

**Syllabus Approved by BoS (ECONOMICS) for 2018-19**

**FYBA/ FYBSC ECONOMICS**

**SEMESTER I**

**RUAECO101 & RUSCHE101- MICRO ECONOMICS- I**

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUAEC O101 &amp; RUSCHE101</b>	<b>I</b>	<p><b>Module I: Ten Principles of Economics and Economic Methods</b></p> <p>A) Trade-offs faced by the individuals, Significance of opportunity cost in decision making, Thinking at the Margin, Responses to incentives, Benefits from Exchange, Organization of Economic activities through Markets and its Benefits, Role of Government in improving Market Outcomes, Dependence of Standard of Living on Production, Growth in Quantity of Money and Inflation, Inflation and Unemployment Trade-off. (To be explained with simple examples.)</p> <p><b>B)</b> The scientific method, Role of assumptions- Economic Models: Circular flow of income, Production possibilities curve, Demand- Supply Equilibrium with help of optimization and equilibrium principle. Microeconomics and Macroeconomics, Economist as policy advisor, Causes of disagreement among economists, Positive Economics and Normative economics, Basics of graphs</p>		<b>15</b>

	(graph of single variable, graph of two variables, curves in the co-ordinate system, slope- cause and effect), Concepts of Function & Derivative	
<b>II</b>	<p><b>Module II: Budget Constraint and Utility</b></p> <p>The Budget Constraint, Properties of the Budget Set, How the Budget Line Changes, The Numeraire, Taxes Subsidies and Rationing- <i>Example: The Food Stamp Program</i>, Budget Line Changes</p> <p>Consumer Preferences, Assumptions about Preferences, Indifference curves, Cardinal Utility, Constructing a Utility Function, Some Examples of Utility Functions Example: Indifference Curves from Utility, Perfect Substitutes &amp; Perfect Complements, Bads, Neutrals, Quasi linear Preferences, Cobb-Douglas Preferences, Marginal Utility, Marginal Utility and MRS, Utility for Commuting.</p>	<b>15</b>
<b>III</b>	<p><b>Module III: Choice and Demand</b></p> <p>Optimal Choice, Consumer Demand, Estimating Utility Functions, Implications of MRS Conditions Normal and Inferior Good, Income Offer Curves and Engel Curves, Ordinary Goods and Giffen Goods, The Price Offer Curve and Demand Curve, A Discrete Good, Substitutes and Complements, From Individual to Market Demand, Elasticity and Demand, Elasticity and Marginal Revenue, Income Elasticity,</p>	<b>15</b>

		The Inverse Demand Function, Supply, Market Equilibrium, Equilibrium with Linear Curves- Comparative Statics, Consumer's Surplus		
	<b>IV</b>	<b>Module IV: Revealed Preference</b> The Idea and Preference of Revealed Preference, The Weak Axiom of Revealed Preference, The Strong Axiom of Revealed Preference, The Substitution and Income Effect, Calculating the Substitution effect, Income Effect and its calculation, Slutsky Equation, Law of Demand, Compensated Demand Curves.		<b>15</b>
	<b>References</b> 1 Hal Varian, Intermediate Microeconomics, A Modern Approach, Eighth Edition 2 N Gregory Mankiw, Principles of Economics, 3 Salvatore Dominick, Microeconomics, Theory and Applications, Fourth Edition			
	<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours		<b>4</b>	<b>60</b>

## SEMESTER II

### RUAECO201 & RUSCHE101- MICRO ECONOMICS- II

Course Code	UNIT	TOPICS	Credits	Lectures
<b>RUAEC O201 &amp;</b>	<b>I</b>	<b>Module I: Profit Maximization</b> Profits, The organisation of Firms, Fixed and variable Factors, Short and Long run Profit		<b>15</b>

<b>RUSCH E101</b>		Maximisation, Inverse Factor Demand Curve, Profit maximisation and Returns to Scale, Revealed profitability, Revealed Profitability, How farmers react to Price Supports, Profits and Stock Market Value. Cost Minimisation, Revealed Cost Minimisation, Return to Scale and the Function, Short Run and Long Run Costs, Average, Marginal and Fixed, Quasi Fixed and Variable Costs, Short and long run curves, Discrete levels of plant size	
	<b>II</b>	<b>Module II: Supply and Market Structures</b> Firm's Supply, Market Environment, Pure Competition, The Supply Decision of a Competitive Firm, Profit and Producer's surplus, Long run Supply Curve of a Firm, Short run and long run industry supply, Zero profit, Economic Rent, Monopoly, Linear Demand Curve and Monopoly, Mark up Pricing, Inefficiency of Monopoly, Deadweight Loss and Monopoly, Natural Monopoly, First, Second and Third degree Price Discrimination, Monopolistic Competition, Product Differentiation, Location Model of Product Differentiation, Factor Market: Monopsony, Minimum Wage, Upstream and Downstream Monopolies	<b>15</b>
	<b>III</b>	<b>Module III: Oligopoly</b> Oligopoly, Choosing a Strategy, Pricing Matching Quantity leadership, The Follower's Problem, The Leader's Problem-	<b>15</b>

	<p>Price Leadership, Comparing Quantity leadership and Price Leadership, Cournot Equilibrium, Many Firms in Cournot Equilibrium, Collusion, Punishment strategies</p> <p>Game Theory: A Payoff matrix, Nash Equilibrium, Mixed strategies, Prisoner's Dilemma, Repeated Games, Enforcing a Cartel, Games of Coordination, Competition, Commitment and Coexistence, The Frog and the Scorpion, The Kindly Kidnapper, When Strength is Weakness, Bargaining.</p>		
<b>IV</b>	<p><b>Module IV: Distribution Theory, &amp; Factor Pricing</b></p> <p>Distribution Theory, Marginal Productivity Theory, Factor Pricing, Pricing methods</p>		<b>15</b>
	<p><b>References:</b></p> <p>1. N. Gregory Mankiw, Principles of Microeconomics, 7<sup>th</sup> edition, Cengage Learning, 2015</p> <p>2. Salvatore D. (2003), Microeconomics: Theory and Applications, Oxford University Press, New Delhi.</p> <p>3 Varian Hal Intermediate microeconomics</p>		
	<p><b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation)</p> <p><b>Semester End Examination:</b> 60 Marks for 2 hours</p>	<b>4</b>	<b>60</b>



**FYBSC- ECONOMICS- II**

**SEMESTER I**

**RUSCHE102- MACROECONOMICS– I**

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUSCH E102</b>	<b>I</b>	<b>Module I: National Income</b> Gross Domestic Product, Stocks & Flows, Three Methods of Computing GDP, Real vs. Nominal GDP, GDP Deflator, Problems of GDP Measurement, The Case of India: Measurement, Issues, History		<b>11</b>
	<b>II</b>	<b>Module II: Economic Growth</b> Angus Maddison Historical Data & Its Limitations, Modern Theories of Economic Growth (Harrod-Domar, Solow, Lucas, Romer), The Washington Consensus & Its Critics (Rodrik), Geography vs. Trade vs. Institutions (Rodrik, Acemoglu/ Johnson/ Robinson), Other Perspectives (Ruchir Sharma), The Case of India (Joshi)		<b>11</b>
	<b>III</b>	<b>Module III: Government</b> The Role of Government, The Government Accounts (IMF Statistics Manual), Deficit Financing, Public Debt Sustainability, The Case of India (Subramanian, Economic Survey, Joshi)		<b>11</b>
	<b>IV</b>	<b>Module IV: Money</b> The Nature of Money, Banks and the Financial System, Money Demand and Money Supply, The Creation of Money: Monetary Policy & Its Limitations, Monetary		<b>12</b>

		Policy Regimes, The Case of India (Subramanian, Economic Survey, Joshi, RBI)		
		<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours	<b>3</b>	<b>45</b>

## SEMESTER II

### RUSCHE202- MACRO ECONOMICS- II

Course Code	UNIT	TOPICS	Credits	Lectures
RUSCH E202	I	<b>Module 1: The Financial Sector</b>  Financial Markets & Institutions, Asset Pricing: Bonds/Stocks/Derivatives, How Financial Markets Work (Keynes), The Link from Financial Markets to the Real Economy, Financial Crises (Minsky)		<b>12</b>
	II	<b>Module 2: The External Sector – Part 1</b>  Exchange Rates: Nominal and Real, The Determination of Exchange Rates, Flexible versus Fixed Exchange Rates, Exchange Rates as Asset Prices: Uncovered and Covered Interest Parity, Measurements and Data		<b>11</b>
	III	<b>Module 3: The External Sector – Part 2</b>  National Income Accounting and Balance of Payments, Why BOP Must Balance Except		<b>11</b>



		When Exchange Rates is Fixed, A Look at the Data (IMF)		
	<b>IV</b>	<b>Module 4: Theory – Part 1</b>  IS-LM in an open economy, Mundell-Fleming model, Choice of Exchange Rate Regime, Optimal Currency Areas and the Case of the Eurozone, Exchange Rate Crises		<b>11</b>
	<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours		<b>3</b>	<b>45</b>

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**SYBA ECONOMICS- I**

**SEMESTER III**

**RUAECO301- MACROECONOMICS– I**

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUAEC O301</b>	<b>I</b>	<b>Module I: National Income</b>  Gross Domestic Product, Stocks & Flows, Three Methods of Computing GDP, Real vs. Nominal GDP, GDP Deflator, Problems of GDP Measurement, The Case of India: Measurement, Issues, History		<b>11</b>
	<b>II</b>	<b>Module II: Economic Growth</b>  Angus Maddison Historical Data & Its Limitations, Modern Theories of Economic Growth (Harrod-Domar, Solow, Lucas, Romer), The Washington Consensus & Its		<b>11</b>

		Critics (Rodrik), Geography vs. Trade vs. Institutions (Rodrik, Acemoglu/ Johnson/ Robinson), Other Perspectives (Ruchir Sharma), The Case of India (Joshi)		
	<b>III</b>	<b>Module III: Government</b> The Role of Government, The Government Accounts (IMF Statistics Manual), Deficit Financing, Public Debt Sustainability, The Case of India (Subramanian, Economic Survey, Joshi)		<b>11</b>
	<b>IV</b>	<b>Module IV: Money</b> The Nature of Money, Banks and the Financial System, Money Demand and Money Supply, The Creation of Money: Monetary Policy & Its Limitations, Monetary Policy Regimes, The Case of India (Subramanian, Economic Survey, Joshi, RBI)		<b>12</b>
	<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours		<b>3</b>	<b>45</b>

#### SEMESTER IV

#### RUAECO401- MACROECONOMICS-II

Course Code	UNIT	TOPICS	Credits	Lectures
<b>RUAEC O401</b>	<b>I</b>	<b>Module 1: The Financial Sector</b> Financial Markets & Institutions, Asset Pricing: Bonds/Stocks/Derivatives, How		<b>12</b>

		Financial Markets Work (Keynes), The Link from Financial Markets to the Real Economy, Financial Crises (Minsky)		
<b>II</b>	<b>Module 2: The External Sector – Part 1</b>	Exchange Rates: Nominal and Real, The Determination of Exchange Rates, Flexible versus Fixed Exchange Rates, Exchange Rates as Asset Prices: Uncovered and Covered Interest Parity, Measurements and Data		<b>11</b>
<b>III</b>	<b>Module 3: The External Sector – Part 2</b>	National Income Accounting and Balance of Payments, Why BOP Must Balance Except When Exchange Rates is Fixed, A Look at the Data (IMF)		<b>11</b>
<b>IV</b>	<b>Module 4: Theory – Part 1</b>	IS-LM in an open economy, Mundell-Fleming model, Choice of Exchange Rate Regime, Optimal Currency Areas and the Case of the Eurozone, Exchange Rate Crises		<b>11</b>
	<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours		<b>3</b>	<b>45</b>

**SYBA ECONOMICS- II****SEMESTER III****RUAECO302- Indian Economy: Contemporary Concerns (Economic Survey of the Government of India: 2017-18)**

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUAEC O302</b>	<b>I</b>	<b>Module- 1- A New, Exciting Bird's-Eye View of the Indian Economy Through the GST (Chapter- 1, 2)</b> Overview: Short Term, Overview: The Medium Term, Recent Developments, Outlook for 2017-18, Outlook for 2018-19		<b>11</b>
	<b>II</b>	<b>Module- 2- Investment and Saving Slowdowns and Recoveries: Cross-Country Insights (Chapter- 3)</b> A. Introduction, Taxpayers, Tax Base and its Spatial Distribution, Size Distribution of Inter-Firm Transactions, International Trade, Inter-State Trade and Economic Prosperity, Trading Superstars: Indian Export Egalitarian Exceptionalism, Informality of the Indian Economy, Conclusion B. Investment and Saving Slowdowns and Recoveries: Cross-Country Insights for India: Introduction, Identifying Investment and Saving Slowdowns, Saving versus Investment: Growth Consequences, Recovery from "India-Type" Investment slowdowns, Conclusions: Policy Lessons for India		<b>11</b>

	III	<p><b>Module- 3- Reconciling Fiscal Federalism and Accountability: Is there a Low Equilibrium Trap (Chapter- 4)</b></p> <p><b>Is there a “Late Converger Stall” in Economic Development? Can India Escape it? (Chapter 5)</b></p> <p>A. Introduction, Local Governments: What do we know? State and Local governments: Posing an entirely different question, Conclusion: A Low Equilibrium Trap?</p> <p>B. Is there a “Late Converger Stall” in Economic Development? Can India Escape it? Introduction, The But..., The Four Headwinds (“Horsemen”), Lessons for India</p>		14
	IV	<p><b>Module- 4- Ease of Doing Business’ Next Frontier: Timely Justice (Chapter 9)</b></p> <p>Introduction, Pendency and Delay: Facts, Pendency and Delay: Possible Reasons Pendency and Delay: Costs, Central Government Taxes: A Case Study Expenditure on Administration of Justice, Policy Implications</p>		9
	<p><b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation)</p> <p><b>Semester End Examination:</b> 60 Marks for 2 hours</p>		3	45

#### SEMESTER IV

**RUAECO402- Global Economy: Contemporary Concerns (World Development Report 2018)**

Course Code	UNIT	TOPICS	Credits	Lectures
RUAEC O402	I	<p><b>Module I: Meaning of Development</b></p> <p>Development and related concepts: economic growth, economic development, human development, sustainable development, Sen's views on development, Measurement: Income indicators and their limitations, Human Development Index, Gender-related Development Index. Concept of Inclusive growth</p>		11
	II	<p><b>Module II: Overview: Learning to realize education's promise</b></p> <p><b>Overview: Learning to realize education's promise</b></p> <p>The three dimensions of the learning crisis, How to realize education's promise: Three policy responses, Learning to realize education's promise</p> <p>Chapter 1: Schooling, learning, and the promise of education</p> <p>Education as freedom, Education improves individual freedoms, Education Benefits all of society, Learning and the promise of education</p> <p>Chapter 8: Build on foundations by linking skills training to jobs</p> <p>Workplace training can help young people develop skills, yet few benefit from it</p> <p>Short-term job training offers opportunities, but most programs fail to deliver</p>		11

	<p>TVET can prepare young people for work, but early sorting into TVET can limit career growth, Successful job training programs share several features</p> <p><i>Spotlight 5: Technology is changing the world of work: What does that mean for learning?</i></p>	
<b>III</b>	<p><b>Module III: Making the system work for learning</b></p> <p>Chapter 9: Education systems are misaligned with learning</p> <p>Misalignments and incoherence impede learning, Technical complexities make it hard to align education systems with learning, <i>Spotlight 6: Spending more or spending better—or both?</i></p> <p>Chapter 10: Unhealthy politics drives misalignments, Unhealthy politics can intensify misalignments in education systems, Multiple actors and interests: Pulling the system out of alignment at each step of the policy cycle, Trapped in low-accountability, low-learning equilibriums</p>	<b>11</b>
<b>IV</b>	<p><b>Module IV: Data Analysis</b></p> <p>Measures of Dispersion: Range, Quartile Deviation, Mean Deviation; Standard Deviation, Lorenz Curve</p> <p>Linear Regression analysis: meaning, regression lines, regression coefficients, regression equations, relationship between correlation and regression</p>	<b>12</b>

	<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours	<b>3</b>	<b>45</b>
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## SYBA ECONOMICS

### SEMESTER III

#### RUAACINV301- Applied Component- INVESTMENT ANALYSIS- I

Course Code	UNIT	TOPICS	Credits	Lectures
RUAAC INV301	I	<b>Module I: Basics of Investment analysis</b> Objectives of Investor - Characteristics of Investment: risk, return, safety. liquidity. Tax shelter, etc. - Non-marketable financial assets: Deposit') with Banks, Instruments of Post offices, etc. - Marketable financial assets: Money Market Instruments - Bonds or Fixed Income Securities - Equity Shares - Mutual Fund Schemes - Financial Derivatives.		<b>15</b>
	II	<b>Module II: Securities Market</b> Primary Market and its functions - Secondary Market: its functions and Operations - Securities and Exchange Board of India: Objectives, Powers and Functions. Foreign Exchange Markets, Spot Forward Rates, Bond Market and understanding Yields		<b>15</b>
	III	<b>Module III: Securities Market Analysis</b>		<b>15</b>



		Analysis of securities - analysis of market - Valuation - Theoretical Framework – Schematic Presentation of Theory - investment and time value of money - Discounted Cash Flows present value method.		
	<b>IV</b>	<b>Module IV: Basic Accounting</b> Basic Accounting Concepts, Conventions, basic terminologies like asset, liability Flow of Accounting System Balance Sheet Analysis, Revenue Statement Analysis and Cash Flow Analysis		<b>15</b>
	<b>REFERENCES:</b> 1. Chandra, Prasanna (2000) Investment Analysis and Portfolio, Management, Tata McGraw-Hill Publishing Company Ltd, New Delhi. 2. Chandra, Prasanna (1993) Finance Sense, Tata McGraw-Hill Publishing Company Ltd, New Delhi. 3. Hirschey, M. (2001), Investment Theory and Applications, Hircourt College Publisher, USA 4. Shalla V. K. (1983), Investment Milnagement, Security Analysis and Portfolio Management, S. Chand, New Delhi.			
	<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours		<b>2</b>	<b>60</b>

## SEMESTER IV

## RUAACINV401- Applied Component- INVESTMENT ANALYSIS- II

Course Code	UNIT	TOPICS	Credits	Lectures
RUAAC INV401	I	<p><b>Module I: Theories of Investment Analysis</b></p> <p>Concept of Return and Risk (Variance, SD, Beta), Portfolio return, risk, diversification and optimal portfolio - the Single Index Model-Capital Asset Pricing Theory Efficient Market Concept - Efficient Market Hypothesis - Random Walk Theory</p>		15
	II	<p><b>Module II: Fundamental Analysis</b></p> <p>What is fundamental analysis? - Macroeconomic analysis - industry analysis, company analysis using various ratio's - estimation of intrinsic value, Study of Annual Reports</p>		15
	III	<p><b>Module III: Technical Analysis of the Market</b></p> <p>What is technical analysis? - Tools of technical analysis -Principles of Technical analysis -Charts and Trend lines - Moving Averages - Advantages of Moving Averages</p>		15
	IV	<p><b>Module IV: Accounting</b></p> <p>Mutual Funds vs Other Security Investment, Different Types of Mutual Funds, Mutual Fund Structure in India, Concept of Systematic Investment Plan Introduction to Forwards, Futures, Options and Derivative Market in India</p>		15

	<p><b>REFERENCES:</b></p> <ol style="list-style-type: none"> <li>1. Chandra, Prasanna (2000) Investment Analysis and Portfolio, Management, Tata McGraw-Hill Publishing Company Ltd, New Delhi.</li> <li>2. Chandra, Prasanna (1993) Finance Sense, Tata McGraw-Hill Publishing Company Ltd, New Delhi.</li> <li>3. Hirschey, M. (2001), Investment Theory and Applications, Hircourt College Publisher, USA</li> <li>4. Shalla V. K. (1983), Investment Milnagement, Security Analysis and Portfolio Management, S. Chand, New Delhi.</li> </ol>		
	<p><b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation)</p> <p><b>Semester End Examination:</b> 60 Marks for 2 hours</p>	<b>2</b>	<b>60</b>

**Syllabus Approved by BoS (ECONOMICS) for 2018-19**

**TYBA ECONOMICS**

**SEMESTER V**

**RUAECO501- MICROECONOMICS- III**

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUAEC O501</b>	<b>I</b>	<p><b>Module I: Asset Market and Uncertainty</b></p> <p>Valuing a Stream of Payments, Choice of Interest Rate, Rate of Return, Arbitrage and Present Value, Adjustments for differences among Assets, Assets with Consumption Returns, Taxation of Asset Returns, Market</p>		<b>15</b>

		Bubbles, Depletable Resources, When to cut a Forest, Contingent Consumption, Catastrophe Bonds, Risk Aversion: Demand for Insurance, Risk Spreading, Role of Stock Market, Measuring Risk, Equilibrium in a Market for Risky Assets	
	<b>II</b>	<b>Module II: Exchange and Production</b> The Edgeworth Box, Trade, Pareto Efficient Allocation, Walras' Law, Relative Prices, The Existence of Equilibrium, Algebraic Example, Monopoly in Edgeworth Box Efficiency and Equilibrium, Implications of First and Second Welfare Theorem, The Robinson Crusoe Economy, Robinson's Problem, The Firm, Production and First and Second Welfare Theorem, Production Possibilities, Comparative Advantage, Pareto Efficiency, Decentralized Resource Allocation.	<b>15</b>
	<b>III</b>	<b>Module III: Welfare and</b> Aggregation of Preferences, Social Welfare Function, Welfare Maximisation, Individualistic Social Welfare Functions, Fair Allocations, Envy and Equity, <b>Externalities-</b> Smokers and Nonsmokers, Quasilinear Preferences and The Coase Theorem, Production Externalities, Pollution, Vouchers, Market Signals, The Bees and Almonds, The Tragedy and	<b>15</b>

		Commons, Overfishing, Automobile Pollution, Public Good: When to provide Public Good, Free Riding, Voting.		
	<b>IV</b>	<b>Module IV: Economics of Information</b> The Economics of Search: Search Costs, Searching for the Lowest Price, The Asymmetric Information: The Asymmetric Information and the Market for Lemons, Choosing the Quality, The Insurance Market and Adverse Selection, The Problem of Moral Hazard, Illustrative Examples. The Principal Agent problem		<b>15</b>
	<b>References</b> 1 Hal Varian, Intermediate Microeconomics, A Modern Approach, Eighth Edition 2 N Gregory Mankiw, Principles of Economics, 3 Salvatore Dominick, Microeconomics, Theory and Applications, Fourth Edition			
	<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours		<b>4</b>	<b>60</b>

### **RUAECO502- GROWTH AND DEVELOPMENT**

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUAEC O502</b>	<b>I</b>	<b>Module I: Economic Growth</b> Angus Maddison Historical Data & Its Limitations, Modern Theories of Economic		<b>14</b>

	<p>Growth (Harrod-Domar, Solow, Lucas, Romer), The Washington Consensus &amp; Its Critics (Rodrik), Geography vs. Trade vs. Institutions (Rodrik, Acemoglu/ Johnson/ Robinson), Other Perspectives (Ruchir Sharma), The Case of India (Joshi)</p>	
<b>II</b>	<p><b>Module II: Poverty, Inequality &amp; Development</b></p> <p>Demographic Transition, Microeconomic Household Theory of Fertility, Approaches to Population Policy, Measurement of Poverty, Head-Count Index and Poverty Gap Indices, Policy Options for Alleviation of Poverty, Measurement of Income Inequality, Economic Growth and Income Inequality–Kuznet’s Inverted U Hypothesis, Impact of Inequality on Development, Human Capital and its Role in Development, Health and Education, Structural Change, W A Lewis Model</p>	<b>14</b>
<b>III</b>	<p><b>Module III: Governance &amp; Development</b></p> <p>Role of Governance in Development, Role of political &amp; economic institutions, Geography vs. Trade vs. Institutions (Rodrik, Acemoglu/Johnson/Robinson)</p> <p>Rationale for and role of regulation, Regulation in India- IRDA, SEBI, RBI, Election Commission, Parliament</p>	<b>16</b>
<b>IV</b>	<p><b>Module IV: International Dimensions of Growth &amp; Development</b></p>	<b>16</b>

	Geopolitical and changing global economic order, Terrorism Internal/ External and its Economic Implications, Migration, Protectionism vs. Globalization, Political Economy of oil and energy, Climate change		
	<p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Todaro, Michael P. and Stephen C. Smith. Economic Development, 8e. Delhi: Pearson Education, 2003.</li> <li>2. Thirlwall, A.P. Growth and Development 8e. New York: Palgrave MacMillan, 2005.</li> <li>3. Meier, Gerald M. and James E. Rauch. Leading Issues in Economic Development, 8e. New Delhi: Oxford Univ. Press, 2006.</li> <li>4. Ray Debraj (2009), Development Economics, Oxford University Press</li> <li>5. Weil David (2013), Economic Growth, Pearson Education, London</li> <li>6. Blanchard, Oliver; Macroeconomics (4th edition, 9th impression), Pearson education, New Delhi, India.</li> <li>7. Robert Feenstra &amp; Alan Taylor, <i>International Macroeconomics</i>, 2nd ed.</li> </ol>		
	<p><b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation)</p> <p><b>Semester End Examination:</b> 60 Marks for 2 hours</p>	<b>4</b>	<b>60</b>

Course Code	UNIT	TOPICS	Credits	Lectures
RUAEC O503	I	<p><b>Module I:</b></p> <p>A. Classical Economists: Smith's microeconomics and macroeconomics, Ricardo: Theory of distribution Malthus; Theory of population, Say's law of Markets – Mill's normative economics</p> <p>B. Marxists and socialists: The theory of surplus value – Fundamental contradictions in the capitalist system and periodic crisis- Neo capitalism. Socialism: different versions</p>		15
	II	<p><b>Module II:</b></p> <p>A Neoclassical Economists: Marshall and his method, Pareto: welfare economics, Walras; General equilibrium.</p> <p>B Keynesian Economics: Overview of Keynes and His Economics -Theoretical Outline of the General Theory – Resurgence in Keynesian thought after 2008 financial crisis</p>		15
	III	<p><b>Module III: Austrian Economics</b></p> <p>Böhm-Bawerk on capital and Interest-Ludwig von Mises: The Theory of Money and Credit F. A. Hayek and the Theory of Business Cycles - Joseph Schumpeter on Competition, Dynamics, and Growth</p>		15
	IV	<p><b>Module IV:</b></p> <p><b>A. Public Choice:</b> The New Political Economy: Public Choice and Regulation –</p>		15



		<b>B. Some prominent economic thinkers of the recent times (Introduction only):</b> J. Stiglitz, Paul Krugman, A. Deaton, Thomas Piketty, Daniel Kahneman. Thaler, Robert Shiller, Alan Greenspan, Nassim Nicholas Taleb, Amartya Sen, Jagdish Bhagwati, Avinash Dixit, Abhijit Banerjee (Indicative list)		
		<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours	<b>4</b>	<b>60</b>

#### RUAECO504A- Mathematics for Economics- I

Course Code	UNIT	TOPICS	Credits	Lectures
RUAEC O504A	I	<b>Module I: Microeconomic applications of equations and graphs &amp; Derivatives</b> Linear and non-linear relationships in economic analysis, Market demand and supply models, taxes, elasticity		<b>15</b>
	II	<b>Module II: Linear Algebra</b> Matrices and basic operations on matrices, Rank of a Matrix, Inverse of a Matrix, Cramer's Rule, Input-output Analysis and policy implications, Linear Programming problem: Formulation and Graphical Solution		<b>15</b>
	III	<b>Module III: Social Science Research</b> Significance of social science research, objectivity in social science research,		<b>15</b>

	<p>Types of research – Pure &amp; Applied research, Formulative &amp; Exploratory Research, Descriptive Research, Experimental Research, Historical research, Surveys,</p> <p>Steps in research process- Identification, selection and formulation of a research problem, Review of literature, formulation of hypothesis, Preparing research design- Definition, concept, types – exploratory, descriptive and diagnostic, experimental and analytical research designs, collection and analysis of data, Interpretation and report writing</p>		
<b>IV</b>	<p><b>Module IV: Applications of Statistics in Research</b></p> <p>Methods of analyzing correlation – measurement of simple correlation: Graphic method, Scatter Diagram – Coefficient of Correlation – Karl Pearson, Rank Correlation, Linear Regression Analysis- meaning, regression lines, regression coefficients, regression equations,</p> <p>Analysis of Time Series- Components, Moving averages, Method of least square.</p>		<b>15</b>
	<p><b>References:</b></p> <p>1. Dowling Edward T : Introduction to Mathematical Economics, Schaum Outline Series in Economics, Tata McGraw -Hill, New Delhi,2004</p>		

	<p>2. Lerner Joel J and P. Zima: Theory and Problems of Business Mathematics, McGraw Hill, New York, 1986.</p> <p>3. Dowling Edward T: Theory and Problems of Mathematical Methods for Business and Economics, McGraw –Hill,1993</p> <p>4. Pfitzner Barry C.: Mathematical Fundamentals of Microeconomics, biztantra, New Delhi, 2003.</p> <p>5. Bose D. Mathematical Economics ,Himalaya Publishing House,Mumbai,1996</p> <p>6. Gupta S.P. :Statistical Methods, S. Chand, New Delhi,</p> <p>7. Sancheti D.C. and V.K. Kapoor :Statistics- Theory, Methods and Applications, S. Chand, New Delhi</p>		
	<p><b>Internal Evaluation-</b> 100 Marks (Test/ Project/ Assignment/ Quiz/ Presentation based on Project Work)</p> <p><b>Semester End Examination:</b> No</p>	<b>4</b>	<b>60</b>

#### **RUAECO504B- RESEARCH METHODOLOGY- I**

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUAEC O504B</b>	<b>I</b>	<p><b>Module I: Introduction to Concept of Research</b></p> <ul style="list-style-type: none"> <li>• Nature, Scope &amp; Purpose of social research</li> <li>• Basic assumptions of research</li> </ul>		<b>12</b>

	<ul style="list-style-type: none"> <li>• Significance of social sciences research</li> <li>• Objectivity in social sciences research</li> <li>• Types of research: pure &amp; applied research; formulative or exploratory research; descriptive research, historical research, experimental research, survey research</li> <li>• Ethical issues relating to research</li> <li>• Major Difficulties in the Area of economic research</li> </ul>		
<p><b>II</b></p>	<p><b>Module II: Elements of Research Methodology</b></p> <p>I. <u>Steps in Research process:</u></p> <ul style="list-style-type: none"> <li>• Identification, selection and formulation of research problem – sources of research problem – criteria of a good research problem</li> <li>• Review of literature</li> <li>• Formulation of hypothesis</li> <li>• Preparing Research Design: Definition, Concepts, and types– exploratory, descriptive and diagnostic, experimental and Analytical research designs</li> <li>• Collecting and analysing the data</li> <li>• Interpretation and report writing</li> </ul> <p>II. <u>Use of web search in research process-</u> introduction to Internet and WWW, Using</p>		<p><b>14</b></p>

		search engine like Google, Yahoo etc- Use of advanced search techniques	
	<b>III</b>	<p><b>Module III: Sources of Data for Research</b></p> <p>I. <u>Types of data sources:</u> Primary and Secondary, choice between primary and secondary data</p> <ul style="list-style-type: none"> <li>• Primary data-Meaning and Collection methods <ul style="list-style-type: none"> <li>i. Observational method</li> <li>ii. Interview technique</li> <li>iii. Design of Schedule and Questionnaire</li> <li>iv. Survey method and Field Visits</li> <li>v. Case Study as a method</li> </ul> </li> <li>• Major Sources of Secondary data: Meaning, advantages, Relevance, limitations and cautions of secondary data.</li> </ul> <p>II. <u>Sampling Technique:</u> Census and sample survey- Essentials of a good Sampling - Advantages and limitations of sampling</p> <p>Methods of sampling:</p> <ul style="list-style-type: none"> <li>i. <u>random sampling</u> : simple or unrestricted random sampling- mixed or stratified random sampling, systematic or quasi random sampling – multistage or cluster random sampling - sequential random sampling</li> </ul>	<b>12</b>

		<p>ii. <u>non random sampling</u> :  judgement or purposive  sampling–convenience  sampling- accidental sampling –  quota sampling</p> <p>Sampling and Non-sampling errors -  Sample size – selecting an appropriate  sampling technique</p>		
	<b>IV</b>	<p><b>Module IV: Processing and Analysis of Data</b></p> <ul style="list-style-type: none"> <li>• Classification, Tabulation and Graphical presentation of socio-economic data</li> <li>• An introduction to Statistical Analytical Tools – Measures of Central Tendency - Measures of Variation : absolute and relative measures – Quartile deviation, standard deviation, coefficient of variation.- Skewness : meaning and Measurement (Karl Pearson’s and Bowley’s methods)</li> <li>• <u>Preliminaries of Computer Applications in Data organization &amp; Data Processing</u>  Introduction to spreadsheet application, features and functions, Using formulas and functions, Data storing, Features for Statistical data analysis, Graphical representation of data, Generating charts/ graph and other features.</li> </ul>		<b>22</b>
	<b>BIBLIOGRAPHY:</b>			

	<ol style="list-style-type: none"> <li>1. Gopal, M.H (1970) An Introduction to Research Procedures in Social Sciences, Bombay, Asia Publishing House.</li> <li>2. Goode J.Willium &amp; Hatt K. Paul, Methods of social Research, , New York, McGraw – Hill.</li> <li>3. Kothari, C.R (2004) Research Methodology: An Introduction, Delhi, New Age</li> <li>4. Krishnaswami, O.R &amp;, M.Ranganatham (2011) Methodology of Research in Social Sciences, Himalaya Publishing House, Mumbai. .(Unit 1,2, 3,4)</li> <li>5. Kumar, Renjith (2009) Research Methodology: A Step by Step Guide for Research, Delhi, Pearson Education</li> <li>6. P.Saravanavel ((1987) Research Methodology, Kitab Mahal, Allahabad .(Unit 1,2, 3,4)</li> <li>7. Gupta S P tatistical Methods Sultan Chand and Sons, New Delhi. .(Unit 3,4,)</li> <li>8. Gupta S.C, Fundamentals of Statistics, Himalaya Publication House, Bombay. (Unit 4, )</li> <li>9. Rajaram V. (1996), Fundamentals of computers, Prentice Hall of India, New Delhi</li> <li>10.Sadhu A,.N. &amp; Amarjit Singh: Research Methodology in Social Sciences, by Himalaya Publishing House.</li> <li>11.Sharma, B.A.V., etal., (2000) Research Methods in Social Sciences, Sterling Publishers., New Delhi</li> </ol>		
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	12.Young Pauline V, Scientific Social Surveys and research, New Delhi, Prentice hall of India Pvt Ltd .(Unit 1,2,3)		
	<b>Internal Evaluation-</b> 100 Marks (Test/ Project/ Assignment/ Quiz/ Presentation based on Project Work) <b>Semester End Examination:</b> No	<b>4</b>	<b>60</b>

### RUAECO505A- Econometrics- I

Course Code	UNIT	TOPICS	Credits	Lectures
RUAEC O505A	I	<b>Module I: Idea of a random variable</b> <ul style="list-style-type: none"> <li>• Concept of a random variable: Discrete and continuous</li> <li>• Expected values of a random variable</li> <li>• Variance of a random variable</li> <li>• Discrete random variables: Bernoulli, Binomial, Poisson</li> <li>• Continuous random variables: The normal distribution</li> </ul>		<b>12</b>
	II	<b>Module II: Simple Linear Regression Analysis</b> <ul style="list-style-type: none"> <li>• Two variable regression model and calculating the OLS estimates</li> <li>• Classical assumptions of regression</li> <li>• Formal derivation of the OLS estimators, its expected values and variance</li> </ul>		<b>14</b>



		<ul style="list-style-type: none"> <li>• Properties of OLS estimators under classical assumptions, Gauss-Markov Theorem (without proof)</li> <li>• Performing a Simple Linear Regression in R and interpreting the results</li> </ul>	
	<b>III</b>	<p><b>Module III: Hypothesis Testing</b></p> <ul style="list-style-type: none"> <li>• Point and interval estimation</li> <li>• The Z distribution</li> <li>• The Null and Alternate hypotheses and significance testing for mean using Z distribution when population variance is known</li> <li>• The chi-square distribution and testing for sample variance with known population variance</li> <li>• The F distribution and comparing sample variances</li> <li>• The t distribution and hypothesis tests when population variance is unknown</li> </ul>	<b>18</b>
	<b>IV</b>	<p><b>Module IV: Multiple Linear Regression Model</b></p> <ul style="list-style-type: none"> <li>• Modelling for a Multiple Linear Regression, obtaining the OLS estimates and Interpreting the results of the OLS estimates</li> <li>• Violations in the assumptions in the Linear Regression model: Heteroscedasticity, Autocorrelation and Multicollinearity</li> </ul>	<b>16</b>

		<ul style="list-style-type: none"> <li>• Understanding the idea of Goodness of Fit (R square and Adjusted R square)</li> <li>• Performing Multiple Linear Regression in R and interpretation of the results – Understanding the idea of Fitted values and Residual values</li> </ul>		
	References 1. Gujarati D and Sangeeta, Basic Econometrics 2. Cameron Colin A. and Trivedi P K, Microeconometrics Methods and Applications 3. Wooldridge J M Introductory Econometrics, A Modern Approach			
	<b>Internal Evaluation-</b> 100 Marks (Test/ Project/ Assignment/ Quiz/ Presentation based on Project Work) <b>Semester End Examination:</b> No		<b>4</b>	<b>60</b>

#### RUAECO505B- INDIAN FINANCIAL SYSTEM

Course Code	UNIT	TOPICS	Credits	Lectures
RUAEC O505B	I	<b>Module I: Banking in India since 1990s</b> Developments in Commercial banking sector since 1990s – Management of Non-Performing Assets (NPAs); Capital Adequacy Norms - Basel Accord III.- Monetary policy of the RBI –Changes in RBI monetary policy since 1990s - Transmission Channels of Monetary policy.		<b>12</b>

	<b>II</b>	<b>Module II: Money and Capital Markets in India</b> Money Market: Components of organized money market – Reforms in the money market - Features of Indian Money Market. Capital Market: Structure of the Indian Capital Market – Recent Developments in the Capital Market – Role of SEBI - Interlink between Money Market and Capital Market - Overview of Debt Market in India.		<b>14</b>
	<b>III</b>	<b>Module III: Non-Banking sector of the Financial System</b> Non-Bank Finance Companies (NBFCs) in India and their progress - Developments in India's Insurance sector – Progress of Mutual Funds industry in India - Credit Rating Agencies in India.		<b>18</b>
	<b>IV</b>	<b>Module IV: Derivatives Market in India</b> Meaning of derivatives – Participants in the Derivative Markets – Hedgers, Arbitraders and Speculators – Significance Derivative Markets – types of financial derivatives: Forwards, Futures, Options and Swaps - pricing derivatives: Pricing of Futures and Pricing Options - Derivatives trading in India.		<b>16</b>
	<b>Internal Evaluation-</b> 100 Marks (Test/ Project/ Assignment/ Quiz/ Presentation based on Project Work) <b>Semester End Examination:</b> No		<b>4</b>	<b>60</b>

**RUAECO506- Project Work**

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUAEC O506</b>	<b>I</b>	<b>Module I: Urban Governance</b>		<b>15</b>
	<b>II</b>	<b>Module II: Urban Development</b>		<b>15</b>
	<b>III</b>	<b>Module III: Mumbai</b>		<b>15</b>
	<b>IV</b>	<b>Module III: Others</b>		<b>15</b>
	<b>Internal Evaluation- 100 Marks (Test/ Project/ Assignment/ Quiz/ Presentation based on Project Work)</b>		<b>4</b>	<b>60</b>
	<b>Semester End Examination: No</b>			

**TYBA ECONOMICS****SEMESTER VI****RUAECO601- MACROECONOMICS- III**

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUAEC O601</b>	<b>I</b>	<b>Module I: Theory – Part 2</b> The Phillips Curve: History & Contemporary Debates, The Contributions of Friedman and Lucas		<b>16</b>
	<b>II</b>	<b>Module II: Theory – Part 3</b> Microfoundations and Macro Theory, Real Business Cycles, New Keynesian Macroeconomics		<b>14</b>
	<b>III</b>	<b>Module III: International Monetary History</b>		<b>16</b>

		The Gold Standard, The Inter-War Period and the Great Depression, The Key Issues debated at Bretton Woods and the system that emerged as a result of those debates, The Collapse of Bretton Woods System, Fixing in Europe via ERM and the Dollar elsewhere, The Maastricht Treaty and preparations for the Euro, the Global Financial Crisis and its consequences for the Euro, The Euro Crisis, Chinese Ambitions in Present Day		
	<b>IV</b>	<b>Module IV: The 2008 GFC &amp; Contemporary Macro Debates</b> Around the world, India		<b>14</b>
	<b>References:</b> 1. Blanchard, Oliver; Macroeconomics (4th edition, 9th impression), Pearson education, New Delhi, India. 2. Robert Feenstra & Alan Taylor, <i>International Macroeconomics</i> , 2nd ed. 3. Various sources			
	<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours		<b>4</b>	<b>60</b>

#### RUAECO602- INTERNATIONAL ECONOMICS AND FINANCE

Course Code	UNIT	TOPICS	Credits	Lectures
	<b>I</b>	<b>Module I: Introduction</b>		<b>15</b>

<b>RUAEC O602</b>		(a) What is international economics about? An overview of world trade.  (b) <b>New trade theories of International Trade:</b> Technological Gaps and Product Cycles; Linder's Theory of Trade; Emergence of intra-industry trade - Krugman's Model, Porter's National Competitive Advantage, New Trade Theory, Ricardian Theory of international trade (modern), Stolper-Samuelson theorem, Monopolistic competition and trade-firm heterogeneity	
	<b>II</b>	<b>Module II: International Institutions &amp; India</b> OECD, ADB, IMF, World Bank, WTO- Objectives & Functions, Performance w.r.t. India	<b>15</b>
	<b>III</b>	<b>Module III: International Flows</b> Factors determining labour and capital mobility; challenges and issues in outsourcing; Classification of International capital flows (ECBs, short term borrowings and lending, FDI, FPI); issues in international business- trade and environment, trade and labour issues; Global FDI trends and prospects, FDI and the global value chain	<b>15</b>
	<b>IV</b>	<b>Module IV: Economics of Integration</b> Forms; Objectives of Economic Integration; Theory of Customs Union-Trade Creation and Trade Diversion effects; Cartels;	<b>15</b>

	Regional Trade Agreements, Trade Blocs-ASEAN, EU, NAFTA, SAARC; Regionalism Vs Multilateralism.		
	<p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Paul Krugman, Maurice Obstfeld, and Marc Melitz, <i>International Economics: Theory and Policy</i>, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.</li> <li>2. Dominick Salvatore, <i>International Economics: Trade and Finance</i>, John Wiley International Student Edition, 10th edition, 2011.</li> <li>3. Gordon Hanson, ‘The Rise of Middle Kingdoms: Emerging Economies in Global Trade’, <i>Journal of Economic Perspectives</i>, Spring 2012.</li> <li>4. Melitz M. and Trefler D., “Gains from Trade When Firms Matter”, <i>Journal of Economic Perspectives</i>, Spring 2012.</li> <li>5. Appleyard Dennis and Alfred j Field, Jr, <i>International Economics</i>, 2001, 4<sup>th</sup> Edition, Tata McGraw-Hill Education Private Limited</li> <li>6. Bhagwati, Jagdish, Arvind Panagariya, and T.N Srinivasan, (2004), “The muddles over outsourcing”. <i>Journal of economic perspectives</i>, 18(4): 93-104</li> <li>7. Cherunilam Francis, <i>International Economics</i>, 2009, 5<sup>th</sup> Edition, Tata McGraw-Hill Education Private Limited, New Delhi</li> <li>8. Eichengreen, Barry (2003). “Restructuring sovereign debt”. <i>Journal of Economic Perspectives</i>, 17(4): 75-98</li> </ol>		

	<p>9. H.R.Machiraju, 'International Financial Markets and India', Second Edition, New Age International (P) Ltd, Publishers (Chapter 9)</p> <p>10. Jhingan, M.L., <i>International Economics</i>, 2009, 6<sup>th</sup> Revised and Enlarged Edition, Vrinda Publications, New Delhi</p> <p>11. Krugman R Paul, Maurice Obstfeld, <i>International Economics Theory and Policy</i>, 2009, 8<sup>th</sup> Edition, Pearson</p> <p>12. Sodersten, Bo and Geoffery Reed, <i>International Economics</i>, 2006, 3<sup>rd</sup> Edition</p>		
	<p><b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation)</p> <p><b>Semester End Examination:</b> 60 Marks for 2 hours</p>	<b>4</b>	<b>60</b>

### RUAECO603- DEVELOPMENT EXPERIENCE OF COUNTRIES

Course Code	UNIT	TOPICS	Credits	Lectures
RUAEC O603	I	<p><b>Module I:</b></p> <p>A. <b>Germany:</b> Effects of WW II- West and East Germany-The Marshall Plan -The Schuman Declaration (1950)-period of rapid growth-from boom to bust in the 1960s and 1970s-German Unification-prominent economic power in the European union- strengths and challenges at present</p> <p>B. <b>Japan:</b> Effects of WWII- Recovery-'Japanese miracle' — productivity</p>		<b>15</b>



		growth- emergence of Japan as global economic power- Economic stagnation- strengths and challenges at present	
<b>II</b>	<b>Module II: Market Economies</b> A. <b>South Korea:</b> Effects of the Korean War-rapid growth 1960s-1980s-The Asian Financial crisis of 1990s- development of high-tech industries- Sustainability of growth experience- strengths and challenges at present B. <b>Brazil:</b> Growth without equity- policy of import substitution- Public finance and Deficit-problem of hyperinflation-Market vs State intervention-external debt and failure to stabilize- strengths and challenges at present		<b>15</b>
<b>III</b>	<b>Module III: China</b> Communist revolution of 1949-Mao Regime: Cultural revolution-major economic initiatives-China after 1978: Blending political dictatorship with market economy- miraculous economic progress- strengths and challenges at present		<b>15</b>
<b>IV</b>	<b>Module III: India</b> Colonial economic legacy-mixed economy – The Five-Year Plans- Industrial development-inward looking policies- licence permit quota raj-Green Revolution-oil shocks- New economic policy of 1991- India rapidly growing economy- rapidly expanding tertiary sector-regional diversity		<b>15</b>

		in development-strengths and challenges at present		
		<b>Internal Evaluation-</b> 100 Marks (Test/ Project/ Assignment/ Quiz/ Presentation based on Project Work) <b>Semester End Examination:</b> No	<b>4</b>	<b>60</b>

**RUAECO604A- Mathematical Statistical and Research Techniques for Economics- II**

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUAEC O604A</b>	<b>I</b>	<b>Module I: Techniques and application of Partial Derivatives</b> Functions of several variables and partial derivatives, Optimization of Multivariate functions, Constraint optimization withb Lagrange Multiplier Marginal Productivity, income and price elasticities of Demand Homogeneous Production Function and Returns to scale Cobb Douglas Production Function		<b>15</b>
	<b>II</b>	<b>Module II: Integral Calculus</b> Integration and definite integral, area under the curve Economic Application		<b>15</b>

	<p>Present value of cash flows (present value of a sum to be received in future and present value of a stream of future income)</p> <p>Consumer's and Producer's surplus, Learning curve</p>		
<b>III</b>	<p><b>Module III: Research Methods in Social Sciences</b></p> <p>Observation, Interview and Questionnaire method, Surveys</p> <p>Sampling Design and Sampling Methods, Report Writing</p>		<b>15</b>
<b>IV</b>	<p><b>Module IV: Probability Theory and Hypothesis Testing</b></p> <p>Sample space and events</p> <p>Mutually exclusive, exhaustive and complimentary events</p> <p>Conditional Probability</p> <p>Binomial, Normal, Poisson Distribution, Hypothesis Testing – Null and Alternative Hypothesis, Type I &amp; Type II error, Z, t and f distribution</p>		<b>15</b>
	<p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Dowling Edward T :Introduction to Mathematical Economics, Schaum Outline Series in Economics, Tata McGraw -Hill, New Delhi,2004</li> <li>2. Lerner Joel J and P.Zima: Theory and Problems of Business Mathematics, McGraw Hill, New York, 1986.</li> <li>3. Dowling Edward T: Theory and Problems of Mathematical Methods for Business and Economics, McGraw –Hill,1993</li> </ol>		

	<p>4. Pfitzner Barry C.: Mathematical Fundamentals of Microeconomics, biztantra, New Delhi, 2003.</p> <p>5. Bose D. Mathematical Economics ,Himalaya Publishing House,Mumbai,1996</p> <p>6. Gupta S.P. :Statistical Methods, S. Chand, New Delhi,</p> <p>7. Sancheti D.C. andV.K. Kapoor :Statistics- Theory, Methods and Applications, S. Chand, New Delhi</p>		
	<p><b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation)</p> <p><b>Semester End Examination:</b> 60 Marks for 2 hours</p>	<b>4</b>	<b>60</b>

#### RUAECO604B- RESEARCH METHODOLOGY - II

Course Code	UNIT	TOPICS	Credits	Lectures
RUAEC O604B	I	<p><b>Module I: Statistical applications in research</b></p> <ul style="list-style-type: none"> <li>• Methods of studying Correlation-measurement of simple correlation : graphic method :scatter diagram - coefficient of correlation - Karl Pearson and rank correlation-interpretation of <math>r = \pm 1</math></li> <li>• Linear Regression analysis: meaning, regression lines, regression coefficients, regression equations , relationship between correlation and regression</li> </ul>		<b>15</b>

	<ul style="list-style-type: none"> <li>• Analysis of Time Series – components –trend analysis- moving averages (3,4 and 5 yearly) - method of least square</li> </ul>	
<b>II</b>	<p><b>Module II: Index numbers</b></p> <p>Meaning – classification – problems encountered while constructing index numbers- uses and limitation of index numbers</p> <p>Methods of constructing index numbers:</p> <ul style="list-style-type: none"> <li>• Simple index: i) aggregate method ii) simple average of relatives method</li> <li>• Weighted index : Laspeyer’s, Paache’s and Fisher’s index – weighted average of relatives method</li> <li>• Chain based index – concepts of Base shifting, splicing, and deflating</li> <li>• Consumer price index : meaning, need and construction – methods : aggregate expenditure method and family budget method</li> </ul>	<b>15</b>
<b>III</b>	<p><b>Module III: Hypothesis formulation and Hypothesis Testing</b></p> <ul style="list-style-type: none"> <li>• Definition and functions of hypothesis – Criteria of workable hypothesis – forms and sources of hypothesis</li> <li>• Concepts in Testing of Hypothesis : Universe / Population, parameter and statistic , Null and Alternative Hypotheses, Levels of Significance,</li> </ul>	<b>15</b>

		critical region, Type I and type II errors - Point and Interval Estimates	
	<b>IV</b>	<b>Module IV: Research Report Writing</b> Types of Research Report: Technical, Popular, Interim, Summary, Article 1) Format of a Research Report 2) Principles of writing the Research Report: Organization and Style - Contents-Styles of reporting- Steps in drafting Reports- Editing the final draft- Evaluating the final draft -Organization of the Research Report: Preliminaries, Contents of Report, Structuring the Report: Chapter format- Pagination- Identification- Using quotations- Presenting footnotes – abbreviations- Presentation of tables and figures- Referencing- Documentation-Use and format of appendices- Indexing - Bibliography, Appendices	<b>15</b>
		<b>BIBLIOGRAPHY:</b> 13. Gopal, M.H (1970) An Introduction to Research Procedures in Social Sciences, Bombay, Asia Publishing House. 14. Goode J. William & Hatt K. Paul, Methods of social Research, , New York, McGraw – Hill. 15. Kothari, C.R (2004) Research Methodology: An Introduction, Delhi, New Age 16. Krishnaswami, O.R &, M.Ranganatham (2011) Methodology of Research in Social	

	<p>Sciences, Himalaya Publishing House, Mumbai. .(Unit 1,2, 3,4)</p> <p>17.Kumar, Renjith (2009) Research Methodology: A Step by Step Guide for Research, Delhi, Pearson Education</p> <p>18.P.Saravanel ((1987) Research Methodology, Kitab Mahal, Allahabad .(Unit 1,2, 3,4)</p> <p>19.Gupta S P tatistical Methods Sultan Chand and Sons, New Delhi. .(Unit 3,4,)</p> <p>20.Gupta S.C, Fundamentals of Statistics, Himalaya Publication House, Bombay. (Unit 4, )</p> <p>21.Rajaram V. (1996), Fundamentals of computers, Prentice Hall of India, New Delhi</p> <p>22.Sadhu A,.N. &amp; Amarjit Singh: Research Methodology in Social Sciences, by Himalaya Publishing House.</p> <p>23.Sharma, B.A.V., etal., (2000) Research Methods in Social Sciences, Sterling Publishers., New Delhi</p> <p>24.Young Pauline V, Scientific Social Surveys and research, New Delhi, Prentice hall of India Pvt Ltd .(Unit 1,2,3)</p>		
	<p><b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation)</p> <p><b>Semester End Examination:</b> 60 Marks for 2 hours</p>	<b>4</b>	<b>60</b>

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUAEC O605A</b>	<b>I</b>	<b>Module I: Advanced Topics in Regression</b> <ul style="list-style-type: none"> <li>• Understanding the idea of Outliers – its implications and detection</li> <li>• Understanding the idea of Endogeneity and the idea of Instrument Variable Bias</li> <li>• Dummy Variables</li> </ul>		<b>15</b>
	<b>II</b>	<b>Module II: Introduction to Time Series</b> <ul style="list-style-type: none"> <li>• Understanding different kinds of data sets: Cross-section, Time Series and Panel Data sets</li> <li>• Introducing the concept of Time Series data and how it is different from OLS Regression by giving brief introduction of Maximum Likelihood Estimation</li> <li>• Different Time Series Models: Linear Trend, Random Walk, AR Process</li> <li>• Idea of Stationarity and Non-stationarity</li> <li>• Test for Stationarity: Augmented Dickey Fuller Test</li> <li>• Introduction to ARIMA Modelling</li> </ul>		<b>15</b>
	<b>III</b>	<b>Module III: Basic Regression Analysis with Time Series and Panel Data</b>		<b>15</b>



	<ul style="list-style-type: none"> <li>• Time Series Regression Models: Static Models, Finite Distributed Lag Models,</li> <li>• Pooling Independent Cross Section Across Time,</li> <li>• Fixed Effect Estimation: The Dummy Variable Regression, Fixed Effects or First Differencing, Random Effect Models</li> </ul>		
<b>IV</b>	<p><b>Module IV: Simultaneous Equation Models and Distributed Lag Models</b></p> <ul style="list-style-type: none"> <li>• The Nature of Simultaneous Equation Models</li> <li>• Simultaneity Bias in OLS</li> <li>• Identifying and Estimating a Structural equation in Two, Three and More Equations</li> <li>• <b>Project:</b> Analysing Economic data sets from different sources and doing a project using the econometric tools studied throughout the course. Can be done in Excel, R, Eviews, Stata</li> </ul>		<b>15</b>
	<p>References</p> <ol style="list-style-type: none"> <li>4. Gujarati D and Sangeeta, Basic Econometrics</li> <li>5. Cameron Colin A. and Trivedi P K, Microeconometrics Methods and Applications</li> <li>6. Wooldridge J M Introductory Econometrics, A Modern Approach</li> </ol>		
	<b>Internal Evaluation- 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation)</b>	<b>4</b>	<b>60</b>

	<b>Semester End Examination: 60 Marks for 2 hours</b>		
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### **RUAECO605B- BEHAVIOURAL ECONOMICS**

<b>Course Code</b>	<b>UNIT</b>	<b>TOPICS</b>	<b>Credits</b>	<b>Lectures</b>
<b>RUAEC O605B</b>	<b>I</b>	<b>Module I: Principles of Behavioural Economics – I</b> History of Behavioural Economics – Need for behavioural principles in economics – Early work – Bounded Rationality – Allais Paradox – Prospect Theory (Loss Aversion, Endowment Effect) – Heuristics and Biases (Availability, Anchoring, Adjustment, Framing) – Intertemporal Choice (Self-control problem) – Reference Dependent Preferences		<b>15</b>
	<b>II</b>	<b>Module II: Principles of Behavioural Economics – II</b> Auctions (revenue equivalence theorem and practice) – Biases in Market Behaviour (equilibrium prices) – Consumer Psychology (Choice overload, option paralysis) – Subjective Well-being and Happiness – Mental Accounting – Social Preferences (inequity, fairness, trust) – Decision-making under uncertainty (risk aversion)		<b>15</b>
	<b>III</b>	<b>Module III: Methods used in Behavioural Economics</b>		<b>15</b>

		Theoretical methods vs. empirical methods –Theoretical studies in behavioural economics – applications of psychological principles – Experimental methods – Lab Experiments – Field Experiments – Natural Experiments – Policy Experiments – Critique of methods used	
	<b>IV</b>	<b>Module IV: Applications of Behavioural Economics</b> Critique of behavioural economics – Applications in Policy (Education, Health, Development, Welfare) – Applications in Business and Corporates – Neuroeconomics – Nudging & Choice Architecture	<b>15</b>
		<b>Suggested Readings:</b> I. Angner, Erik. <i>A Course in Behavioral Economics 2e</i> . Palgrave Macmillan, 2016. II. Camerer, Colin F., George Loewenstein, and Matthew Rabin, eds. <i>Advances in behavioral economics</i> . Princeton university press, 2011. III. Thaler, Richard, and Cass Sunstein. <i>Nudge: Improving decisions about health, wealth, and happiness</i> . Yale University Press, 2008. IV. Kahneman, Daniel. <i>Thinking, fast and slow</i> . Macmillan, 2011. V. Ariely, Dan. <i>Predictably irrational</i> . New York: HarperCollins, 2009. VI. List, John, and Uri Gneezy. <i>The why axis: hidden motives and the undiscovered</i>	

	<i>economics of everyday life</i> . Random House, 2014.		
	<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours	<b>4</b>	<b>60</b>

### RUAECO606- CORPORATE FINANCE

Course Code	UNIT	TOPICS	Credits	Lectures
<b>RUAEC O606</b>	<b>I</b>	<b>Module I: Valuation</b> i) Value and return Introduction, Time Preference for Money, Future Value: Single cash flows, Annuity, Sinking Fund Present Value: Single Cash FLOW, Annuity, Uneven Cash Flows Capital Recovery, Constant Growing Annuity Net Present Value: Present Value and Rate of Return, IRR Calculation ii) Portfolio Theory and Asset Pricing models Introduction, Portfolio Return: Two Asset Case Portfolio Risk Two Asset Case Minimum Variance Portfolio: Portfolio Return and Risk Portfolio Risk: n Asset Case Risk Diversification		<b>15</b>

		Capital Asset Pricing Model (CAPM) and its implications and relevance FAMA-French 3 Factor Model		
<b>II</b>		<b>Module II: Investment Decisions</b> 1 Capital Budgeting Decisions Introduction, NPV Net Present Value and Calculation of NPV Internal Rate of Return, Accounting Rate of Return Payback: Discounted and Fake and Payback Scenario Analysis , Sensitivity Analysis and Break Even Analysis		<b>15</b>
<b>III</b>		<b>Module III: Dividend Theory</b> Introduction Dividend Relevance: Walter's Model, Gordon's Model Dividend Irrelevance: Miller- Modigliani Hypothesis Relevance of Dividend Policy under Market Imperfections		<b>15</b>
<b>IV</b>		<b>Module IV: Cost of capital and capital structure (10 Lectures)</b> Determining components of Cost of Capital, Financial Leverage, Calculating Weighted Average Cost of Capital (WACC), Understanding the optimal capital structure – Modigliani Miller Hypothesis		
		<b>Internal Evaluation-</b> 40 Marks (Test/ Project/ Assignment/ Quiz/ Presentation) <b>Semester End Examination:</b> 60 Marks for 2 hours	<b>4</b>	<b>60</b>

