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ताळगांव पठार
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(Accredited by NAAC)

GU/Acad –PG/BoS -NEP/2023/100/3 Date:02.06.2023

Ref: GU/Acad –PG/BoS -NEP/2022/339/10 dated 18.08.2022

CIRCULAR

In supersession to the above referred Circular, the updated approved Syllabus with revised Course Codes of the **Master of Arts in Economics** Programme is enclosed.

The Dean/ Vice-Deans of the Goa Business School/ Principals of Affiliated Colleges offering the **Master of Arts in Economics** Programme are requested to take note of the above and bring the contents of the Circular to the notice of all concerned.

ASHWIN VYAS LAWANDE
Digitally signed by ASHWIN VYAS LAWANDE
Date: 2023.06.02 11:07:27 +05'30'

(Ashwin Lawande)
Assistant Registrar – Academic-PG

To,

1. The Dean, Goa Business School, Goa University.
2. The Vice-Deans, Goa Business School, Goa University.
3. The Principals of Affiliated Colleges offering the Master in Arts in Economics Programme.

Copy to:

1. The Chairperson, Board of Studies in Economics.
2. The Programme Director, Economics Discipline, Goa University.
3. The Controller of Examinations, Goa University.
4. The Assistant Registrar, PG Examinations, Goa University.
5. Directorate of Internal Quality Assurance, Goa University for uploading the Syllabus on the University website.

Goa University

SYLLABUS OF M.A. ECONOMICS PROGRAMME

(AY 2022-23 onwards)

SEMESTER I to IV

SEMESTER I		
Course Code	**Paper Title**	**CREDITS**
ECO-500	Microeconomics	4
ECO-501	Macroeconomics	4
ECO-502	Public Economics and Public Policy	4
ECO-503	Statistics For Economic Analysis	4
ECO-521 to ECO-527	Discipline Specific Elective course (Choice of 1 from AT LEAST 2 DSE courses)*	4
	TOTAL CREDITS	20

SEMESTER II		
Course Code	**Paper Title**	**CREDITS**
ECO-504	Mathematics for Economic Analysis	4
ECO-505	Economic Growth and Development	4
ECO-506	International Trade and Finance	4
ECO-507	Introduction to Econometrics	4
ECO-521 to ECO-527	Discipline Specific Elective course (Choice of 1 from AT LEAST 2 DSE courses)*	4
	TOTAL CREDITS	**20**

DISCIPLINE SPECIFIC ELECTIVES (SEMESTER-I & II)

Course Code	Discipline Specific Elective courses	CREDITS
ECO-521	Indian Economy	4
ECO-522	Environmental Economics	4
ECO-523	Introduction to Game Theory	4
ECO-524	Economics of Regional Integration	4
ECO-525	Indian Public Finance	4
ECO-526	Human Resource Development	4
ECO-527	Labour Economics	4

SEMESTER III & IV

Semester III		
Course Code	**Paper Title**	**CREDITS**
ECO-600 to ECO-605	Any Two Research-Specific Elective Courses (8 credits)	8
ECO-621 to ECO-624	Any Three Generic Elective Courses (12 credits)	12
	Total	20

Course Code	Research Specific Elective courses	CREDITS
ECO-600	Research Methodology in Economics	4
ECO-601	Data Sources for the Indian Economy	4
ECO-602	Techniques of Geo-spatial analysis	4
ECO-603	Introduction to Spatial Economics	4
ECO-604	Time Series Econometrics	4
ECO-605	Comparative Economic Systems	4

Course Code	Generic Elective courses	CREDITS
ECO-621	Indian Agriculture	4
ECO-622	Health Economics	4
ECO-623	Introduction to Finance	4
ECO-624	Evolution of Economic Thought	4

Course Code	Paper Title	CREDITS
ECO-621 to ECO-624	One Discipline-Specific Research Elective Course (4 credits)	4
ECO-651	Dissertation (16 credits)	16
	Total	20

Name of the Programme: M. A. Economics

Course Code: ECO-500 **Title of the Course: Microeconomics**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline.	
Objective:	The objective of the course is to expose the students the applications of modern theories demand, production and the complex decision making problems faced by the firms.	**Hours Per Module**
Content:	**Module 1** **Theory of Consumer Behaviour Consumer's tastes.** Indifference Curves-Consumer's choice and equilibrium-Income and substitution effects- Derivation of demand curve Applications of Indifference curves - Revealed preference theorem- market demand models-constant elasticity and distributed lag models. Developments in the theory demand- Constant elasticity demand function- Dynamic versions of demand functions-Nerlove, Houthakker and Taylor-Linear expenditure system. **Module 2** **Theory of Production and Costs Technology of production.** Production function: short run and long run-isoquants-Elasticity of substitution, Homogenous and Homothetic -Cobb Douglas Production function - CES,VES production functions-Recent developments-Technical progress and production function- Returns to scale - Choice of least cost combination of inputs. Costs- Short and long run-The L shaped cost curve. Derivation of cost function -Duality of cost and production function **Module 3** **Introduction to perfect and imperfect markets.** Chamberlin's model of monopolistic	**15** **15** **15**

	competition.Oligopoly Market Structure **Uncertainty and interdependence-** Non Collusive Oligopoly models - Cournot, Bertrand, Chamberlin, Sweezy and Stackelberg models-Collusive models-Cartels and Price leadership models-Managerial Theories of Firm ; Baumol's sales revenue maximisation- Marris maximum rate of growth and profits hypothesis-Williamson's discretion model -Behavioural model of Cyert and March Firm's demand for factors in the short run and long run-factor shares-Technological progress and factor shares-Product Exhaustion theorems **Module 4** **General Equilibrium**- General equilibrium in production and exchange -Walrasian Model- Existence, uniqueness and stability of General Equilibrium. Information Economics-Adverse Selection and Moral hazards-Market for Lemons-Pooling and separating equilibrium-signaling and screening-Principal-agent Problem.	**15**
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/Readings	**Core Readings** C1. Koutsoyannis,A(1983),Modern Microeconomics Macmillan, London. C2. Varian, H.R.(2010), Intermediate Microeconomics: A Modern Approach, W.W. Norton, New York. **Additional readings** A1. Zerloff.J.M.(2020), Microeconomics, Theory and Applications with Calculus, Pearson. A2. Pindyck, Robert, Daniel .Rubinfeld (2017) Microeconomics, Pearson Education	
Learning Outcomes	Students will be able to explain decision making by : a) Households to maximise utility b) Firms to maximize profits	

Name of the Programme: M. A. Economics

Course Code: EC0-501 **Title of the Course: Macroeconomics**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline.	
Objective:	To understand the role of effective demand in determining employment, output, prices and interest rates.	Contact Hours
Content:	**Module 1** **National Accounts System:** UN system of accounts, India's Accounting system, Green Accounting **Classical System:** Classical model introduction – Employment, labour, supply – Equilibrium output and employment Money prices and interest under classical system, quantity theory of money (Fisher and Cambridge) **Module 2:** **Keynesian system**: Simple Keynesian Model – Equilibrium income and changes in equilibrium income. Consumption function &. Investment function; IS-LM model: Fiscal and Monetary Policy effects on IS-LM model. Open economy macroeconomics under fixed and flexible exchange rate (Mundell-Fleming model) **Module 3:** **Monetarists, New Classical Economics and New Keynesian**: Friedman's restatement of quantity theory, National Rate of Unemployment Theory-- Philips Curve – short run and long run, Rational Expectations Theory. New Keynesian Model – Sticky price, efficiency wage and Insider – Outsider model. **Module 4:** **Monetary Policy** Goals and targets-strategies for monetary policy Targeting monetary aggregates-Interest rate targeting Intermediate targeting- Money stock versus interest rates.	**15** **15** **15** **15**

	Money supply in India, Money multiplier-model of money supply determination-	
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/Readings	**Core Readings** C1. R.T. Froyen (2014) Macroeconomics: Theories and Policies, Pearson, New Delhi **Additional References** A1. N. Gregory Mankiw, 2015, Macroeconomics , Macmillan, New Delhi A2. R. Dornbusch, S. Fishser, R.Startz, 2020, Macroeconomics, Mcgraw Hill, New Delhi A3. Frederic S. Mishkin, 2016,Macroeconomics: Policy & Practice. Pearson, New Delhi A4. Annual Report, Reserve Bank of India, Mumbai	
Learning Outcomes	Students will be able to 1. analyse the relationships between different macroeconomic variables like aggregate income, employment, interest rate and prices 2. predict consequences of fiscal and monetary policy in a closed economy	

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Name of the Programme: M. A. Economics

Course Code: ECO-502 Title of the Course: Public Economics and Public Policy

Number of Credits: 4

Effective from AY: 2022-2023

Prerequisites for the course:	Graduate in any discipline	
Objective:	This course will provide students a basic understanding of welfare economics, market failure, tax, and public expenditure	**Contact Hours**
Content	**Module 1** Public Economics- Nature and need. Role of Government – effect of the intervention. Policy Debates over Social Security, Health Care, and Education. **Fundamental theorems of welfare.** Social Welfare Functions. Economic efficiency, and Pareto optimality, Dalton's Principle of maximum social advantage, Pigou's concept of welfare. **Module 2:** Market Failure - causes, Externalities – types, Private-Sector Solutions to Negative Externalities, Public-Sector Remedies for Externalities, information asymmetry and Third Best Policies. Optimal Provision of Public and private Goods, Free rider Problem, Voting – majority voting, Arrow's Impossibility Theorem, Median Voter Theory **Module 3:** Principles of Taxation –Principle of Fiscal Neutrality, Excess Burden, Doctrine Principle of Equity, Benefit Principle, Bowen and Lindhal Models, Ability to pay Principle. Meaning, types and Measurements of Tax Capacity, Incidence of Tax- Issues in Efficiency and Equity, Deadweight losses. Theory of Optimal taxation **Module 4:** Nature and composition of public expenditure, Criterion for Public Expenditure- Social Cost-Benefit Analysis. Wagners Law of Expanding state activity, The Tiebout Model. Fiscal Federalism in	15 15 15 15

	India -Devolution of resources and grants	
Pedagogy:	• Chalk and talk aided by ICT enabled lectures • PC lab exercises • Assignments and presentations • Group activity • MOOC (or similar) Component	
References/Readings	**Core readings** C1. Gruber, J. (2005). Public Finance and Public Policy. Worth Publishers. **Additional References** A1. J. V. M. Sarma (2018). Public Finance: Principles and Practices. Oxford University Press, New Delhi A2. Raghbendra Jha (1998) Modern Public Economics, Routledge, London A3. Gareth D. Myles (1995) Public Economics, Cambridge University Press, Cambridge	
Learning Outcomes	The students will be able to understand the fundamental theories of public economics, reasons for market failure, and taxation.	

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Name of the Programme: **M. A. Economics**

Course Code: ECO-503 **Title of the Course: Statistics For Economic Analysis**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline	
Objective:	To learn the statistical techniques and concepts that aid economic analysis and prepare the base for undertsiang econometric applications.	Contact Hours
Content:	**Module 1:** **Probability** Sampling methods, Sample Space, Random Variable, Addition and multiplication theorem-Conditional Probability, Bayes Theorem, Distribution Function, Mathematical Expectation, Exploratory Data analysis: Measures of central tendency and variance. Skewness and Kurtosis. **Module 2:** **Probability Distributions** : Discrete, Continuous and Sampling Distributions: Binomial, Poisson, Normal, Standard Normal, Student-t, Chi-Square, F distribution. **Module 3:** **Testing of Hypotheses: Concepts & Applications** Testing of Hypothesis; Null and Alternative Hypothesis, Type I & II errors. Levels of Significance. Testing mean, proportion - single and two populations. Testing t, z, F, chi-square test. **Module 4:** **Correlation & Regression**: Covariance, Pearson's Correlation, Rank Correlation. Introduction to Two Variable Regression.	**15** **15** **15** **15**
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	

References Readings	**Core Reading** C1. Mark L. Berenson, David M. Levine, Kathryn A. Szabat (2015), Basic Business Statistics, Pearson publication C2. David M. Levine, David F. Stephan, Kathryn A. Szabat, (2017) Statistics For Managers Using Ms Excel, Pearson **Additional References** A1. David Spiegelhalter (2020) The Art of Statistics: Learning from Data, Pelican Books, UK A2. David Freedman, Robert Pisani, Roger Purves (2007) Statistics, W.W. Norton, New York	
Learning Outcomes	Solve problems relating to discrete and continuous probability distributions.	

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Name of the Programme: M. A. Economics

Course Code: ECO-504 Title of the Course: Mathematics for Economic Analysis

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline	
Objective:	To learn the mathematical tools and concepts that aid in analysing economic optimisation.	Contact Hours
Content:	**Module 1:** **Vectors and Matrices** Vectors, Vector Spaces, Linear Dependence, Basis. Elementary operations with Matrices, Equivalence, Determinants, Inverse of Matrix, Rank of a Matrix, Cramer's Rule. Introduction to Input-Output techniques. **Module 2:** **Set Theory**: Sets, Set operations, Finite and Infinite Sets, Non-denumerable sets, Cartesian Product, Relations, Functions, Ordered Sets, Linear Point Sets. **Functions & Limits**: Limit of a function, continuity, Necessary and sufficient conditions. **Module 3:** **Differentiation:** Rules of differentiation: Total derivatives and Partial derivatives. Maxima and minima, points of inflexion. **Integration**: Reimann integral, Fundamental Theorem of the calculus, Techniques of integration and Definite integrals. Applications in economics: Theory of the firm (cost) & Growth **Module 4:** **Optimisation:** Unconstrained & Constrained Application to economics: cost curves, demand curves, Theory of the consumer and Theory of the Firm under Perfect and Imperfect Competition.	**15** **15** **15** **15**

Pedagogy:	• Chalk and talk aided by ICT enabled lectures • PC lab exercises • Assignments and presentations • Group activity • MOOC (or similar) Component	
References/ Read ings	**Core reading** C1. K. Sydsaeter, P. Hammond, Strom and Carvajal (2018), Essentials of Mathematics for Economics Analysis, Pearson. Fifth Edition **Additional References** A1. Simon, Carl P. & L. Blume (2018) Mathematics for Economists W.W. Norton, New York A2. A.C. Chiang and K. Wainwright (2017) Fundamental Methods in Mathematical Economic McGraw Hill, New York	
Learning Outcomes	Solve problems involving optimisation in Microeconomics inclduing Utility and Production theory	

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Name of the Programme: M. A. Economics

Course Code: ECO-505 Title of the Course: Economic Growth and Development

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline	
Objective:	To introduce students to the theories and empirics of growth and development and to enhance the students' knowledge of economic problems facing developing countries.	**Hours**
Content	**Module 1** Economic growth and Development – meaning and criteria, Measurements of development - GDP; Human development index, Per Capita Income and human development. Structural characteristics of developing countries – demographic, occupational and production, rural-urban migration. Agrarian change and industrial transformation, Post-industrial society Economic inequality – meaning, Criteria for inequality measurement - Anonymity principle, Population principle, Relative income principle and the Dalton principle, The Lorenz curve, Complete measures of inequality - the range, the Kuznets ratios, the mean absolute deviation, the coefficient of variation and the Gini coefficient. **Module 2** Rostow's Stages of Growth- Big Push- Balanced and Unbalanced Growth- Critical Minimal Effort- Ranis Fei, Joan Robinson golden age theory. **Module 3** **Growth models** Keyneisian model: Harrod – Domar growth model, Neo-claisscal model: Solow's model of economic growth, Convergence – Conditional and Unconditional. Convergence and explaining differences in growth rates	15 15 15

	Module 4 **New growth theories** Romer Model, The Final-Goods Sector, The Intermediate-Goods Sector, The Research Sector Basic Elements of the Schumpeterian Model, Growth in the Schumpeterian Model The "AK" Model, Externalities and AK Models, Evaluating Endogenous Growth Models Role of international trade in growth and development	15
Pedagogy:	• Chalk and talk aided by ICT enabled lectures • PC lab exercises • Assignments and presentations • Group activity • MOOC (or similar) Component	
References/Readings	**Core Reading** C1. Ray, Debraj, (2010), Development Economics, OUP, Delhi. **Additional References** A1. Cypher, J. M., & Dietz, J. L. (2009). The process of economic development,Routledge, London A2. Charles I. Jones and Dietrich Vollrath, (2013) Introduction To Economic Growth, Viva Books Pvt. Ltd., New Delhi	
Learning Outcomes	Students will be able to a) Evaluate development and growth processes especially in developing countries. b) Explain the transition of economies based on their phase of growth	

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Name of the Programme: M. A. Economics

Course Code: ECO-506 **Title of the Course: International Trade and Finance**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline	Hours
Objective:	The Objectives of the course are ● to provide the students with a theoretical and analytical understanding of international trade and finance ● to expose the students to the factors affecting international trade, investment, exchange rate and regional trading blocs and critically evaluate their significance in the economy. ● to provide skill sets to the students to understand the complexities involved in formulating and implementing international trade policies.	
Content:	**Module 1:** **Theories of International Trade** Classical and Neo-Classical Models: Smith, Ricardo, Heckscher-Ohlin, Specific factors model, Stolper-Samuelson, Rybczynski theorem,and Factor Price Equalization Theorems; Empirical Evidence - the Leontief Paradox. New Theories: Economies of scale, Imperfect competition - trade based on product differentiation and intra-industry trade, dynamic technological differences-product cycle model and Technology-Gap Models. **Module 2:** **Trade Policy** Free trade and protection; Trade restriction-Tariffs (Partial and general equilibrium analysis), optimum tariff; Non –tariff barriers: Quotas, Voluntary export restraints, international cartels, dumping, export subsidies. Free Trade Areas versus Customs Union, Trade Creation and Trade Diversion under custom union; Static and dynamic benefit of regional integration, WTO and trade policy reforms in India **Module 3:** **Balance of Payments** The balance of payments: concepts and measurement – balance of trade and transfers, current and capital accounts – deficits and surpluses – national income and balance of	15 15 15

	payments. Balance of payments adjustments: types and causes of disequilibrium income approach, foreign trade multiplier, price approach, exchange rate changes, Marshall–Lerner condition of devaluation, empirical measurement of import and export demand elasticities, elasticity and absorption approaches, monetary approach and the terms of trade **Module 4:** **International money and foreign exchange market** Spot and forward market, demand and supply of foreign exchange, purchasing power parity theory, exchange rates (nominal, effective, real and shadow) The international capital market: nature and characteristics, Eurocurrency markets, international financial risk management, international capital movements, commercial borrowings of developing countries, external debt management, transfer problem.	15
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/Readings	**Core Readings** C1. Salvatore, Dominick, International Economics, Prentice-Hall, 13th Edition (2019), John Wiley & Sons. C2. Robert C. Feenstra & Alan M. Taylor (2021), Fifth Edition, International Trade, Worth Publishers. **Additional References** A1. Paul R. Krugman, Maurice Obstfeld, and Marc Melitz (2017), International Finance: Theory and Policy, 11th Edition, Pearson. A2. E. Helpman (2011) Understanding Global Trade, Harvard Univesity Press, MA A3. Giancarlo Gandolfo (2014) International Trade Theory and Policy, Springer-Verlag International Edition. A4. Keith Pilbeam (2013) International Finance, Palgrave Macmillan, Fourth Edition.	
Learning	Upon successful completion of the course, students will be	

Outcomes	able to: ● Understand the structure and pattern of trade based on the theories of international trade ● Understand the role of international trade in economic development ● Know the functioning of the international financial system ● Role and function of international institutions shaping international trade and finance.	

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Name of the Programme: M. A. Economics

Course Code: ECO-507 Title of the Course: Introduction to Econometrics

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Students must have basic knowledge of Statistics and preferably an exposure to Mathematical methods in Economics	
Objective:	To provide students exposure to regression analysis with cross-section data.	
Content:	**Module 1:** **Econometrics and Economic Data** The Structure of Economic Data; Cross-Sectional Data; Time Series Data; Pooled Cross Sections; Panel or Longitudinal Data; Causality in Econometric Analysis **The Simple Regression Model** Ordinary Least Squares Estimates and Properties, Goodness-of-Fit, Functional Form; Incorporating Nonlinearities, Expected Values and Variances of Estimators; Unbiasedness, Estimating the Error Variance **Module 2:** **Multiple Regression Analysis: Estimation** The Model with Two or more Independent Variables, Interpretation Comparison of Simple and Multiple Regression, Omitted Variable Bias, Multicollinearity; Variances in Misspecified Models, Efficiency of OLS: The Gauss-Markov Theorem **Multiple Regression Analysis: Inference** Testing Hypotheses of single and Multiple Linear Restrictions: The F Test; Testing Exclusion Restrictions; Relationship between F and t Statistics; The F Statistic for Overall Significance of a Regression, Reporting Regression Results **Module 3:** **Multiple Regression Analysis: OLS Asymptotics** Consistency; Deriving the Inconsistency in OLS; Asymptotic Normality and Large Sample Inference; Other Large Sample Tests: The Lagrange Multiplier Statistic; Asymptotic Efficiency	15 15 15

	of OLS **Multiple Regression Analysis: Further Issues** More on Functional Form; Models with Interaction Terms; Adjusted R-Squared; Prediction and Residual Analysis; Confidence Intervals for Predictions; Residual Analysis **Multiple Regression Analysis with Qualitative Information: Binary (or Dummy) Variables** Describing Qualitative Information; A Single Dummy Independent Variable; Interactions among Dummy Variables; Allowing for Different Slopes; Binary Dependent Variable: The Linear Probability Model; More on Policy Analysis and Program Evaluation; Interpreting Regression Results with Discrete Dependent Variables **Module 4:** **Heteroskedasticity** Consequences of Heteroskedasticity for OLS; Heteroskedasticity-Robust Inference, Testing for Heteroskedasticity; Feasible GLS **More on Specification and Data Issues** Functional Form Misspecification; RESET as a General Test Using Lagged Dependent Variables as Proxy Variables; Measurement Error in an Explanatory Variable; Missing Data, Nonrandom Samples, and Outlying Observations; Missing Data; Nonrandom Samples; Outliers and Influential Observations; Least Absolute Deviations Estimation	15
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/ Readings	**Core Reading** **C1.** Wooldridge (2019), Introductory Econometrics, 7th edition, South Western College Publishing, Singapore. **Additional References** A1. Florian Heiss (2020) Using R for Introductory Econometrics, 2nd edition; Germany, ISBN: 979-8648424364	

	A2. Florian Heiss and Daniel Brunner (2020) Using Python for Introductory Econometrics, 1st edition, Germany, ISBN: 979-8648436763	
Learning Outcomes	The students will be able to a) Develop econometric models using cross-section data b) estimate econometric models using cross-section data and c) interpret econometric models d) draw the policy implications to help decision makers.	

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Name of the Programme: M. A. Economics

Course Code: ECO 521 **Title of the Course: The Indian Economy**

Number of Credits: 4

Effective from AY: 2022-2023

Prerequisites for the course:	Graduate in any discipline	
Objective:	This course is intended to provide students a comprehensive understanding of India's economic development in recent years and to familiarize students with the growth, development and contribution of various sectors to the Indian economy.	
Content:	**Module 1** Indian economy since independence (1947 -1990), New Economic Policy (1991) – stabilization and structural adjustment packages: fiscal reforms, financial sector reforms, and trade reforms; Role of Planning Commission and NITI Aayog, Demonetisation, GST. **Module 2** Agricultural sector - Gross Value Added (GVA) trends, Allied Sectors: Animal Husbandry, Dairying, and Fisheries; Agricultural Research & Education; Food Management. Industrial sector – Gross Value Added (GVA) trends, Index of Industrial Production (IIP), Credit in Industry, FDI in Industries, Performance of Central Public Sector Enterprises, Sector Wise Performance and Issues in Industry **Module 3** Services – Gross Value Added (GVA) trends, Services Sector share at the State and UT level, FDI Inflows into Services Sector, Major Services: Sub-Sector Wise Performance and Recent Policies. Developments in India's Merchandise Trade, Trade in Services, Developments In India's Balance of Payment	15 15 15

	(BOP), Initiatives Taken By Government To Boost Exports **Module 4** Current Debates on India's development process. Demographic dividend, Employment, Inequality, Poverty, Inflation, Sustainable Development Goals, and Climate Change.	15
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/Readings	**Core Reading** C1.Banerjee, A., Gopinath, G., Rajan, R., & Sharma, M. S. (2019). What the Economy Needs Now. Juggernaut Books, New Delhi C2. Economic Survey, Government of India, Ministryvof Finance, New Delhi (various issues) C3. Annual Reports and Monthly Bulletins, Reserve Bank of India, Mumbai **Additional References** A1. Acharya Sankar and Rakesh Roshna (2010), India's Economy: Performance and Challenges, Oxford University Press, New Delhi. A2. Balakrishnan Pulapre (2010), Economic Growth in India: History and Prospect, Oxford University Press, New Delhi. A3. Ghate, C. (2012). The Oxford Handbook of the Indian economy. Oxford Univ. Press. New Delhi A4. Panagariya, Arvind (2010), India the emerging Giant, Oxford University Press, New Delhi A5. India Development Report, Oxford University Press, New Delhi	

Learning Outcomes	The students will 1. Be knowledgeable about the different data sources of the Indian economy. 2. understand the overall sectoral development in Indian economy. 3. Be able to explain the impact of policy choices during different periods 4. Be aware of debates around inequality, growth and trade in India	

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Name of the Programme: M. A. Economics

Course Code: ECO-522 **Title of the Course: Environmental Economics**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline	
Objective:	To understand the implications of production and consumption outcomes on the environment and how market and non-market tools can be used in policy-making to move towards sustainable development.	Contact Hours
Content:	**Module 1:** **Perspectives On The Environment** Economics and the Environment; A Framework for Environmental Analysis; Environmental Microeconomics and Macroeconomics **Resources, Environment, And Economic Development** A Brief History of Economic Growth and the Environment; A Summary of Recent Growth; The Future of Economic Growth and the Environment; Sustainable Development **The Theory Of Environmental Externalities** The Theory of Externalities; Welfare Analysis of Externalities; Property Rights and the Environment **Common Property Resources And Public Goods** Common Property, Open Access, and Property Rights; The Environment as a Public Good; The Global Commons **Module 2:** **Resource Allocation Over Time** Allocation of Nonrenewable Resources; Hotelling's Rule and Time Discounting **Valuing The Environment** Total Economic Value; Overview of Valuation Techniques: Revealed Preference Methods, Stated Preference Methods; Cost-Benefit Analysis and its role in Policy Decisions **Ecological Economics: Basic Concepts** An Ecological Perspective; Natural Capital; Issues of Macroeconomic Scale; Long-Term Sustainability; Energy and Entropy	**15** **15**

	Module 3: **Ecosystem Management And Biodiversity** The Economics of Biodiversity; Reconciling Economic and Ecological Principles **Pollution: Impacts And Policy Responses** The Economics of Pollution Control; Policies for Pollution Control; The Scale of Pollution Impacts; Assessing Pollution Control Policies; Pollution Control Policies in Practice **National Income And Environmental Accounting** Greening the National Income Accounts; Environmentally Adjusted Net Domestic Product; Adjusted Net Saving; The Genuine Progress Indicator; The Better Life Index; Environmental Asset Accounts; The Future of Alternative Indicators **Module 4:** **Global Climate Change** Causes and Consequences of Climate Change; Responses to Climate Change; Economic Analysis of Climate Change; Adaptation and Mitigation; Climate Change Mitigation: Economic Policy Options; Climate Change: The Technical Challenge; Climate Change Policy in Practice; Economic Policy Proposals **Institutions And Policies For Sustainable Development** The Concept of Sustainable Development; The Economics of Sustainable Development; Reforming Global Institutions; New Goals and New Production Methods	**15** **15**
<u>Pedagogy</u>:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
<u>References/Readings</u>	**Core Reading** C1. Jonathan M. Harris and Brian Roach (2018) Environmental and Natural Resource Economics A Contemporary Approach, Fourth Edition, Taylor and Francis, New York C2. Partha Dasgupta (2021), The Economics of	

	Biodiversity: The Dasgupta Review. Abridged Version. (London: HM Treasury) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957292/Dasgupta_Review_-_Abridged_Version.pdf C3. Lynne Lewis, Thomas H. Tietenberg (2020) Environmental Economics and Policy, Routledge, London **Additional References** A1. Charles D. Kolstad (2012) Intermediate Environmental Economics, Oxford University Press, New Delhi A2. Stephen Smith (2011) Environmental Economics: A Very Short Introduction, Oxford University Press, Oxford	
Learning Outcomes	On completion of this course, students will be able to: a) Undertake basic environmental valuation, b) Explore cost-benefit analysis or projects, and c) analyse environmental policy.	

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Name of the Programme: M.A. in Economics

Course Code: ECO-523 **Title of the Course: Introduction to Game Theory**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Students must have knowledge of economics and mathematics.	
Objective:	This course is intended to provide students with an Introduction to game theory and basic application in Economics	
Content:	**Module 1** **Introduction to Game Theory** Nash Equilibrium: Theory, Strategic games, Best response functions, Dominated actions, Equilibrium in a single population: symmetric games and symmetric equilibria **Module 2** **Nash Equilibrium applications** Illustrations; Cournot's model of oligopoly, Bertrand's model of oligopoly, Electoral competition, The War of Attrition, Auctions. Mixed Strategy Nash equilibrium, Dominated actions, Pure equilibria when randomization is allowed, Equilibrium in a single population, The ultimatum game and the holdup game, Stackelberg's model of duopoly **Module 3** **Extensive Games with Perfect Information** Theory, Extensive games with perfect information, Strategies and outcomes, Nash equilibrium, Subgame perfect equilibrium, Finding subgame perfect equilibria of finite horizon games, backward induction **Module 4** Extensive Games with Perfect Information: Extensions and Discussion, Allowing for simultaneous moves, Coalitional Games and the Core, Coalitional games, The core	15 Hours 15 Hours 15 Hours 15 Hours

Pedagogy:	• Chalk and talk aided by ICT enabled lectures • PC lab exercises • Assignments and presentations • Group activity • MOOC (or similar) Component	
References/Readings	**Core Reading** **C1.** Martine, Osborne . (2009), An Introduction to Game Theory, Oxford University Press, Oxford. **Additional References** A1. Dixit, Avinash.;Skeath, Susan and Reliey, David H. (2015), Games of Strategy, W. W. Norton & Company, New York. A2. Rasmusen, E. (2007), Games and Information, Blackwell, Maiden, M.A.	
Learning Outcomes	The students will be able to explain strategic behaviour of agents in a world of perfect information.	

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Programme: MA Economics

Name of the Programme: M.A. in Economics

Course Code: ECO-524 Title of the Course: Economics of Regional Integration

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the Course:	Basic knowledge of International Economics at the under-graduate level	Contact Hours
Objective:	To provide a theoretical understanding on the rationale of forming regional economic grouping and their likely welfare implications, especially in the context of India. It will also introduce students to different databases, tools and techniques to understand regional grouping.	
Content:	**Module 1** Theoretical foundations of Regional Economic Integration- definition, forms of regional integration. Basic Viner model, Modern static theory of regional integration – Regional integration with imperfect competition - Domino Theory and Reciprocity; Natural Trading Partners; Implications of Regionalism on the Global Trading system- Rules of Origin, Labour mobility, investment, services, Environment, trade facilitation, IPRs and Global Value Chains. **Module 2** Emerging landscape of bilateral, regional and plurilateral trade agreements - growth of RTAs – three waves, proliferation of RTAs in the post WTO period, Notifications under GATT, GATS and enabling clause, bilateral and plurilateral agreements, north – south and south-south trade agreements; Regional groupings – SAFTA BIMSTEC, ASEAN, EU, NAFTA, RCEP and TPP. **Module 3** Methods to assess Regional Economic Integration - database to analyse the RTAs – COMTRADE, DOTS, WITS, WTO, UNCTAD, WTC, WDIs. Tools and Techniques – Trade Indicators - Trade Intensity Index,	15 15 15

	Trade complementarity index, Revealed Comparative Advantage (RCA) index; Trade Models - Gravity Model, Structural Gravity Model; Simulation Techniques - WITS SMART analysis. **Module 4** India's Engagements with regional trade agreements - India's bilateral trade agreements- Singapore, Korea, Japan, Thailand, UAE and Australia; India's trade agreements with regional groupings – SAFTA, ASEAN. Trade agreements currently initiated/under consideration. The political economy of Regional Trade Agreements.	15
Pedagogy	1. Chalk and talk aided by ICT enabled lectures 2. Computer based exercise 3. Assignments and presentations 4. Group activity 5. MOOC (or similar) Component	
Reference/Readings	**Core Reading** C1. DeRosa, Dean A. (2013) Regional Integration Arrangements: Static Economic Theory, Quantitative Findings, and Policy Guidelines, World Bank Policy Research Working Papers. C2. Panagariya, Arvind (2000) "Preferential Trade Liberalization: The Traditional Theory and New Developments." Journal of Economic Literature, 38(2):287-331 C3. Jean-Pierre Chauffour and Jean-Christophe Maur, eds. (2011) Preferential trade agreement policies for development. A handbook. World Bank. C4. A practical guide to trade policy analysis / contributing authors, Marc Bacchetta, Cosimo Beverelli, Olivier Cadot, Marco Fugazza, Jean-Marie Grether, Matthias Helble, Alessandro Nicita and Roberta Piermartini, Geneva: World Trade Organization: United Nations Conference on Trade and Development, 2012. C5. Ram Upendra Das, Piyadasa Edirisuriya and Anoop Swarup (2010) Regional Economic Engagements and the Free Trade Agreements - Analytical Insights and Policy Options, World Scientific Publishing Co. Pvt. Ltd. Chennai. **Additional References**	

	A1. Baldwin, Richard and Venables, Anthony. 'Regional Economic Integration.' in (Gene Grossman and Kenneth Rogoff, eds). Handbook of International Economics, Vol. 3, Amsterdam: North Holland, 1996. A2. Biswajit Nag and Debashis Chakraborty, India's Trade Analytics - Patterns and Opportunities, First Edition, Sage Publishing, 2019. A3. Mia Mikic And John Gilbert, Trade Statistics In Policymaking - A Handbook Of Commonly Used Trade Indices And Indicators - Revised Edition, Economic And Social Commission For Asia And the Pacific, United Nations publication, 2009. A4. Ben Shepherd, The Gravity Model of International Trade: A5. A User Guide, ARTNeT Gravity Modelling Initiative, UNESCAP,2013. https://artnet.unescap.org/publications/books-reports/gravity-model-international-trade-user-guide-updated-version. A6. Peter A. G. van Bergeijk, Steven Brakman, The Gravity Model in International Trade: Advances and Applications, Cambridge University Press, 2010. A7. Economic Survey (2019-20) Chapter 5, Ministry of Finance, Government of India, New Delhi	
Learning Outcomes	On successful completion of this course, students should be able to analyse the: 1. dynamics of the integration process of various types of regional trade and investment agreements. 2. costs and benefits of various integration schemes in terms of trade creation and trade diversion. 3. India's trade agreements and benefits thereof	

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Name of the Programme: M. A. Economics

Course Code: ECO-525 **Title of the Course: Indian Public Finance**

Number of Credits: 4

Effective from AY: 2022-2023

Prerequisites for the course:	Graduate in any discipline	
Objective:	To familiarise the students with the budgetary process, documents and analyse Government's fiscal policy.	Hours
Content:	**Module 1** Government Budget – Meaning and steps involved in the budget formation, Assessment of the Recent Central Government Budget. Fiscal federalism in India - division of function and resources, vertical and horizontal imbalance, devolution of resources from centre to state government, criteria for transfer of resources, and the role of the finance commission. Emerging challenges in India's fiscal federalism **Module 2** Non-tax sources of revenue – types and trends, Taxes – Direct and Indirect taxes, Impact of taxation & tax evasion, Assessment of Indian tax system. Types of public expenditure and its trends, Effects of public expenditure. **Module 3** Deficit Financing - Meaning and Objectives, effects of deficit financing, Trends in different types of deficit finance in India. Public debt - Classifications of public debt, sources and effects of government borrowings, burden and	15 15 15

	management of public debt. **Module 4** Black Economy – meaning, Measurement, the macroeconomic linkages, causes and consequences of the black economy, and measures undertaken by the government to curb the black economy. Estimates of the black economy in India.	15
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/Readings	**Core Readings** C1. Union Budget, Government of India, Ministry of Finance, New Delhi (various issues) C2. Kumar, A. (2017). *The Black Economy in India* (Updated Edition). Penguin Random House India, New Delhi **Additiional References** A1. Sarma, J. V. M. (2018). *Public Finance: Principles and Practices* (First edition). Oxford University Press. New Delhi A2. M. Govinda Rao (2022) Studies in Indian Public Finance. Oxford University Press. New Delhi A3. State Finance Report, Reserve Bank of India, Mumbai	
Learning Outcomes	On successful completion students will be 1) able to understand the budgetary process in India 2) Able to recognise and analyse the different documents that define the fiscal arm of the government 3) Analyse the government's public policy and its impact on growth and development.	

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Name of the Programme: M. A. Economics

Course Code: ECO-526 Title of the Course: Human Resource Development

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline.	
Objective:	To familiarise students with designing, implementation and evaluation of HRD programmes in a corporate setting	Contact Hours
Content:	**Module 1** **Introduction to Human Resource Development** The evolution of HRD - The relationship between HRD and HRM - HRD functions - Roles of an HRD Professional - Challenges to HRD Influence on Employee Behaviour External influences on Employee Behaviour - Motivation: An Internal influence on Employee Behaviour - Other Internal Factors that Influence Employee Behaviour -Environmental Influences on Employee Behaviour. **Module 2** **HRD needs and HRD Programs: Their Assessment** **HRD Needs:** Definition and Purposes of Needs Assessment - Organisational Analysis - Task Analysis - Person Analysis - Prioritising HRD needs. **Designing HRD Programs:** Defining Program Objectives - Purchasing HRD Programs - Selecting the Trainer - Preparing a Lesson Plan - Selecting Training Methods **Module 3** **Implementation and Evaluation of HRD Programs** **Implementation of HRD Programs:** Training Delivery Methods – On-the-Job Training Methods - Classroom Training Methods - Scheduling the Training Program - Implementing the Training Program.	15 15 15

	Evaluation of HRD Programs: The purpose of HRD Evaluation - Models of Evaluation - Data Collection for HRD Evaluation - Research Design - Ethical Issues of Evaluation research. **Module 4** **HRD Applications and Trainings** **HRD Applications:** Introduction to Onboarding: Employee Socialization and Orientation- Socialization: The Process of Becoming an Insider-Various Perspectives on the Socialization Process -The Realistic Job Preview **HRD Skills and Technical Training:** Introduction - Basic Workplace Competencies- Basic Skills/Literacy Programs- Technical Training-Interpersonal Skills Training	15
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/Reading	**Core Reading** C1. DeSimone R.L. & Harris D.M. (2012), Human Resource Development, Cengage Learning, U.S.A. **Additional References** A1. Deb Tapomay (2012), Human Resource Development, Ane Books Pvt. Ltd., Mumbai. A2. Haldar U.K. (2009), Human Resource Development, OUP, New Delhi. A3. Mankin David (2009), Human Resource Development, OUP, New York. A4. Megginson D., (2001), Human resource Development, OUP, USA. A5. Rao T.V. (2010), Human Resource Development, Oxford and IBH Publishing Co.Pvt. Ltd., A6. Werner J.M., (2007), Human Resource Development,	

	South Western Educational Publishing.	
Learning Outcomes	After completing the course, the students will be able to: 1. Explain the relationship between HRD and HRM 2. Assess HRD needs 3. Develop HRD programme 4. Implement and evaluate HRD programmes 5. Use HRD Applications 6. Implement skills and technical training.	

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Name of the Programme M. A. ECONOMICS

Course Code: ECO-527 **Title of the Course: Labour Economics**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Same as programme requirements	**Hours Per Module**
Objective:	To develop students' abilities in acquiring a better understanding of the functioning of labour market.	
Content:	**Module 1** **The Supply of Labour and Demand for Labour** Supply of labour by an individual, by a household to an economy – A Household model of labour supply – A bargaining model of family labour supply – Changes in work participation over time: Labour force growth during recessions: The Added Worker Effect-The Discouraged Worker Effect - Classical Theory of Job Choice - Modern Theory in terms of investment in Human Capital - Migration. The Demand for Labour in the short run and long run - Elasticity of demand for labour **Module 2** **The Labour Market and Theories of Labour Market Discrimination** Definition of the labour market – Differences between Labour Markets and Commodity Markets - Labour Market Structure: Structured Labour markets- Unstructured Labour Markets-Internal and External Labour markets;	**15** **15**

	Primary and Secondary Labour Markets. Theories of Labour Market Discrimination: Types of discrimination – Taste-for- discrimination model. Market Power: The Monopsony model – Theory of Statistical discrimination – The Crowding model. **Module 3** **Employment** Employment- Concept; Types of unemployment – The measurement of unemployment – Causes of unemployment: Job Search (The Stigler model, The McCall model)-Rigid Wages, Efficiency wages. Present Employment Scenario at the National and International level. **Module 4** **Wage Determination and Productivity Concept** Wage determination in a perfectly competitive market and Monopsony market – Minimum wage: Minimum wage in a perfectly competitive market and in a monopsony market. The minimum wage and efficiency wage theory. Segmentation and Dual Labour Market Theory. Productivity Concept - Measurement – Importance of productivity increases - Factors influencing labour productivity - Productivity and inflation - Productivity and employment.	**15** **15**
<u>Pedagogy</u>:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
<u>References/Readings</u> -	**Core Readings** C1. Borjas G.J. (2015), Labour Economics, McGraw-Hill, New York. C2. McConnell, C.R, S.L.Brue and Macpherson, (2010), Contemporary Labour Economics, McGraw Hill Irwin, New York. **Additional readings** A1. Cahuc Pierre, Zylberberg A., (2014), Labour Economics, Mit Press, USA.	

	A2. Ehrenberg R., (2017), Modern Labour Economics Theory and Public Policy, Routledge, U.S.A. A3. Jacobson J., Skillman G., (2002), Labour Markets and Employment Relationships: A Comprehensive Approach. A4. Kaufman B.E. and Hotchkiss J.L. (2006), Labour Market Economics, Cengage Learning, India. A5. Smith S.W. (2003), Labour Economics, Routledge, London. Bauder Harold (2006), Labour Movement: How Migration Regulates Labour Markets? OUP, USA	
Learning Outcomes	On successful completion, students will be able to a) Understand various issues related to labour demand and supply b) Explain various theories of labour market functioning. c) Explain Labour productivity and impact of technology d) Understand the role of institutions on wage determination	

Name of the Programme: M. A. Economics

Course Code: ECO-600 Title of the Course: Research Methodology in Economics

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline	Hours Per Module
Objective:	Expose students ● to the methodological approaches to research ● Techniques to formulate a research problem ● To Scientific methods for sampling and data collection ● Steps to Writing a research report/thesis/paper	
Content:	**Module 1** **Introduction to Research** The meaning of research - types of research - importance of research- research and policy- Deductive and Inductive Reasoning – Steps of scientific methods in research – Qualitative and Quantitative Approach - Mixed Methods. **Module 2** **Steps in Research** The Research Process: Formulation of a Research problem – Guiding principles in the choice of a Research topic and Formulation of Research Questions –Writing a Proposal - Review of Literature and identification of research gap –Theoretical and Conceptual Framework-Formulation of Research Design – Hypothesis; concept, definition, formulation and testing. **Module 3** **Survey-based research** Sampling Techniques - field survey - Primary Data Collection - Tools – Observation, Schedule, Questionnaire – principles underlying construction of a questionnaire – data processing and Analysis – Use	15 15 15

	of Statistical packages. **Module 4** **Writing a Research Report** Writing a Research report - research paper – Bibliography - reference styles - Ethics in Research - Plagiarism - Writing a thesis - Do's and Dont's.	15
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/Readings	**Core reading** C1. Kothari C.R., Garg, Gaurav; Research Methodology, Fourth Edition, New Age International, New Delhi, 2020. C2. Wilkinson T.S., and Bhandarkar P.L.: Methodology and Techniques of Social Science Research, Himalaya Publishing House, New Delhi, 2016. C3. Panneerselvam, R., Research Methodology, Prentice Hall of India Pvt Ltd, 2013. **Additional References** A1. Young P.V., Scientific Social Surveys and Research, Prentice Hall of India Pvt Ltd, 2012. A2. Parsons C.J., Thesis and Project Work, Allen &Unwin., 2006. A3. Babbie, Earl. R. 2013. "The Practice of Social Research." Cengage Learning, Canada. A4. John W. Creswell. 2014. "Research Design: Qualitative, Quantitative and Mixed Methods Approaches." Sage Publication, Washington, USA. A5. Kate L. Turabian. 2006. "A Manual for Writers of Term papers, Theses and Dissertations." The University of Chicago press, Chicago. A6. Blaug, Mark. 2009. "The Methodology of Economics." Cambridge University Press, Cambridge. A7. Daniel M. Hausman. 2007. "The Philosophy of Economics: An Anthology." Cambridge University Press, Cambridge	
<u>Learning Outcomes</u>	Upon completion of this course, the students are expected to: • Develop the most appropriate methodology for the research	

	studies in social sciences. • Familiarize and differentiate the use of various research methods and techniques. • Define a research problem and prepare the appropriate research design for the research problem. • Illustrate the data collection techniques and data analysis and presentation. • Demonstrate the sampling techniques and its fundamentals. • Familiarize the task of interpretation and the art of writing research reports.	

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Name of the Programme: M. A. Economics

Course Code: ECO 601 Title of Course: Data Sources for the Indian Economy

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline	
Objective:	To learn the different sources of data available in the public domain both in India and globally. This will cover different domains of data requirements for economics research. Students would learn the extent and limitations of different data sources.	**Contact Hours per module**
Content:	Module 1: **Macroeconomic Data Source** Sources of the Government of India – Ministry of Finance, Reserve Bank of India, Niti Ayog Sources of Multilateral agencies – World Bank, International Financial Statistics, United Nations Private Sources – CMIE, EPWRF Module 2: **Microeconomic Data Sources** (including Demography, Labour, Agriculture and Industry) Sources of the Government of India – National Sample Organisation (NSSO data), Ministries of GoI, Census of India, Annual Survey of Industries, NFHS Sources of Multilateral agencies – Living Standards Private Sources – CMIE, IHDS, NCAER, IIPS, EPWRF	**15** **15**

	Module 3: **International Trade Data Sources** Sources of the Government of India – Government of India (DGCIS, Ministry of Commerce, RBI) Sources of Multilateral agencies – United Nations (COMTRADE, WITS, UNCTAD, UNEP), World Bank (WDI), IMF (DOTS), WTO Private Sources – CMIE, EPWRF, WTC, GTAP, CEIC Module 4: **Public Finance, and natural resources** Sources of the Government of India – Finance Commission reports, Budget of the government of India and state governments, MOSPI, MOEFCC, RBI, DPSE Sources of Multilateral agencies – IBRD, UNEP, IPCC Private Sources – CMIE, EPWRF	**15** **15**
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References Readings	**Core Reading** C1. Handbook of Statistics on Indian Economy, Reserve Bank of India (various years) C2. Economic Survey, Ministry of Finance, Government of India (various years) C3. Handbook of Statistics on Indian States, Reserve Bank of India (various years) C4. Report on Currency and Finance, Reserve Bank of India (various years) **Additional References** A1. NSSO (2001) Concepts and Definitions Used in NSS, National Sample Survey Organisation, Ministry of Statistics & Programme Implementation, Government of India, https://mospi.gov.in/documents/213904/0/concepts_go	

	lden.pdf/e98fc072-8660-edd9-f179-ce95674f4ca5?t=1615539414160 A2. Egger, Peter and Wolfmayr, Yvonne (2014) What Economists Should Know About International Goods Trade Data, WIFO Working Papers No. 475, Austrian Institute of Economic Research (WIFO), Vienna, https://www.econstor.eu/handle/10419/129020 A3. Donaldson,Dave and Adam Storeygard (2014) The View from Above: Applications of Satellite Data in Economics, *Journal Of Economic Perspectives*, 30(4)(pp. 171-98) A4. Auffhammer, Maximilian, Solomon M. Hsiangy, Wolfram Schlenker and Adam Sobelz (2013) Using Weather Data and Climate Model Output in Economic Analyses of Climate Change, *Review of Environmental Economics and Policy*, 7(2), 2013, (pp. 181–198) A5. World Bank (2021) World Development Report 2021 : Data for Better Lives. Washington, DC: World Bank.https://openknowledge.worldbank.org/handle/10986/35218 A6. Human Development Report, UNDP (various years) A7. World Trade Statistical Review, WTO (various years)	
Learning Outcomes	Students will know how to access data from open-domain data sources and help them undertake empirical research in a fruitful manner.	

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Name of the Programme: M.A. in Economics

Course Code: ECO 602 Title of the Course: Techniques of Geo-spatial analysis

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the Course:	Basic knowledge of mathematics and statistics as per core requirements in MA Economics	
Objective:	Understand the use of spatial data and its applications in economics	**Contact Hours per module**
Content:	**Module 1:** Use of spatial data in economic analysis- Introduction to QGIS - its graphical user interface. Fundamentals of Remote Sensing Signals, Electromagnetic Spectrum, Terms and Units of Measurement, Electromagnetic Radiation Laws, Resolution of a Sensor System,-Spatial, Spectral, Radiometric, Temporal and Angular resolution, sources of information remote sensing data **Module 2:** Raster and Vector Data formats- Interacting with data - identifying features, measuring and selecting data, creating shapefile, snapping, topology, attribute table and filed calculator, data joins, projections, clipping, analyzing elevation, terrain **Module 3:** Interpolation, buffer, Styling layers- raster, terrain, satellite images and landcover map, styling and labeling vector layers- point, line and polygon style, creating 3D map, print layout- map creation, 3D map view. **Module 4:** Analyzing raster data- raster calculator, Combining raster and vector data-converting between raster and vector and zonal statistics, Advanced raster and vector analysis with	15 hours 15 hours 15 hours 15 hours

	processing-Finding nearest neighbors, Converting between points, lines, and polygons, Calculating area shares within a region, regression, Reclassify raster layer.	
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
Reference/ Readings:	**Core reading** C1. Andrew Cutts, Anita Graser(2018), Learn QGIS, Your Step-by-step Guide to the Fundamental of QGIS 3.4, Packt Publishing,4th Edition, Livery Place, UK. C2. Emilio Chuvieco (2016),Fundamentals of Satellite Remote Sensing An Environmental Approach,CRC Press Taylor & Francis Group C3. Quantum Geographic Information System (QGIS) training manual https://docs.qgis.org/3.10/en/docs/training_manual/index.html **Additional References** A1. Gary E. Sherman(2008), Desktop GIS mapping the planet with open source tools, Pragmatic Bookshelf, Raleigh, North	

	Carolina Dallas, Texas. A2. Otto Huisman, Rolf A. de (2009), Principles of geographic information systems: an introductory textbook, The International Institute for Geo-Information Science and Earth Observation (ITC), Netherlands. A3. Kurt Menke et.al (2016), Mastering QGIS, Packt Publishing, Livery Place, UK. A4. Erik Westra (2014), Building Mapping Applications with QGIS Create Your Own Sophisticated Applications to Analyze and Display Geospatial Information Using QGIS and Python, Packt Publishing,4th Edition, Livery Place, UK. A5. Jay D. Gatrell, Ryan R. Jensen (2009), Planning and Socioeconomic Applications(Geotechnologies and the Environment), Springer Science & Business Media. A6. J. M. Pogodzinski, Richard M. Kos(2013), Economic Development & GIS, Esri Press.	
Learning Outcomes:	Candidates will be able to a) extract and process spatial images b) use open source GIS software c) Understand ow to translate LULC information for economic decision-making.	

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Name of the Programme: M. A. Economics

Course Code: ECO-603 Title of the Course: Introduction to Spatial Economics

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Basic knowledge of development studies and familiarity with use of spreadsheets.	**Hours**
Objective:	Introduce students to understanding the role of the spatial dimension in economic analysis. This will provide students an integrative approach that bridges the conventional analytical notions of development with tools of GIS (Geographic Information System) and Remote sensing.	
Content:	**Module 1** **Concepts in Spatial analysis** Geographic Information System- remote sensing, Multiscale analysis, Data models and scales of measurement- Raster	15

	imagery and Vector Data – Meaning and its objects- Base model- Scale of measurement, Spatial variation. Land use land cover classification method **Module 2** **Remote sensing application in socio-economic planning** Principles of Socio-Economic studies using remote sensing technologies, Socio-Economic information estimation-estimation of Population, Employment, GDP and Electric power consumption, Socio-Economic activity modelling, Advantages and limitations of remote sensing technologies in socio-economic application. **Module 3** **Sustainable planning** Sustainable demographic growth, Change analysis, Dynamic spatial modelling, case study, Vulnerability analysis: Conceptual framework, GIS – remote sensing place based modelling **Module 4** **Ecological mapping and monitoring** GIS & Remote sensing for ecological mapping & monitoring, Use of GIS data ecological application- gradient analysis, climate, topography, Remote sense data for ecological application, spectral enhancements, land cover, Habitat Structure, Biophysical process, Species distribution model, Biodiversity mapping, change detection	15 15 15
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/Readings	**Core Reading** C1. Mesev, Victor (2007)- Integration of GIS and Remote Sensing-Wiley **Additional References** A1. Martin Wegmann, Benjamin Leutner, Stefan Dech (2016), Remote Sensing and GIS for Ecologists: Using Open Source Software, Pelagic Publishing, UK. A2. What uses Geographical Information Systems in Spatial Economics? https://www.newyorkfed.org/medialibrary/media/research/c	

	onference/2009/jrs/Overman.pdf A3. Robert Nash Parker, Emily K. AsencioJay, D. Gatrell, Ryan R. Jensen(2009), Planning and Socioeconomic Applications, Springer, Dordrecht. A4. Quantum Geographic Information System (QGIS) training manual https://docs.qgis.org/3.10/en/docs/training_manual/index.html A5. Otto Huisman, Rolf A. de (2009), Principles of geographic information systems: an introductory textbook, The International Institute for Geo-Information Science and Earth Observation (ITC), Netherlands. A6. J. M. Pogodzinski, Richard M. Kos(2013), Economic Development & GIS, Esri Press. A7. Jay D. Gatrell, Ryan R. Jensen (2009), Planning and Socioeconomic Applications, Springer Science & Business Media. A8. Fahui Wang (2014), Quantitative Methods and Socio-Economic Applications in GIS, CRC Press.	
Learning Outcomes	The students will be able to a) extract and process Satellite images b) Use open source software to study economic change c) Do preliminary forecasting based on historical information	

Name of the Programme: M.A. Economics

Course Code: ECO-604 **Title of the Course: Time Series Econometrics**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the Course:	Understanding of probability, statistics and basic Econometrics or equivalent	
Objective:	Equip the students to analyse time series data	**Contact Hours per module**

Content:	**Module 1** **Basic Regression Analysis with Time Series Data:** The Nature of Time Series Data, Static Models, Finite Distributed Lag Models, A Convention about the Time Index, Finite Sample Properties of OLS under Classical Assumptions, Functional Form, Dummy Variables, and Index Numbers, Trends and Seasonality, Characterizing Trending Time Series, Using Trending Variables in Regression Analysis, A Detrending Interpretation of Regressions with a Time Trend. Stationary and Weakly Dependent Time Series, Highly Persistent Time Series, Transformations on Highly Persistent Time Series, Dynamically Complete Models and the Absence of Serial Correlation	15 hours
	Module 2 **Serial Correlation and Heteroskedasticity in Time Series Regressions:** Properties of OLS with Serially Correlated Errors, Serial Correlation in the Presence of Lagged Dependent Variables, Testing for Serial Correlation, The Durbin-Watson Test under Classical Assumptions, Testing for AR(1) Serial Correlation without Strictly Exogenous Regressors, Testing for Higher Order Serial Correlation, Correcting for Serial Correlation with Strictly Exogenous Regressors, Feasible GLS Estimation with AR(1) Errors, Comparing OLS and FGLS, Correcting for Higher Order Serial Correlation, Differencing and Serial Correlation, Serial Correlation-Robust Inference after OLS, Heteroskedasticity in Time Series Regressions, Heteroskedasticity-Robust Statistics, Testing for Heteroskedasticity Autoregressive Conditional Heteroskedasticity, Heteroskedasticity and Serial Correlation in Regression	15 hours
	Module 3 **Models Pooling Cross Sections across Time:** Simple Panel Data Methods, Pooling Independent Cross Sections across Time, The Chow Test for Structural Change across Time, Policy Analysis with Pooled Cross Sections, Two-Period Panel Data Analysis, Organizing Panel Data, Policy Analysis with Two-Period Panel Data, Differencing with More Than Two Time Periods, Fixed Effects Estimation, The Dummy Variable Regression, Fixed Effects or First Differencing? Fixed Effects with Unbalanced Panels, Random Effects	15 hours

	Models, Random Effects or Fixed Effects? The Correlated Random Effects Approach, Applying Panel Data Methods to Other Data Structures **Module 4** **Simultaneous Equations Models:** The Nature of Simultaneous Equations Models, Simultaneity Bias in OLS, Identifying and Estimating a Structural Equation, Identification in a Two-Equation System, Estimation by 2SLS, Systems with More Than Two Equations, Identification in Systems with Three or More Equations, Estimation of Simultaneous Equations Models with Time Series, Simultaneous Equations Models with Panel Data, Infinite Distributed Lag Models, The Geometric (or Koyck) Distributed Lag, Rational Distributed Lag Models, Testing for Unit Roots, Spurious Regression, Cointegration and Error Correction Models, Cointegration, Error Correction Models, Forecasting, Types of Regression Models Used for Forecasting, One-Step-Ahead Forecasting, Comparing One-Step-Ahead Forecasts, Multiple-Step-Ahead Forecasts, Forecasting Trending, Seasonal, and Integrated Processes	15 hours
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
Reference/Readings:	**Core Reading** **C1.** Wooldridge, J. (2018). *Introductory econometrics: A modern approach* (7th edition). Cengage Learning. **Additional Reading** **A1.** Angrist, J. D., & Pischke, J.-S. (2009). *Mostly harmless econometrics: An empiricist's companion*. Princeton University Press. **A2.** Heiss, F. (2020). *Using R for introductory econometrics*..	

Learning Outcomes:	On successful completion, students will be able to: a) Undertake advanced analysis of time series econometric tools b) Use econometric software with an emphasis on open source for data and graphics c) Explore differences in analytical approached of cross-section and time-serires data	

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Name of the Programme: MA Economics

Course Code: ECO-605 **Title of the Course: Comparative Economic Systems**

Number of Credits: Four

Effective from AY: 2023-24

Pre-requisites for the Course:	Same as programme requirements	
Course Objectives:	This course offers an overview of the field of comparative economic development that has emerged from transition economics.	
Content:	**Module 1** AN OVERVIEW OF ECONOMIC SYSTEMS A Brief History Of Economic Systems, Major Types of Economic Systems, Patterns of Ownership, Defining Characteristics of Capitalism, Defining Characteristics of Socialism	No of hours 15

	Module 2 ECONOMIC SYSTEMS IN PRACTICE Market Capitalism in the United States, Market Socialism in Sweden, State Capitalism in China, Planned Socialism in the Soviet Union, Mixed Economies of South Korea and India **Module 3** SPECIAL ISSUES FOR THE 21ST CENTURY Inequality, Environmental Sustainability, Sustainable development Goals, Intergovernmental Panels on Climate Change (IPCC), and Biodiversity (IPBES) **Module 4** Alec Nove's Feasible Socialism, Eric Olin Wright's Realistic Utopias, Elinor Ostrom and The Commons, Pickety and global inequality	15 15 15
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/ Readings:	**Main textbook** GDPC. (2021). Comparative Economic Systems: Capitalism and Socialism in the 21st Century, An ECI Teaching Module on Social and Economic Issues. Global Development Policy Center, Boston University, USA. https://www.bu.edu/eci/files/2021/08/Comparative-Economic-Systems.pdf **Additional References** Aligică, P. D. (Ed.). (2018). *Comparative economic systems*. Edward Elgar Publishing Limited. Dallago, B., & Casagrande, S. (Eds.). (2023). *The Routledge handbook of comparative economic systems* (1 Edition). Routledge. Rosefielde, S. (2015). *Comparative economic systems: Culture, wealth, and power in the 21st century*. Wiley-Blackwell.	
Course Outcomes:	Students will be able to 1. undertake a comparative analysis of institutions of existing economic systems 2. to understand the evolution of institutions 3. explore the different trajectories that different regions of the world have taken 4. appreciate the importance of history in determining contemporary outcomes	

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Name of the Programme: M. A. Economics

Course Code: ECO-621 **Title of the Course: Indian Agriculture**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline.	
Objective:	To understand the agricultural development, problems faced and Government policies in India	**Hours Per Module**

Content	**Module 1** **Role and Importance of Agriculture** Agricultural Growth in India - pre and post-Independence period. Factors responsible for agricultural development – technology (seed, fertilizers), infrastructure (irrigation), policies (agricultural price support, subsidy, credit, land reforms). Agrarian distress and reforms **Module 2** **Resource use, Technology and Sustainable growth** Land and water resources- Land Utilization and irrigation cover, Cropping Patterns in different regions in India, Changes in agrarian structure in India. Bio-Technology - Trends and issues, Organic Farming - Present status and Future, Contract Farming, Agricultural Management – Concept, Recent trends and Problems- Food Security in India. **Module 3** **Credit, Marketing and Insurance** Credit in Indian agriculture: Sources of finance, factors determining the demand for credit, recent policy changes in regard to farm credit and their implications, Role of NABARD; Marketing: Regulated markets and market intervention, Marketing Channels and Functionaries, e-NAM, FPC and other initiatives Risk Mitigating Strategies, Need for Agricultural Insurance and Issues Involved, Schemes for Crop Insurance in India and their implementation. **Module 4** **Agriculture in Goa** Trends in agricultural growth rate, Gross Value Added in agriculture and allied sectors- crops, livestock, forestry and logging, fishing and aquaculture; Factors for decline of agriculture in Goa; Gaunkaris, Goa Tenancy Act and its implications for agriculture	15 15 15 15

	Development of Horticulture. State agricultural policy-need and importance. Interventions of NABARD in Goa: Rural Infrastructure Development Fund (RIDF), NABARD Infrastructure Development Assistance (NIDA), Marketing support.	
Pedagogy:	● Chalk and talk aided by ICT-enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/ Readings	**Core** C.1 Reddy, S. S., Ram, P. R., Sastry, T. V. N., & Devi, I. B. (2017). *Agricultural Economics*. Oxford and IBH. C2. Handbook of Agriculture, Indian Council of Agricultural Research C3. Dantwala, M. L. and Others (1991). Indian Agricultural Development Since Independence: A Collection of Essays. Oxford & IBH Publishing Co., New Delhi. C4. Economic Survey, Government of Goa, Directorate of Planning, Statistics & Evaluation, Goa (Various years)	
Learning Outcomes	The students will be able to understand agricultural development in India and analyze its progress.	

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Name of the Programme: M. A. Economics

Course Code: ECO-622 **Title of the Course: Health Economics**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline.	
Objective:	Provide an understanding of health as human capital and recognise how health care markets differ from other	**Hours Per**

	conventional markets.	**Module**
Content	**Module 1** **Economic Development and Health** Meaning, Relevance and Scope of Health Economics, General problems of Resource allocation in health care sector. Need versus demand. The demand for health as human capital. Models of demand – Grossman, Needs model and Components of costs. Supplier-induced demand. Role of pharmaceutical and medical equipment industries on demand. **Module 2** **Quality of Healthcare** Measurement of quality of care, Measurement of health state utilities - rating scales, standard gamble, and time trade-off; QALYs and its alternatives- different approaches of valuing health, Multi-attribute utility instruments and their development. **Module 3** **Healthcare in India** Demand and supply of healthcare in India, Different types of healthcare systems and Issues in Healthcare Delivery System, Share of GDP, Trends in cost of health care in India, National Health Policy – objectives and features, Financing health services- Sources of finance, Changes in Healthcare Finance, Public and private finance and provision; Healthcare Utilization & Expenditure in India. Intra-household inequality in health, Out of pocket expenditures. **Module 4** **Economics of Health Insurance** Competitive health insurance and risk adjustment, standard and substandard risk, Demand and supply of health insurance, asymmetric information and agency, market insurance, Adverse selection, the market for lemons, moral hazard; Health insurance in India: Private insurance, community-based insurance schemes – Issues in coverage:	15 15 15 15

	services covered and individual eligibility.	
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/ Readings	**Core Readings** C1. Bhattacharya, J., Hyde, T., & Tu, P. (2013). *Health Economics*. Palgrave Macmillan. C2. Zweifel, P., Breyer, F., & Kifmann, M. (2009). Health Economics. Springer Berlin Heidelberg. **Additional Readings** A1. Phelps, C. E. (2017). *Health Economics* (6th edition). Routledge. A2. McPake, B., & Normand, C. (n.d.). *Health Economics: An International Perspective, Second Edition*. 313. A3. Shirley Johnson Lans, 2005. A Health Economics Primer, Pearson Addison Wesley, New York A4. McPake Barbara, Kumarnayake Lilani and Normand Charles, 2008. *Health Economics: An International Perspective*. Second Edition Routledge, London. A5. Donaldson Cam and Karen Gerard 2004, Economics of health care financing: the visible hand, Palgrave Macmillan. New York.	
Learning Outcomes	After completing the course, the students will acquire the ability to describe, analyze, and evaluate the economic aspects of healthcare services and organizations	

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Name of the Programme: M. A. Economics

Course Code: ECO-623 **Title of the Course: Introduction to Finance**

Number of Credits: 4

Effective from AY: 2022-23

Prerequisites for the course:	Graduate in any discipline.	

Objective:	To familiarise the students on the structure, components and mechanism of financial markets.	**Hours Per Module**
Content	**Module 1** Significance of Banking, Insurance and Financial Institutions, Structure of the Financial system, Financial Markets and Instruments, Financial Intermediaries, Financial market securities: Equity shares, Bonds and Mutual Funds, Regulating and promotional institutions in Indian Financial system : IRDA, RBI and SEBI **Module 2** Introduction to Financial Statements, Structure of Financial Statements: Balance Sheet, Income Statement, Statement of Cash Flow. Financial Ratios: Liquidity ratios, Leverage ratios, Turnover ratios, Profitability ratios, Capital Gearing ratios, Limitations. Capital Budgeting Decision of firms, Introduction to risk and risk factors, Measuring investment risks, Diversification, Systematic and idiosyncratic risk. **Module 3** Discount rates and the Time Value of Money: Present value and Net Present Value, Compound interest, annuity and perpetuity formulas, Real and Nominal cash flows, Bond Valuation and Yield Curve. Asset Pricing Theories and Portfolio Analysis: Mean Variance Portfolio theory, Portfolio Optimization, Single Index Model, Capital Asset Pricing Model, Arbitrage Pricing Theory. **Module 4** The Derivatives and commodities markets: Forwards and Futures, Spot and Forward prices, Arbitrage, Hedging, Introduction to the Swaps market, Options: Call and Put Options, Pricing of stock options. Role of digital currencies and cryptocurrencies	**15** **15** **15** **15**
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● PC lab exercises ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	

References/ Readings	**Core reading:** C1. David Luenberger (2013), Investment Science, Oxford University Press. **Additional References:** A1. R.E. Bailey (2005), The Economics of Financial Markets, Cambridge University Press. A2. Sharpe, W.F., Alexander, G.J. and Bailey, J.F. (2002) Investments, Prentice Hall India Pvt. Ltd. A3. John C. Hull (2022), Fundamentals of Futures and Options Markets, Global Edition, Pearson A4. Shapiro, A.C.and P. Hanouna (2019), Multinational Financial Management, John Wiley and Sons, Inc.	
Learning Outcomes	After completing the course, the students will be able to analyse financial information as a tool for financial decision-making.	

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Name of the Programme: M.A in Economics

Course Code: ECO-624 **Title of the Course: Evolution of Economic Thought**

Number of Credits: Four

Effective from AY: 2023-24

Pre-requisites for the	Same as programme requirements

Course:		
Course Objectives:	The Objective of this course is to give students an overview of the different schools of economic thought and an insight into the evolution of modem economic ideas.	
Content:	**Module 1** **Pre classical economic thought** -Thomas Mun (1571–1641), Physiocrats and mercantilism: François Quesnay (1694–1774) **The Classical School** - Adam Smith (1723–1790), Thomas Robert Malthus (1766–1834) ,David Ricardo (1772–1823), The Marxian Challenge : Karl Marx (1818–1883)	15 hours
	Module 2 **Neoclassical Economics and The Marginal Revolution** : Carl Menger (1840–1921) , Léon Walras (1834–1910), Alfred Marshall (1842–1924)	15 hours
	Module 3 **The Modern Macroeconomics theory** : John Maynard Keynes (1883–1946), Paul A. Samuelson (1915–2009), A.W. Phillips (1914–1975), Milton Friedman (1912–2006)	15 hours
	Module 4 **Indian economic thought:** Early Indian thought, Economic debates during Independence (Gandhian Economics, Ambedkar's ideas, Mahalanobis model), Post- independence ideas (Stagnation debate, Poverty debate, Liberalisation and Privatisation debate)	15 hours
Pedagogy:	● Chalk and talk aided by ICT enabled lectures ● Assignments and presentations ● Group activity ● MOOC (or similar) Component	
References/ Readings:	**Core reading** **C1.** Medema, S. G., & Samuels, W. J. (Eds.). (2013). *The History of Economic Thought: A Reader; Second Edition* (2nd ed.). Routledge. https://doi.org/10.4324/9780203568477 **C2.** Ajit Dasgupta, *A Historty of Indian Economic Thought*, Routledge history of economic thought series, 1993 [E-book] Available: Taylor & Francis e-Library, 2002 **Additional References** **A1.** Aiyanger, K.V. Rangaswamy (1934) *Aspects of Ancient Indian Thought*, Benaras Hindu University, Benaras. https://ignca.gov.in/Asi_data/7536.pdf **A2.** Bowles, S., & Gintis, H. (1988). Contested Exchange: Political Economy	

	and Modern Economic Theory. *The American Economic Review*, *78*(2), 145–150. **A3.** Ghate, C., Gopalakrishnan, P., & Grover, S. (2022). *The Mahalanobis Growth Model: A Macrodynamics Approach*. Springer Nature. https://doi.org/10.1007/978-981-16-8980-2 **A4.** Gordon, D. F. (1965). The Role of the History of Economic Thought in the Understanding of Modern Economic Theory. *The American Economic Review*, *55*(1/2), 119–127. **A5.** Heilbroner, R. L. (1980). Modern Economics as a Chapter in the History of Economic Thought. *Challenge*, *22*(6), 20–24. **A6.** Hunt E. K. (2015). *History of economic thought: a critical perspective* (Third). Routledge.
Course Outcomes:	On successful completion, students will be able to 1. Undertake a comparative analysis of different economic thinkers 2. Understand how these ideas shaped economic policy n their times 3. Explain how economic transition moulded dominant theoretical ideas in different periods 4. Appreciate the linkages between past and present economic thinking.

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SEMESTER-IV			
Course Code	**Paper Title**	**CREDITS**	**Level**
ECO-652	**Dissertation (16 credits)**	16	600