, and monetary approaches-internal and external balance-assignment problem -Swan model.

Sub Unit II: Foreign exchange market-characteristics, functions, and participants- Types of transaction; financial instruments-arbitrage, spot rate, forward rate, futures, options, swap-determination of foreign exchange rate-purchasing power parity, asset price theory, portfolio balance approach-fixed and flexible exchange rate system-foreign exchange risks-hedging and speculation-Devaluation and Revaluation.

Module IV-International Monetary systems & Economic integration

Sub Unit I: Importance of international finance-international monetary system-IMF, IBRD, GATT, WTO and regional trade blocks-liquidity issues-international capital movements-FDI and FPI-advantages and disadvantages of transnational corporation.

Sub Unit II: Theory of regional economic co-operation-Forms of economic integration-static and dynamic effects of free trade area-common market, European Union-preferential trade agreements-UNCTAD, NIEO, SAARC, NAFTA-G-20 Countries.

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ELECTIVE COURSE - 3: AGRICULTURAL ECONOMICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
4	DEC4E03	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to

- understand the principles and theories of agricultural economics and their relevance to the agricultural sector.
- analyse the determinants of agricultural supply and demand, and their impact on agricultural markets.
- evaluate the role of government policies and interventions in shaping agricultural markets and trade.
- Identify emerging issues and challenges in the agricultural development in India and Kerala and evaluate the agricultural policies of the state and central governments in the light of these issues.

Module-1 An Introduction to Agricultural Economics

Sub Unit I: Nature and Scope of Agricultural Economics- Role of Agriculture in economic development- Inter relationship between agriculture and Industry- Terms of trade between agriculture and Industry.

Sub Unit II: Theories of Agricultural Development: Schultz, Mellor, Boserup and Fei-Ranis.

Module II Agricultural Development in India

Sub Unit I: Agricultural Policies since independence- Institutional and technological changes

in Indian agriculture- Impact of agricultural development on economic development- Second Green Revolution- Evergreen Revolution.

Sub Unit II: Organic farming- Problems of agricultural Development- National Commission on farmers- Recent policy frame work in Indian agriculture- Impact of WTO agreement on Indian agriculture- Trade liberalisation and Agricultural Exports- Globalisation and Indian agriculture.

Module III Agricultural Production Economics

Sub Unit I: Economic decision in Agricultural Production- Production function in Agriculture and forms of agricultural production function- Resource use and efficiency- Demand and Supply of Agricultural Products- Characteristics of demand and supply- Cobb-web theorem- Agricultural Prices- Agricultural Price Policy and Food Security in India.

Sub Unit II: Agricultural Marketing- Market structure and Imperfections- Regulated markets- Marketed and Marketable surplus- Systems of agricultural marketing in India- Future Trading- Risk and uncertainty in Agriculture- Crop Insurance- Systems and types of farming- Agricultural Subsidies- Agricultural Credit- Structure and Problems of Agricultural credit.

Module IV Kerala Agriculture

Sub Unit I: Agricultural Performance of Kerala- Trends in Agricultural Growth- Changes in cropping pattern- Land use pattern.

Sub Unit II: Land reforms- Lease land farming- Group farming- Organic farming- Emerging Issues and prospects of Agriculture in Kerala

References:

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ELECTIVE COURSE – 4 : FINANCIAL ECONOMICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
4	DEC4E04	5	4	3

COURSE OUTCOMES:

At the end of the course, the students will be able to;

- grasp the structure and functioning of financial markets, including money markets, capital markets, and derivative markets.
- compare different financial instruments, such as stocks, bonds, derivatives, and commodities.
- evaluate investment decisions using principles of risk and return, portfolio diversification, and asset allocation.
- familiar with the roles and functions of financial institutions, such as banks, insurance companies, and investment firms, in the economy.
- understand the relationship between financial markets and macroeconomic factors, such as interest rates, inflation, and economic growth.

Module I: Introduction to Financial Economics

Sub Unit I: Overview of financial economics and its importance in modern economies – Types of financial markets: money markets, capital markets, and derivative markets – Fundamental concepts in finance: time value of money, risk and return – Computation of return.

Sub Unit II: Types of risk: (Systematic risk, Market risk, purchasing power risk, Interest rate risk, Unsystematic risk**,** Business risk (Internal, External), Financial risk) – Minimising risk Exposure – Measuring risk: standard deviation, beta, and other risk measures.

Module II: Investment and Securities

Sub Unit I: Meaning of investment – speculation and Gambling – Investment avenues - Types of investors – Investment objectives – The investment process –Risk diversification.

Sub Unit II: Security Analysis – Meaning of security – Types of securities – Meaning of security analysis - Fundamental and technical analysis - Valuation, pricing, and trading of securities in financial markets.

Module III: Portfolio Analysis

Sub Unit I: Selection and Evaluation – Meaning of portfolio – Objectives of portfolio management – phases of portfolio management – Markowitz‘s Model – Assumptions – Specific model – Risk and return optimization – Efficient frontier – Efficient portfolios.

Sub Unit II: Capital Asset Pricing Model (CAPM) and the Arbitrage Pricing Theory (APT) – Leveraged portfolios – Corner portfolios – Sharpe‘s Single Index model – Portfolio evaluation measures – Sharpe‘s Performance Index – Treynor‘s Performance Index.

Module IV: Bond Markets and Derivative Markets

Sub Unit I: Bond - Types of bonds – Bond returns and price – Preferred stock valuation – Systematic and Unsystematic risk in holding fixed income securities – Major factors in the bond rating process – Earning power – Bond Management Strategies

Sub Unit II: Derivatives - Options: Put and Call option – Mechanics of option trading – determination of option values – Option pricing: Black-Scholes model. Futures: Comparison of futures with option. Technical analysis: Market indicators, forecasting individual stock performance.

References:

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KANNUR UNIVERSITY

(Abstract)

M.A Development Economics Programme (CBCSS) -Under Private Registration- w.e.f 2023 admission- Change of Course code - Approved- Orders issued.

ACADEMIC C SECTION

Acad.C5/1010/PR/M.A.Economics/2020 Dated: 30.12.2024

Read:-1. U.O. No. Acad.C5/1010/PR/M.A. Economics/2020 dtd: 14/02/2024

2. EXC I/ASO EXC I-II/21137/2024 dtd: 05/08/2024

3. Minutes of the Meeting of the BoS, Economics (PG) held on 27/09/2024

4. E-mail from Dr Rajeev M - Member-BoS Economics (PG), dtd :12/10/2024 forwarding modified syllabus of the M.A. Development Economics Programme

5. Minutes of the meeting of the Standing Committee of Academic council held on 13/112024

6. The Orders of Vice Chancellor in file of even No.dated 27/12/2024

ORDER

1.The Scheme, Syllabus & Pattern of Question Paper of the M.A. Development Economics Programme was implemented under Private Registration with effect from 2023 Admission vide paper read (1) above.

2.Meanwhile, the Examination Branch, vide paper read (2) intimated that the Course code of the M.A. Development Economics programme implemented under Private Registration vide paper read 1 starts with "ECO," which is similar to the Code of M.A. Economics Programme implemented under Private Registration w.e.f.2020 admission and requested to modify the Course Code of the M.A. Development Economics programme implemented under Private Registration w.e.f.2023 admission.

3.Subsequently the matter was placed before the Board of Studies (BoS), Economics (PG), for consideration.

4. Accordingly, the meeting of the BoS Economics (PG) vide paper read 3 authorized Dr.Rajeevan M, Member BoS to modify the Course Code and subsequently, he forwarded Scheme & Syllabus, after changing the Course Code as 'DEC' instead of ECO (paper read 4).

5.Considering the matter, the Vice Chancellor ordered to place the Syllabus with modified Course Code, before the Standing Committee of Academic Council.

6.The Standing Committee of Academic Council held on 13/11/2024 vide paper read (5) considered the matter and recommended to approve the modifications made in the Course Code in the Syllabus of the M.A. Development Economics programme implemented under Private Registration programme w.e.f.2023 admission.

7.The Vice Chancellor after considering the recommendation of the Standing Committee of Academic Council and in exercise of the powers of the Academic Council conferred under Section 11(1) of the Chapter III of Kannur University Act 1996, ***accorded sanction to modify the Course Code of the M.A. Development Economics Programme implemented under Private Registration of the University with effect from 2023 admission, subject to reporting to the***

Academic Council.

8.The modified Scheme & Syllabus of the M.A. Development Economics programme under Private Registration are appended with this U.O. and uploaded in the University website (www.kannuruniversity.ac.in).

9.The U.O read vide paper (1) above stands modified to this extent.

Orders are issued accordingly.

Sd/-

ANIL CHANDRAN R

DEPUTY REGISTRAR (ACADEMIC)

For REGISTRAR

To: EX CI Section

Copy To: 1. Examination Branch (Though PA to CE)
2. The Director (School of Life Long Learning)
3. EG 1/AR IV/ AR I (Exam)
4. PS to VC/PA to R
5. DR /AR (Acad)
6. The Computer Programmer, IT Cell
7. SF/DF/FC

Forwarded / By Order

SECTION OFFICER

KV

KANNUR UNIVERSITY
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THAVAKKARA

KANNUR UNIVERSITY

M.A. DEVELOPMENT ECONOMICS

(PRIVATE REGISTRATION)

2023-24 ADMISSION ONWARDS

KANNUR UNIVERSITY

PROGRAMME STRUCTURE			
Sl. No	**Category of Course**	**Number of courses**	**Credits**
1	Core Courses	16	64
2	Elective Courses	4	16
Total		**20**	**80**

WORK AND CREDIT DISTRIBUTION STATEMENT – SEMESTER WISE					
Sem	**Course Title**	**Credits**	**Contact Hours per Week**	**Total Credit**	**Total Hours**
I	Core 1- Micro Economic Theory I	4	5	20	25
	Core 2- Macro Economic Theory I	4	5		
	Core 3- Quantitative Techniques for Economic Analysis I	4	6		
	Core 4- Environmental Economics	4	4		
	Core 5- Indian Economy – Structural Changes and Growth	4	5		
II	Core 6- Micro Economic Theory II	4	5	20	25
	Core 7- Macro Economic Theory II	4	5		
	Core 8- Quantitative Techniques for Economic Analysis II	4	6		
	Core 9- Basic Econometrics	4	5		
	Core 10- Indian Economy – Development Issues with Special Reference to Kerala	4	4		
III	Core 11- Public Economics	4	5	20	25
	Core 12- Economics of Growth and Development I	4	5		
	Core 13- Advanced Econometrics	4	5		
	Elective-1 Research Methodology and Data Analysis	4	5		
	Elective-2 International Trade Theories and Policies	4	5		
IV	Core 14- Economics of Growth and Development II	4	6	20	25
	Elective – 3 Agricultural Economics	4	6		
	Elective – 4 Financial Economics	4	6		
	Core 15- Project	4	7		
	Core 16- Viva	4	-		
Total				**80**	**100**

CORE COURSES				
COURSE CODES & MARK DISTRIBUTION STATEMENT				
Course Code	**Course Title**	**Exam Hours**	**Marks IE**	**Marks ESE**
DEC1C01	Core 1- Micro Economic Theory I	3	15	60
DEC1C02	Core 2- Macro Economic Theory I	3	15	60
DEC1C03	Core 3- Quantitative Techniques for Economic Analysis I	3	15	60
DEC1C04	Core 4- Environmental Economics	3	15	60
DEC1C05	Core 5- Indian Economy – Structural Changes and Growth	3	15	60
DEC2C06	Core 6- Micro Economic Theory II	3	15	60
DEC2C07	Core 7- Macro Economic Theory II	3	15	60
DEC2C08	Core 8- Quantitative Techniques for Economic Analysis II	3	15	60
DEC2C09	Core 9- Basic Econometrics	3	15	60
DEC2C10	Core 10- Indian Economy – Development Issues with Special Reference to Kerala	3	15	60
DEC3C11	Core 11- Public Economics	3	15	60
DEC3C12	Core 12- Economics of Growth and Development I	3	15	60
DEC3C13	Core 13- Advanced Econometrics	3	15	60
DEC4C14	Core 14- Economics of Growth and Development II	3	15	60
DEC4P15	Core 15- Project	-	-	100
DEC4V16	Core 16- Viva	-	-	50

ELECTIVE COURSES				
COURSE CODES & MARK DISTRIBUTION STATEMENT				
SEMESTER – III				
Course Code	**Course Title**	**Exam Hours**	**Marks IE**	**Marks ESE**
DEC3E01	Research Methodology and Data Analysis	3	15	60
DEC3E02	International Trade Theories and Policies	3	15	60
SEMESTER – IV				
DEC4E03	Agricultural Economics	3	15	60
DEC4E04	Financial Economics	3	15	60

End Semester Course Evaluation Pattern	
Assessment	**For Core and Elective**
EXTERNAL	80%
INTERNAL	20%

Assessment Pattern for Continuous Internal Evaluation		
Component	**Mark**	**Remarks**
Assignments	**15**	Internal assessment **(20%)** of each course/paper is based on Assignments. Students shall answer **4** essay type questions for **10** marks each, out of **6** questions, covering the syllabus of the course or as per the instructions given in the question paper. The marks secured by the candidates out of **40** marks shall be converted in to **20%** and awarded into **15** marks.

Assessment Pattern for End Semester External Evaluation Exam				
Sl. No	**Type of Questions**	**No. of Questions to be attended**	**Marks**	**Total Marks**
3-hour examinations	Short Answer Questions (3 marks each)	5 (out of 6)	15	60
	Short Essay Questions (6 marks each)	3 (out of 5)	18	
	Essay Questions (9 marks each)	3 (out of 5)	27	

PART A: SYLLABUS – CORE COURSES

CORE COURSE -1: MICRO ECONOMIC THEORY I

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
1	DEC1C01	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- demonstrate a thorough understanding of core microeconomic principles, consumer choice theory, production theory, production and cost functions and market structures.
- analyse decision-making under uncertainty and risk, including the concept of expected utility and risk aversion.
- examine the profit-maximizing behaviour of firms under oligopoly and differentiate it with other different market structures, including perfect competition, monopoly, and monopolistic competition.
- identify instances of market failures, such as asymmetric information, public goods, and externalities, and evaluate potential remedies.
- evaluate the implications of externalities and public goods on market outcomes and discuss potential policy interventions.
- apply game theory concepts to analyse strategic interactions among individuals and firms in various economic settings.

Module I: Uncertainty and Choice

Sub Unit – I: The expected utility analysis: St. Petersburg paradox and Bernoulli‘s solution to the paradox, Neumann – Morgenstern Theorem and expected utility maximization – Different preference towards risk: Risk aversion, risk loving and risk neural - Risk aversion: Risk aversion and fair bets, Risk aversion and insurance.

Sub Unit – II: The demand for risky assets: trade-off between risk and return – The portfolio or investor‘s choice problem: Choice between risk and return – The state preference approach to choice under uncertainty: Risk aversion under state preference model

Module II: Production and Cost

Sub Unit – I: Production functions: fixed proportions, Cobb Douglas and CES production functions (properties) – Production function with two outputs: Economies and diseconomies of scope, Degree of economies of scope – Technical progress: measurement, growth accounting –

technical progress in Cobb-Douglas production function: input augmenting technical progress

Sub Unit – II: Cost functions: properties of cost functions – Fixed Proportions, Cobb-Douglas and CES cost functions – Input substitution: Elasticity of Substitution – Dynamic changes in cost: The Learning curve

Module III: Game Theory and Oligopoly

Sub Unit – I: Gaming and strategic decisions – Co-operative Vs Non-co-operative games – dominant strategies – Nash Equilibrium and the product choice problem – maxi-mini strategies – mixed strategies: The battle of sexes – Repeated game: Tit for tat strategy, finite and infinitely repeated games – Sequential games – Commitment and credibility: bargaining strategy – Entry deterrence

Sub Unit – II: Equilibrium in oligopoly – Cournot Nash Equilibrium, Stackelberg and first mover advantage - Bertrand‘s Equilibrium: the Nash equilibrium in prices – Competition Vs Collusion: The prisoner‘s dilemma – Implication of prisoner‘s dilemma for oligopoly pricing: Price rigidity and kinked demand curves

Module IV: Information Asymmetry and Market Failure

Sub Unit – I: Efficiency of the competitive markets – Why markets fail: Market power, externalities, public goods, incomplete information and information asymmetry – Quality, uncertainty and the market for lemons: market for used cars – implications of asymmetric information: adverse selection, market for insurance and market for credit

Sub Unit – II: Market signalling: model of job market signalling – Principal-Agent problem: case of public and private enterprises, incentives in the Principal-Agent framework – moral hazard and hidden actions model – asymmetric information in the labour markets: efficiency wage theory – Imperfect information and the ―Winner‘s Curse‖.

Reference

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15. Hirshleifer, J. (1966). Investment decision under uncertainty: Applications of the state-preference approach. *The Quarterly Journal of Economics*, *80*(2), 252-277.

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18. Akerlof, G. A. (1978). The market for ‒lemons‖: Quality uncertainty and the market mechanism. In *Uncertainty in economics* (pp. 235-251). Academic Press.

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20. Zavolokina, L., Schlegel, M., & Schwabe, G. (2021). How can we reduce information asymmetries and enhance trust in ‗The Market for Lemons'?. *Information Systems and e-Business Management*, *19*, 883-908.

21. Grossman, S. J., & Hart, O. D. (1992). *An analysis of the principal-agent problem* (pp. 302-340). Springer Netherlands.

22. Stiglitz, J. E. (1984). *Theories of wage rigidity* (No. w1442). National Bureau of Economic Research.]

CORE COURSE -2: MACRO ECONOMIC THEORY I

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
1	DEC1C02	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- demonstrate a comprehensive understanding of advanced macroeconomic theories, including theories of consumption, Investment, growth, business cycles, monetary and fiscal policy, and open economy macroeconomics.
- evaluate various macroeconomic models, such as the Keynesian model, IS-LM model, to analyse economic phenomena and policy implications.
- evaluate the effectiveness of fiscal policy in stabilizing the economy, understanding government budget constraints, and assessing the implications of public debt.
- apply macroeconomic concepts and models to analyze real-world economic issues and assess the effectiveness of macroeconomic policies.
- critically evaluate macroeconomic theories and policy proposals, recognizing their strengths, limitations, and empirical relevance.

Module I: Behavioural Foundations of Macroeconomics

Sub Unit I: Theories of Consumption - The Psychological Law of Consumption–Kuznets _s Consumption Puzzle–Fisher‘s Intertemporal Choice Model–Permanent Income Hypothesis–Life Cycle Hypothesis – The Random Walk Hypothesis.

Sub Unit II: Theories of Investment - The Keynesian Investment Theory- Neoclassical Theory of Business Fixed Investment–The Accelerator Theory of inventory Investment–The financial theory of investment -Tobin _s Q Theory

Module II: Neo-classical Keynesian Synthesis

Sub Unit I: IS-LM Model- The Interaction of Real and Monetary Sector–The Neoclassical and Keynesian version of IS-LM Model–Fiscal and Monetary Policy Analysis in IS-LM Model–Fiscal Policy and Crowding out–Ricardian Equivalence. Unemployment and Labour Market – Neoclassical Labour Market Equilibrium – Keynesian Labour Market – Under Employment Equilibrium.

Sub Unit II: The Aggregate Supply in the Short and Long Run – Aggregate Demand and Price Determination– Keynes Effect, Pigou Effect and Real Balance Effect in the IS-LM Model. The Open Economy IS-LM - Mundell–Fleming Model- Marshall-Lerner Conditions

Module III: Theories of Business cycle and Stabilization Measures

Sub Unit I: Business Cycle: Great Depression and alternative view on causes- Accelerator-multiplier Interaction Model – Real Business Cycle Theory – Political Business Cycle-Minsky's financial instability theory.

Sub Unit II: Fiscal policy and Macroeconomic stabilization- Fiscal stimulus and stabilization- Monetary policy and stabilization measures.

Module IV: Theories of Money Demand and Supply

Sub Unit I: Theories of Money Demand- A Restatement of Quantity Theory of Money (Milton Friedman)- Inventory Theoretic Approach (William Baumol) – Liquidity Preference as Behavior Towards Risk (James Tobin) — The Buffer Stock Notion (David Laidler).

Sub Unit II: Theories of Money Supply- The Concept and Measurement of High-Powered Money – Sources of Variation in High Powered Money – The Money Multiplier Model – Factors affecting Money Multiplier – Behavioral Model of Money Supply

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23) Frenkel, J. and A. Razin (1996), Fiscal Policies in the World Economy, 3rd Edition,Cam-Bridge, Ma: Mit Press.
24) Gali, Jordi (2015): Monetary Policy, Inflation, and the Business Cycle, 2nd Edition, Princeton University Press.
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26) Sorensen, P.B. and Whitta-Jacobsen, H.J. (2010): Introducing Advanced Macroeconomics: Growth and Business Cycles, 2nd Edition, McGraw-Hill.
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CORE COURSE - 3: QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS - I

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
1	DEC1C03	6	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- understand fundamental statistical and mathematical concepts, including matrix algebra, probability, sampling methods, hypothesis testing, and confidence intervals.
- differentiate various discrete and continuous probability distributions and their properties
- formulate and test economic hypotheses using appropriate statistical tests, and interpret the results in an economic context.
- learn to construct confidence intervals for population parameters using different confidence levels, and interpret the intervals

Module I

Sub Unit I: Determinant of a square matrix - Solution of a system of equations - Inverse method and Crammer's rule, Rank of a matrix, Characteristic equations and characteristic roots and vectors – Eigen value - Cayley- Hamilton theorem

Sub Unit II: Application of matrix algebra in Input-Output Analysis – basic concepts in input-output analysis - Structural co-efficient matrix – Hawkins-Simon conditions - Determination of final demand – Basic problem solving

Module II

Sub Unit I: Permutations and Combinations, Definitions of Probability – classical, empirical and axiomatic approaches – Addition and multiplication laws, conditional probability –Bayes' theorem, Random variables – probability distribution – Mathematical expectation – moments

Sub Unit II: Probability Distributions – Discrete Probability Distributions, Binomial, Poisson, Uniform, Multinomial – problem solving - Continuous probability distributions – basics of Normal, Lognormal, Pareto and Exponential Distributions – problem solving with normal distribution

Module III

Sub Unit I: Statistical Inference – meaning and scope - Concept of population, sample – Relevance of random sampling in statistical inference – properties of random sampling - determination of sample size – alternative views - sampling and non-sampling errors.

Sub Unit II: Sampling distributions – concept of law of large numbers and Central limit theorem - Standard error – Distributions of sample mean, Sample variance – chi square Student‘s t, and F distributions – Small and large sample properties of z, t, chi. square and F

Module IV

Sub Unit I: Estimations of populations parameters – point and Interval estimation – Properties of estimators – unbiasedness, consistency, efficiency and sufficiency -Confidence interval for Mean and Proportion and variance - Basic introduction to method of moments and maximum likelihood – assumptions, merits, demerits and uses (without proof and no problem solving required)

Sub Unit II: Testing of hypothesis – simple and composite hypotheses – Null and alternative hypotheses – directional and non-directional hypotheses - Type I and Type II error, Critical region – Level of significance, and exact level of significance – Test procedure – Degrees of freedom - Test of significance in respect of Mean and difference of means – conditions for applying z and t tests in a given context

References

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3. Chiang, Alpha C (1984): Fundamental Methods of Mathematical Economics, McGraw Hill Publishing Co.
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5. Hooda, R.P. (2013): Statistics for Business Economics, Vikas
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12. Yamane, Taro (2012): Mathematics for Economics: An Elementary Survey, Literary Licensing.

CORE COURSE - 4: ENVIRONMENTAL ECONOMICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
1	DEC1C04	4	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- demonstrate a thorough understanding of key environmental economic concepts, such as externalities, public goods, and market failures.
- analyse the concept of sustainable development, recognizing the interdependence between economic growth, social well-being, and environmental protection.
- integrate ecological principles into economic analysis, considering the interconnections between ecosystems and the economy.
- evaluate the effectiveness of various economic valuation methods (e.g., contingent valuation, hedonic pricing, and travel cost method) to estimate the economic value of environmental goods and services.
- understand the economic dimensions of climate change, including mitigation and adaptation strategies, and assess the costs and benefits of climate policies.
- evaluate the effectiveness of various environmental policy instruments, such as taxes, subsidies, cap-and-trade systems, and command-and-control regulations.

Module I: Environmental Economics & Economics of resource use

Sub Unit I: Environmental Economics- Multi-disciplinary nature-Environment and Ecology-structure of Eco-system-inter-linkages between Economy and environment-Material balance Model-Environmental cost of economic growth - Environmental Kuznets curve--environmental ethics and its basic approaches.

Sub Unit II: Growth pattern and management of renewable and non-renewable rsources-theories of optimal use of resources-Economics of Natural resource use- Need for conservation of natural resources.

Module II: Sustainable Development and Environmental Accounting

Sub Unit I: Sustainable development and its indicators – equity concerns of sustainable development-Key approaches to sustainable development: Hart wick` - Solow approach, Safe Minimum Standard Approach - Daley's operational principle -SDGs -sustainable development challenges and solutions- progress of India towards sustainable development goals.

Sub Unit II: Accounting for the environment and green accounting, green economy, green manufacturing-green finance, green marketing, and green tourism-Tools of Corporate Environmental Management-environmental management system-environmental performance auditing -life cycle assessment-ISO standards-industrial ecology.

Module III: Environmental valuation and impact assessment.

Sub Unit I: Valuing the environment-meaning and types of environmental values- environmental love, environmental awareness, environmental respect, environmental Responsibility, environmental conservation, environmental co-existence, environmental sensitivity- Measures of economic valuation-market valuation- surrogate markets, wage-differential approach, opportunity cost method, choice modelling technique.

Sub Unit II: Expressed preference methods for valuing the environment: Contingent valuation method, trade off game method, costless choice method, Delphi method – Revealed preference methods for valuing the environment: hedonic price method, property value method. Environment impact assessment (EIA)- procedures, methods and limitations- EIA in India.

Module IV: Market Failure and Environmental Policies

Sub Unit I: Market failure and environmental goods-approaches and causes of market failure-market failure and externality- attributes of externality- internalizing externalities, Instrument for environmental protection- Direct Economic Instruments: Pollution fee and polluter pay principle, emission trading rights (tradable market permits), Deposit refund system, performance-based liability- Indirect economic instruments: taxes and subsidies.

Sub Unit II: Climate change and food security-impacts of climate change on agriculture with special reference to Kerala-adaptation and mitigation of climate change through credit subsidies - India‘s environmental policies-International summits on combating climate change- CMP 16, CMA 3 and COP26 – climate change performance index (CCPI)

(Note: compulsory field visit to various eco spots/ecologically sensitive places Not More Than 5 days. Report of field visit may be considered as assignment of this paper)

References:

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CORE COURSE - 5: INDIAN ECONOMY: STRUCTURAL CHANGES AND GROWTH

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
1	DEC1C05	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- demonstrate an in-depth knowledge and understanding of the nature, problems and functioning of Indian economy.
- study the major sectors of the Indian economy, including agriculture, industry, and services, and evaluate their contributions to economic growth and employment.
- evaluate India's trade policies, trade patterns, and foreign direct investment inflows, and understand the role of India in the global economy.
- analyse and interpret macroeconomic indicators, such as GDP growth, inflation, and unemployment, to assess the overall performance of the Indian economy.
- examine the patterns and determinants of poverty and income inequality in India and evaluate policies aimed at poverty reduction and inclusive growth.
- understand the economic reforms initiated in India since the 1990s and assess their impact on the Indian economy.

Module-1 Economic Growth, Structure and Reforms

Sub Unit I: Structural Changes in Indian Economy- Contribution of different sectors to output, income and employment- Growth rate across region/states- NITI Aayog and discontinuation of Central Planning- Debate on market v/s planned economy- Neo liberalism.

Sub Unit II: Structural Adjustment Reforms - Liberalisation, Privatisation and Globalisation- Evaluation of Economic Reforms- Global Economic Crisis and its impact on Indian economy- Second Generation Reforms- Inclusive Growth; Recent policy initiatives

Module II Sector wise analysis- Agriculture

Sub Unit I: Importance of agriculture- Trends, pattern and performance of agricultural growth- Changes in land use and cropping pattern- Crisis of Indian agriculture- New agricultural policy- WTO and Indian agriculture- - Agricultural Credit, marketing and subsidies.

Sub Unit II: Revolutions in agriculture- Evergreen revolution- Concept of food security- National food security Mission- Debate on GM crops- - Agricultural Sustainability

Module III Sector wise analysis- Industry and service sectors

Sub Unit I: Growth and pattern of Industrial development in India- Structural changes in Indian industries- Inter-state disparities in Industrial development- Role of FDI in India‘s Industrial Performance- New Industrial Policy- Public sector enterprises and their performances- Debate on privatisation and disinvestment- Micro and small-scale industries- Industrial labour- - Industrial

financing- Industrial growth and environment.

Sub Unit II: An over view of service sector in India- Transport and communication- IT- Tourism (Growth, performance, market size and exports)- Contribution of service sector to India‘s GDP- FDI inflow in service sector- Role of WTO in service sector - Global energy crisis- Role of IT sector- Infrastructure and economic development- Public investment in infrastructure.

Module IV India and Global economy

Sub Unit I: India‘s share in global trade- Share of global trade and capital flows- BOP position- Balance of trade (export and imports)- Foreign trade policy- - Foreign capital and MNC‘s in India- Inflation- Debate on WPI v/s CPI.

Sub Unit II: FDI and FPI- Role of FDI in India‘s Economic Development- Regional economic integration (SAARC, BRICS and G-20)- India as an emerging global economic power.

References:

1. J.K Misra and V.K Puri (2014): *Indian Economy; The Development Experience*, Himalaya Publishing House, Mumbai.
2. Ruddar Dutt and Sundaram (2016): *Indian Economy*, S Chand and Company, New Delhi.
3. Kapila, Uma (2013) *Two Decades of Economic Reforms in India; Towards faster Sustainable and more Inclusive Growth*, (3rd edition) Academic Foundation, New Delhi.
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5. Agarwal. A N (2013) *Indian Economy: Problems of Development and Planning*, Vikas Publishing House, New Delhi.
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11. Ashim Goyal (ed) The Oxford Hand Book of the Indian Economy in the 21st Century, Understanding the Inherent Mechanism, Oxford University Press, New Delhi.
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CORE COURSE - 6: MICRO ECONOMIC THEORY II

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
2	DEC2C06	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- define and assess Pareto efficiency and understand its importance in welfare economics as a benchmark for economic efficiency.
- evaluate various welfare criteria, such as Pareto optimality, social welfare functions, and the Kaldor-Hicks criterion, to assess the desirability of policy outcomes.
- understand the key concepts related to factor markets, including factors of production, factor prices, factor demand, and factor supply.
- examine monopsony and monopsonist competition in factor markets, identifying how they affect factor prices and employment levels.
- understand the concept of markup pricing and how firms set prices based on cost-plus pricing or target markup strategies.
- analyse prospect theory and how it deviates from traditional expected utility theory in explaining risk preferences and decision-making under uncertainty.
- understand the core concepts and principles of institutional economics, including the role of institutions in shaping economic behaviour.

Module I: General Equilibrium and Economic Efficiency

Sub Unit I: Perfectly competitive price system: The law of one price – Economic efficiency and welfare analysis: consumer surplus and producer surplus approach – The first fundamental theorem of welfare economics: Pareto efficiency and simple general equilibrium model – Equity and Efficiency – Distributional dilemma and second fundamental theorem of welfare economics: exchange with initial endowments

Sub Unit II: Partial and general equilibrium framework – Existence of general equilibrium prices: Excess demand functions – Walras‘ Law: Walras‘ proof of the existence of general equilibrium price, Brower‘s fixed-point theorem – Departing from the competitive assumptions: Theory of second best – Inefficiency and Dead Weight Loss

Module II: Product Pricing and Competitive Strategies

Sub Unit I: Modern Theories of the Firm – Baumol‘s sales revenue maximization hypothesis – Williamson‘s model of managerial discretion – Marris‘ model of managerial enterprise

Sub Unit II: Theory of product pricing – Marginalist controversy – Hall and Hitch report and the Full Cost Pricing principle – Average cost pricing and mark-up rule – Barriers to entry: Bain‘s

limit-pricing model – Sylos-Labini Model – Extended model of Franco Modigliani – Predatory Pricing and entry deterrence.

Module III: Factor Market and Employment of Factor Inputs

Sub Unit I: Competitive factor markets – Demand for factor with one variable input – Market demand and supply of inputs – Income and substitution effect of a change in wage rate: Backward bending supply curve for labour, Slutsky‘s equation of labour supply – Competitive labour market equilibrium – Marginal productivity theory and adding up controversy – Economic rent in the labour market

Sub Unit II: Imperfections in the factor market – Monopsony in labour market: Pricing in a Monopsony labour market – Monopoly power in the labour market: labour unions and equilibrium with union‘s goals – Modelling wage discrimination: Unionized Vs Non-unionized workers

Module IV: Behavioural Extension and Institutions

Sub Unit I: Behavioral economics: Behavioral economics and the economic man – Expected utility paradox: Allais paradox – Prospect theory: The value function, Decision weight function, Allais paradox and prospects theory – Endowment effect – Bounded Rationality – Intuitive judgment and biases: Anchoring effect and Framing effect – Neuroeconomics

Sub Unit II: Institutional Economics: Subject matter of institutional economics – Notion of ‗Institutions‘: Formal and Informal institutions, social and economic institutions – New Institutional Economics: Contributions of North and Williamson.

References:

1. Nicholson, W., & Snyder, C. M. Microeconomic theory: Basic principles and extensions. Cengage Learning. Latest Edition
2. Pindyck, R. S., Rubinfeld, D. L., & Mehtha P L. Microeconomics. Pearson Education. Latest Edition
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23. Thaler, R. H., & Sunstein, C. R. (2009). Nudge: Improving decisions about health, wealth, and happiness. Penguin.
24. Thaler, R. H. (2016). Behavioral economics: Past, present, and future. American economic review, 106(7), 1577-1600.
25. Coase, R. (1998). The new institutional economics. The American economic review, 88(2), 72-74.
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28. Williamson, O. E. (2000). The new institutional economics: taking stock, looking ahead. Journal of economic literature, 38(3), 595-613.
29. Hodgson, G. M. (2007). The revival of Veblenian institutional economics. Journal of economic issues, 41(2), 324-340.

CORE COURSE - 7: MACRO ECONOMIC THEORY II

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
2	DEC2C07	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- understand the rational expectations hypothesis and how it affects the behaviour of economic agents in decision-making.
- examine the Lucas critique and its implications for the evaluation of economic policies, highlighting the importance of accounting for agents' responses to policy changes
- understand the concept of sticky prices and how nominal rigidities can lead to short-run fluctuations in output and employment.
- study the role of menu costs in delaying price adjustments and its impact on aggregate demand and supply dynamics.
- analyse the role of fiscal policy in influencing aggregate demand, taking into account the concept of Ricardian equivalence.
- understand the need for coordination between fiscal and monetary policy to achieve macroeconomic stability.

Module 1: The Post Keynesian and New Classical Macroeconomics

Sub Unit I: The Post Keynesian and New Classical Macroeconomics –Monetarism: Basic elements of monetarism – Monetarists proposition.

Sub Unit II: New Classical Macroeconomics- Efficient Market Hypothesis Rational Expectation Hypothesis- The Lucas surprise supply function- Policy ineffective Theorem- The Lucas Critique- Rational Expectation and implication of Monitory policy-Supply side economics

Module II: New Keynesian and Neo-Keynesian Macroeconomics

Sub Unit I: New Keynesian Model - Basic framework, price stickiness (Calvo and Rottenberg)- Micro foundations of macroeconomics – Small menu cost model – Efficiency wage theories – Insider-Outsider model- The Random Walk of GDP.

Sub Unit II: Walrasian General Equilibrium-Re-interpretation of Keynes by Clower and Leijonhuvad-The Dual decision hypothesis- Neo-Keynesian quantity constrained models.

Module III: The Inflation- Unemployment Trade off

Sub Unit I: Inflation and Unemployment- Various theories of inflation-Monetarist view on inflation-Concept of core inflation-measures of inflation (CPI, WPI, Core, Headline, GDP deflator).

Sub Unit II: The Phillip's Relationship – Theoretical Underpinnings of Phillip's Curve –Natural Rate Hypothesis -NAIRU– Theory of Adaptive Expectation – Expectation Augmented Phillip's

Curve –Modified Philips Curve- Cost of Inflation-Anti-inflationary measures- Search theory-DMP Model- Okuns law-sacrifice ratio

Module IV: Macroeconomic Policy

Sub Unit I: Monetary policy-Instruments of monetary policy-Monetary targeting- Inflation targeting- Interest rate targeting. Rule vs. discretion in the conduct of monetary policy- central bank-measures of monetary control.

Sub Unit II: Fiscal policy and Macroeconomic stabilization- Nature and scope of fiscal policy – Concept and definition of fiscal stabilization- Instrument of fiscal policy: Taxation, expenditure and debt – Fiscal stimulus and stabilization –Crowding-out effect – Ricardian Equivalence Theorem

Reference:

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13. Gordon, R.J : Macroeconomics, twelfth edition, PHI/Eastern Economy edition
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17. Sheffrin, S.M., Rational Expectation, Cambridge University Press, 1996. 10. Higgins, Monetary Economics.
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CORE COURSE - 8: QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS II

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
2	DEC2C08	6	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- understand the concept of functions and their representation in various economic contexts.
- apply the rules of differentiation to find derivatives of various functions used in economics, such as demand, supply, and cost functions.
- understand the concept of marginality in economics, particularly in the context of demand, supply, cost, revenue, and production functions.
- use optimization techniques to economic problems, such as profit maximization, cost minimization, and utility maximization.
- understand the basic concepts of game theory, including players, strategies, payoffs, and the concept of Nash equilibrium
- apply hypothesis testing techniques to one-sample, two-sample, and paired data scenarios.
- familiarize with non-parametric hypothesis testing methods suitable for situations with non-normal or ordinal data.

Module I

Sub Unit I: Functions, limit of a function, continuity of a function, Derivative of a function - Rules of Differentiation, Higher order derivatives, differentiation of logarithmic functions, exponential functions and implicit functions –

Sub Unit II: Application of Derivatives – Meaning of a Derivative – rate of change – slope of a curve – Marginal concepts related to demand, supply, cost, revenue and production functions - Maxima and minima – Economic applications.

Module II

Sub Unit I: Functions of several variables - Partial differentiation –Total and Partial derivatives – Total derivatives – Rules of integration – Definite integral, area under a curve –estimation of producer and consumer surplus

Sub Unit II: Optimisation of economic functions- Optimisation of multivariable functions – unconstrained optimization – maximization of profit - constrained optimization with Lagrange multipliers – Consumers and producers equilibrium using constrained optimization.

Module III

Sub Unit I: Optimisation with inequality constraints - Linear programming -Characteristics of Linear Programming Problem (LPP) - Formulation of LPP - Solution of LPP using Simplex

method – Duality - Uses of dual LPP and Shadow prices.

Sub Unit II: Essentials of game theory – basic concepts – zero sum game – non-zero-sum game – co-operative and competitive games – pay off matrix – pure and mixed strategy – maxmin and minimax – saddle point – solution of mixed strategy game – Nash equilibrium.

Module IV

Sub Unit I: Testing of hypothesis with Proportion, difference of proportions, Variance and Correlation coefficient – Testing the significance of regression co-efficient - Chi Square test of goodness of fit, and test for independence of attributes - ANOVA F test – One way and Two-way procedures – problem solving using Chi square and F statistics

Sub Unit II: Non --parametric tests – difference between parametric and non-parametric tests – advantages and disadvantages of non-parametric tests - sign test, Wilcoxon – Mann Whitney U Test, signed rank test – uses

References:

1. Baruah, Srinath (2001): Basic Mathematics and its Applications in Economics, McMillon India
2. Chiang, Alpha C (1984): Fundamental Methods of Mathematical Economics, McGraw Hill Publishing Co.
3. Gupta, S.P. (2012): Statistical Methods, Sultan Chand & Sons, New Delhi
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8. Yamane, Taro (1973): Statistics: An Introductory Analysis, 3rd edition, Joanna Cotler Books.
9. Yamane, Taro (2012): Mathematics for Economics: An Elementary Survey, Literary Licensing.

CORE COURSE - 9: BASIC ECONOMETRICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
2	DEC2C09	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- understand the concepts of the simple and multiple linear regression models and their interpretations in economic contexts.
- acquire the skills to estimate the parameters of a linear regression model using least squares estimation and interpret the estimated coefficients.
- understand the issues of autocorrelation, multicollinearity and heteroscedasticity in regression analysis and their sources, consequences and the remedial measures
- understand the concept of residuals and their significance in regression analysis as indicators of model fit.
- identify dummy and categorical variables in regression models and learn to interpret their effects in a regression model.
- differentiate between structural and reduced form equations and comprehend their roles in the analysis of simultaneous equation systems.
- identify endogeneity and simultaneity bias issues in simultaneous equation models and learn about techniques to address them.

(Bridge Course Content (Not for examination): Meaning and Definitions of econometrics – Basics of bivariate regression – Sample Regression Function and Population Regression Function - cross section and timeseries models - review of OLS method – Assumptions of classical linear regression model – Gauss Markov theorem and BLUE property – R^2 and adjusted R^2)

Module I: Simple Linear Regression

Sub Unit I: Testing the significance of the OLS estimators in simple linear regression models – Individual and overall significance - Violation of the assumptions of classical linear regression model – Serial/Auto correlation, Heteroscedasticity – causes, consequences, detection methods and solutions – HAC standard error

Sub Unit II: Basics of regression diagnostics – Ramsey‘s RESET – Error Normality tests – tests for linearity - regression through the origin – interpretation of regression co-efficients in different functional forms (linear, log linear, semi-log, reciprocal and log reciprocal) – regression co-efficients as elasticity and growth rates

Module 2: Multiple Linear Regression

Sub Unit I: Introduction to multiple linear regression analysis using OLS – Assumptions underlying classical linear regression model as applicable to multiple regression – OLS Estimation and interpretation of co-efficients - testing of individual and overall significance – use of adjusted

R^2

Sub Unit II: BLUE property and Gauss-Markov theorem as applicable to multiple regression analysis using OLS (Matrix notation) - violation of CLRM assumptions in multiple regression analysis with reference to multicollinearity – causes, consequences, detection and solutions

Module 3: Regression involving Qualitative Variables

Sub Unit I: Regression with dummy explanatory variables – major applications and basic structural form – ANOVA and ANCOVA models - interpretation of slope and intercept in dummy variable regression– interactive effects – seasonal analysis - piecewise linear regression – structural stability and structural break – Chow test and applications – Dummy variable trap

Sub Unit II: Models with qualitative dependent variable (Binary choice models) – Linear Probability Model –logit and probit models – Multi response models (brief explanation regarding multinomial logit and ordered probit models) – Truncated and censored regressions – Tobit model

Module 4: Simultaneous Equation Models

Sub Unit I: Simultaneous equation models –Structural and reduced form equations of a simultaneous equation system – simultaneous equation bias – Instrumental variable estimation – Identification problem – Rank and order conditions

Sub Unit II: Estimation of simultaneous equation system – Recursive methods and OLS - Indirect Least Squares – 2 SLS and 3 SLS – Seemingly unrelated regression (SUR) model and feasible generalised least squares

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CORE COURSE - 10: INDIAN ECONOMY – DEVELOPMENT ISSUES WITH SPECIAL REFERENCE TO KERALA

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
2	DEC2C10	4	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- understand the current population size of India, its distribution across different age groups, gender composition and the population density in India.
- understand the concept of demographic dividend and its potential benefits for economic growth and development.
- understand different methods and approaches to measure poverty in India, including the use of poverty lines and multidimensional poverty indices.
- evaluate the effectiveness of various poverty alleviation programs and social welfare policies implemented by the government to reduce poverty.
- evaluate the impact of economic policies, labour market reforms, and social welfare programs on poverty, inequality, and unemployment.
- analyse the performance of different sectors of the Kerala economy, such as agriculture, industry, and services, and their contributions to overall economic growth.
- examine the state's fiscal management practices, debt levels, and the implications of public borrowing on the economy.

Module-I Demographic Profile

Sub Unit I: Major demographic features of India‘s population- Demographic changes; trends and pattern- Census 2021 reports- Basic measures of demography: rates, ratios, data sources, Census, surveys and vital statistics

Sub Unit II: Sex, Age, Density structure of Indian population; Birth rate, death rate, Life expectancy and Infant Mortality; Trends and pattern- New Population Policy- Family planning and family welfare programmes in India and its evaluation- Demographic dividend- Human resource management.

Module II Development Issues: Poverty, Unemployment and Inequality

Sub Unit I: Poverty in India- Estimation of Poverty and their limitations- Recent Committee reports- Tendulkar, Saxena, Hashim and Rangarajan- Poverty Eradication Programmes- Trends in employment- Measurement Issues- Unemployment nature and problems- Recent employment guarantee programmes

Sub Unit II: Changing nature of labour market- Recent debates on poverty and employment during reforms- National urban livelihood- MGNREGA, PMGSY, Indira Avas Yojana; an evaluation- Inequality; concept, types and measurement- Attempt towards inclusive growth- Right

based approaches in employment, education and food.

Module III Structure and Growth of Kerala Economy

Sub Unit I: Structural changes in Kerala economy- Agricultural performance- Changes in the cropping and land use pattern- Problems faced by agricultural sector

Sub Unit II: Industrial backwardness- Development of infrastructure- IT, Power, Tourism, Health and Higher Education- Urbanisation; trends, pattern, causes and consequences

Module IV Development Issues of Kerala Economy

Sub Unit I: Demographic changes- Aging- Poverty- Educated Unemployment- Women Empowerment- Peoples Plan- Role of Panchayat Raj- Role of Micro finance.

Sub Unit II: Fiscal management in Kerala- Decentralisation- E-governance initiatives- Impact of migration and foreign remittances- In-migration workers in Kerala- Kerala and WTO.

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CORE COURSE - 11: PUBLIC ECONOMICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
3	DEC3C11	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

- comprehend the changing dimensions of public finance and the role of government in achieving economic goals such as allocation, distribution, and stabilization.
- critically analyse the determinants of public expenditure, its impact on the economy, and the challenges in designing efficient and equitable expenditure policies.
- evaluate different theories of taxation and understand the criteria for optimal taxation, including commodity taxation, income taxation, and their effects.
- examine the tax reforms in India, including GST, and evaluate their implications on the economy and the taxation system.
- Comprehend the principles of public debt management, debt sustainability, and the challenges associated with public debt in India.
- understand the role of fiscal federalism in India, intergovernmental transfers, and their implications.
- analyse the divisions of powers and functions between the central and state governments in India, and assess vertical and horizontal imbalances.
- equip with the essential knowledge required to assess, design, and implement effective public policies that address diverse economic challenges.

Module 1: An Introduction to Public Economics

Sub Unit I: Changing Dimensions of Public Finance - The role of government: Allocation, Distribution, and Stabilization functions- Issues related to market failure and government intervention - Changing Role of the State in a Globalized World.

Sub Unit II: Theory of Public and Private Goods- Lindahl‘s Equilibrium Model- Samuelsson‘s Theory of Optimal Allocation between Public and Private Goods- Peace and security as global public goods - Market failure and externalities: Negative and Positive externalities - Free rider problem and its implications - Non-private goods: Club goods, Merit goods and Demerit goods - Theory of public choice.

Module 2: Public Expenditure

Sub Unit I: Size of Public Expenditure - Maximum Social Advantage - The Median Voter Theorem: Basic Idea and Applications to Public Finance - Public Sector Pricing: Pricing of Public Utilities

Sub Unit II: Changing Pattern of Combined (Centre and State) Public Expenditure in India - Major Recommendations of the Expenditure Reform Commission - Concepts, Measurement, and

Magnitude of Subsidies in India- Fiscal Responsibility and Budget Management Act: An Assessment.

Module 3: Public Revenue

Sub Unit I: Theory of Taxation - Theory of Optimal Taxation: Criteria and Features - Optimal Commodity Taxation: Ramsey Rule and Inverse Elasticity Rule - Optimal Income Taxation: Model with Behavioral Response – Model without Behavioral Response (Mirrlees Model) - Impact of Taxation on Factors of Production: Labor and Capital

Sub Unit II: International Taxation: Tax Competition, Tax Havens, Base Erosion, and Profit Shifting - Direct and Indirect Taxes in India- Reforms of Direct and Indirect Taxes in India - GST (GST Law from a Constitutional Perspective, Main Features, Structure of GST-Dual Model, GST-Council, Performance of GST in India)

Module 4: Public Debt and Fiscal Federalism

Sub Unit I: Public Debt in India: Emerging Issues, Debt Burden and Future Generation - Principles of Public Debt Management - Debt Sustainability - Combined (Central and State) Public Debt in India-

Sub Unit II: Fiscal Federalism in India - Rationale for Intergovernmental Transfers - Vertical and Horizontal Imbalance - Intergovernmental Transfer Mechanism: Central Finance Commission – Trends in Finance Commission Transfers in India –Recommendations of Recent Finance Commission - State Finance Commissions – Transfer from Union Ministries- Centrally Sponsored Schemes and their Implications for Federalism – Fiscal performance of Kerala - Highlights of the Current Year Union Budget.

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CORE COURSE - 12: ECONOMICS OF GROWTH AND DEVELOPMENT- I

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
3	DEC3C12	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to

1. understand development economics as a subject and its significance in addressing socio-economic challenges faced by developing economies.
2. analyse development models and growth models understanding the implications for developed and underdeveloped economies.
3. compare the development experiences of different regions and countries along with the growth and development experience of India.
4. equip to developing critical analytical skills and an awareness of various development challenges and policy options.

Module-I Approaches and Measurement of Growth and Development

Sub Unit I: Development Economics as a subject -Academic Interest in Development - The New Empirical Development Economics - Sustainable Development Goals - Globalization and interdependence of the World economy - The meaning of Development and the challenge of Development Economics - The perpetuation of Underdevelopment

Sub Unit II: Measuring Growth and Development: Meaning of Economic Growth - Meaning of Economic Development: Traditional and Modern View - GNP as a Measure of Development - Per capita income as a Measure of Development - Welfare and Social Indicators: Basic needs approach, Physical Quality Life Index (PQLI) - Human Development Index (HDI) - Human Poverty Index (HPI) - Multidimensional Poverty Index (MPI) - Degrowth - Measure of Economic Welfare (MEW), Net Economic Welfare (NEW) - Gender related Development Index - Gender Empowerment Measure - Global Hunger Index - Global Happiness Index (Measurement and Calculation)

Module-II Theories of Economic Development

Sub Unit I: The Classical Theory of Economic Development: Adam Smith and Ricardo - Malthus Theory of Economic Development - Marxian Stages and Theory of Capitalist Development - Schumpeter‘s Theory of Development - Vicious Circle Theory - Big Push Strategy of Economic Development - Critical Minimum Effort Thesis - Rostow‘s Stages of Economic Growth - Balanced and Unbalanced Growth Strategies

Sub Unit II: Denis Goulet‘s Core values of Development - Amartya Sen‘s Entitlements and

Capability Approach - O-Ring Theory of Economic Development - Dualistic development and process of structural transformation: Concept of Dualism -Technological, Social, and Financial dualism - Lewis model with unlimited supply of labour - Fei-Ranis model – Harris -Todaro model of Migration

Module-III Theories of Economic Growth & International Dependence Models

Sub Unit I: Harrod- Domar Growth Model – Neo-classical growth models: Solow-Swan growth models and its extension - Ramsey Growth model (Ramsey-Cass-Koopmans model - Meade Model of Growth - Joan Robinson‘s Model of Growth - Endogenous Growth Theory: Romer model with knowledge spillovers and increasing returns to scale, AK model, Uzava model, Lucas model with human capital, models with endogenous technical change, R&D based growth theory.

Sub Unit II: International Dependence Models - Centre-Periphery Thesis - Myrdal‘s Theory of International trade: Backwash effect and Spread effect - Prebish-Singer Thesis - Dual Gap analysis - The False-Paradigm model - Approaches to Dependency: Marxian Theory of Dependency and Structuralist Theory of Dependency

Module – IV Development Experience: National, Regional and International

Sub Unit I: Relationship between Human development and Economic growth, and its regional, national and International Comparison

Sub Unit II: Brief Outline of International, National and Regional Development Models - Latin American Development Experience - Scandinavian development Experience - East Asian Miracle - South Asian Enigma - Development realities of Sub-Saharan Countries - Nehruvian Views on Development - Neo-liberal Economic Policies and Development Experience of India in the last 30 years – Sen - Bhagwati Debate - Development Experience of Kerala

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CORE COURSE - 13: ADVANCED ECONOMETRICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
3	DEC3C13	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to

- understand the characteristics of time series data, including trends, seasonality, and cyclical patterns.
- learn various time series models, such as autoregressive AR, MA, ARMA, ARIMA, VAR, ARCH, GARCH models.
- learn techniques to estimate and remove trends from time series data to focus on underlying patterns and explore methods for seasonal adjustment to isolate the seasonally adjusted component of a time series.
- understand the concepts of unit roots and cointegration and their relevance in long-run relationships between time series variables.
- learn Granger causality tests to examine causal relationships between variables.
- fit an OLS and run diagnostic tests to check the adequacy of time series models, such as tests for autocorrelation, heteroscedasticity and multicollinearity.

Model 1: Basics of Time Series Modelling

Sub Unit I: Introduction to time series models – Time series as a stochastic process– Basics of time series regression model – CLRM assumptions underlying a time series model – interpretation of OLS estimates - Stationarity and Non-Stationarity – trend stationarity – Deterministic and stochastic trends

Sub Unit II: Random walk and unit root– Random walk with drift - Testing stationarity – Correlogram – ACF and PACF – Augmented Dicky-Fuller test – Non-parametric PP test - differencing for stationarity –non-stationarity and spurious regression

Module 2: Advanced Time Series Econometrics

Sub Unit I: Level of integration of non-stationary variable - Co-integration analysis – Meaning of co-integration – Testing co-integration - Engel-Granger two-step procedure – Johansen - Juselius test procedure (Basic steps and concepts without derivation) – Trace and eigen value alternatives - Error Correction Mechanism and Vector Error Correction Mechanism (Basic steps and concepts without derivation) – VAR model – structure and uses.

Sub Unit II: AR model, MA model, ARMA model, ARIMA model – basic structure and uses - significance of lag selection – Akaike and Bayesian Information criteria –Basics of forecasting – Forecasting techniques in econometrics

Module 3: Volatility Modelling and Panel Data Analysis

Sub Unit I: Volatility analysis – ARCH and GARCH models –structure and estimation – Interpretation of ARCH and GARCH terms - Variance-Covariance Matrix - Volatility clustering/ volatility persistence – ARCH in Mean model - relevance of volatility modelling in financial market analysis

Sub Unit II: Introduction to panel data analysis – Assumptions - Basic structure - Estimation – Fixed effects model and random effects model

Module 4: Other advanced topics

Sub Unit I: Introduction to dimensionality reduction techniques - basics of Principal Component Analysis (PCA) – steps in obtaining principal components – covariance matrix- eigen vectors and eigen values

Sub Unit II: Basics of Factor Analysis (FA) – differences between PCA and FA - factors and variables – Latent variables - factor loading – Eigen values – Factor score – Criteria for determining number of factors – Rotation method – Explanatory and confirmatory factor analysis - Basics of simple linear discriminant analysis (Basic steps and uses only)

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CORE COURSE - 14: ECONOMICS OF GROWTH AND DEVELOPMENT- II

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
4	DEC4C14	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to;

1. Understand the concept of development gap and income distribution in the global economy and the potential consequences on economic growth.
2. Assess the significance of human capital in economic development and evaluate the importance of education, health and nutrition in economic development.
3. Students will be equipped to critically analyze development challenges and suggest potential solutions for promoting inclusive and sustainable development in economies.

Module-I Inequality, Poverty and Development

Sub Unit I: International inequality - Development Gap and Income distribution in the World economy -Measurement of Income inequality - Lorenz Curve and Gini Coefficient - Kuznet‘s Inverted U shape Hypothesis - Thomas Piketty‘s views on Economic inequality - Lucas Chancel and Thomas Piketty views on the issues of Indian Income inequality

Sub Unit II: Poverty and Economic Development - International Poverty line - Empirical Evidence on Deprivation index and Multidimensional Poverty Index - Randomized Control Trails (RCT)

Module-II Human Capital Formation and Development

Sub Unit I: Importance of Human capital in Economic development - Education and Health - Estimating the rate of return to education - Measuring the contribution of Education to Economic growth - Role of Women in Economic Development - Women‘s Education - Women‘s Health - Mother‘s Index - Policies to reduce Gender gap

Sub Unit II: Importance of Health and Nutrition in Economic Development - Amartya Sen‘s approach to Health and Nutrition - Return on investment in Health - Measurement of Nutritional Status: Calorie intake approach and Anthropometric measurement - Impact of ill health on growth and development

Module – III: Population and Development

Sub Unit I: Population Growth and Economic Development - Costs and benefits of Population Growth - Malthus and other views on Population - Optimum Theory of Population - Theory of Demographic Transition - Model of low-level equilibrium trap

Sub Unit II: Demographic transition in India and Demographic dividend - Population trends of India and China: Recent developments - Determinants of Fertility - Missing Women Mystery - Need for a Population policy in a developing economy

Module – IV: Planning and Development Strategies

Sub Unit I: Rationale for Planning – Types of Planning - Process of Plan formulation - Mahalanobis Model - Fel'dman Model - Need for Investment criteria - Investment Criteria: Capital-Output ratio (COR) Criterion, Social Marginal Productivity (SMP) Criterion, Marginal Per capita Reinvestment Quotient (MRQ) Criterion, Time Factor Criterion and Labour Absorption Criterion - Cost-Benefit analysis and Project evaluation - Choice of Techniques: Labour intensive techniques and Capital intensive techniques

Sub Unit II: Administrative Reforms: Right to Information - Measures towards Good Governance - A New Thrust to Planning: NITI Aayog and Aftermath - Mohammed Yunus' ideas on Development and Bangladesh Rural Bank model - Decentralized planning experience in Kerala – Methodology of preparing Development Plans at the local level in Kerala.

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CORE COURSE - 15: PROJECT

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
4	DEC4P15	5	4	

COURSE OUTCOMES:

At the end of the course, the student will be able to

- demonstrates ability to design and conduct independent research, including formulating research questions, selecting appropriate methodologies, and analysing data.
- improve the ability in analysing data, using appropriate statistical or qualitative methods, and drawing meaningful conclusions
- apply economic theories and concepts to real-world issues or problems, illustrating the practical relevance of economic knowledge.
- identify and address challenges or limitations encountered during the research process.
- contribute new insights, perspectives, or empirical evidence to the existing body of knowledge in the field of economics.

Guidelines for Project Submission

1. The project report shall be prepared according to the guidelines approved by the university. One typed copy of the project report shall be submitted to the SDE, two weeks before the commencement of the ESE of the final semester.

2. The external evaluation of the project work shall be carried out at the end of the programme. The title and the credit with marks awarded for the project workshouldbeenteredinthegrade/marksheetapprovedbytheuniversity.

3. Every student has to do the project work independently. No group projects are accepted. The project should be unique with respect to title, project content and project layout. No two project report of any student should be identical, in any case, as this may lead to the cancellation of the project report by the university.

Evaluation of Project work:

1. Evaluation of the project work shall be conducted by external examiners.

2. Evaluation of the Project Report shall be done under Mark System.

3. External Examiners will be appointed by the University from the list of IV semester Board of Examiners in consultation with the Chairperson of the Board.

4. Chairman Board of Examinations, may at his discretion, on urgent requirements, make certain exception in the guidelines for the smooth conduct of the evaluation of project.

12.8 Pass conditions

1. The Project report submitted by the student shall be evaluated by the external examiners. No marks shall be awarded to a candidate if she/he fails to submit the Project report for external evaluation.

2. A student shall be declared to pass in the Project report course if she/he secures minimum

   40 % marks

3. The student should get a minimum of 40 % marks for pass in the project. In an instance of inability of obtaining a minimum of 40% marks, the Project work may be redone and the report may be resubmitted along with subsequent exams through parent department.

4. There shall be no improvement chance for the Marks obtained in the Project Report.

Annexure -II

PROJECT-

i) *Arrangement of contents*

The project should be arranged as follows-

1. Cover page and Titlepage
2. Bonafide certificate/s
3. Declaration by the student
4. Acknowledgement
5. Table of contents
6. List of tables
7. List of figures

8. List of symbols, Abbreviations and Nomenclature
9. Chapters
10. Appendices
11. References

12 Page dimension and typing instruction

The dimension of the Project report should be in A4 size. The project report should be printed in bond paper and bound using flexible cover of the thick white art paper or spiral binding. The general text of the report should be typed with 1.5 line spacing. The general text shall be typed in the font style‘ Times New Roman‘ and font size 12. Paragraphs should be arranged in justified alignment with margin 1.25‘‘ each on top. Portrait orientation shall be there on Left and right of the page. The content of the report shall be around 40pages.

13 A typical specimen of BonafideCertificate

KANNURUNIVERSITY

(Font Style Times New Roman-size 18)

BONAFIDE CERTIFICATE

(Font Style Times New Roman-size 16)

Certified that this project report― .....**TITLE OFTHE PROJECT**…….‖ is the bonafide work of– .....**NAME OFTHE CANDIDATE .....** ‖ who carried out the project work (Font Style Times New Roman-14)

Place

Date

SIGNATURE

<<Name>>

EXAMINER

<< AcademicDesignation>>

<<Department>>

<< Seal with full address>>

14Declaration by the student

DECDECLARATION

I,……..…,(Name of the candidate with Register Number) hereby declare that the Project work entitled ..... (Title of the project), ... has been prepared by me and submitted to Kannur University in partial fulfilment of requirement for the award of Master of Degree in ……..……is a record of original work done by me under the supervision of Dr/Prof… ..... (Name and full official address of the supervising teacher)

I also declare that this Project work has not been submitted by me fully or partly for the award of any Degree, Diploma, Title or recognition before any authority.

Place

Date Signature of the candidate

External Project Evaluation (100 marks).

Rubrics For External Evaluation		
	Components	**Marks**
1	Relevance of the Topic	5
2	Statement of the Objectives	10
3	Methodology/Reference/Bibliography	15
4	Presentation of facts/figures/language Styles/diagrams etc.	25
5	Quality of Analysis/Use of Statistical Tools	15
6	Findings and Conclusion	10
7	Viva	20
	Total	**100**

PART B: SYLLABUS – ELECTIVE COURSES

Elective Courses

ELECTIVE COURSE - 1: RESEARCH METHODOLOGY AND DATA ANALYSIS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
3	DEC3E01	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to

- understand the process of formulating research questions and hypotheses, selecting appropriate research designs, and identifying the most suitable methodology.
- familiarize with different data collection techniques commonly used in economics, such as surveys, experiments, archival data, and interviews.
- understand the ethical considerations in economic research, including privacy, confidentiality, and the responsible use of data.
- learn to identify and access relevant data sources, including primary and secondary data, economic databases, government reports, and academic literature.
- learn to conduct a comprehensive literature review, critically evaluating existing studies, and identifying research gaps.
- create a well-structured research proposal, including the justification for the research, research objectives, methodology, and expected contributions.

Module 1: Introduction to Social Science Research

Sub Unit I: Understanding the Science - Rationalism, Empiricism: Positive Science, Difficulties of Positive Science, Methodological Holism in Objectivist Social Science- Functionalism and 'Social Facts', Subjectivist Approaches – Methodological Holism, Methodological Individualism; Perennial Debates in social science- Explanation and Understanding: Reconciliation, Fact vs. Values in Social Research, Rationality vs. Relativism.

Sub Unit II: Research methodology fundamentals: The relation between theory and research – Research methods vs Methodology. Types of research – Applied vs. Fundamental; Descriptive vs. Analytical; Quantitative vs. Qualitative; conceptual vs. Empirical. Scientific and Social Science research – Approaches in social science research.

Module II: Tools for Research

Sub Unit I: Research design: Basic principles of research design-Types of research designs

(experimental, quasi-experimental, correlational, survey etc.)-Sampling techniques and sample size determination- Quantitative method-qualitative methods- Mixed method approach.

Sub Unit II: Fundamentals of data and analysis: Data collection tools and techniques - Validity and reliability of measurement tools- Handling Data- Understanding economic data- Data management - Levels of measurement (nominal, ordinal, interval and ratio) - Data analysis techniques – Univariate - bivariate and multivariate analysis- Data analytics with MS Excel- Building functions in Excel- Data analytics with SPSS and Gretl

Module III: Research Process

Sub Unit I: Research proposal development: Structure of research proposal- Introduction, Review of Related Literature, The Problem, Objectives, Hypotheses, data and Methodology, Scope, Tentative Chapterisation, Limitations. Components of a research proposal- formulating research objectives and research questions- Literature view -Need, scope, use and precaution – gap in literature review - Developing of working hypothesis.

Sub Unit II: Reporting writing: Structure and components of scientific reports - Types of report – Technical reports and thesis – Different steps in the preparation – Layout, structure and Language of reports – Illustrations and tables - Bibliography, referencing and footnotes.

Module IV: Ethics in Research

Sub Unit I: Research Ethics: Ethics with respect to research- intellectual honest and research integrity- scientific misconduct: falsification, fabrication, and plagiarism-selective reporting and misinterpretation of data-Use of plagiarism software like Turnitin, Urkund and other open-source software tools.

Sub Unit II: Publication ethics: Introduction and importance-best practices- Conflicts of interest-Publication misconduct: Concept-Violation of publication ethics, Authorship and contributorship -Identification of publication misconduct- Credibility of journals: predatory publishers and journals - UGC Care List: Concept and scope - Web of Science Index: Arts and Humanities Index, Social Science Citation Index - Scopus Index

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ELECTIVE COURSE - 2: INTERNATIONAL TRADE THEORIES AND POLICIES

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
3	DEC3E02	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to

At the end of the course, the students are able to:

- evaluate the contributions of trade theories in explaining the patterns and gains from trade.
- develop an understanding of the functioning of the international trading apparatus.
- help to understand the functioning of the international monetary and financial system.
- analyse the recent developments in the field of international economics.
- analyse different exchange rate systems; fixed exchange rates, floating exchange rates, and managed floating; and understand their advantages and disadvantages.
- evaluate the effects of different exchange rate regimes on currency stability and international trade.
- study the role of the international monetary system in influencing global imbalances and currency stability.

Module 1: Classical and Neoclassical Trade theories & Market

Sub Unit I: Theories of Absolute advantage and comparative advantage- gains from trade – Terms of trade and trade multiplier-– Opportunity cost approach- Heckscher-Ohlin model-factor endowments- relationship between factor and commodity prices- Specific factor model-Specific factors and income distribution- Empirical evidence on H-O model - the Leontief Paradox.

Sub Unit II: Stolper-Samuelson Theorem-Rybezynsky Theory-Immiserising growth theory-demand and supply-Reciprocal demand theory- offer curve-International trade under imperfect competition- Monopolistic competition and trade -Intra industry trade - Measuring

and models- trade and welfare.

Module II Modern trade theories & policies

Sub Unit I: Kravis-Linder theory-Technology gap theory-product cycle theory-Kemp Model-Krugman model- country similarity trade-global strategic rivalry theory-Porter's National competitive advantage theory.

Sub Unit II: The case for free trade - policies - negotiations - GATT, Tokyo and Uruguay rounds - Customs union - Trade restrictions – tariffs and non-tariff - partial and general equilibrium analysis of tariffs- theory of tariff structure - optimum tariff - quotas and other non-tariff barriers – dumping-Protectionism and effective rate of protectionism-general equilibrium analysis-small country and large country cases – optimum tariff-Metzler Paradox.-Lerner symmetry theory.

Module III- Foreign Exchange& Balance of payment &Foreign Exchange

Sub Unit I: Balance of payment accounting-disequilibrium in international transactions-corrective measures-theories of balance of payment disequilibrium-elasticity, absorption, and monetary approaches-internal and external balance-assignment problem -Swan model.

Sub Unit II: Foreign exchange market-characteristics, functions, and participants- Types of transaction; financial instruments-arbitrage, spot rate, forward rate, futures, options, swap-determination of foreign exchange rate-purchasing power parity, asset price theory, portfolio balance approach-fixed and flexible exchange rate system-foreign exchange risks-hedging and speculation-Devaluation and Revaluation.

Module IV-International Monetary systems & Economic integration

Sub Unit I: Importance of international finance-international monetary system-IMF, IBRD, GATT, WTO and regional trade blocks-liquidity issues-international capital movements-FDI and FPI-advantages and disadvantages of transnational corporation.

Sub Unit II: Theory of regional economic co-operation-Forms of economic integration-static and dynamic effects of free trade area-common market, European Union-preferential trade agreements-UNCTAD, NIEO, SAARC, NAFTA-G-20 Countries.

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ELECTIVE COURSE - 3: AGRICULTURAL ECONOMICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
4	DEC4E03	5	4	3

COURSE OUTCOMES:

At the end of the course, the student will be able to

- understand the principles and theories of agricultural economics and their relevance to the agricultural sector.
- analyse the determinants of agricultural supply and demand, and their impact on agricultural markets.
- evaluate the role of government policies and interventions in shaping agricultural markets and trade.
- Identify emerging issues and challenges in the agricultural development in India and Kerala and evaluate the agricultural policies of the state and central governments in the light of these issues.

Module-1 An Introduction to Agricultural Economics

Sub Unit I: Nature and Scope of Agricultural Economics- Role of Agriculture in economic development- Inter relationship between agriculture and Industry- Terms of trade between agriculture and Industry.

Sub Unit II: Theories of Agricultural Development: Schultz, Mellor, Boserup and Fei-Ranis.

Module II Agricultural Development in India

Sub Unit I: Agricultural Policies since independence- Institutional and technological changes

in Indian agriculture- Impact of agricultural development on economic development- Second Green Revolution- Evergreen Revolution.

Sub Unit II: Organic farming- Problems of agricultural Development- National Commission on farmers- Recent policy frame work in Indian agriculture- Impact of WTO agreement on Indian agriculture- Trade liberalisation and Agricultural Exports- Globalisation and Indian agriculture.

Module III Agricultural Production Economics

Sub Unit I: Economic decision in Agricultural Production- Production function in Agriculture and forms of agricultural production function- Resource use and efficiency- Demand and Supply of Agricultural Products- Characteristics of demand and supply- Cobb-web theorem- Agricultural Prices- Agricultural Price Policy and Food Security in India.

Sub Unit II: Agricultural Marketing- Market structure and Imperfections- Regulated markets- Marketed and Marketable surplus- Systems of agricultural marketing in India- Future Trading- Risk and uncertainty in Agriculture- Crop Insurance- Systems and types of farming- Agricultural Subsidies- Agricultural Credit- Structure and Problems of Agricultural credit.

Module IV Kerala Agriculture

Sub Unit I: Agricultural Performance of Kerala- Trends in Agricultural Growth- Changes in cropping pattern- Land use pattern.

Sub Unit II: Land reforms- Lease land farming- Group farming- Organic farming- Emerging Issues and prospects of Agriculture in Kerala

References:

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2. R.Desai (2013) Agricultural Economics, Himalaya Publishing House.
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ELECTIVE COURSE – 4 : FINANCIAL ECONOMICS

SEMESTER	COURSE CODE	HOURS PER WEEK	CREDIT	EXAM HOURS
4	DEC4E04	5	4	3

COURSE OUTCOMES:

At the end of the course, the students will be able to;

- grasp the structure and functioning of financial markets, including money markets, capital markets, and derivative markets.
- compare different financial instruments, such as stocks, bonds, derivatives, and commodities.
- evaluate investment decisions using principles of risk and return, portfolio diversification, and asset allocation.
- familiar with the roles and functions of financial institutions, such as banks, insurance companies, and investment firms, in the economy.
- understand the relationship between financial markets and macroeconomic factors, such as interest rates, inflation, and economic growth.

Module I: Introduction to Financial Economics

Sub Unit I: Overview of financial economics and its importance in modern economies – Types of financial markets: money markets, capital markets, and derivative markets – Fundamental concepts in finance: time value of money, risk and return – Computation of return.

Sub Unit II: Types of risk: (Systematic risk, Market risk, purchasing power risk, Interest rate risk, Unsystematic risk**,** Business risk (Internal, External), Financial risk) – Minimising risk Exposure – Measuring risk: standard deviation, beta, and other risk measures.

Module II: Investment and Securities

Sub Unit I: Meaning of investment – speculation and Gambling – Investment avenues - Types of investors – Investment objectives – The investment process –Risk diversification.

Sub Unit II: Security Analysis – Meaning of security – Types of securities – Meaning of security analysis - Fundamental and technical analysis - Valuation, pricing, and trading of securities in financial markets.

Module III: Portfolio Analysis

Sub Unit I: Selection and Evaluation – Meaning of portfolio – Objectives of portfolio management – phases of portfolio management – Markowitz‘s Model – Assumptions – Specific model – Risk and return optimization – Efficient frontier – Efficient portfolios.

Sub Unit II: Capital Asset Pricing Model (CAPM) and the Arbitrage Pricing Theory (APT) – Leveraged portfolios – Corner portfolios – Sharpe‘s Single Index model – Portfolio evaluation measures – Sharpe‘s Performance Index – Treynor‘s Performance Index.

Module IV: Bond Markets and Derivative Markets

Sub Unit I: Bond - Types of bonds – Bond returns and price – Preferred stock valuation – Systematic and Unsystematic risk in holding fixed income securities – Major factors in the bond rating process – Earning power – Bond Management Strategies

Sub Unit II: Derivatives - Options: Put and Call option – Mechanics of option trading – determination of option values – Option pricing: Black-Scholes model. Futures: Comparison of futures with option. Technical analysis: Market indicators, forecasting individual stock performance.

References:

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