Dr. K N RAJ CENTRE FOR PLANNING AND CENTRE -STATE FINANCIAL RELATIONS

MAHATMA GANDHI UNIVERSITY

M.A.ECONOMICS (REGULAR)

REGULATIONS, SCHEME AND SYLLABUS

Under CSS w.e.f 2017-19 Admission Onwards

List of Courses Offered

Course Code	Course Title	Hours/Week	Credits
	FIRST SEMESTER (S1)	l.	
KNRCMIC1801	MICROECONOMIC THEORY- 1	4	4
KNRCMIC1802	MACROECONOMIC THEORY-1	4	4
KNRCMIC1803	QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS	4	4
KNRCMIC1804	HISTORY OF ECONOMIC THOUGHT	4	4
KNRCMIC1805	COMMUNICATION AND ACADEMIC WRITING	4	4
	SECOND SEMESTER (S2)		•
KNRCMIIC1806	MICROECONOMIC THEORY II	4	4
KNRCMIIC1807	ADVANCED MACROECONOMICS	4	4
KNRCMIIC1808	RESEARCH METHODOLOGY FOR ECONOMICS	4	4
KNRCMIIC1809	THEORY OF INTERNATIONAL TRADE	4	4
KNRCMIIC1810	FISCAL FEDERALISM AND PLANNING: THEORY AND PRACTICE	4	4
	THIRD SEMESTER (S3)		
KNRCMIIIC1811	GROWTH MODELS AND DEVELOPMENT ECONOMICS	4	4
KNRCMIIIC1812	PUBLIC ECONOMICS	4	4
KNRCMIIIC1813	ECONOMETRIC METHODS	4	4
ELECTIVE COURSE I	(STUDENT CHOICE)	4	4
OPEN COURSE	(STUDENT CHOICE)	4	4

FOURTH SEMESTER (S4)				
KNRCMIVC1814	INDIAN ECONOMIC ISSUES	4	4	
KNRCMIVC1815	MATHEMATICAL ECONOMICS	4	4	
ELECTIVE II	(STUDENT CHOICE)	4	4	
ELECTIVE III	(STUDENT CHOICE)	4	4	
KNRCMIVC1816	PROJECT	4	4	
	TRAINING IN SOFT SKILL(Non Credit)	2	0	
Li	st of Electives (Student to Choose Thr	ee Electives)		
KNRCM11IE1801	ENVIRONMENTAL ECONOMICS	4	4	
KNRCMIIIE1802	KERALA ECONOMY	4	4	
KNRCMIIIE1803	ENTREPRENEURSHIP AND BUSINESS INNOVATION	4	4	
KNRCMIIIE1804	GLOBALIZATION—ECONOMICS, POLITICS AND ETHICS	4	4	
KNRCMIVE1805	ADVANCED ECONOMETRICS	4	4	
KNRCMIVE1806	OPERATIONAL RESEARCH	4	4	
KNRCMIVE1807	BANKING REGULATION AND FINANCIAL SECTOR REFORMS	4	4	
KNRCMIVE1808	ECONOMICS OF HEALTH AND EDUCATION	4	4	
KNRCMIVE1809	RESOURCE ECONOMICS AND SUSTAINABLE DEVELOPMENT	4	4	
KNRCMIVE1810	MARKETING MANAGEMENT	4	4	

KNRCMIVE1811	PERSONNEL MANAGEMENT	4	4	
KNRCMIVE1812	POPULATION ECONOMICS	4	4	
Open Course				
KNRCMIIIO1801	INDIAN ECONOMY	4	4	
KNRCMIIIO1802	STATISTICAL METHODS FOR RESEARCH IN SOCIAL SCIENCES AND HUMANITIES (BASICS)	4	4	

Distribution of credits		
Core	64 Credits	
Electives	12 Credits	
Open	04 Credits	
Total Credits	80 Credits	

DETAILED SYLLABUS

CORE COURSES
ELECTIVE COURSES
OPEN COURSES

CORE COURSES

First Semester Core Courses

KNRCMIC1801- MICROECONOMIC THEORY-1

(4 Credits & 75 Hours)

Course Objectives: After this course, the students will be able to use basic tools in Economics so that they can understand consumer behavior both in certainty and uncertainty. They would be able to interpret the pricing strategy of the corporates and the taxation proposals of the government. Profit maximization methods will enable them to comprehend the relevance of anti-monopoly laws to ensure social welfare. They will also appreciate the game strategies played by the firms for survival or establishing dominance.

Module-1 (20 Hours)

Preferences and Utility: Axioms of Rational Choice- Convexity and Balance in Consumption-Mathematics of Indifference Curves- Utility Functions for Specific Functions- Utility Maximization-: First and Second Order Conditions-Corner Solutions- Cobb- Douglas Demand Functions- Indirect Utility Function and its properties- Roy's identity- Expenditure Function and its Properties – Income and Substitution Effects- Demand Curve- Shephards lemma-Mathematical Development of Response to Price Changes- Inverse demand functions, The Slutsky equation – Demand Elasticities- Engel and Cournot Aggregation- Consumer Surplus-Revealed preferences- Gross and Net substitutes and Complements- Composite Commodity Theorem- Household production Model- The Linear Attributes Model- Compensating and Equivalent Variations

Module-2 (15 Hours)

Recent developments in the theory of the consumer behaviour: Theory of consumer choice: Individual behaviour in the face of risk and uncertainty- Expected Utility — NM Index- Choice between insurance and gambling— Risk Aversion and risk preference —measuring Risk aversion— Constant and Relative Risk Aversion- Methods of Reducing Risk- Friedman-Savage hypothesis — Markowitz hypothesis — Options- Information as a Good- Contingent Commodities- Behavioural Economics. Hick's logical ordering theory of demand— Positive and negative network externalities (Bandwagon, Snob and Veblen effects).

Module-3 (20 Hours)

Theory of Production and Cost: Theory of production: Production function — homogeneous production function — Cobb-Douglas production function — CES production function — Surrogate production function — Fixed coefficient production function — Technical progress and Poduction function — equilibrium of the multi- product firm in terms of production possibility curve and iso-revenue curve —Profit maximization- Profit function- Hotelling's lemma- Factor demand functions- Supply function. Cost minimization- Cost functions- Average and Marginal Cost Functions, Short run and Long run Costs, Marginal Cost Pricing, Aggregation — Industry supply Function, Shephard's Lemma, Conditional Factor Demand Functions. Duality between Production and Cost Functions - MathematicalTreatment of Production, Cost and Profit Functions.

Module-4 (15Hours)

Game Theory:Basic Concepts- prisoners' Dilemma—Nash Equilibrium- Mixed strategies-Repeated games- Bayesian- Nash Equilibrium-Signaling Games- Sequential games – Experimental Games. Oligopoly: Cournot Equilibrium- Stability- Welfare- Bertrand Equilibrium- Quantity Leadership- Price Leadership- Dominant Firm Model- Cartels Conjectural variations - Nash Equilibrium in Various Oligopoly Situations.

Module-5 (10 Hours)

Competition Law- Economic issues in competition policy- Sources of market power- Market Structure- Market Power and Definition- Monopoly and Regulation of Monopoly-Anticompetitive Agreements & Cartels, Abuse of Dominance- Merger Control- Case studies of US Antitrust law, EU competition Law and Indian Competition policy.

Selected Text Books

- 1) Christopher Snyder and Walter Nicholson Micro Economic Theory Basic Principles and Extensions, CENGAGE
- 2) Hal A. Varian (2010): Intermediate Microeconomics, (Edition VIII), Affiliated East-West Press.
- 3) Robert S. Pindyck, Daniel L Rubinfeld and Prem L Mehta (2013): Microeconomics, Pearson Prentice Hall of India Ltd.: New Delhi
- 4) Robert. H. Frank (2000): Microeconomics and Behavior, Irwin Mc Graw Hill.
- 5) Richard G. Lipsey and K. Alec Chrystal (1999): Principles of Economics, OUP, New Delhi.
- 6) A. Koutsoyiannis (2009): Modern Microeconomics, Mac Millan
- 7) Henderson and Quant (1971): Microeconomic Theory A Mathematical Approach, Mc Graw-Hill.
- 8). N. Gregory Mankiw (2012): (Edition VI), Principles of Microeconomics, Cengage Learning.

KNRCMIC1802- MACROECONOMIC THEORY-1

(4 Credits & 75 Hours)

Course Objectives: This introductory course is meant to expose students to an overview of the major theories and controversies in modern Macroeconomics. Students who had a primary understanding of the Classical and Keynesian Macroeconomics get to know in considerable detail the theoretical aspects and policy implications of these models. Once they complete the course the students are able to interpret critically domestic macroeconomic policies and effectively engage in policy debates.

Module-1 (15 Hours)

Macroeconomic issues and ideas—Methodological aspects—Macroeconomics in public policy—forms of economical organization: Market, Command and Mixed Economies-Brief overview of different Schools of Thought in macroeconomics—the role of economic theory and controversies Classical views on macroeconomic issues: Classical Theory of self-regulating markets—The Say's Law-.- Quantity theory of money--the Classical dichotomy —Classical analysis of the Money Market —neutrality of money-- Loanable funds theory — Equilibrium concept in Classical Theory—Freely adjusting prices and labour market adjustment---the aggregate production function of the Classical--Classical theory on economic growth—The Great Depression and its impact-Keynesian criticism and rejection of Classical theory—Are classical ideas obsolete—Revival of Classical thought in the 1970s—an overview

Module-2 (25 Hours)

Simple Keynesian Model, assumptions, concepts of involuntary unemployment, liquidity preference, paradox of thrift and investment function ---Role of reason and animal spirits in investment--Aggregate demand and Aggregate supply curves— Keynesian labour market analysis- Keynes rejection of Say's Law and full employment equilibrium —How government purchases and expenditure affect equilibrium (the three-sector model)—Global economy and impact on economic process (the four sector model)—Open Economy Macroeconomics--Interpretations of Keynesian System—Modified versions of Keynesian theory: brief introduction. Friedman's critique of Keynesian theory(the Monetarist counter revolution) --- Major assumption of the quantity theory —the demand and supply of money: approach of modern quantity theory—Relative role of monetary and fiscal policy—Dangers of discretionary policy and the 'rule-based' policy formulation—Rejection of simple Phillips Curve—the Expectation-Augmented Phillips Curve—the Monetarist Approach to BOP theory and exchange rate determination.

Module-3 (10Hours)

Post-Keynesian development in consumer theory –Demand for durables and non-durables—the Passive Consumer—Exogenous influences on consumption--Consumerism and risks. Important hypotheses on long-term Consumption function – James Duesenberry and the Relative income Hypothesis—Forward -Looking Theories: Life Cycle income Theory of Franco Modigliani and others--Permanent Income Hypotheses of Milton Friedman

Module-4 (10Hours)

Role of investment in economic growth—Major investment categories—Real Vs Financial Investment—Mobility of capital across regions and countries—Foreign Direct Investment Vs Portfolio Investment. The Determinants of investment –Endogenous and exogenous influences—Overview of major theories of investment—Classical/Neo-classical and Keynesian theories of investment – interaction of the accelerator and multiplier—Profit Theory of investment—Tobin's Q

Module-5 (15 Hours)

National Income Accounting: Accounting structure, key concepts in accounting for both closed and open economies – Gross National Product, Gross Domestic Product, NNP and NDP, Accounting savings and investment, balance of payments—The three approaches to NI calculation—the input-output tables and accounting process--Computational and conceptual problems related to conventional national accounting. Alternate measures of aggregate output and welfare—The Green Accounting: process and problems—Samuelson's concept of NEW—the Happiness Index

Selected Text Books

- 1. Brian Snowdon and Howard R. Vane (1997): A Macroeconomic Reader, Routledge, New York,
- 2. Brian Snowdon and Howard R. Vane (2003): Modern Macroeconomics—its Origins, Development and Current State, Edward Elgar, Cheltenham
- 3. Karl Brunner and Allan H. Meltzer (1993): Money and Economy-- Issues on Monetary Analysis, University of Cambridge, New York,
- 4. Steven E. Lands Burg and Lauren J. Feinstone (1997): Macroeconomics, Mc. Graw Hill, New York.
- 5) R. Levasic and A. Rebmann (1982): Macroeconomics, Macmillan.
- 6) M.J. Surrey (1997, ed.): Macroeconomic Themes, OUP, New Delhi.
- 7) Edward Shapiro (1982): Macroeconomic Analysis, Harcourt Brace Jovanovich, California (USA).
- 8) Richard T. Froyen, Macroeconomics, Maxwell Macmillan
- 9) Harry G. Johnson, Selected Essays in Monetary Economics, George Alien and Unwin..
- 10) Juankar P.N. (1972): Investment-- Theories and Evidence, Macmillan,
- 11. Samuelson, P.A and W.D. Nordhaus, Tata McGraw Hill, New Delhi

KNRCMIC1803- QUANTITATIVE TECHNIQUES FOR ECONOMIC ANALYSIS (4 Credits & 75 Hours)

Course Objectives: The main objective of the course is to train the students to use the techniques of mathematical and statistical analysis, which are commonly applied to understand and analyze economic problems. The course also deals with simple tools and techniques, which will help a student in data collection, presentation, analysis and drawing conclusions and thus exhibit statistical ways which are applied in the real economic world.

Module-1 (10 Hours)

Matrix Algebra: Matrices and Vectors - Rank of a Matrix - Matrix and Vector Operations - Laws of operations - Identity and Null Matrices - Transpose and Inverse - Non-singularity of Matrix - Determinants and their properties - Computation of Inverse using determinants - Solution of simultaneous equations using Cramer's Rule.

Module-2 (15 Hours)

Random variable and probability distribution, - Mathematical Expectations - Standard Distribution - Binomial - Normal - Lognormal - Pareto Distribution - Properties and applications.

Module-3 (15 Hours)

Sampling Distribution - Population and Sample, Parameter and Statistic - Sampling from Normal Population - Sampling Distribution and Standard Error - Chi-square, Student's t and F Distributions- their properties and applications- Central limit theorem - Statement and application.

Module-4 (15 Hours)

Theory of estimation: Point estimation - Basic concepts--Unbiasedness, consistency, efficiency and sufficiency - Interval estimation -Basic concepts -Confidence interval for mean, difference of means based on large and small samples.

Module-5 (20 Hours)

Tests of hypothesis: Basic concepts - Null and alternative hypothesis -Simple and Composite hypothesis - Two types of errors - Tests concerning means of large and small samples - Tests for difference between means based on large and small samples - Tests concerning proportion and tests of variance using F - Tests of Goodness of fit and independence of attributes.

Selected Text Books

- 1. Taro Yamane, Mathematics for Economists, Prentice Hall of India, New Delhi
- 2. Murray S. Speigel, Statistics, Schaum Series
- 3. Murray S. Speigel, Probability, Schaum Series
- 4. Alpha C. Chiang (1984): Fundamental Methods of Mathematical Economics, Mc. Graw Hill.
- 5. Speigal. M.R.(1992), Theory and Problems of Statistics, McGraw Hill, London.
- 6. Monga, G.S. (1972), Mathematics and Statistics for Economists, Vikas Publications, New Delhi.

KNRCMIC1804- HISTORY OF ECONOMIC THOUGHT

(4 Credits & 75 Hours)

Course Objectives: According to J.M. Keynes, the ideas of economists and political philosophers are more powerful them is generally understood. Indeed the world is ruled by little else. Modern economics, as a science got evolved only in the latter part of the 18th century, particularly by the European enlightenment fathers like Adam Smith. So modern

economics as a 'science has a history as well as a past history'. In this post- graduate course on History of Economic Thought, first we trace the economic ideas evolved up to the formation of economic science in the 18th century and then the further evolution of economic science.

Module-1 (15 Hours)

Economic Ideas of Ancients, Medieval Fathers and Mercantilist Pamphleteers- The Greeks-Plato and Aristotle, The Romans, Hebrews, the Indians- Buddhist, Vedic and Kautilyas-Scholastics- St. Thomas Aquinas and Niceol Oresme- Mercantilists-Thomas Mun.

Module-2 (15 Hours)

Physiocrats and Classical Political Economists and Neo- Classicists-Physiocrats- Francois Quesnay, Turgot, Mirabeau- classicists- Adam Smith, David Ricardo, Malthus, J.B. Say and J.S. Mill- Neo- classicists: Alfred Marshall, A.C. Pigou, and the marginalists- Jevons, Walras, Mengon.

Module-3 (18 Hours)

Socialist Thinkers- Utopian Socialists: Saint Simon, Prudhon, Robert Owen- Scientific socialists- Marx, Engels, Lenin, Mao, Rosa Luxemberg, Gramsci and the Frankfurt school.

Module -4 (15 Hours)

Keynesian Revolution and Institutionalism-M. Keynes as the father of Macro- economic-Neo- Keynesians and the New Classicists- Institutionalists- Thorstein Veblen, J.R. Commons, Mitchell, Gunnar Myrdal, J.K. Galbraith- Neo- institutionalists- Williamson, Douglas Norter, Kennth Arrow, Elinor Ostrom.

Module -5 (12 Hours)

Modern Economic Thought in India- Dadabhai Naoroji, Mahatma Gandhi, Jawaharlal Nehru and Amartya Sen.

Selected Text Books

- 1. Schumpeter, Joseph. A (1963): History of Economic Analysis, London: George Allen & un win ltd.
- 2. Ben-ner, Avner and LOUIS Putterman (1998)(ed) Economics, Values and Organization, Cambridge: Cambridge University Press.
- 3. Harcourt, G.C and Kriesler, Peter (ed) (2013): Post- Keynesian Economics, Oxford: Oxford University Press.
- 4. Heilbroner, Robert L (1969): The Worldly Philosophers, London: The Penguin Press.
- 5. Hicks, John (1973): A Theory of Economic History, London: OUP
- 6. Robbins, Lionel (1998): A History of Economic Thought, Oxford: OUP.
- 7. Sen, A.K. (2005): The Argumentative Indian, London: Penguin
- 8. Serepanti, Ernesto and Zamagni, Stefano (2005): An Outline of the History of Economic Thought, Oxford: OUP.

KNRCMIC1805- COMMUNICATION AND ACADEMIC WRITING

(4 Credits & 75 Hours)

Course Objectives: To help students to acquire a practical command of English. The course also aims to sharpen the ability to be able to compose freely and independently in speech and writing, as also reading books with understanding.

Module-1 (15 Hours)

Language and communication- English for international relations—Types of communication—Process and barriers to communication--difference between formal and informal speech—identification of intonation pattern: statements, questions and exclamatory sentences etc.---Communication for inter personal influences, Cross cultural communication---strategies for improving communication effectiveness.

Module-2 (08 Hours)

Listening Skills- Listening to presentations, conversations, speeches, discussions, interviews and debates—listening to announcements—Aural comprehension both global and local.

Module-2 (18 Hours)

Verbal and non-verbal communication in business-Speeches and presentations—Making a presentation—Preparing the text—Using visual aids--Dialogue skills—Telephone Etiquette---Public speaking skills, seminar presentations, group discussions and debates, extempore speaking, Jam(just a minute) -- oral reports-Role of audio visual aids and computers in oral presentations—Art of negotiation, Mannerisms and Body language.

Module-4 (22 Hours)

Writing skills - Structures and methods of written communication—writing process—writing formal and informal—different kinds of writing—writing paragraph, essays, seminar papers—summary and précis writing--Letter for different kinds of situation—principle of sequencing points in a hierarchy—common errors in writing---types of writing—Notices-Reports—Memos—Agenda—Proposals—Minutes—Preparation of resume—academic report writing.

Module-5 (12 Hours)

Reading and speaking - Different types of reading—role of grammar in reading: articles, nouns, verbs, adverbs, adjectives—how to interpret punctuation marks—difference between passive and active vocabulary—critical reading---how to start a conversation (especially with strangers)—speaking on different occasions—interview skills, Types of speaking (ceremonial, demonstrative, informative, persuasive etc.

Selected Text Books:

1. Mary Ellen Guffey(2005), <u>Business Communication:Process and Product</u>, 5e, South-Western Thomson Publishing, Mason OH.

- 2. Namita Gopal(2009), <u>Business Communication</u>, New age international publishers, New Delhi.
- 3. Sharma R.C. and Krishna Mohan (1996), <u>Business Correspondence and report writing</u>, Tata McGraw-Hill Education, India.
- 4. M K Sehgal and V. Khetrapal(2006), Business Communication, Excel Books, India.
- 5. Heather Bowe, Kylie Martin and Howard Manns(2007), <u>Communication across cultures</u>, Cambridge University Press, United Kingdom.
- 6. Anjanee Sethi, Bhavana Adhikari (2010), <u>Business Communication</u>, Tata McGraw Hill, New Delhi.
- 7. Lillian H Chaney et al (2008), <u>Intercultural Business Communication</u>, Pearson Publications, India.

Second Semester Core Courses

KNRCMIC1806- MICROECONOMIC THEORY- II

(4 Credits & 75 Hours)

Course Objectives-The pricing of inputs in both partial and general equilibrium is introduced in this paper. The interaction between production and distribution fields can be comprehensively understood in the mid of this course. It is also designed to expose the failures of market and the reasons for the same. Remedial measures are also presented so that even pricing of pubic goods can be understood. The question of equity and efficiency can be analysed through welfare economics

Module-1 (18 Hours)

Pricing of factor inputs - Single and several input variables- Income and Substitution Effects of wage- Slutsky equation of labour supply – Labour supply functions – Labour Market Equm – Wage differential and human capital- Monoposnistic hiring – Modelling a Labour Union – Bilateral Monopoly. Capital and Determining of rate of return – Demand and supply of future goods – determination of real interest rates - Demand for capital – Theory of investment and NPV – natural resource pricing Adjustments of Risk and CAP – Survey of Macro Theories of Distribution

Module-2 (18 Hours)

General Equilibrium and Welfare Economics -2x2x2 model – Efficiency in Exchange – Comparative statics in a GE model – GE and factor prices – A mathematical model of Exchange – Equity and Efficiency – Walrasian Equilibrium- Existence of Equilibrium in the exchange model- First theorem and second theorem in WE – Two person Exchange Economy – Kaldor – Hicksian Approach-Scithovosky – social welfare function. A model of production and exchange – A simple GE model – Arrow's Impossibility Theorem – Sen's Interpretation – Rawlsian Equity – Easterlin Paradox.

Module-3 (15 Hours)

Monopoly Power and Pricing of Public Goods- A survey of Alternative Theories of classical Theory of Market-Market Failure – Barriers to Entry – Inverse Elasticity Rule – Welfare losses and Elasticity – Monopoly, Product Quality and Durability, price discrimination – A formal model of regulated monopoly – Innovation and Monopoly. Competitive Insurance.

Module-4 (15 Hours)

Asymmetric Information- Contracts – Principal – Agent model – A owner – Manager Relationship – A Model of Moral Hazard and Insurance – Non-linear Pricing Model – Adverse Selections and Insurance – Quality Uncertainty and Market for Lemons. Market signalling- Job Search- Guarantees and warranties – A model of Auctions

Module-5 (12 Hours)

Externalities and Public Goods -Types of Externalities – Externalities and Allocative Inefficiency- Measures of Correcting Externality – Emission Standards – Emission fee – Tradeable Emission Permits – Recycling – Stock Externalities and their Computation – Property Rights – Common Property Resources – Attributes of Public Goods and Resources Allocation – Nash equilibrium -Room Mates dilemma – Lindhal Pricing of public goods – local voting mechanisms – public goods – modern voter theorem – its optimality – redistribution.

Selected Text Books

- 1. Christopher Snyder and Walter Nicholson (2012):Micro Economic Theory Basic Principles and Extensions, CENGAGE learning, New Delhi.
- 2. Pindyck and Rubinfeld (2006): Microeconomics, Prentice Hall of India Ltd, New Delhi
- 3. A. Koutsoyiannis A. (2009): Microeconomic Theory (2nd edition), Macmillan, London.
- 4. Varian H. (2000): Intermediate Microeconomics: A modern Approach (5th Edition) Affiliated East West Press Private Limited, Chennai.
- 5. Gravelle H. and R. Rees (2004): Microeconomic s, Pearson, London
- 6. G.C da Costa (2004): Value and Distribution in Neoclassical and Classical Systems, Himalaya Publishing House, Mumbai
- 7. Stigler G. (1996): Theory of Price (4th Edition), Prentice Hall India, New Delhi
- 8. Sen, Anindya (1998): Microeconomics-Theory and Applications, OUP, New Delhi
- 9. Douglas Bernheim and Michael D. Whinston (2009): Microeconomics, Tata McGraw-Hill New Delhi
- 10. N.G.Mankiw (2009): Economics Principles and Application, Cengage Learning, New Delhi

KNRCMIC1807- ADVANCED MACROECONOMICS

(4 Credits & 75 Hours)

Course Objectives: On completion of the course students are able to look critically at prevailing theories in macroeconomics. They also gain considerable insight on some of the pressing macroeconomic ills confronted by modern economies. Internal and external evaluation will be done in such a way as to test the analytical capability of students and their critical thinking. Students will be required to choose seminar topics in applied macroeconomics with special reference to Indian economy.

Module-1 (20 Hours)

Economic instability in the short-term and long-term and their impact on various sectors—Instability as natural accompaniment of dynamic economic process—Brief introduction to potential and problems in formulation of stabilization policies. Trade Cycle: Phases of Trade Cycle — Classical rejection of long-term disequilibrium and their interpretation of short-term fluctuations (exogenous cycles)—Keynesian View of cyclical process: Business cycle as endogenous phenomena -Role of expectations, rationality and animal spirits—Keynes prescriptions for stabilization—predominant role of fiscal policy. Multiplier-Accelerator Interactions Models: Paul A Samuelson — J.R.Hicks — Nicholas Kaldor — Political Business Cycle: William Nordhaus; alternate versions of PBC—Real Business Cycle Theory: Historical Developments of Real Business Cycle School -Contributions of Kydland and Prescott—Supply Shocks—Technology Shocks—Government Expenditure Shocks—the 'Random Walk' hypothesis.

Module-2 (10Hours)

The New Classical Macroeconomics - Rational Expectation Hypothesis - Lucas Surprise Supply Function - Inter-Temporal Substitution Model - Policy Ineffectiveness Argument - The Lucas Critique - Supply-Side Macroeconomics - Laffer Curve - Policy Implications - The Dynamically Stochastic General Equilibrium Model (DSGE).

Module-3 (20 Hours)

Disequilibrium Macroeconomics—Contribution of Keynes—Re-Interpretation of Keynes By Clower And Leijonhufvud — Dual Decision Hypothesis —Co-ordination Failure—Quantity Constrained Model of Malinvaud and Barro —Financial Instability Model of Hymn Minsky.Expectations and Macroeconomic Adjustments —Expectations formations — Adaptive Vs rational expectations—partial adjustment model—open economy and multiple channels of instability—unequal exchanges and disadvantages of LDCs.The Neoclassical Synthesis—Post-Keynesians and the rejection of IS-LM model—New Keynesian reply to Lucas critique—Small Menu Cost Model —hypotheses on working of modern Labour market—Efficiency Wage Hypothesis — Insider Outsider Model, adverse selection, labour turnover, shirking and the fairness models of labour market theory.

Module-4 (15 Hours)

Policy Issues-Domestic-The problems of unemployment and inflation—Alternative strategies against unemployment and inflation. Solution through monetary Policy – Conduct of Monetary

Policy – Rules Vs Discretion – Taylor Rule -Friedman on money supply rule--- Monetary policy for Targeted changes in money supply-- and Inflation Targeting. Fiscal Policy – Crowding Out – Budget Deficits and of Growth Ratio-Alternative Strategies to Reduce Inflation – Gradualism Vs Cold Turkey – Disinflation and Sacrifice Ratio – Okun's Law – Incomes Policy: design and implementation of incomes policy. Time Inconsistency Proposition on policy making and implementation—the Policy Ineffectiveness hypothesis—Policy making under alternate economic systems—Political economy of policy effects.

Module-5 (10 Hours)

Policy Issues- Global compulsions and effects-Impact of international economy on domestic macroeconomic policy—Impact of international trade on economic growth and stability---Global institutions and domestic policies—Complexities of macroeconomic management in a globalized economy.

Selected Text Books

- 1. Brian Snowdon and Howard R. Vane (1997): A Macroeconomic Reader, Routledge, New York,
- 2. Brian Snowdon and Howard R. Vane (2003): Modern Macroeconomics—its Origins, Development and Current State, Edward Elgar, Cheltenham
- 3. Edward Shapiro (1982): Macroeconomic Analysis, Harcourt Brace Jovanovich, California (USA).
- 4. Samuelson, Paul A. and William D. Nordhaus (2012): Macroeconomics (Edition 19), Tata McGraw Hill Education Pvt Ltd., New Delhi
- 5. Karl Brunner and Allan H. Meltzer (1993): Money and Economy, Issues on Monetary Analysis University of Cambridge, New York.
- 6. Stiglitz, J (2002): Globalization and its Discontent, W.W Norton, New York
- 7. C. Harcourt (1997, ed.), The Micro Economic Foundations of Macroeconomics Macmillan.
- 8. Steven E. Lands Burg and Lauren J. Feinstone (1997): Macroeconomics, Mc. Graw Hill, New York,
- 9) R. Levasic and A. Rebmann (1982.): Macroeconomics, Macmillan Pub.
- 10) M. J. Surrey (1997, ed.): Macroeconomic Themes, Oxford University Press, New Delhi.

KNRCMIC1808- RESEARCH METHODOLOGY FOR ECONOMICS

(4 Credits & 75 Hours)

Course Objectives: Many of the students at post-graduate level intend to pursue research degree programmes after completion of their Masters' degree in Economics. The proposed course will be an effort to develop such an aptitude among them. The objective of the course is to equip the learners with the research methods, which are applied in undertaking the research projects/programmes in Economics. This course will introduce and familiarize the students the

issues and perspectives of research methodology, research design, tools of data analysis and database of the Indian economy.

Module-1 (15 Hours)

Meaning and definition of research-- classification of research (pure, applied, exploratory, descriptive, historical, diagnostic, experimental, qualitative, quantitative) -- importance, applications and limitations of social science research-- interdisciplinary and trans-disciplinary approaches-- Statistics and information---communication technology in research--Basic elements of the scientific method-- theory and research-- the meaning of methodology.

Module-2 (15 Hours)

An overview of the different steps in research process--selection of the topic and formulation of the research problem in Economics with illustrations-- review of literature-- Research design, features of a good design--different research designs for exploratory, descriptive, diagnostic and experimental research.

Module-3 (15 Hours)

Sample design--probability and non probability sampling--complex random sampling designs--Methods of collecting primary data-- questionnaire and schedules-- sources of secondary data on Indian economy-- case study method--processing of data- Descriptive measures.

Module-4 (20 Hours)

Meaning, assumptions and limitations of simple correlation and regression analysis; Pearson's product movement and Spearman's rank correlation coefficients and their properties; Concept of the least squares and lines of regression; Standard error of estimate. Analysis of Variance (one way and two way).

Module-5 (15 Hours)

Presentation Interpretation and report writing- steps- bibliography- quality of a good research report-- methods of footnotes and referencing.

Selected Text Books

- 1. William J Goode and Paul K Hatt (1981): Methods in social Research, McGraw-Hill
- 2. Wilkinson and Bhandarkar (2002): Methodology and Techniques of Social Research, Himalaya
- 3. Marc Blaug, The Methodology of Economics, or How Economics Explain, Cambridge University
- 4. C. R. Kothari (2004): Research Methodology, Methods and Techniques, New Age International

- 5. W. Lawrence Neuman (2006): Social Research Methods, Quantitative and Qualitative Approaches, Pearson
- 6. Laxmi Devi (1997): Encyclopedia of Social Science Research, Anmol Publications, New Delhi.
- 7 Pauline V Young: Scientific Social Surveys and Research, Prentice Hall India, New Delhi
- 8 Modern Language (2009): The MLA Handbook for Writers of Association of America, Research Papers
- 9 P.S Mohanakumar (1998, ed.): A Handbook on Research Methodology. Right Publishers, Kudavechoor.
- 10. W.G. Cochran, Sampling Techniques, John Wiley, New York, 1963. Applications

KNRCMIIC 1809: THEORY OF INTERNATIONAL TRADE (4 Credits & 75 Hours)

Course Objectives: With Globalization 'International Trade' has received added significance in a post-graduate programme in Economics. This course plans to equip the students in selected trade theories and its role in trade policies. It also covers the international institutional arrangements facilitating global trade and some of the emerging issues in the sphere of trade.

Module-1 (12 Hours)

Some Early Theoretical Approaches: Mercantilist approach to trade- The vent to surplus theory and the absolute cost advantage theory of Adam Smith- Ricardian theory of comparative cost advantage- Heckscher-Ohlin theorem.

Module-2 (15 Hours)

Some Modern Theories: Economics of scale- Imperfect competition and international trade-Product life cycle theory- Trade based on differences in tastes and technology- Transportation costs- Environmental standards at international trade- Intra-industry trade models (Neo-Chamberlin, Neo- Heckscher- Ohlin, Neo- Hotelling and oligopolistic, The Braven- Krugman models.

Module-3 (15 Hours)

Some More Modern Theories: Hicks views on trade and growth- Theory of Immiserising growth- Dutch Disease- Rybezinsky theorem- The Secular Deterioration hypothesis of Singer and Prebish- Stopler- Samuelson theorem.

Module-4 (15 Hours)

International Trade Policy: Free Trade vs. Protection in the Nineteenth century- Emergence of international gold standard and international trade policy- The implications of international monetary conference on trade- Tariff and Non- tariff barriers of trade- Neo- liberal globalization and trade.

Module-5 (18 Hours)

Post- Second World War International Arrangements in Trade and some emerging trade issues: Bilateral, Regional and Multilateral arrangements for free trade- India- Sri Lanka Free Trade

Agreements- SAPTA, ASEAN+ Five RCEP- MERCOSUR- European Union- The formation and functioning of GATT and WTO- The experience of NIO- UNCTAD and trade for development- Stabilization of primary commodity prices- Brexit and global trade- U.S- China trade and its implications- The role of Indian in international trade an overview.

Selected Text Books:

- 1. Bhagwati, J.N. (ed) 1987: International Trade Selected Readings, MIT Press.
- 2. Goddard, C. Roe etal(ed): Interntional Political Economy(2nded) 2005, New Delhi: Viva BooksPvt. Ltd.
- 3. Jagadish Bhagwati (2004): In Defense of Globalization; (2002): Free Trade Today
- 4. Kindleberger, C.P.: International Economics, Irwin, Homewood.
- 5. Krugman, Paul R. and Obstfeld, Maurice (2009): Internationl Economics, New Delhi: Kindersley (India) Pvt.Ltd.
- 6. Salvatore, Dominick (2014): International Economics- Trade and Finance, New Delhi: Wiley
- 7. Saviyer, W. Charles and Sprinkle, Richard L. (2009): International Economics, New Delhi: PHI Learning Private Limited.
- 8. Siddarthan, N.S. and Narayanan K. (ed) 2010: Indian and Chineese Enterprises- Global Trade, technology and investment regimes, New Delhi: Routledge.
- 9. Steger, Manfred B. (2003): Globalisation A very short Introduction, Oxford and Newyork : Oxford University Press.
- 10. Stiglitz, Joseph (2003): Globalization and its Discontents, London, Penguin

KNRCMIC1810- FISCAL FEDERALISM: THEORY AND PRACTICE

(4 Credits & 75 Hours)

Course Objectives: Likening fiscal federalism to a game between the Union and the States, and among the States themselves, Indian Fiscal Federalism lays bare the complex rules of play. The course is an introduction of the Fiscal Federalism of India in historical and global perspective. The contents of the course are structured to a contemporary, timely, and comprehensive analysis of fiscal federalism in India.

Module-1 (12 Hours)

Federalism –Concepts-Characteristics - Principles -Types- Comparison -The Rationale for Federalism-The Two Classic Motivations in Favour of Federalism.-Federalism -a comparative study (USA, UK, Australia, Canada, and India)-Resurgence of Interest in Fiscal Federalism.

Module- 2 (18 Hours)

Theory of Fiscal Federalism-First Generation Theory (FGT)- Second Generation Theory (SGT)- New Developments in Second Generation Theory (SGT). The Decentralization Theorem-Economic Efficiency Issues in Multilevel Governance— Assignment Issues in Multilevel Governments. Theory of Intergovernmental Transfers the Assignment of Expenditure and Revenue Responsibilities.

Module- 3 (15 Hours)

Evolution of Fiscal Federalism - Centre- state financial relations in India- Constitutional provisions and various committee recommendations on Intergovernmental Transfers and Revenue-Sharing in India. Intergovernmental Transfers and Grants Design in Post Independent India -Division of functions - Resources asymmetry-Vertical and Horizontal Imbalances- Fiscal Decentralization in the context of $73^{\rm rd}$ and $74^{\rm th}$ Amendments.

Module-4: (15 Hours)

Institutional Reforms and Fiscal Federalism in India-Termination of Planning Commission-Emergence of NITI AAYOG -History and Functioning of Finance Commission of India-Major Recommendation of the 13th and 14thFinance Commissions -Contemporary Challenges and Issues before the Present Finance Commission and NITI- AAYOG.

Module- 5 (15 Hours)

Indian Tax System in Pre-GST Period- Emergence of GST in India-Framework of Co- operative Federalism- Constitutional Provisions- 101st Constitutional Amendment- A comparative study of selected countries GST- Evaluation of Post -GST Fiscal Scenario of India.

Selected Text Books:

- 1. Alan T. Peacock, (1979): The Economic Analysis of Governments, and Related Themes, New York: St Martin Press.
- 2. Amaresh Bagchi, (2005): Readings in Public Finance, New Delhi: Oxford University Press
- 3. De, Supriyo(Eds.) (2017): India's Fiscal Policy: Prescriptions, Pragmatics and Practice, New York: Cambridge University Press.
- 4. Eccleston, Richard and Richard Krever(Eds.)(2017):The Future of Federalism: Intergovernmental Financial Relations in an Age of Austerity, Cheltenham: Edward Elgar Publishing.
- 5. François Rocher and Miriam Smith (Eds.) (2003): New Trends in Canadian Federalism, 2 nd Ed.,Petreborough: Broadview Press
- 6. Frederick D. Drake and Lynn R. Nelson (Eds.) (1999) States Rights and American Federalism: A Documentary History, 4th ed., London: Greenwood Press.

- 7. Kumar, Manoj Sharma (2017): Fiscal Federalism and Indian Constitution, New Delhi: Satyam Law International.
- 8. Mundle, Sudipto (Ed.) (1997): Public Finance Policy Issues for India, New Delhi: Oxford University Press.
- 9. Raghbendra Jha, (1998): Modern Public Economics, London: Rutledge.
- 10. Rangarajan, C and D.K Srivastava (2011): Reforming India's Fiscal Transfers in India, New Delhi: Oxford University Press,

Third Semester Core Courses

KNRCMIC1811- GROWTH MODELS AND DEVELOPMENT ECONOMICS

(4 Credits & 75 Hours)

Course Objectives: Through 'economic growth' was the centrality of Modern Economics from its very inception in the 18th century onwards, the idea of 'economic development' arouse only in the post- Second World War era. However, the concept 'development' has been evolving. Now a number of paradigms co-exist in this branch of economic science. In this P.G. course, we attempt to include selected growth models, basic development paradigms, modern Indian economic development thoughts and some of the global growth and development issues.

Module-1 (12 Hours)

Economics of growth – theoretical and historical perspective – The formulation of development economics (background discussion) – Development: meaning and measurement – Economic development and human development – Development as freedom (Sen)- per capita income as measure of development – Physical Quality of Life Index (PQLI) – Human Development Index (HDI) – Gender Related Development Index (GDI) – Gender Empowerment Measure (GEM).

Module-2 (15 Hours)

Growth Vs Development – Major growth models of: Harrod- Domar - Kaldor – Solow- Phels – and Joan Robinson

Module-3 (15 Hours)

Modernist paradigms: The Stage of Growth (Roastow) Surplus Labour (Lewis) – Big Push (Rosenstein Rodan) – Balanced Growth (Nurkse) – Unbalanced Growth (Hirschman) – Critical Minimum Effort Thesis (Leibenstein) – Dual Economy Model – Fei – Rains model – Wage goods model.

Structuralist Paradigms: Theories of Prebisch and Singer – Protectionism and ISI – radical Compardor – bourgeoistic – Paul A Baran, Andre Peter, Evans, Triple alliance theory, Gunder Frank, Samir Amin Emmanuel, Wallerstein.

Module-4 (15 Hours)

Neo – Liberal Paradigms – Jagdish Bhagwathi, T.N Srenivasan, Anne Kruger, IMD Little – Role of World Bank and IMF in the promotion of neo-liberal paradigm.

Endogenous Growth Models – Neo-Institutional paradigm: Gunnar Myrdal, Amarthya Sen, K.N Raj, C.T Kurien, Ranjith Sav, Amiya Kumar Bagchi-Alternative approach to the theory of institutions in economic development.

Module-5 (18 Hours)

The limit to Growth – Repot of the Club of Rome – Envisioning sustainable development – Brundtland Commission Report (Our Common Future) – The Earth Summit at Rio and after – Competing theories of sustainable development – policy options – methods for measuring sustainable development.

Selected Text Books:

- 1. J.R Hicks, Capital and Growth Robert J. Barrow and X.S. Martin (1995): Economic Growth, Mc Graw Hill, Newyork
- 2. Jere Behrman and T.N. Srinivasan (1995, eds.): Handbook of Development Economics (Vol.3.B), Elsevier, Amsterdam.
- 3. Hywel G Jones (1976): An Introduction to Modern Theory of Economic Growth, McGraw Hill.
- 4. Stuert Carbridge (1986): Capitalist World Development A Critique of Radical Development Geography, Mac Millan, London
- 5. C.T. Kurian (1992): The Economy An Interpretative Introduction, Sage, New Delhi.
- 6. Pranab Bardan (1989): Alternative Approach to the Theory of Institution in Economic Development, in P.Bardan (Ed), The Economic Theory of Agrarian Institutions, Calandar Press, Oxford.
- 7. Paul A Baran (1989): The Political Economy of Growth, Penguin, Harmends Worth.
- 8. A.G. Frank (1969): Capitalism and Underdevelopment in Latin America, M.R Press, New York.
- 9. P.W Preston (1996): Development Theory- An Introduction, Blackwell, Oxford.
- 10. Samir Amen (1976): Depression and Unequal Development, M.R. Press, New York.

KNRCMIC1812- PUBLIC ECONOMICS

(4 Credits & 75 Hours)

Course Objectives: The objective of this core course which is offered in the third semester is to familiarize students about the impact of government activity on the economy. On completion of the course students are able to look critically at prevailing theories in Public Economics. They also gain considerable insight on the role of government in modern economies. Internal and

external evaluation will be done in such a way as to test the analytical capability of students and their critical thinking.

Module-1 (15 Hours)

Theoretical debate over the role of government in the economy ---Externalities, market failure and government action-- Government Failure—Governments in modern economy—Multiple functions. Government and the Provision of Public Goods-Characteristics of Public Goods-Pure and Impure public goods, Local public goods -Efficiency conditions in the provision of public goods—Government and the provision of Merit Goods.Government's role in protection of the environment—Environmental Impact Assessment of Public Projects: Theory and Method.

Module-2 (20 Hours)

Theories of Taxation: Desirable characteristics of an ideal tax system- Forms of taxation— Corrective taxation and double dividend--Theory of optimal taxation -Trade-off between equity and efficiency - Theory and measurement of dead weight loss-- Impact and Incidence—Tax incidence in perfect and imperfect markets—Other factors affecting incidence—Taxation and Economic efficiency (production, consumption, saving and labour market effects--Distortionary effects of tax and its measurement. Tax reforms in India—Pre-GST era and GST era- Objectives, Structure and working of the GST system—India Vs other countries. Public Expenditure: Theories of public expenditure – Wagner's law – Wiseman-Peacock Hypothesis- Principles of expenditure evaluation – Social cost benefit analysis—Impact of public expenditure on employment and output—Designing of an efficient subsidy system—Trends in public expenditure (International and Domestic). Public Expenditure in India—Central and State Level trends—FRBM Act—Major recommendations of the Expenditure Reform Committees

Module-3 (15 Hours)

Government budgeting: Performance budgeting, programme budgeting and zer- based budgeting (concepts only) – Stages involved in the preparation, presentation and execution of government budget in India – Critical analysis of revenue and expenditure proposals of latest budget in India. Theories on budget deficit—major deficit concepts – Problems of high fiscal deficit – Corrective measures – FRBM Act of India—objectives and application. Theories of public debt – Classical - Keynesian and Modern theories on debt burden – Debt and the issue of Intergenerational equity – Buchanan thesis – Growth of debt in India.

Module-4 (15 Hours)

Economics of the Public Sector—production and bureaucracy—Comparison of efficiency in public and private sectors—Sources of inefficiency in Public Sector Enterprises. Overview of working of PSUs in India--New Economic Policy and Changing attitude towards public enterprises—Privatization of PSUs — Disinvestment targets Vs performance. Diverse models of Public private partnership (PPP)—Conditions of success—International and Indian experience with PPP arrangements.

Module-5 (10 Hours)

Public Choice Theory—Government and promotion of public welfare and happiness—the Happiness Index and its components-- Economic growth and the state of inequality—

International and Domestic Trends--Role of Government in the Distribution of Income and Assets— Tools of Distribution.

Selected Text Books

- 1. J. E. Stiglitz (1986): Economics of Public Sector. Norton, New York.
- 2. Richard A. Musgrave and P. Musgrave (1989): Public Finance in Theory and Practice, McGraw Hill, New York
- 3. Atkinson A and J Stiglitz (1980): Lectures in Public Economics, Mc Graw Hill
- 4. Government of India, Economic Survey (Recent Issues)
- 6. Budget Document-of Recent years and comments on the same.
- 7. R.Goode (1986): Government Finance in Developing countries, Tata Mc Graw Hill, New Delhi.
- 8. Atkinson A and J Stiglitz (1980): Lectures in Public Economics, Mc Graw Hill
- 9. Meir .G.M and Rauch (2000): Leading issues in economic development, OUP, New Delhi.
- 10. Bailey, S.J (2004): Public Sector Economics, Macmillan

KNRCMIC1813- ECONOMETRIC METHODS

(4 Credits & 75 Hours)

Course Objectives: To familiarize the students with the basic theory of econometric methods and to understand the fundamentals of Econometric Inference. The powerful tool for understanding of applied economic relationships and for meaningful research in economics. The course accordingly is devoted to equip students with basic theory of econometrics and relevant applications of the methods. The topics covered in the course include various problems faced in estimation of single equation models. The course also covers various econometric methods applicable to different topics in economics and those needed for applied economic research. The course requires a good understanding of calculus on the part of the learner

Module-1 (10 Hours)

Definition and scope of Econometrics - methodology of econometrics - nature and Scope of data for econometric analysis - contribution of econometric methods to the development of Economics-- limitations of econometric methods.

Module-2 (20 Hours)

Two variable regression analysis:Stochastic and non-stochastic relations - the concept of population regression function' and its stochastic specifications - the 'sample regression function' 'ordinary least-squares' (OES) method of constructing 'sample regression function' estimation of

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regression parameters - assumptions underlying classical linear regression model - properties of least-squares estimators - coefficient of Determination 'r2' as a measure, of 'goodness of fit'.

Module-3 (15 Hours)

Violations of the assumptions of classical linear regression model: Autocorrelation and heterosecdasticity -- meaning, sources, methods of detection, consequences and remedial measures.

Module-4 (15Hours)

Further problems of regression analysis: Multiple regression model and multi-collinearity - consequences of multi-collinearity - remedial measures - specification bias - lagged variables and distributed lag models (general form only)

Module-5 (15 Hours)

Dummy (or binary) variables: Nature of dummy variables - regression on dummy variables (one quantitative variable and one qualitative variable) — Uses of dummy variables dummy variables and heteroscedasticity - dummy variables and auto-correlation — dummy variable trap.

Selected Text Books

- 1. Damodar N. Gujarthi Basic Econometrics, Third Edition, Mc Graw-Hill.
- 2. Koutsoyiannis, Theory of Econometrics, Mac Millan.
- 3. D.Intriligator, Econometric Models, Prentice Hall of India, New Delhi.
- 4. Johnston. Econometric Methods, Mc Graw-Hill.
- 5. G.M.K. Madnani, Introduction to Econometrics : Principles and Applications. Oxford and IBH Publishing Company
- 6. Ramanathan, Ramu (2001) Inroductory Econometrics with Applications, 5th Edition, Cengage Learning India Pvt. Ltd., New Delhi
- 7. .Thomas, R.L (1993). Introductory Econometrics: Theory and Applications, Longman, London
- 8. Amemiya, T. (1985), Advanced Econometrics, Harvard University Press, London.

Fourth Semester Core Courses

KNRCMIC1814- INDIAN ECONOMIC ISSUES

(4 Credits & 75 Hours)

Course Objectives: A course in 'Indian Economy' is of great significance to any student of Economics in India. This course proposes to address the major issues of Indian economy from a

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structural and evolutionary perspective. As Kerala model of development is unique in India, we also included some salient aspects of Kerala economy.

Module-1 (15 Hours)

Structure of Indian Economy: Changing Structure of the Economy- Contribution of different Sectors to Output, Employment, and National Income-Agricultural and rural development Strategies: Technologies and institutions, land relations and land reforms, rural credit, modern farm inputs and marketing- Price policy and subsidies; commercialization and diversification. Rural development programmes including poverty alleviation programmes, development of economic and social infrastructure and New Rural Employment Guarantee Scheme.

Module-2 (15 Hours)

Industry: Strategy of Industrial development: Industrial policy Reforms; Reservation Policy relating to small scale industries. Competition policy, Sources of industrial finances. Role of foreign capital for direct investment and portfolio investment, Public Sector reform, privatization and disinvestments.

Module-3 (15 Hours)

Foreign Trade: Salient features of India's foreign trade, composition, direction and organization of trade, recent changes in trade policy, balance of payments, tariff policy, exchange rate, India and WTO requirements.

Module-4 (15 Hours)

Kerala Economy: Kerala's development Experience- Sector wise growth- Kerala's industrial development- Industrial sickness- Service Sector Growth in Kerala- information Revolution of Kerala- Human Resource Development- Issues in Health and Education- Fiscal Crisis- Recent Migration trends in Kerala.

Module-5 (15 Hours)

Trends in Indian Economy: Public distribution system and Food Security-Food Security Bill – Dimensions of Inequality- Rural, urban, gender, income and education- Poverty concepts estimates and methodology- Demographic transition in the light of 2011- Trends in Fiscal management, FRBM Act- Energy resources and pricing in India- Banking sector reforms-Recent slow-down of the Indian economy.

Selected Text Books

- 1. Aluvalia, I.J and IMD Little (Eds) (1999), India's Economic reforms and Development, Oxford University Press, New Delhi
- 2. Bardhan, P.K. (1999), The Political Economy of Development in India, Oxford University press, New Delhi
- 3. Chakravarty S, (1987), Development Planning: The Indian Experience, Oxford University Press, and New Delhi
- 4. Datt. R. (2001), Second Generation Economic Reforms in India, Deep and Deep Publications, New Delhi

- 5. Byres, Trence J (1998), The Indian economy, Major Debates Since Independence, Oxford University Press, New Delhi
- 6. Acharya Shankar, Mohan Rakesh (Eds) (2011), India's Economy: Performance and Challenges, Oxford University Press, New Delhi
- 7. Basu Kausihik, Martens Annemie (Eds) (2011) The New Oxford Companion to Economics in India, Oxford University Press, New Delhi
- 8. Balakrishnan Pulpare (Eds) (2011) Economic Growth in India, History and Prospects, Oxford University Press, NewDelhi
- 9. Srinivasan T.N. (Eds) (2011) Growth Sustainability and India's Economic reforms, Oxford University Press, New Delhi
- 10. Mathew Kurian V. and Raju John (2016) (ed) Kerala Economy and its Emerging Issues, Kottayam.

KNRCMIC1815- MATHEMATICAL ECONOMICS

(4 Credits & 75 Hours)

Course Objectives: To familiarize the students with advanced methods in mathematical economics. The emphasis of the course is on understanding economic concepts with the help of mathematical methods rather than learning mathematics itself. Hence in this course a student will be initiated into various economic concepts, which are amenable to mathematical treatment, which helps to study economics through mathematical approaches.

Module-1 (10 Hours)

Nature and scope of Mathematical Economics – Role of mathematics in economic theory-Mathematical economics Vs Literary economics- Mathematics Vs econometrics. The concept of Sets- Definition- representation of a set- Forms of sets- set operations- Venn diagrams- ordered pairs- Cartesian product. Number system- Use of graphs, identities, equations, and inequalities.

Module-2 (10 Hours)

Functions of single and more than one independent variables- Algebraic, exponential and logarithmic functions- Explicit, implicit and inverse functions- polynomial function- market demand, supply functions, total revenue, cost functions and other economic functions.

Module-3 (20 Hours)

Basic Calculus- Differentiation- Limit, continuity and derivative – Rules of differentiation – Rules of partial differentiation and interpretation of partial derivatives – Problems of maxima and minima in single and multivariable functions – Applications of differentiation in economics – Rate of change- marginal concepts in economics- slope of curves- homogeneous function-

Cobb-Douglas production function- Euler's theorem- The C.E.s production function- constrained optimization etc. Theory of consumer behavior- Cardinal and Ordinal approachmaximization of utility- Elasticity of demand (direct and partial)- competitive and complimentary goods and thir identification using partial derivatives.

Module-4 (20 Hours)

-Integration- Basic rules of integration- Indefinite integral of algebraic, exponential and logarithmic functions- Definite integrals- Application of integrals in economics- The relation between average and marginal concepts- Total functions- total cost, total revenue, total productivity, total utility, total consumption, total savings etc from marginal functions. Area between two curves- Consumers surplus- producers surplus.

Module-5 (15 Hours)

Linear Programming Basic concept, formulation of a linear programming problem Its structure and variables – Nature of feasible, basic and optimal solution – Solution of linear programming through graphical – Formulation of the dual of a programme and its interpretation – Concept of a game – Strategies – simple and mixed – Value of a game – Saddle point solution.

Selected Text Books

- 1 Sydsaeter, Knut and Peter Hammond (2006), Essential Mathematics for Economic Analysis, 2nd Ed. Financial Times, Prentice Hall: Harlow, England.
- 2 Yamane, Taro (1975), Mathematics for Economists, PHI, New Delhi.
- 3 Allen, R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press, New Delhi.
- 4 Gupta, S.C. (1993), Fundamentals of Applied Statistics., S.Chand, NewDelhi.
- 5 Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
- 6 Handry, A.T. (1999), Operations Research, PHI, New Delhi.

KNRCMIVC1816-PROJECT

(4 Credits & 75 Hours)

TRAINING IN SOFT SKILL

(2 Hours)

Elective Courses

KNRCMIIIE1801- ENVIRONMENTAL ECONOMICS

(4 Credits & 75 Hours)

Course Objectives: Environmental issues are getting increased attention both at global and national level. The course in environmental Economics is designed in such a way as to increase awareness of students on the nature of problems and the solutions open to society. Place of environment in sustainable development is elaborated in the second module. Major theories on environmental valuation are introduced in the next module. In the remaining modules focus is on discussion of environmental policy.

Module- I (10 Hours)

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Nature and scope of environmental economics--ecology and environment—self-sustaining mechanism in the ecosystem-environmental services and the working of the economy—habitat services—Bio-diversity and survival of living organisms.

Module -2 (20 Hours)

Environment and sustainable development: Economic development and impact on environment—growth race and growth craze as major issues behind environmental crises—environmental improvement and sustainable development—Major issues of environment (chemical based farming, GM seeds, industrial activity and pollution—resource extraction and pollution—other sources of pollution)—population explosion and related stress on environment—poverty as threat to environmental safety—intergenerational equity in growth.

Module -3 (15 Hours)

Theoretical analysis of issues facing environment—the cases of market inefficiency and market failure—environmental demand theory—demand and supply of 'bads'—property right issue—Common property resources and the 'tragedy of the commons'—Cost-benefit analysis.

Module -4 (10 Hours)

Green Accounting: How to value environmental goods and services—limitation of conventional system of national accounts with respect to environment—green accounting—international initiatives in developing green accounts.

Module -5 (20 Hours)

Policy options for environmental betterment—market-based instruments—non-market tools—global issues and the need for international action—the Brundland Commission and report—major international conventions and treaties on environment—the North-South divide on resolving environmental problems. Environmental policy of the Government of India.

Selected Text Books

- 1. Dorfman, R and Dorfman N. (eds, 1993): *Environmental Economics*, Cheltenham, Edward Elgar.
- 2. Kolstad, Charles D. (2010, original edition 2005): *Environmental Economics*, New Delhi, OUP.
- 3. Baumol, W.J. and W.E. Oates (1979): *Environmental Policy and Quality of Life*, New Jersey, Prentice Hall.
- 4. Uberoi, N.K. (2010): Environmental Studies, New Delhi, Excel Books.
- 5. Brown, Lester R. (ed., 1998): The State of the World-1998, New York, Norton & Co.
- 6. Mishan E.J. (1967): The Costs of Economic Growth, London, Weidenfeld and Nicholson.
- 7. The World Commission on Environment and Development (1987): *Our Common Future*, New Delhi, OUP...
- 8. Kumar, Pushpam (ed., 2005): *Economics of Environment and Development*, New Delhi, Ane Books.

- 9. Atkinson, Giles et.al. (1997): *Measuring Sustainable Development*, Cheltenham, Edward Elgar.
- 10. World Bank (1995): Monitoring Environmental Progress, Washington DC, WB.
- 11. Brown, Lester R. (2003): *Eco-Economy*, Hyderabad, Orient Longman.
- 12. Kirkby, John et.al. (eds., 1995): *Earthscan Reader in Sustainable Development*, London, Earthscan Publishers.
- 13. Meadows, D.H. et.al. (1972): The Limits to growth, New York, Signet.
- 14. Bhattacharya, R.N. (2007): Environmental Economics-an Indian Perspective, New Delhi, OUP

KNRCMIIIE1802- KERALA ECONOMY

(4 Credits & 75 Hours)

Course Objectives: The 'Kerala model' has often been identified as one worth emulating because it is seen to have taken the state to the zenith of human development and democratic governance. The course intends to the past and present dimensions of the Kerala experience from a historical, political and economic perspectives, thus providing a fresh understanding of the emerging concerns in the state and the construction of an ethically viable development agenda, eschewing the scourge of social inequity. The contents of the course are structured to make students aware of Kerala experiences and burning issues in agriculture, industrial and social sectors of Kerala economy.

Module- 1 (15 Hours)

Introduction to Kerala Economy-Physical and Socio-Economical Features of Kerala- The historical background of Kerala Economy-Trade and Political Economy of Kerala (ancient, medieval, modern) - The key factors associated with Socio- Economic Development of Kerala. At the time of State formation- Broad features-. Growth and development since 1956- Trends and Pattern of GSDP- Re-distributive Policies (Health, Education, PDS, and Land Reforms) Kerala model development.

Module- 2 (15 Hours)

Agriculture and Allied Sectors in Kerala-Agriculture Growth and Performance-Trends in Production and Productivity - Food Security- Land Reforms and Land use pattern, Changes in Cropping Pattern, Collective farming Initiatives—Green Army -Integrated Farming, Organic Farming, -Special Agricultural Zone. Transformation of Agriculture in Kerala-Livestock- Poultry-Fisheries- Forestry of Kerala- Progress in productive sectors-Long term Decline in Agriculture (deficit in food production-problems related to cash crops). Finance to Agriculture- Economy of Crop Insurance Schemes in Kerala. -Agrarian Crisis in Kerala-Climate Change and Agriculture in Kerala -Trade agreements (ASEAN, WTO) and Kerala.

Module- 3 (12 Hours)

Industrial Sector and Business in Kerala- Industry-Growth and Performance-Industrial Backwardness- Traditional Industries of Kerala-Coir, Handloom-Small Scale Industries-MSMEs-Issues and Opportunities. Industrial Financing- Central Sector Investment- State Public Sector Undertakings- Private Sector - Mining, Manufacturing and Construction Sector- Disinvestment and challenges- New Trends in Industry- IT industry and Electronic Parks- KELTRON- Business and innovations Centres- Fab labs ,Start Up Villages-Special Economic Zones.

Module- 4 (15 Hours)

Service Sector and Inclusion Policies- Growth and performance of Service Sector-Income Generation - Employment Issues- Performance of service Sub-Sectors and Economic Infrastructure -Transport—Energy-Communication-Hospitality, Real estate.—Tourism as a potential growth sector -Social Infrastructure- Health and Education — and Community Programmes- Gender and Disability Programmes-Tendencies of Inclusion and Exclusions-Issues of Human Development .Economic Services-Banking—Migration and Remittance - Role of remittances — Regional Imbalances. Trends, Pattern and Problems of Migration-Migration from Kerala -Gender dimensions- Rehabilitation — Issues of Return Migrants. Human Resource as a Positive factor in Kerala -New trends and contemporary challenges in service sector.

Module- 5 (18 Hours)

Kerala's development experience: From lopsided to virtuous phase of development—Sustainability Issues. Human development indicators for Kerala vs. National HDI—Progress in education (primary, secondary and tertiary sector-progress and problems)-Health sector of Kerala (progress and issues)—trends in per capita income. Decentralized Planning-Financing of Local Government Plans- State Finance Commission-Performance of Local Government-Scheduled Caste Sub Plan, Tribal Sub Plan and Women Component Plan under Decentralization. Rural Development Programmes- Kudumbasree. Development and Utilisation of Natural Resource—Issues of Reclamation. Disaster Management—Challenges of Reconstruction Rehabilitation of Disaster affected regions. Problems to tackle—Poverty trends—Unemployment issue—Fiscal crises—Environmental issues—Rising inequality (income and non-income dimensions).

Selected Text Books:

- 1. Ghosh, B.N and Padmaja D. Namboodiri(Eds.) (2009): The Economy Of Kerala: Yesterday, Today And Tomorrow, New Delhi:Serial Publications.
- 2. K.C., Zacharia, and S. Irudaya Rajan (2013): Diaspora in Kerala's Development, New Delhi:Daanish Books.
- 3. Mathew, V. Kurian and Raju John (Eds.) (2014): Kerala Economy and its Emerging Issues, Kottayam: SPCS
- 4. Parayil, Govindan (Ed.) (2000): Kerala: The Development Experience: Reflections on Sustainability and Replicability, London: Zed Books.
- 5. Prakash, BA and Jerry Alwin (Eds.) (2018): Kerala's Economic Development: Emerging Issues and Challenges, New Delhi:Sage Publications.

- 6. Ramanathaiyer, Sundar and Stewart MacPherson (2018): Social Development in Kerala: Illusion or Reality?,London:Routledge.
- 7. Ravi, K. Raman (2010): Development, Democracy and the State: Critiquing the Kerala Model of Development, London:Routledge.
- 8. Williams, M (2008): The Roots of Participatory Democracy: Democratic Communists in South Africa and Kerala, London: Routledge.
- 9. Zachariah, K.C. and P.R. Gopinathan Nair and S. Irudaya Rajan (2006): Return Emigrants in Kerala: Welfare, Rehabilitation and Development. Manohar Publishers & Distributors 10. Kerala State Planning Board (2017) .*Economic Review -2016*, Thiruvananthapuram: Kerala State Planning Board.

KNRCMIIIE1803- ENTREPRENEURSHIP AND BUSINESS INNOVATION

(4 Credits & 75 Hours)

Course Objectives: Joseph A Schumpeter exposed 'entrepreneur 'as the dynamic agent of 'capitalism'. According to him, 'innovation 'is the main function of the entrepreneur. It is through innovation induced 'creative destruction 'capitalism could progress. In this post globalization era, especially after the great recession, a new wave of innovating entrepreneurship is required. Further, for the fair performance of global economy and society, the promotion of social entrepreneurship, cooperative entrepreneurship and public entrepreneurship is required along with the advancement of business entrepreneurship.

Module -1 (12 Hours)

Introducing Economics of Entrepreneurship: Meaning and importance of entrepreneurship-types of entrepreneurship-'Social Science view' of entrepreneurship-Theories of entrepreneurship-Social Classical, Schumpeterian and Post-Schumpeterian models.

Module -2 (18 Hours)

Entrepreneurship before and after Schumpeter: Innovation as a crucial function of entrepreneur -entrepreneurship and profit -the Modernisation of entrepreneurship-technology and entrepreneurship-induced entrepreneurship and network entrepreneur.

Module -3 (15 Hours)

Innovation System for economic development: National Innovation System Model - global, national and regional incubation (startups) ,innovation and development - innovation in small and large firms – sectoral innovation -innovation and IPR – innovation and 'Venture Capital '- University Innovation System – Triple Helix Model – Public entrepreneurship

Module -4 (15 Hours)

Entrepreneurship and Innovation – Some New Challenges: globalization, sustainable development, changing technology – jobless growth – M & Samp; A, R & Samp; D – social entrepreneurship – social innovation – social financing and social development.

Module -5 (15 Hours)

Entrepreneurship and Promotion of Innovation in India and Kerala: Startup policy – science and technology policy – policy trends FDI – cooperative entrepreneurship – the experience of Amul – Kerala's Ecosystem of Innovation.

Selected Text Books

- 1. Swedberg, Rechard (2004) (ed): Entrepreneurship The Social Science view, New Delhi, OUP
- 2. Holt, David H (1992): Entrepreneurship New Venture Creation, Chennai, Pearson.
- 3. Desai, Basanth (2007): Dynamics of Entrepreneurial development and Management, Mumbai: Himalaya Publishing House.
- 4. Venkidapathy, R. etal (ed) (2010): Social Entrepreneurship, New Delhi: Excel Books.
- 5. Nicholls, Alex etal (2015): Social Finance, Oxford: OUP
- 6. Collins and Lazien, W. (1992): Beyond Entrepreneurship, New Jersey: Prentice Hall.
- 7. Sphephard, Hisrich Peters (2011): Entrepreneurship, Tata McGraw Hill.
- 8. Mohanty S. K., (2005): Fundamentals of Entrepreneurship, Prendies Hill of India.
- 9. Oates David (2009): A Guide to Entrepreneurship, Mumbai: Jaico Publishing House.
- 10. Bornstein, D and Davis, S. (2010): Social Entrepreneurship: What Everyone Needs to Know, Oxford: OUP.

KNRCMIIIE1804- GLOBALIZATION—ECONOMICS, POLITICS AND ETHICS (4 Credits & 75 Hours)

Course Objectives: Since the 1980s onwards the entire world economy has been experiencing a 'process of globalization'. In the globalization era, some economics like China and India world archive remarkable economic growth. But in the same era, inequality also got widened. The global financial crisis erupted in the 2008 along with concentration of wealth imparted disenchantment towards globalization. Further political economists, sociologists and social activists started the showing multidimensional impact of globalization, ranging its economic, political and ethical dimensions. The course on 'globalization' intends to give an overview of the subject to PG students in Economics.

Module-1 (15 Hours)

Globalization- Concepts and Theories -Globalization as 'internationalization' (Amartya Sen) Globalization as a new world order (Hayek, Friedman and Bhagawati) - Capitalist globalization as new imperialism (Marxist and New Marxist) - New market oriented theories legitimizing globalization - Rational Expectations Hypothesis, New Monetarism - Supply side Economics' New Imperialist Theory - Modern Word System Analysis of Immanuel Wallestein.

Module-2 (12 Hours)

History of Globalization -The evolution of global trade as the process of globalization-Capitalist globalization ranging from colonial to neo-colonial eras-Mercantile capitalism ,industrial capitalism, monopoly, capitalism and post-industrial capitalism-financialised and knowledge capitalism.

Module-3 (15 Hours)

Technology and the Political Economy- New Globalization-Electronic Revolution as a globalisation facilitator-The role of multilateral institutions-World Bank, IMF and WTO-in the Formation of Globalization.

Module-4 (18 Hours)

The Recent Phase of Globalization -The impact of 2008 financial crisis/great recession on 'globalization'-Trumpenomics as a brake of new globalization-The US —China trade war and its globalization implications

Module-5 (15 Hours)

The Economics, Politics and ethics of Globalization: The national growth and globalization-The unjust concentration of wealth and widening inequality in the globalisation era-Globalization and unemployment-The ecological implication of globalization-The globalization experience of India-an overview.

Selected TextBooks

- 1. Stigitz, Joseph (2002): Globalization and its Discontents, New Delhi: Penguin Books...
- 2. Polet, Francois (ed.) (2004): Globalizing Resistance-The State of Struggle, London: Pluto Press.
- 3. Amin, Samir(1997): Capitalism in the Age ogf Globalization, London Zed Books.
- 4. Bisley, Neiek () Rethinking of Globalization, London: Palgrave.
- 5. Sodhi, J.S. (ed.) (2011): Tracking Globalization, New Delhi: Penguin Books
- 6. Koshy,Ninan(ed.)(2002): Globalization-TheImperial Thrust of Modernity,Mumbai: Vikas Adhyayam Kendra
- 7. Bardan, Pranab et al. (ed.) (2006): Globalization and Egalitarian Distribution, New Delhi: OUP.
- 8. Jomo, K.S and Jinu, Khoo Khay(ed.)(2003): Globalization and its Discentents, Revisited, New Dehi: Tulika.
- 9. Kiley, Raj(2007): Empire in the age of Globalization,

10. Piketty, Thomas (2014): Capital in the Twenty-First Centuary, Cambridge; Harvard University Press.

KNRCMIVE1805- ADVANCED ECONOMETRICS

(4 Credits & 75 Hours)

Course Objectives: This course is designed to teach students econometric estimation and inference methods at an advanced level. At the end of this course, students will be able to apply modern econometric methods to economic problems and to follow theoretical and applied econometrics literature. This course also aims to equip students with skills to carry out independent applied research as well as to develop new econometric methods and software skills.

Module-1

(15 Hours)

Simultaneous Equations Models - Introduction to Simultaneous Equation Models - Problem of Identification and Consequences of ignoring Simultaneity - Estimation Procedures: Indirect Least Squares, 2SLS, 3SLS - Application: A Simple Keynesian Model - Estimation with Serial Correlation and Lagged Dependent Variable.

Module-2 (15 Hours)

Time Series Analysis - Basic Concepts in Time Series Econometrics, Stochastic Time Series Models, Stationarity and Testing for Unit Root, Co-integration, ARIMA Models and Forecasting, ARCH and GARCH models.

Module-3 (20 Hours)

Dynamic Econometric Models Autoregressive and Distributed Lag models: Role of Lag in Economics – Estimation of Distributed Lag Models: Koyck Apparoch, adaptive Expectation and partial Adjustment Models and Almon Approach – Causality in Economics – Vector Auto-Regression (VAR) Models: Impulse Response Function, Variance Decomposition .

Module-4 (15 Hours)

Analysis of Panel Data Pooling Cross-sectional and Time Series Data – Estimation: Fixed Effects Approach, Random Effects Models, Fixed versus Random Effects Model

Module-5 (10 Hours)

Carrying out An Empirical Project Selecting a Topic, Review of Literature, Formulating a General Model, Empirical Analysis, Caution on Misleading Uses of Econometrics.

- 1. Gujarati, D (1995)- Basic Econometrics, 4th Edition, New York: McGraw Hill
- 2. Johnston, J (1991) Econometric Methods, 3rd edition, New York: McGraw Hill.
- 3. Pindyck, Robert S. and Daniel L. Rubinfeld (1995) Econometric Models and Economic Forecasts, 4th Edition, Irwin McGraw-Hill, New York
- 4. Ramanathan, Ramu (2000) Inroductory Econometrics with Applications, 5th Edition, Cengage Learning India Pvt. Ltd., New Delhi
- 5. Maddala, G.S: Econometrics, McGraw-Hill Book Co., New York, 3rd Rd.
- 6. Maddala, G.S: Limited-Dependent and Qualitative Variables in Econometrics, Cambridge University Press.

KNRCMIVE1806- OPERATIONAL RESEARCH

(4 Credits & 75 Hours)

Course Objectives: After successful completion of the course, students will be able to understand importance of optimization of industrial process management, apply basic concepts of mathematics to formulate an optimization problem and analyse and appreciate variety of performance measures for various optimization problems.

Module-1 (15 Hours)

Introduction to Operation Research: Operation Research approach, scientific methods, introduction to models and modeling techniques, general methods for Operation Research models, methodology and advantages of Operation Research, history of Operation Research.

Module-2 (20Hours)

Linear Programming (**LP**): Introduction to LP and formulation of Linear Programming problems, Graphical solution method, alternative or multiple optimal solutions, Unbounded solutions, Infeasible solutions, Maximization – Simplex Algorithm, Minimization – Simplex Algorithm using Big-M method, Two phase method, Duality in linear programming, Integer linear programming. (20 hours).

Module-3 (15 Hours)

Transportation & Assignment Problems: Introduction to Transportation problems, various methods of Transportation problem, Variations in Transportation problem, introduction to Assignment problems, variations in Assignment problems

Module-4 (15 Hours)

Network Analysis: Network definition and Network diagram, probability in PERT analysis, project time cost trade off, introduction to resource smoothing and allocation.

Module-5 (15 Hours)

Queuing Models: Concepts relating to queuing systems, basic elements of queuing model, role of Poison & exponential distribution, concepts of birth and death process.

Selected Text Books

- 1. <u>Sydsaeter</u>, Knut and Peter Hammond (2002) Essential Mathematics for Economic Analysis, Prentice Hall: Harlow, England.
- 2. Yamane, Taro (1962) Mathematics for Economists, Prentice Hall,
- 3. Allen, R.G.D (2008). Mathematical Analysis for Economists, Macmillan Press, New Delhi.
- 4. Chiang, A.C (2005)- Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
- 5. Handry, A.T (1995). Operations Research, PHI, New Delhi.
- 6. J K Sharma, Operations Research Theory and Applications, MacMillan India Ltd.
- 7. N D Vohra, Quantitative Techniques in management, Tata McGraw Hill.
- 8. Handy A Taha, Operations Research An Introduction, Prentice Hall of India, New Delhi.
- 9. Wagner H M, Principles of Operations Research: With Applications to Management Decisions, Prentice-Hall of India, New Delhi.
- 10. Hillier F S and Lieberman G J, Operations Research, Holden Day Inc., San Francisco.

KNRCMIVE1807- BANKING REGULATION AND FINANCIAL SECTOR REFORMS

(4 Credits & 75 Hours)

Course Objectives: The course is designed in such a manner that focus is on reforms undertaken in the last two decades, both at global and national levels. Students get a fairly good idea on role of banking and non-banking institutions in the modern period. Discussion of major issues in these sectors will help them keep abreast with latest developments in this critical sector.

Module-1 (15 Hours)

Role and Functions of the Financial Sector in the Economy—Distinction Between Banking Institutions and Other Financial Intermediaries—History of Banking—Major Functions Performed by Banks in Modern Economies—International efforts to reform banking practices. Theory of Central Banking: Role of Central Banks in Modern Economies—Issue of Central Bank Independence—Management of the Monetary Policy and Instruments of policy – Rules versus discretion debate -Conflict between objectives of economic growth and price stability - Instruments of policy (Bank Rate, REPO Rate, Reverse REPO Rate, CRR, SLR, MSF etc). The Taylor Rule on Money Supply Growth-Friedman's Proposal on Money Supply Adjustment-- Credit Policy: Objectives and Instruments — Quantitative Versus qualitative policies.

Module-2 (20 Hours)

Indian Banking System – Different stages of development of Indian Banking - Structure of Indian Banking System - Nationalisation of commercial banks: Objectives and Impact--Banking Sector Reforms from 1991 – Narasimham Committee recommendations – Damodaran

committee recommendations on banking services – Impact of Financial Sector reforms on Indian Banking System. Financial Inclusion – Problem of NPA's and its resolution.

Module-3 (20 Hours)

Reserve Bank of India: Organisational evolution - Functions of Reserve Bank - Role of Reserve Bank - Role of Reserve Bank in Economic Development - India Specific Issues: Banking Regulation Act - Banking Ombudsman Scheme - Debt Recovery tribunal. Prudential norms - Payment and Settlement Systems- Acts and Regulations on Payment and Settlement systems. Recent Developments: BASEL III Norms - Guidelines for licensing new banks - Establishment of the Monetary Policy Committee-- RBI annual report--Recent. Periods.RBIs involvement in global efforts to improve banking performance and quality.

Module-4 (10 Hours)

Non-Banking Financial Intermediaries—Role and relevance—Government of India's Policy on licensing and control of NBFIs.Major institutions in Non-Banking Financial Sector in Indian economy—Mutual Funds: Growth and Problems—Insurance Sector: Major Companies in India—Insurance Sector Reforms and Impact- -- Role and Functions of IRDA-- Other Institutions in NBFI Sector

Module-5 (10 Hours)

The Indian Stock Market—Relevance and Growth—Obstacles to growth of stock market in India--Regional Rural Banks - Co-operative Banks - Foreign Banks in India - International Banking - Development Banks in India: NABARD - SIDBI - IDBI

- 1. R.S. Sayers (1958): Modern Banking, London School of Economics, London.
- 2. William Silber (1980): Principles of Money, Banking and Financial Markets, Basic Books, NY.
- 3. Barbara Casu, C. Giradone and P. Molyneux (2006): Introduction to Banking, Prentice hall.
- 4. Allen N. Berger, Philip Molyneux and J.S. Wilson (2012): The Oxford Handbook on Banking, Oxford University press (OUP), New Delhi.
- 5. AndrewB. Abel and Ben S. Bernanke (2010): Macroeconomics, Ed 4, Pearson Publications, NY
- 6. A.G. Chandvarker (1996): Central Banking in Developing Countries, Basinstoke...
- 7. Partha Rai (2013): Monetary Policy, OUP, New Delhi.
- 8. Suresh Kant (2005): Encyclopedic Dictionary of Banking and Financial Terms, JBA Books, New Delhi.
- 9. Economic Survey (Latest available Issue)

10. A. Vasudevan (2012): Monitory Governance in Search of New Space, Academic Foundation, New Delhi.

KNRCMIVE1808- ECONOMICS OF HEALTH AND EDUCATION

(4 Credits & 75 Hours)

Course Objectives: The course is to introduce an economic evaluation of the current policies and critical issues, of the health and education sectors of India. This course is designed to help student to establish a conceptual framework to evaluate education and health sectors in India.

Module- 1 (10 Hours)

Introduction to Health and Education-Definitions- Concepts-Theories.- Agencies and Progress of Health and Education –Ancient-Medieval-Modern. - Role of Health and Education in National Economy -The concepts of Human Resource- Human Capital Formation and Human Development. - Mapping the Relationship between Education and Health -Effects of Health on Educational Outcomes- Effects of Education in Health Outcomes.

Module- 2 (12 Hours)

Education and Health is the best investment for a society- Education, Social Change and Social Transformation- Determinants of health--Role of health in economic development-Impact of economic development on health standard-Effect of poverty and malnutrition on health. Education and Health Investments in India and Selected Countries-Practices of Education and Health - Global Scenario of Health and Education-Health for All-Universal Education-Health for affordable Price-Sustainable Development Goals and Health and Education.

Module- 3 (20 Hours)

Scope of Economics of Health and Health Care- Health as Merit Good-Progress of the Health sector of India since independence-Institutional and financial issues in Health sector - Challenges in the Health sector- Preventive and Promotive health care - Nutritional Health Programmes -Access to health care system- Major Health Indicators-Health Issues - . Stake holders in Health Sector -Role of Government in provision of Health care-Role of the Private sector—Reasons for Government control on Medical Sector-Need of Subsidy-Financial and Institutional issues in Delivery of Health Care- Aayushman Bharat- Health Insurance-Implications of GATS for health sector in India.

Module- 4 (20 Hours)

Role of education in Economic and Social development-Impact of Economic Development on Education-Education as Merit Good. Expenditure on Education-Private and Social Costs of Education-Direct and Indirect Benefits of Education-Measurement of Costs and Benefits of Education-Methods to Improve Efficiency and Productivity of Education-Educational Financing-Pricing and Subsidy in Education. Problems of LDCs in Educational Sector-Global trends in Educational Achievement-Importance of Primary, Secondary and Tertiary Levels of Education-Formal , Informal- Progress of Educational Technology and Impact on Quality-Importance of Manpower Planning-Transformation of the Regulatory System of Education in India- National Education Policy, 2017- Implications of GATS on Educational Sector.

Module- 5 (13 Hours)

Trends in Education and Health in India- Health care Insurance. -Social Insurance with Multiple Payers -How technology can transform health and education in India. Challenges, Health financing, -Health protection, Human resource, National health package, Universal health coverage -National Rural Health Mission (NRHM), Inadequate investment and other financial issues in Education- New trends in Policy for higher investment to improve quality and equity of education in India. Development of Health and Education Sectors in Kerala.

Selected Text Books

- 1. Akinyemi, Samuel (2013): The Economics of Education, Houston: Strategic Book Publishing.
- 2. Alistair, et.al. (2005): The Economics of Healthcare, London: Routledge
- 3. Anupam Hazra (2013): India's Social Sector and Millennium Development Goals, New Delhi: Rawath Publications,
- 4. Banerji, Abhijith and Esther Duflo (2011): Poor Economics-Rethinking Poverty and Ways to End it, Noida: Random House India Publishers Ltd.
- 5. Biswajith Chatterjee (2009): Globalization and Health Sector in India, New Delhi: Deep Deep Publishers.
- 6. Clewer and D. Perkins (1998): Economics of Healthcare Management, London: Prentice hall.
- 7. Culyer, J Anthony (2014): Encyclopedia of Health Economics, London: Elsevier.
- 8. Garry S. Becker (1993): Human Capital-A Theoretical and Empirical Analysis, Ed.3, Chicago: University of Chicago Press.
- 9. Glied, Sherry and Peter C. Smith (Eds.) (2013): The Oxford Handbook of Health Economics, Hampshire: Oxford University Press.
- 10. J. Dominic Brewer and Patrick J. McEwan (2010) Economics of Education, San Diago: Elsevier.
- 11. Jean Dreze and Amartya Sen (1995): India-Economic development and Social opportunity, New Delhi: Oxford University Press.

KNRCMIVE1809- RESOURCE ECONOMICS AND SUSTAINABLE DEVELOPMENT

(4 Credits & 75 Hours)

Course Objectives: Resource Economics is one of the applied branches of modern Economics. Students who study this elective paper get a comprehensive view of most of the critical issues connected to resource scarcity and methods to conserve resources. Mastery of resource Economics will enable students to actively and creatively engage in resource conservation initiatives. With the theoretical footing gained through the course they can play a positive role in conscientizing people around them to various resource conservation techniques.

Module- 1 (10 Hours)

Definitions and scope of Resource Economics—major economic resources—classification of resources—protecting renewable and non-renewable resources--common property resources and 'the tragedy of commons'—economic growth and resource availability--the trend in resource use—

Module- 2 (20 Hours)

Resources and Sustainability of Growth: Resource extraction and use as major causes of environmental pollution--resource conservation for sustainable development—conservation of non-renewable resources (NRRs) by recycling, reconditioning, repair and reuse—technology for better extraction and saving of NRRs—maximum sustainable yield of renewable resources (RRs)—technological and social options for better management of RRs—non-conventional energy options—government policy for promoting responsible use of resources—redesigning the subsidy system.

Module- (15Hours)

Green Accounting: Deficiencies of the conventional system of national accounts (SNA) as a primary cause of uncontrolled use of natural resources—development of green accounts—international efforts—difficulties of accounting nature and environment—political issues related to green accounts

Module- 4 (15Hours)

Designing a Green Economy: Eco-economics and the question of restructuring of economies—balancing the environmental and economic needs—new industries and new jobs—visions on future of world economy—putting an end to veneration of GDP—growth limits and unlimited development—need of international cooperation.

Module- 5 (15 Hours)

Man, as vital resource for development—the process of human resource formation—role of education and health in human resource formation—developing countries and challenges of human development-

- 1. Blunden, J. (1997): "Mineral resources" in Blunden J. and Allan Reddish (eds.), Energy, Resources and Environment, London: Hodder and Stoughton.
- 2. World Resources Institute (Annual reports).
- 3. Sankar, U. (2009): Environmental Economics, New Delhi, OUP.

- 4. Uberoi, N.K. (2010): Environmental Studies, New Delhi, Excel Books.
- 5. Goldenberg, J. et.al. (1998): Energy for a Sustainable Future, New Delhi, Wiley Eastern Ltd.
- 6. Pirog and Stamos (1987): Energy Economics-Theory and Policy, New Jersey, Prentice Hall.
- 7. Oliver, D. et.al. (1991): "Sustainable energy futures", in Blunden and Reddish (eds.), Energy, Resources and Environment, London, Hodder and Stoughton.
- 8. Pearce, D. (1997): "Integrating environment in to development planning", in Wilson, Frank A. (ed.), Towards Sustainable Project Development, Cheltenham, Edward Elgar.
- 9. Atkinson, Giles et.al. (1997): Measuring Sustainable Development, Cheltenham, Edward Elgar.
- 10. Simon Bell and S. Morse (2008): Sustainability Indicators, Earthscan, London.

KNRCMIVE1810- MARKETING MANAGEMENT

(4 Credits & 75 Hours)

Course Objectives: Objective of this course is to facilitate understanding of the conceptual Framework, tools and techniques relevant to marketing management. It may help the student to develop the skill for solving the strategic marketing problems faced by marketing managers under various environmental constraints.

Module- 1 (Hours 12)

Introduction to Marketing- Meaning, Scope and functions of Marketing; Evolution of marketing; Marketing concepts; Difference between Marketing and Selling; Understanding Marketing Environment: macro and micro components and their impact on marketing decisions.

Module- 2 (Hours 20)

Consumer markets and business markets- Corporate and division strategic planning; Four major planning activities; Business unit strategic planning process; Types of market -- Consumer market and Business market; consumer versus organizational buyers; Factors influencing consumer behavior; Consumer Buying decision process - The Five Stage Model; Types of products; Product differentiation; Product line and Product mix.

Module- 3 (Hours18)

Marketing Research and Segmentation- Fundamentals of Marketing Research: Meaning and scope of marketing research; Marketing research process; Demand Forecasting; Market Segmentation – Bases for segmenting consumer markets and business markets; Targeting and Positioning.

Module-4 (Hours 15)

Marketing Mix - Four P's of marketing- Product, Price, Place and Promotion. Product life cycle; New product development process; Pricing Decisions: Determinants of Price; Pricing Process, Policies and Strategies, Discounts and rebates; Promotional tools: Advertising, personal selling, publicity and sales promotion; Distribution channel and Logistics decisions.

Module-5 (Hours 15)

Emerging Trends in Marketing- Social, ethical and legal aspects of marketing; Marketing of services; International marketing; Direct Marketing; Green marketing; Cyber marketing; Relationship marketing; Telemarketing; Viral Marketing ;Digital Marketing and Introduction to Marketing analytics.

Selected Text Books

- 1. Philip Kotler, Kevin Lane Keller, Abraham Koshy, Mithileswar Jha(2012): "*Marketing Management A South Asian Perspective*", 14 e, Pearson Education India Limited, New Delhi,
- 2. KS Chandrasekar(2010): "Marketing management-Text and Cases", Tata McGrawHill, New Delhi.
- 3. Etzel, M., Walker, B., Stanton, W. and Pandit, A (2009): *Marketing Management*, Tata McGrawHill, New Delhi
- 4. Ramaswamy, V.S and Namakumari, S. (2009): *Marketing Management: Global Perspective Indian Context*, 4th Edition, Macmillan Publishers India Ltd., New Delhi
- 5. Saxena, Rajan (2009): *Marketing Management*, Fourth Edition, Tata McGraw Hill Education Pvt. Ltd., New Delhi.
- 6. Louis E. Boone and David L. Kurtz (2007): *Principles of Marketing*, 12 th Edition, Cengage Learning, New Delhi.

KNRCMIVE1811- PERSONNEL MANAGEMENT

(4 Credits & 75 Hours)

Course Objectives: The objective of this course is to sensitize students to various facets of managing people and to create an understanding of the various practices of human resource management. This paper will attempt to orient the students to tailor themselves to meet the specific needs of the organizations

Module -1 (12 Hours)

Introduction to Human Resource Management- Human Resource Management - Definition, nature, scope and features, Functions of HRM- HRM and Personnel Management, Human Resource Planning: Concept, Objectives and Process; Job Analysis- Job Description, Job Specification, Job design, Job evaluation.

Module-2 (20 Hours)

Employment, Training and Development- Definition, Sources of recruitment, Recruitment process, Outsourced recruitment, Selection Process- types of Tests and Interviews. Assessment Centers, Placement and Induction; Definition, Need and importance, Types of training, Training

Process-Methods of Training –Tools and Aids- Evaluation of Training Programs, Executive development programmes-an overview; Performance Appraisal: Concept, Need, Objectives, Process of Performance Appraisal, Different methods of PA.

Module-3 (15 Hours)

HR Functions and Industrial Relations- Role and functions of HR Manager; Industrial Relations-Concept, Trade Unions: Concept, Objectives, Functions, Collective Bargaining- Process, Employee Grievance handling and redressal, Employee counseling, Industrial Disputes-Causes, Unfair Labour Practices, Dispute Settlement Machinery-Conciliation, Voluntary Arbitration and Adjudication.

Module-4 (15 Hours)

Compensation Management and HR Maintenance- Compensation and Rewards management-wage and salary administration, incentive plans and fringe benefits, Employee welfare programmes- Promotion, Transfer and Separation; Compensation and Reward Structure in service sector, Compensation Practices of Multinational Corporations- Executive Compensation, Performance Linked Compensation, Performance incentives and Gain sharing.

Module-5 (13 Hours)

New HR Concepts and Jargons- HR Analytics—Its growing importance in employee performance and retention, The emerging role of Chief People Officer and People Scientists, Green HRM for environmental sustainability; HR Jargons--Talent Management; 80/20 Rule, Glass Ceiling, Moonlighting, Succession Planning, Balance Scorecard, Bumping, Broad banding.

- 1. Gary Dessler, Biju Varkkey(2016): Human Resource Management,15th Edition, Pearson Education, New Delhi.
- 2. K. Ashwathappa(2017): Human Resource Management Text & Cases, Tata McGraw Hill, New Delhi.
- 3. V.S.P.Rao(2019): Human Resource Management, Cengage Learning, New Delhi.
- 4. Lawrence. S. Kleiman(2013): Human Resource Management A Managerial tool for competitive advantage, 6th Edition, Kendall Hunt, USA.
- 6. Angelo. S. DeNisi, Ricki.W. Griffin (2007): Human Resource Management, 3rd Edition, Houghton Mifflin Harcourt, India.
- 7. Mizra S. Saiyadain(2009): Human Resources Management, Tata McGraw Hill, New Delhi.
- 8. R. Wayne Mondy(2013), Human Resource Management, 14th Edition, Pearson, New Delhi

KNRCMIVE1812- POPULATION ECONOMICS

(4 Credits & 75 Hours)

Course Objectives: This course which is offered as an elective paper in the fourth semester, seeks to impart a clear understanding of the interplay between demographic processes and economic development. It introduces students to major concepts in demography and familiarizes them to various statistical techniques to study population trends and their impact on the economic and social processes—both quantitative and the qualitative techniques are taught. The course is designed to enable students to gain a sound command over the basic tenets of demography as well as key demographic issues, generally and in the Indian context.

Module- 1 (15 Hours)

Definition and scope of Population Studies --- Multi-disciplinary nature of demography and its links with other social science disciplines-- Basic demographic concepts and Data Sources on demographic trends at national and international realms. Institutional Mechanism Related to Population Census in India--the Sample Registration System, Vital registration System, National Sample Survey-- Large sample demographic and health surveys -- Quality of demographic data.

Module- 2 (20 Hours)

The demographic transition theory-the concept of population trap—Population as a Positive Factor in economic development-- Population Size, Growth and Characteristics-- Overview of the size and growth of world population by regions -- Size and growth of India's population-- Composition by age and sex-- Age pyramid—Challenges and implications of population ageing in MDCs and emerging economies. Mortality Concepts and measurement of mortality Standardization of death rates; Life tables Levels, trends and determinants of mortality in modern times. Fertility and Nuptiality Concepts and measurements of cohort and period fertility--Fertility levels and differentials in developed and developing countries-- Fertility levels and differentials among States in India.

Module- 3 (15 Hours)

Migration: Concepts and measurement --Major Theories of migration -- internal migration Causes, consequences and patterns of internal migration in India - Factors supporting international migration—Resistance to immigration in developed countries—Migrants Vs reugies. Population and Development How is population related to economic development - Optimists, pessimists and revisionists; - Notestein, Libenstein, Becker, Easterlin, Caldwell; Cleland and Wilson models-- Population and environment.

Module- 4 (15 Hours)

Module 4: Population Policy in India Evolution of population policy in India – the shift in policy from population control to family welfare and women empowerment-- Coercion versus cooperation as elements in population policy-- From population control to reproductive health;

Safe motherhood National Population Policy 2000.Module 5: Population dynamics in Kerala—Analysis of success of Kerala Vs other States on the implementation of the National Population Policies—Why the gap in performance among States- Agenda for a sustainable population policy in India: suggestions.

Selected Text Books

- 1. ICFAI (2011): Social Demography
- 2. Paul R. Elrich, The Population Bomb.
- 3. Caldwell, John C., Demographic Transition Theory
- 4. Basu, A.M. (1989), Is Discrimination in Food Really Necessary for Explaining Sex Differentials in Childhood Mortality, Population Studies, 43:193-210.
- 5. Bhat, M. (2002), Returning a Favour: Reciprocity between Female Education and Fertility, World Development, 39(10).
- 6. Bhat, M. (2002), On the Trial of Missing Indian Females, Economic and Political Weekly, 37(51) (52): 5105-518, 5244-5263.
- 7. Bhat, M. and F. Zavier (2003), Fertility Decline and Gender Bias in Northern India, Demography, 40(4):637-657.

OPEN COURSES

KNRCMIIIE1801- INDIAN ECONOMY

(4 Credits & 75 Hours)

Course Objectives: Amartya Sen defines 'democracy' as a political system with people's discussion. Participation of people in the 'democratic process' depends on their political, economic consciousness. In this perspective, a general course on Indian Economy 'concern of the entire students in the university is of great significance. In this course we attempt to discuss the evolution of Indian economy from very ancient times till today. The emerging challenges of the Indian economy also would be addressed.

Module-1 (12 Hours)

Pre-Colonial and Colonial Indian Economy: From fabulous riches of the East to 'Asiatic mode of production'-Colonial impact on Indian economy-The formation of Indian National Congress and the Struggle for freedom.

Module-2 (12 Hours)

Indian Economy under Nehruvian Era: India as a Mix economy, Socialistic pattern of society, Economic planning in India-An Overview.

Module-3 (15 Hours)

Indian Economy in the Post Nehruvian Era: New Economic Policy and its impact-Indian Economy from 'Hindu Rate of Growth 'High Growth Rate'-India as an Emerging Economic Power-Kerala model of Growth and Gujarat Model Growth and its National Implications.

Module-4 (18 Hours)

Some Emerging Challenges of Indian Economy: Indian Income inequality, Poverty –the problem Unemployment-Foreign Trade and Balance of Payments-Regional Inequality and Distress Migration –Inflation .The energy instruments of India and its vulnerable climatic conditions.

Module-5 (18 Hours)

Economic Policies of NDA Government and its Implications: The termination of Five Year Plans and the Installation of NITIAAYOG-Demonetisation-Introduction of GST-Amalgamation of Nationalised Banks-Insolvency and Bankruptcy Code 2018 and its implications in NPAs of Commercial banks-The recent slowdown of the Indian Economy.

Selected Text Books

- 1. Datt Ruddar and Sundaram, KPH, (): Indian Economy, New Delhi: S. Chand & Company Ltd.
- 2. Kurian, C.T (1992): The Economy-An Interpretative Introduction, New Dehi: Sage.
- 3. Sen, A.K (2005): The Argumentative Indian, London: Penguin.
- 4. Sen, A.K (2013): An Uncertain Glory-India and its Contradictions, London: Penguin.
- 5. Chakrabarti, Arjun et al (2016): The Indian Economy in Transition, Delhi, CUP.
- 6. Siddarthan, N.S. and Narayanan, K. (ed.) (2010): The Indian and Chinese Enterprises-global trade,technology and investment regimes, New Delhi:Routledge.
- 7. Kurian, V.Mathew and Raju John (ed.) (2015): Kerala Economy and Emerging Issues, Kottayam, NBS.

KNRCMIIIO1802- STATISTICAL METHODS FOR RESEARCH IN SOCIAL SCIENCES AND HUMANITIES (BASICS)

(4 Credits & 75 Hours)

Course Objectives: This course is designed to impart training in statistical methods required for research in Social Science/ Humanities. Topics are so designed in such a way that even students who have no primary knowledge of Statistics can understand the basic theory and procedures involved.

Module -1 (15 hours)

Features of research in social sciences and humanities—tools and methods of research—Search for patterns in social behaviour—Generation, processing and analysis of data to reveal patterns—Quantitative and qualitative data—Sources of data—Distinction between primary data and secondary data.

Module- 2 (20 hours)

Statistical surveys—Census or Sample Survey?—Relative advantages and disadvantages of census and sample survey .Sampling techniques and process: Decision on sample size—Random and non-random sampling—Different methods to obtain a random sample from a population—Purposive sampling—Situations in which convenient sampling is justified—Snowball sampling. How to conduct an interview for data collection—Preparation of structured schedule / questionnaire—Direct interview or postal enquiry (relative merits and demerits)

Module- 3 (10 hours)

Processing and presentation of collected data—Tabulation of data---Visual presentation of data—Different kinds of statistical diagrams.

Module -4 (20 hours)

Statistical measures of analysis—Measures of central tendency (Mean, Median and Mode)—Measures of deviation (range, standard deviation and mean deviation)—Exercises involving raw data and tabled data. Search for relationship—Correlation analysis

Module -5 (10 hours)

Advanced techniques of data analysis—SPSS and R Studio (Basic ideas only)

- 1. Murray S. Speigel, Statistics, Schaum Series
- 2. Speigal. M.R. (1992), Theory and Problems of Statistics, McGraw Hill, London.
- 3. W.G. Cochran, Sampling Techniques, John Wiley, New York, 1963. Applications

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