

**VIKRAMA SIMHAPURI UNIVERSITY  
NELLORE**



**SYLLABUS  
FOR  
M.A. QUANTITATIVE ECONOMICS  
WITH EFFECT FROM 2020-21**

**VIKRAMA SIMHAPURI UNIVERSITY, NELLORE, A. P., INDIA**  
**M.A/M.Sc. Quantitative Economics**  
**CBCS Pattern with effect from 2020-21**

Semester	Components of study	Course Number	Title of the Course	Instruction hours per week	Credits	IA marks	End semester exam marks	Total
I	Core	QECO 101	Micro Economics-I	6	4	30	70	100
		QECO 102	Macro Economics-I	6	4	30	70	100
		QECO 103	Mathematics for Economists	6	4	30	70	100
		QECO 104	Statistics for Economists	6	4	30	70	100
		QECO 105	Computer Applications in Economics (Lab)	6	4			100
	Compulsory Foundation	QECO 106	Human Values and Professional Ethics	6		30	70	100
II	Core	QECO 201	Micro Economics-II	6	4	30	70	100
		QECO 202	Macro Economics- II	6	4	30	70	100
		QECO 203	Optimisation in Economics	6	4	30	70	100
		QECO 204	Basic Econometrics	6	4	30	70	100
		QECO 205	Economics of Growth and Development	6	4	30	70	100
	Compulsory Foundation	QECO 206	Personality Enhancement and Leadership	6		30	70	100
III	Core	QECO 301	Indian Economy	6	4	30	70	100
		QECO 302	Advanced Econometrics	6	4	30	70	100
		QECO 303	Quantitative Economics Computer Lab	6	4	30	70	100
	Elective-I (Choose any one)	QECO 304 (a)	International Trade:Theory and Policy	6	4	30	70	100
		QECO 304 (b)	Financial Institutions and Markets	6	4	30	70	100
		QECO 304 (c)	Research Methodology	6	4	30	70	100
	Elective-II (Choose any one)	QECO 305 (a)	Agricultural Economics	6	4	30	70	100
		QECO 305(b)	Industrial Economics	6	4	30	70	100
		QECO 305(c)	Economics of Information Technology	6	4	30	70	100
IV	Core	QECO 401	Public Economics	6	4	30	70	100
		QECO 402	Applied Econometrics	6	4	30	70	100
		QECO 403	Entrepreneurship and Skill Development	6	4	30	70	100
	Elective-I (Choose any one)	QECO 404 (a)	Welfare Economics	6	4	30	70	100
		QECO 404 (b)	Economics of Environment	6	4	30	70	100
		QECO 404 (c)	Economics of Insurance	6	4	30	70	100
	Project	QECO 405	Project	6	4			100

Note: The minimum credits per semester will be 20 and total minimum credits for all the semesters will be 80. Two mid tests will be conducted for each theory paper in each semester. The average of the two will be taken for 30 marks.

# **SEMESTER – I**

**SEMESTER-I**  
**QEEO 101: MICRO ECONOMICS – I**  
**(With effect from 2020-21)**

**Unit 1: Demand Analysis**

Marshall's Cardinal Utility Theory -Hicks Indifference Curve Analysis-, Income and substitution effects (Slutsky and Hicks)-Samuelson's Revealed Preference Theory –Pragmatic Approach-Linear Expenditure System, Constant Elasticity of Demand Function-Neumann-Morgenstern Utility Index

**Unit 2: Theory of Production**

Cobb – Douglas Production Function – CES Production Function – Frontier Production Function-Law of Variable Proportions – Returns to Scale – Isoquants and Isocost Curves – Choice of Optimum Combination of Inputs – Elasticity of Substitution.

**Unit 3: Cost, Revenue and Equilibrium of the Firm**

Traditional and Modern Approaches to cost of Production– Cost Curves – Revenue Curves under Different Market Conditions – Firm and Industry Equilibrium.

**Unit 4: Price and Output Determination under Perfect Competition, Monopoly and Monopolistic Competition**

Classification of Market-Price and Output determination under Perfect Competition, Monopoly and Monopolistic Competition-Price Discrimination under Monopolistic Competition

**Unit 5: Price and Output Determination under Duopoly and Oligopoly**

Duopoly: Models of Cournot, Bertrand and Stackelberg – Oligopoly: Chamberlin Model and Kinked Demand Curve Model – Collusive Oligopoly: Cartels and Price Leadership.

**REFERENCES:**

- Ahuja, H.L., 2017, Modern Micro Economics (19<sup>th</sup> Revised Edition), S.Chand&Company,New Delhi.
- Ahuja, H.L., 2017. Advanced Economic Theory- Micro Economics Analysis 21<sup>st</sup> Edition, S.Chand& Co.
- Baumol, W.J., 2015, The Economic Theory and Operations Analysis 4<sup>th</sup> Revised Edition, Pearson Education India.
- Dewett.K.K., 2006, Modern Economic Theory (Revised Edition), S.Chand&Company, New Delhi.
- Koutsoyiannis, A., 2003, Modern Micro Economics, Second Edition, Macmillan Press, London.
- John Von Neumann and Oskar Morgenstern, 2007, Theory of Games and Economic Behaviour, Second Edition, Princeton University Press, Princeton.
- Watson, Donald S., 1993, Price theory and its uses, University Press of America.
- Diamond and Rothschild, 1993, Uncertainty in Economics, Emerald Group Publishing Limited;.

**SEMESTER-I**  
**QECO 102: MACRO ECONOMICS– I**  
**(With effect from 2020-21)**

**Unit 1: National Income**

Concepts of National Income: Gross National Product, Net National Product, NNP at Market Price, NNP at Factor cost, NDP at Factor cost, Personal income, Disposal Income, Real Income and Per Capita Income – Measurement of National Income: Methods and Difficulties.

**Unit 2: Classical and Keynesian Macroeconomics**

Classical Theory of Employment – Basic Keynesian Models: Consumption Function, Investment Multiplier, Marginal Efficiency of Capital and Investment, Accelerator – Interaction between Multiplier and Accelerator.

**Unit 3: Consumption Function**

Consumption Function – Theories of Consumption Function: Absolute Income Hypothesis, Alternative Income Hypotheses, Relative Income Hypothesis, Life Cycle Hypothesis, Permanent Income Hypothesis.

**Unit 4: Investment Function**

Marginal Efficiency of Investment and Level of Investment – Marginal Efficiency of Capital and Investment, Accelerator and Investment Behavior, Impact of Inflation – Influence of Policy Measures on Investment

**Unit 5: Neo Classical and Keynesian Synthesis**

Goods Market and Money Market - Goods Market Equilibrium: Derivation of IS Curve, Shift in IS Curve – Money Market Equilibrium: The Derivation of LM Curve, Shift in LM Curve – Interaction of IS-LM Curve– Elasticity of LM Curve – Effectiveness of Monetary and Fiscal Policies.

**REFERENCES:**

- Dornbush, R and Stanley, F., 2017, Macro Economics 11<sup>th</sup> Edition, McGraw Hill Inc., New York.
- Edward Shapiro, 2013, Macro-economic analysis, Galgotia publications, New Delhi.
- Branson, W.A. 2005, Macro-economic theory and policy 3<sup>rd</sup> Edition, Affiliated East-west Press Pvt Ltd.
- Jhingan, M.L., 2016, Macro-economic Theory 13<sup>th</sup> Edition, Vrinda Publications, New Delhi.
- Ahuja, H.L., 2014, Macro-economics, S. Chand and Company, New Delhi.
- Vaish, M.C., 2009, Macro-economics, Vikas Publications.
- Seth, M.L. 2017, Macro-economic theory, Lakshmi Narai Agarwal Publications, Agra.
- Keynes, J.M., 1936, General theory of employment interest and money.

**SEMESTER-I**  
**QECO 103: MATHEMATICS FOR ECONOMISTS**  
**(With effect from 2020-21)**

**Unit-I: Functions and Limits**

Concept of Function- Types of Function -Polynomial Function- Homogenous Function– Logarithmic and Exponential Functions –Limit and Continuity of Function-Standard Limits- Evaluation of Limits in Simple Cases-Demand and Supply Functions and Determination of Equilibrium Price and Quantity.

**Unit-II: Differentiation of Functions of One or Two Variables**

Concept of Derivative–Rules of Differentiation: Power Rule, Product Sum, Difference, Quotient, Chain, Logarithmic and Exponential Rules—Rules of Differentiation of Multi-variable Function -Interpretation of Partial Derivatives- Interpretation of Revenue, Cost, Demand and Supply Functions and Elasticities.

**Unit-III: Optimisation**

Conditions for Maxima and Minima of Functions of One or Two Variables - Simple examples from Economics: Maximization of Output, Revenue and Profit-Minimization of Cost under Perfect Competition and Monopoly-

**Unit IV: Integration**

Concepts of Integration–Definite and Indefinite Integrals – Simple Rules of Integration – Application of Integration to Consumer’s Surplus and Producer’s Surplus.

**Unit-V: Matrices and Determinants**

Concept of Matrix–Types of Matrix –Concept of Vector and its Properties–Addition and Multiplication of Matrices –Determinants and Their Properties -Inverse and Rank of a Matrix Solution of Two and Three Simultaneous Equations through Cramer’s Rule.

**REFERENCES:**

- Allen, R.G.D., 2015, Mathematical Analysis for Economists, Andesite Press.
- Chiang, A.C., 2017, Fundamental Methods of Mathematical Economics 4<sup>th</sup> Edition, McGraw Hill, New York.
- Carl P Simon and Lawrence Blume 2018, Mathematics for Economists, Viva Books
- Bose D, 2009. An Introduction to Mathematical Methods, Himalaya Publishing House.
- Asthana, 2011. Element of Statistics, S.Chand& Co.
- Mohan, K.P. 2012. Mathematics for Economics, Centrum Press.
- Koutsoyiannis, A 2015. Theory of Econometrics 2<sup>nd</sup> Edition. Palgrave Macmillian.
- Baumol, W.J., 1984, Economic Theory and operations Analysis <sup>th</sup> Edition, Pearson Education India.
- Monga, G.S., 1972, Mathematics and Statistics for Economists, Vikas Publishing for Economists, Prentice Hall of India, New Delhi.

**SEMESTER-I**  
**QECO 104: STATISTICS FOR ECONOMISTS**  
**(With effect from 2020-21)**

**Unit-I: Basics**

Measures of Central Tendency: Mean, Median, Mode, Geometric Mean, Harmonic Mean – Merits and Demerits – Measures of Dispersion: Range, Mean Deviation, Semi-Inter-quartile Range and Variance and Standard Deviation – Moments, Skewness and Kurtosis – Grouped and Ungrouped Data – Numerical Problems.

**Unit-II: Correlation and Regression**

Meaning - Assumptions and Limitations of Simple Correlation, Karl Pearson Coefficient of Correlation and Spearman's Rank Correlation-Coefficient–Simple Regression – Lines of Regression and Properties of Regression Coefficient.

**Unit-III: Probability and Distributions**

Concept of Probability – Various Types of Events: Classical and Empirical Definitions of Probability – Laws of Addition and Multiplication of Probability (statements only) – Conditional Probability – Distributions: Random Variables – Distribution Function – Probability Density Function - Mathematical Expectation – Definition and Properties of Binomial, Poisson and Normal Distributions

**Unit-IV: Sampling Theory**

Basic Concept of Sampling–Random and Non-Random Sampling–Simple Random – Stratified Random – Systematic and P.P.S. Sampling Techniques.

**Unit-V: Hypothesis Testing**

Formulation of Statistical Hypotheses – Null and Alternative – Goodness of Fit – Confidence Intervals and Level of Significance – Hypothesis Testing based on t,  $X^2$  (Chi-Square) and F-tests.

**REFERENCES:**

- Goon, A.M., Gupta, M.K and Dasgupta, B., 2013, Fundamentals of Statistics, Vol.1, The World Press Ltd., Calcutta.
- Guptha, C.B., 2004, An Introduction to Statistical Methods, 23<sup>rd</sup> Edition Vikas Publishing House, New Delhi.
- Guptha, S.C.2018, Fundamentals of Statistics, Himalaya Publications.
- Guptha, S.P. 2013, Statistical Methods, Sulthan Chand & Sons, New Delhi.
- Hoog, R.V. and Craig, A.T., 2012, Introduction to Mathematical Statistics (7<sup>th</sup> Edition) Macmillian Publishing Co., New York.
- Chou, Y., 1989, Statistical Analysis for Business and economics, Holt, Rein Hart and Winston, New York.
- Nagar, A.L. and Das R.K., 1997, Basic Statistics, Oxford University Press Ltd., New Delhi

**SEMESTER-I**  
**QECO 105: COMPUTER APPLICATIONS IN ECONOMICS (LAB)**  
**(With effect from 2020-21)**

**Unit 1: Computer Fundamentals**

Definition–Components of a Computer–Block Diagram–Evolution of Computer Generations–Input–Output Devices–Hardware and Software–Compilers and Assemblers–Low level and High level Languages–Operating Systems and the User Interface – Microsoft Operating Systems.

**Unit 2: MS Word**

Creating, Opening and Saving Files–Editing and Formatting Text–Spell and Grammar Check–Creation of Tables and Columns–Mail-merge–Word Art–Concept of Macro–Print Preview and Operations.

**Unit 3: MS Excel**

Work Sheet–Creating a Data File in MS Excel – Calculations in Excel Sheet–Creating Graphs and Charts with Excel–Data Base Operations in Excel: Sorting and Filtering–Statistical Functions–Printing Operations.

**Unit 4: MS Power Point and MS Access**

**MS Power Point:** Components of MS Power Point – Parts of a Power Point Screen - Creating a New Presentation–Opening–Saving–Closing a Presentation. **MS Access:** The Concept of Database Management System - Creating New Database Files – Fields – Records – Files - Viewing forms, Query and Reports.

**Unit 4: Introduction to Statistical Softwares: Stata and SPSS**

**Stata:** Creating New Data set, Exploratory Data Analysis – Frequency Tables & Two-way Cross Tabulations – Regression – Dummy Variables & Interaction Effects **SPSS:** Basics Data Management - Importing data – Recoding Variables -Univariate Analysis – Cross Tabulations - Multiple Regression Analysis – LSDV Regression & Interaction Effects

**PRACTICALS :**

1. Each candidate has to perform two practicals
2. Practical record is to be maintained
3. Practical examination is based on practical record, demonstration and Viva-Voce.

**REFERENCES:**

- Ravichandran, D., 2001, Introduction to Computers and Communication, Tata McGraw Hill Publishing Company Limited, New Delhi.
- Sanjay Sexena, 2010, A First Course in Computers 2<sup>nd</sup> Edition, Vikas Publishing House, New Delhi.
- STATA (2004), Version 8.0, Base Reference Manuals, Volume 1- 4, Stata Press Publication.
- Sudalaimuthu S, 2015. Computer Applications in Business. Himalaya Publishing House.
- Reema Thareja, 2014. Fundamentals of Computers, OUP India.
- Anita Goel, 2010, Computer Fundamentals, First edition Pearson Education India.
- E Balagurusamy, 2009, Fundamentals of Computers, McGraw Hill Education



**SEMESTER-I**  
**QECO 106: HUMAN VALUES AND PROFESSIONAL ETHICS**  
**(With effect from 2020-21)**

**UNIT-I: VALUE EDUCATION**

Definition Relevance to present day — Concept of human values - Self introspection — Self esteem. Family values-Components, Structure and responsibilities of family- Neutralization of anger Ajustability Threats of family life Status of women in family and society — Caring for needy and elderly — Time allotment for sharing ideas and concerns. (Theory only)

**UNIT-II: MEDICAL ETHICS**

Views of Charaka, Sushruta and Hippocrates on moral responsibility of medical practitioners. Code of ethics for medical and healthcare professionals. Euthanasia, Ethical obligation to animals, Ethical issues in relation to health care professionals and patients. Social justice in health care, human cloning, problem of abortion. Ethical issues in genetic engineering and Ethical issues raised by new biological technology or knowledge. (Theory only)

**UNIT-III: BUSINESS ETHICS**

Ethical standards of business Immoral and illegal practices and their solutions. Characteristics of ethical problems in management, Ethical theories, causes of unethical behavior, Ethical abuses and work ethics. (Theory only)

**UNIT-IV: ENVIRONMENTAL ETHICS**

Ethical theory, man and nature - Ecological crisis, Pest control. Pollution and waste, Climate change, Energy and pollution, Justice and environmental health. (Theory only)

**UNIT-V: SOCIAL ETHICS**

Organ trade, Human trafficking, Human rights violation and social disparities. Feminist ethics, Surrogacy pregnancy. Ethics of media Impact of newspapers, Television, Movies and Internet (Theory only).

**References:**

1. John S Mac kenzie A Manual of Ethics
2. "The Ethics of Management" by Larue Tone Hosmer, Richard D. Irvin Inc.
3. Management Ethics- Integrity at work by Joseph A. Patrick and John F. Quinn, Response Books. New Delhi.
4. "Ethics in Management" by S.A. Shelkar, Himalaya Publishing House.
5. Harold H. Titus: Ethics for Today
6. Maitra, S.K : Hindu Ethics
7. William Lilly: Introduction to Ethics: Sinha: A Manual of Ethics
8. Manu: Manava Dharma Sastra or the Institute of Manu: Comprising the Indian System of Duties: Religious and Civil (ed) G.C. Haughton.

## **SEMESTER – II**

**SEMESTER-II**  
**QEEO 201: MICRO ECONOMICS – II**  
**(With effect from 2020-21)**

**Unit 1: Modern Theories of Firm**

Baumol's Sales Revenue Maximization Model–Marris' Model of the Managerial Enterprise–Williamson's Model of Managerial Discretion–Bain's Limit Pricing Theory

**Unit 2: Theories of Distribution**

Ricardo, Karl Marx, Neo-Classical Theory(Marginal Productivity Theory) Kaldor-Factor Pricing in Perfect and Imperfect Competitive Markets–Adding up Problem and Euler's Theorem.

**Unit 3: General Equilibrium**

Static and Dynamic Equilibrium– Stable and Unstable Equilibrium – Partial and General Equilibrium – General Equilibrium of Exchange and Consumption–General Equilibrium of Production and Exchange.

**Unit 4: Market Failure and Public Goods**

Reasons for Market Failure: Market Imperfections, Public Goods, Externality, Macro-economic Factors - Types of Public Goods: Theory of Public Goods – Provision and Pricing, Government Intervention, Second-best Solution, Free Riding.

**Unit 5: Welfare Economics**

Pigovian Welfare Economics–Pareto-Optimal Conditions–Kaldor - Hicks Compensation Principle – Social Welfare Function – The Theory of Second Best.

**REFERENCES:**

- Ahuja, H.L., 2017, Modern Micro Economics (19<sup>th</sup> Revised Edition), S.Chand&Company,New Delhi.
- Ahuja, H.L., 2017. Advanced Economic Theory- Micro Economics Analysis 21<sup>st</sup> Edition, S.Chand& Co.
- Baumol, W.J., 2015, The Economic Theory and Operations Analysis 4<sup>th</sup> Revised Edition, Pearson Education India.
- Dewett.K.K., 2006, Modern Economic Theory (Revised Edition), S.Chand&Company, New Delhi.
- Koutsoyiannis, A., 2003, Modern Micro Economics, Second Edition, Macmillan Press, London.
- John Von Neumann and Oskar Morgenstern, 2007, Theory of Games and Economic Behaviour, Second Edition, Princeton University Press, Princeton.
- Watson, Donald S., 1993, Price theory and its uses, University Press of America.
- Diamond and Rothschild, 1993, Uncertainty in Economics, Emerald Group Publishing Limited;.

**SEMESTER-II**  
**QECO 202: MACRO ECONOMICS – II**  
**(With effect from 2020-21)**

**Unit 1: Demand for Money**

Classical Theory –Keynesian Theory–Post Keynesian Theories: Tobin, Friedman and Baumol– Keynes and Patinkin Integration of Monetary and Value Theory.

**Unit 2: Supply of Money**

Components of Money Supply–RBI Approach to Money Supply–High Power Money and Money Multiplier–Changes in the Supply of Money.

**Unit 3: Business Cycles**

Types of Trade Cycles–Theories of Trade Cycles: Samuelson–Hicks and Kaldor–Control of Business Cycles: Monetary and Fiscal Policies.

**Unit 4: Theories of Inflation**

Demand–Pull Inflation and Cost–Push Inflation–Phillips Curve– Inflation and Unemployment Trade off–Monetarist and Accelerationist Hypothesis– Rational Expectations Hypothesis.

**Unit 5: Macroeconomics Policies**

Monetary Policy: Objectives, Tools and Evaluating Monetary Policy–Fiscal Policy: Objectives, Tools and Automatic Stabilizers–Problems in the Implementation of Fiscal and Monetary Policies–Relative Effectiveness of Monetary and Fiscal Policies.

**REFERENCES:**

- Dornbush, R and Stanley, F., 2017, Macro Economics 11<sup>th</sup> Edition, McGraw Hill Inc., New York.
- Edward Shapiro, 2013, Macro-economic analysis, Galgotia publications, New Delhi.
- Branson, W.A. 2005, Macro-economic theory and policy 3<sup>rd</sup> Edition, Affiliated East-west Press Pvt Ltd.
- Jhingan, M.L., 2016, Macro-economic Theory 13<sup>th</sup> Edition, Vrinda Publications, New Delhi.
- Ahuja, H.L., 2014, Macro-economics, S. Chand and Company, New Delhi.
- Vaish, M.C., 2009, Macro-economics, Vikas Publications.
- Seth, M.L. 2017, Macro-economic theory, Lakshmi Narai Agarwal Publications, Agra.
- Keynes, J.M., 1936, General theory of employment interest and money.

**SEMESTER-II**  
**QECO 203: OPTIMISATION IN ECONOMICS**  
**(With effect from 2020-21)**

**Unit 1: Basics**

Optimisation Methods and Economic Analysis – Application of Constrained and Unconstrained Optimization Methods to Consumer and Producer Behaviour

**Unit 2: Linear Programming**

Linear programming – Primal – Dual – Graphic Method – Simplex Method –Application to Production and Diet Problems

**Unit 3: Transportation Problem**

Nature and Matrix form of Transportation Problem – Transportation Table – Types of Transportation Problem – Balanced Transportation Problem, Unbalanced Transportation Problem –Methods to solve Transportation Problem - The Initial Basic Feasible solution: North-West Corner Rule and Vogel’s Approximation method – Moving towards Optimality, The Transportation Algorithm.

**Unit 4: Game Theory**

Game Theory – Basic Concepts – Two Person Zero Sum Game – Saddle Point – Examples of Co-operative and Non-Co-operative Games – Prisoner’s Dilemma.

**Unit 5: Input-Output Analysis**

Input-Output Analysis – Structure of an Economy – Assumptions – Technical Co-efficient – Outputs and Price Determination – Static and Dynamic Input Output Analysis.

**REFERENCES:**

- A.C. Chiang:2017, Fundamental Methods of Mathematical Economics, 4<sup>th</sup>Edition, McGraw Hill.
- J. Henderson and R.E. Quandt: 1980 Micro Economic Theory, 3<sup>rd</sup>EditionTata McGraw Hill.
- M.D.Intrilligator:,2013, Mathematical Optimization and Economic Theory, Prentice Hall.

**SEMESTER-II**  
**QECO 204: BASIC ECONOMETRICS**  
**(With effect from 2020-21)**

**Unit 1: Nature of Econometrics and Economic Data**

Definition of Econometrics – Steps in Empirical Economic Analysis - Econometric Model –The Role of Measurement in Economics – The Structure of Economic Data: Cross-Sectional data, Time Series data, Pooled Cross Section data, Panel Data.

**Unit 2: Simple Regression Model**

Two Variable Linear Regression Model: Assumptions, Estimation of Parameters, Tests of Significance and Properties of Estimators – Functional forms of Regression models – Loglinear models, Semi log- models and Reciprocal models – Choice of Functional Form.

**Unit 3: The General Linear Model**

Review of Assumptions, Estimation and Properties of Estimators: Un-biasness, BLUEs and Tests of Significance of Estimates – Analysis of Variance - Dummy variables: Nature of Dummy Variables, Use of Dummy Variables – Errors in Variables and its Consequences.

**Unit 4: Auto-regressive and Distributed Lag Models**

Introduction – Types of Lag Schemes - Koyck's Lag Model, Almon's Lag Scheme, Partial Adjustment and Expectations Models - Causality in Economics – The Granger Causality Test.

**Unit 5: Simultaneous Equation Models**

Specification – Simultaneous Bias – Inconsistency of OLS Estimators - The Concept of Identification, Rank and Order Conditions for Identification – Indirect Least Squares - Two stage Least Squares (without proof), Problems.

**REFERENCES:**

- Johnston, J: 1996, Econometric Methods, McGraw-Hill Book Co., New York.
- Maddala, G.S: 2011 Econometrics, 4<sup>th</sup> Edition McGraw-Hill Book Co., New York, 3rd Rd.
- Gujarathi, D.N: 2017 Basic Econometrics, 5<sup>th</sup> Edition, Tata McGraw-Hill, New Delhi.
- Tintner, G: 2013, Econometrics, John Wiley & Sons, New York.
- Wooldridge, Jeffery M: 2013, Introductory Econometrics, Cengage Learning India Pvt. Ltd, New Delhi.

**SEMESTER-II**  
**QECO 205: ECONOMICS OF GROWTH AND DEVELOPMENT**  
**(With effect from 2020-21)**

**Unit-I: Economics of Growth and Development**

Concepts of Economic Growth, Development and Underdevelopment–Measurement of Economic Growth and Development–Traditional, Welfare and Modern Approaches–Characteristics of Developing Economies.

**Unit-II: Factors in Economic Development**

Population and Economic Development–Optimum Theory of Population–The Theory of Demographic Transition–Role of Capital in Economic Development – Capital-Output Ratio-Technology in Economic Development.

**Unit-III: Theories of Growth**

Adam Smith, Ricardo, Karl Marx and Schumpeter–Joan Robinson’s Golden Age Model-Harrod-Domar Models, Solow and Meade’s Models.

**Unit-IV: Strategies of Economic Development**

Rostow’s Stages Theory–Lewis Surplus Labour Theory–Rodan’s Big Push Theory– Nurkse’s Balanced Growth Theory–Hirschman’s Unbalanced Theory–Leibenstein’s Critical Minimum Effort Theory – Nelson’s Low Level Equilibrium Trap.

**Unit-V: Theories of Dualism**

Dualism and Dualistic Economy–Dualistic Theories - Boeke Theory of Sociological Dualism–Higgins Theory of Technological Dualism - Fei and Ranis’s Dualistic Model.

**REFERENCES:**

- Misra and Puri, 2016, Economic Development, Himalaya Publishing House.
- Ghatak, S. 2003, An Introduction to Development Economics, Allen and Unwin, London.
- Jhingan M L 2016, Economics of Development and Planning 41<sup>st</sup> Edition, Virinda Publications New Delhi
- Thirwal, A.P, 2011, Economics of Development 9<sup>th</sup> Edition, Mac Millan, U.K.
- Lewis, W.A., 2003, The theory of economic growth, George Allen and Unwin, London.
- Adelman, I, 1961, Theories of Economic Growth and Development, Stanford University Press, Stanford.
- Kindleberger, C.P, 1977, Economic Development, McGraw Hill, New York.
- Higgins, B, 1968, Economic Development, W.W.Norton, London.
- Todaro, M.P, 1996, Economic Development, Longman, London.
- Hirschman, A.O, 1958, The strategy of Economic Development, Yale University Press, New York.

**SEMESTER-II**  
**QECO 206: PERSONALITY ENHANCEMENT & LEADERSHIP**  
**(With effect from 2020-21)**

**UNIT-I: INTRODUCTION TO PERSONALITY ENHANCEMENT**

The concept personality- Dimensions of theories of Freud & Erickson- personality — significant of personality development. The concept of success and failure: What is success? - Hurdles in achieving success - Overcoming hurdles - Factors responsible for success — What is failure - Causes of failure. SWOT analyses.

**UNIT-II: ATTITUDE & MOTIVATION**

Attitude - Concept - Significance - Factors affecting attitudes - Positive attitude - Advantages Negative attitude - Disadvantages - Ways to develop positive attitude - Difference between personalities having positive and negative attitude. Concept of motivation - Significance - Internal and external motives - Importance of self-motivation- Factors leading to de-motivation.

**UNIT-III: SELF-ESTEEM**

Term self-esteem - Symptoms - Advantages - Do's and Don'ts to develop positive self-esteem— Low self esteem - Symptoms - Personality having low self esteem - Positive and negative self-esteem. Interpersonal Relationships— Defining the difference between aggressive, submissive and assertive behaviours - Lateral thinking.

**UNIT-IV: INTRODUCTION TO LEADERSHIP**

Definition and meaning, Importance, Leadership and Management, Leader vs Manager, Essential qualities of an effective leader. Theories of Leadership: Trait theory, Behavioral theories, Contingency theory.

**UNIT-V: LEADERSHIP CHARACTERISTICS**

Types of Leaders Importance of Leadership — Leadership Skills — Building and Leading Efficient Teams Leadership styles: Traditional, Transactional, Transformational, Inspirational and servant leadership and Emerging issues in leadership: Emotional Intelligence and leadership, Trust as a factor, Gender and Leadership. Leadership Qualities of Abraham Lincoln, Mahatma Gandhi, Prakasham Pantulu, Dr. B.R. Ambedkar and J.R.D. Tata.

**References:**

1. Girish Batra, Experiments in Leadership, Chennai: Notion Press, 2018.
2. Mitesh Khatri, Awakening the Leader in You. Mumbai: Jaico Publishing House, 2013.
3. Carnegie Dale. Become an Effective Leader. New Delhi: Amaryllis, 2012
4. Hall, C.S., Lindzey, G. & Campbell, J.B Theories of Personality. John Wiley & Sons, 1998
5. Organizational Behaviour, M. Parikh and R. Gupta, Tata-McGraw-Hill Education Private Limited.
6. Organizational Behavior, D. Nelson, I.C Quick and P. Khandwal, Cengage Publication.



## **SEMESTER – III**

**SEMESTER-III**  
**QECO 301: INDIAN ECONOMY**  
**(With effect from 2020-21)**

**Unit-I: Basic Structure of Indian Economy**

Characteristics of Indian Economy – Structure of National Income - Human Resources – Occupational Structure – Economic Sectors and Contribution to Employment Generation and GDP – Recent Trends in Poverty and Unemployment.

**Unit-II: Agricultural Sector**

Role of Agriculture in Economic Development – Green Revolution – Concept of Food Security – Farm Size and Productivity – Irrigation and Agricultural Development – Livestock Resources – Need for Credit for Indian Farmers – Performance of Indian Agriculture in Five Year Plans.

**Unit-III: Industrial Sector**

Role of Industrial sector in Economic Development–Industrial Policy–1991–Role of Public and Private Sectors–Micro, Small Medium Enterprises (MSMEs)–Growth of Large Scale Industries and Economic Development–Disinvestment Programme–Liberalisation, Privatization and Globalization (LPG) and Industrial Development.

**Unit-IV: Service Sector**

Service Sector in Indian Economy–Performance of Trade–Tourism–Shipping and Port Services–Telecom and Related Services–IT and IT-enabled Services– R & D Services– Construction Services – Social Services – Performance of Service Sector during Five Year Plans.

**Unit-V: Economic Reforms**

Rationale of Internal and External Reforms–Globalization of Indian Economy - W.T.O. and Impact on the Different Sectors of Indian Economy– Impact of Covid-19 pandemic on Indian Economy– Need for and Issues in Good Governance – Issues in Competition and Safety Nets in Indian Economy.

**REFERENCES:**

- Ruddar Datt, 2016. Indian Economy 72<sup>nd</sup> Edition, S.Chand & Co.
- Ramesh Singh 2019, Indian Economy 11<sup>th</sup> Edition, McGraw Hill Education (India) Pvt. Ltd;
- Ahluwalia, I.J. and I.M.D. Little (Eds.), 1998, India's Economic Reforms and Development (Essays in Honour of Manmohan Singh), Oxford University Press, New Delhi.
- Brahmananda, P.R. and V.R. Panchmukhi (Eds.), 2002, Development Experience in the Indian Economy: Inter-State Perspectives. Bookwell, Delhi.
- Datt, R, (Ed.), 2001, Second Generation Economic Reforms in India, Deep & Deep Publications, New Delhi.
- Jalan, B., 2000, The Indian Economy Problems and Prospects, Viking, New Delhi.
- Parikh, K.S., 1999, India Development Report 1999-2000, Oxford University Press, New Delhi.
- Reserve Bank of India, Report on Currency and Finance, (Annual).
- Sen, R.K. and B.Chatterjee, 2002, Indian Economy: Agenda for 21<sup>st</sup> Century (Essays in Honour of Prof. P.R.Brahmananda), Deep & Deep Publications, New Delhi.
- Government of India, Economic Survey, (Annual), Ministry of Finance, New Delhi.

**SEMESTER-III**  
**QECO 302: ADVANCED ECONOMETRICS**  
**(With effect from 2020-21)**

**Unit 1: Multicollinearity and Heteroscedasticity**

Multicollinearity: Source and Consequences, Tests for Multicollinearity and Solutions for Multicollinearity. Heteroscedasticity: Sources and Consequences, Tests for Heteroscedasticity, Generalized Least Squares Method of Estimation.

**Unit 2: Autocorrelation**

Sources of Autocorrelation - First order Autoregressive Scheme - Consequences of Autocorrelation - Tests for Autocorrelation – Durbin-Watson Test - Methods of Estimation of Autocorrelation Coefficient -Estimation from d- statistic and Cochran-Orcutt iterative method.

**Unit 3: Qualitative and Limited Dependent Variables Models**

Binary Choice Models: Linear Probability Model, Probit Model and Logit Models –Censored and Truncated Regression Models.

**Unit 4: Simultaneous Equation Models: Estimation Methods**

Two stage Least Squares, Limited Information Maximum Likelihood, K-class Estimators, Three Stage Least Squares and Full Information Maximum Likelihood Methods – Numerical Problems.

**Unit 5: Panel Data Regression Models and Time Series Econometrics**

Panel Data – Estimation of Panel Data Regression Models - Fixed and Random Effects – Estimation – Introduction to Time Series Econometrics - Stationary and Non-Stationary Stochastic Process – Integrated Stochastic Process – Unit roots – Cointegration – Test for Co-integration, Co-integration and Error Correction Mechanism.

**REFERENCES:**

- Maddala, G.S 2007, Introduction to Econometrics, Wiley India Private Limited; Third edition, 3rd Rd.
- Johnston, J: Econometric Methods, McGraw-Hill Book Co., New York.
- Gujarathi 2017, D.N: Basic Econometrics, McGraw Hill Education; 5th edition.
- Chris books 2019, Introductory econometrics for finance, Cambridge University Press; 4th edition
- K L Krishana 1999, Econometrics Applications in India, OUP
- Jeffery Wooldridge 2018, Introductory econometrics A Modern approach, South-Western College Publishing; 7th edition

**SEMESTER-III**  
**QECO 303: QUNTITATIVE ECONOMICS COMPUTER LAB**  
**(With effect from 2020-21)**

**Practicals on Basic Econometrics and Optimisation in Economics**

Practical Examination -	50 Marks
Viva Voce	-20 Marks
Seminar	-20 Marks
Record	-10 Marks

**SEMESTER-III**  
**QECO 304 (a): INTERNATIONAL TRADE: THEORY AND POLICY**  
**(With effect from 2020-21)**

**Unit-I: Theories of International Trade**

The Pure Theory of International Trade–Theories of Absolute Advantage and Comparative Advantage–Empirical Testing of Theories–Heckscher–Ohlin Theory of Trade–Leontief Paradox–Factor Price Equalization Theorem.

**Unit-II: Imperfect Competition and International Trade**

Intra–Industry Trade–Neo-Heckscher–Ohlin Model–Neo-Chamberlin Model–Kravis and Linder Theory of Trade–Role of Dynamic factors in Trade (Alternative Theories of Trade) Vent for Surplus–Availability, Changes in Tastes, Technology.

**Unit-III: Terms of Trade and Gains from Trade**

Concepts of Terms of Trade–Terms of Trade and Economic Growth–Model of Economic Growth and International Trade–Singer–Prebisch Theory and Terms of Trade–Rybenzynski Theorem–Immiserizing Growth.

**Unit-IV: Theory of Trade Policy**

Free Trade Vs. Protectionism–Trade Restrictions–The Theory of Tariffs–The Stolper-Samuelson Theorem–Tariffs and Income Distribution–Tariffs -The Terms of Trade and Domestic Prices–Political Economy of Non-Tariff Barriers–Effects of Quotas – FERA and FEMA –Import Substitution Vs. Export Promotion.

**Unit-V: International Economic Integration**

Forms of Economic Co-operation–Free-Trade Area–Customs Union–Common Market–Economic Unions–European Union–SAARC–ASEAN–International Monetary Fund–Regionalism–Multilateralism–World Trade Organization–Recent Issues at WTO Ministerial Conferences - Gains and Problems of Developing Countries from WTO.

**REFERENCES:**

- D N Dwivedi 2013, International Trade, 1<sup>st</sup> Edition, Vikas Publishing House.
- H L Bhatia 2006, international economics 1<sup>st</sup> Edition, Vikas Publishing House.
- Salvatore, D. 2013, International Economics 11<sup>th</sup> Edition, John Wiley & Son Publications.
- Mannur H.G. 2018, International Economics . 2<sup>nd</sup> Edition, Vikas Publishing House.
- Mithani. D M, 2020, International Economics 9<sup>th</sup> Edition, Himalaya Publishing House.
- W.T.O., Regionalism and the World Trade Systems. 2<sup>nd</sup> Edition, Vikas Publishing House.
- Bhagwathi, J.N. and Panagaria 1998, Lectures on International Trade.
- Sodersten B.O. and Reed 1999, G. International Economics 3<sup>rd</sup> Edition. Palgrave Macmillan.

**SEMESTER-III**  
**Q304 (b): FINANCIAL INSTITUTIONS AND MARKETS**  
**(With effect from 2020-21)**

**Unit 1: Structure and Role of Financial System**

Evolution of Financial System- Structure of Financial System–Functions of Financial System – Financial System and Economic Development.

**Unit 2: Money Market**

Structure and Composition of Money Market - Call Money Market– Discount Market (Commercial Bill Market)–Acceptance Market–Treasury Bill Market– Instruments of Money Market–Commercial Papers–Certificate of Deposit–Repo and Reverse-Repo Transactions.

**Unit 3: Capital Market**

Structure and Composition of Capital Market–New Issues Market–Functions of New Issues Market– Players in the New Issues Market–Recent Trends in New Issues Market–Secondary Market– Functions of Stock Exchanges–Issue and Listing of Securities–Method of Trading in a Stock Exchange.

**Unit 4: Money and Capital Markets in India**

Structure, Objectives and Features of Money Market in India–Discount and Finance House of India (DFHI)-Recent Developments and Defects in Indian Money Market-Objectives, Functions and Performance of SEBI–Securities Trading Corporation of India (STCI)–Features of NSE and BSE–Over the Counter Exchange of India (OTCEI)– Recent Developments and Defects of Indian Capital Market.

**Unit 5: Financial Institutions in India**

Objectives and Development Functions of Reserve Bank of India– Commercial Banks–Non-Banking Finance Companies–Development and Investment Institutions in India: NABARD, IFCI, IDBI, SIDBI UTI, LIC and GIC

**REFERENCES:**

- Guruswamy, 2009. Financial Markets and Institutions 3<sup>rd</sup>Edn. Tata McGraw Hill.
- L.M. Bhole& Jitendra Mahakud 2017,Financial Institutions and Markets: Structure, Growth and Innovations, Tata McGraw Hill, New Delhi.
- V.A. Avadhani 2013, Indian Capital Market, Himalaya Publishing House, Bombay.
- H.R.Machiraju 2007,International Financial Markets and India,Wheeler Publishing Company,New Delhi.
- Vasant Desai 2011, Indian Financial System and Development, Himalaya Publications, Bombay.
- Peter.S.Rose 2003, Money and Capital Markets: Financial Institutions and Instruments, Tata McGraw Hill,London.
- S.C. Kuchal, Corporation Finance, Chaitanya Publishing, Allahabad.
- V.A. Avadhani 2012, Investment Management, Himalaya Publishing House, Mumbai.
- V.K. Bhalla 2008, Investment Management, S.Chand and Company, New Delhi.
- M.Y. Khan and P.K. Jain 2017, Financial Management, Tata McGraw Hill, New Delhi.
- R.B.I. Bulletins, Reserve Bank of India, Mumbai.
- M.Y.Khan 2019, Indian Financial System 11<sup>th</sup> Edition, Tata McGraw Hill, New Delhi.

**SEMESTER-III**  
**Q304 (c): RESEARCH METHODOLOGY**  
**(With effect from 2020-21)**

**Unit I- Introduction to Research**

Meaning of Research – Importance – Objectives of Research – Formulation of Research Problem – Formulation of Hypothesis – Research Design – Features of Good Research Design – Pure and Applied Research – Evaluation of Research – Research in Social Sciences.

**Unit II- Theories and concepts in social science research**

Facts, Theories and Concepts in Social Science Research – Deductive and Inductive Methods – Stages of Scientific Method – Case Study Method – Schedule and Questionnaire – Principles underlying Construction of a Questionnaire – Tabulation – Diagrammatical Representation.

**Unit III- Sampling Techniques**

Simple Random Sampling, Stratified Sampling – Systematic Sampling, Cluster Sampling – Quota Sampling – Sample Size Determination and Optimum Sample Size.

**Unit IV- Research Sources**

Sources of Information: Literature Search, Search tools, Literature Review, Ethical and Moral issues in Research, Plagiarism.

**Unit V- Academic Writing & Presentation**

Elements of Style, Research Report Writing, Submission of Research articles for Publication in the Reputed Journals, Elements of Excellent Presentation and Oral Communication skills.

**REFERENCES:**

- Deepak Chawla & Neena Sodhi (2018), Research Methodology: Concepts and Cases, Vikas Publishing House,
- R. Paneerselvam (2014), Research Methodology, PHI Learning
- Zikmund, Business Research Methods
- C.R.Kothari & Gaurav Garg (2019), Research Methodology: Methods and Techniques, New Age International Publishers
- P.Suganda Devi (2017), Research Methodology: A Hand Book for Beginners, Notion Press

**SEMESTER-III**  
**Q305 (a): AGRICULTURAL ECONOMICS**  
**(With effect from 2020-21)**

**Unit –I: Agriculture and Economic Development**

Agriculture sector and Economic Development – Structural changes and Contribution of Agriculture Sector — Modernisation of Agricultural Production Systems – Global Hunger Index – Achieving Zero Hunger – Re-orientation of Agricultural Development- Sustainable Agriculture- Role of Women in Agricultural Development.

**Unit –II: Agriculture Sector in India**

Development of Agriculture sector during Post-Independence Period –Green Revolution - Trends in Growth of Gross Cropped Area and Gross Irrigated Area – Decreasing Size of Average Land Holdings – Area, Production and Yields of Principal Crops- Targets and Achievements during Five Year Plans – India’s Position in World Agriculture.

**Unit –III: Investments in Agriculture Sector in India**

Factors Determining Gross Capital Formation in Agriculture Sector – Trends during Five Year Plans – Share of Public and Private Sectors – Budgetary expenditure on Agriculture sector – Inflow of FDI into Agriculture sector- Sources and Trends in flow of Credit to Agriculture – Kisan Credit Cards – Credit for Rain fed Areas – Indebtedness of Agricultural Households .

**Unit – IV: Government Initiatives and Development of Agriculture**

Need for Improvement in Agricultural Productivity- Government Initiatives – National Food Security Mission (NFSM)- National Mission for Sustainable Agriculture (NMSA) and Agricultural Extension and Technology – National Crop Insurance Programme –Pradhan Mantri Fasal Bima Yojana- Rashtriya Krishi Vikas Yojana – Rain fed Area Development Programme.

**Unit- V: Agricultural Marketing and Trade in India**

Determinants of Marketable and Marketed Surplus – Structure of Agricultural Markets – Primary and Secondary Wholesale Markets- Terminal Markets – Retail Markets – Fairs – Nature of Markets – Group Marketing- Cooperative Marketing – Direct Marketing – Warehousing in Rural areas – Physical and Financial Performance of Grameen Bhandaran Yojana – Role of AGMARK and AGMARKNET- Exports and Imports of Agricultural Commodities

**REFERENCES:**

- Bilgrami, S.A.R. (2017) An Introduction to Agricultural Economics, Himalaya Publishing House, Delhi
- John B Penson, 2019, Introduction to Agricultural economics 6<sup>th</sup> Edition, Pearson Education; Publications.
- Soni R.N, 2015, Leading Issues in Agrucultural Economics 12<sup>th</sup> Edition, Vishal Publishing Co
- Marco Ferroni 2012, Transforming Indian Agriculture- India 2040, 1<sup>st</sup> Edition, Sage India Publication.
- Government of India (2012) Twelfth Five Year Plan (2012–2017) Economic Sectors, Volume II, Agriculture, Planning Commission, New Delhi, Published by Sage Publications.



**SEMESTER-III**  
**QECO 305 (b): INDUSTRIAL ECONOMICS**  
**(With effect from 2020-21)**

**Unit 1: Industry and Economic Development**

Industrialization and Economic Development-Factors Promoting Industrialization-Strategies of Industrialization in Developing Countries.

**Unit 2: Firm and Forms of Industrial Organization**

Theory of the Firm – Objectives – Size-Growth of the Firm-Optimum Firm-Factors Determining Optimum Firm - Forms of Industrial Organization.

**Unit 3: Theories of Industrial Location**

Factors Influencing Industrial Location–Theories of Industrial Location: Alfred Weber, Sargeant Florence, August Losch, Walter Isard–Melvin Greenhut.

**Unit 4: Investment Decisions**

Nature and Types of Investment Decisions–Time Preparation–Profile of Project–Project Evaluation/Appraisal–Cost-Benefit Analysis-Different Rates of Return Methods - Pay Back Method - Accounting Rate of Return Method - Net Present Value Method and Internal Rate of Return Method-Break-Even Analysis.

**Unit 5: Industrial Management**

Industrial Productivity–Rationalization–Automation–Industrial Efficiency–Role of Science and Technology in Industrial Development-Industrial Policies of 1956 and 1991.

**REFERENCES:**

- Barthwal R.R (2019)., Industrial Economics: New Age International., New Delhi,
- Desai S.S.M.; and Nirmala Bhalerao (2010), Industrial Economy of India, Himalya Publishing House
- Ranjana Seth, 2015. Industrial Economics, ANF Books.
- Sankaran, A. 2010. Industrial Economy of India. Serials Publications.
- Desai B., Industrial Economy in India (3<sup>rd</sup> Edition), Himalaya Publishing House, Mumbai, 1999
- Sivayya K.V. and Das V.B.M., Indian Industrial Economy, S.Chand & Company Ltd., Ram Nagar, New Delhi (Latest Edition).
- Cherunilam, F., Industrial Economics: Indian Perspective (3<sup>rd</sup> Edition), Himalaya Publishing House, Mumbai, 1994.
- Hay, D. and D.J. Morris, Industrial Economics: Theory and Evidence, Oxford University Press, New Delhi, 1979
- Dasgupt P.S., Marglin and A. Sen, Guideline for Project Evaluation , UNIDO Publications, New York, 1972.

**SEMESTER-III**  
**QECO 305 (c): ECONOMICS OF INFORMATION AND TECHNOLOGY**  
**(With effect from 2020-21)**

**UNIT 1:** Definition of Information-Industry Value Chain Knowledge Economy-Information of Economy-information Economy-Nature and Scope of Information Technology-Variou Sources of Information.

**UNIT 2:** The Role of Mass Media, The Tele Communications industry-Origins, The Computer industry – Origins of hardware and software. The Broadcast industry, Cable and Satellite Television.

Theory of Public good, Information as a Public Good, Role of Government in Information and the Media-Broadcast and Cable Television, Telecommunications, News Papers.

**UNIT 3:** Information Technology – Labour and Employment-Globalization; Effect on Productivity-Contingent Labour-Part Time Employment – Impact on Older Persons, Gender Issues-Human Resource Development.

**UNIT 4:** Information Technology and the Media in the Global Economy-Global Information Infrastructure – Relationship between Trade and Infrastructure-The General agreement on Trade and Services – WTO basic Telecommunication Agreement – WTO Information Technology Agreement-Trade related Intellectual Property Rights.

**UNIT 5:** Issues in Media and Information Economics – Gap between Developed and Developing Nations-Piracy-The Legal and Regulatory Environment –The Role of the Government-Information Technology in the Asia and Pacific- The Geographic shifts in the Electronics Industry-Singapore’s National Information Infrastructure-Malaysia’s National Information Infrastructure.

**REFERENCES:**

- Linda low 2000, Economics of information Technology and the Media, World Scientific Singapore University Press, National University of Singapore, Singapore,.
- Hal R. Varian ,Joseph Farrell, Carl Shapiro 2005,The Economics of Information Technology: An Introduction, Cambridge University Press

# **SEMESTER – IV**

**SEMESTER-IV**  
**QECO 401: PUBLIC ECONOMICS**  
**(With effect from 2020-21)**

**Unit -I : Functions of the Government**

Definition and Objectives of Public Economics - Role of the Government in the Mixed and Market Economy - Major Fiscal Functions of the Government - Positive and Normative Approaches to Public Finance - Maximum Social Advantage and Allocation of Resources.

**Unit-II: Sources of Public Revenue**

Taxes as the sources of Revenue - Principles of Taxation -Tax Shifting and Incidence - Characteristics of a good tax system - Tax Structure in India - Tax and Non-Tax Revenue - Revenue from Direct and Indirect Taxes - Effects of Taxation - Concept and Measurement of Taxable Capacity - Review of Tax Proposals of Raja. J. Chellaiah - Recent Reforms in Taxation: Direct and Indirect Taxes-GST

**Unit-III: Public Budget and Expenditure**

Concept of Budget- Canons of Public Budgeting - Types of Budgets-Zero-Based Budget -Deficit, Surplus and Balanced Budgets -Deficit Financing - Objectives of Monetary and Fiscal Policies - Impact of Demonetization on Indian Economy-Analysis recent Budgets

Public Expenditure: Increasing State Activities in modern times - Wagner's Law and Peacock and Wiseman Hypothesis- Recent Trends in the Growth of Public Expenditure - Effects and Regulation of Public Expenditure in India.

**Unit -IV: Public Debt**

Public Debt - Sources of Public Debt - Classification of Public Debt - Debt Burden Controversy- Classical and Keynesian views - Methods of Debt Redemption - Objectives and Principles of Public Debt Management -- Recent Trends in Public Debt in India - Public Debt and Economic Development in India.

**Unit- V: Federal Finance in India**

Essential Features of Federal System in India- Concept of Fiscal Federalism - Problems of Federal/Multi-Unit Finance - Vertical and Horizontal Fiscal Imbalances – Centre – State Relations - Financial Mechanism of Central transfers to States and Local Governments -Functions of Finance Commission- Recommendations of Thirteenth and Fourteenth Finance Commissions.

**REFERENCES:**

- Tyagi B P, 2015, Public Finance, Chaukhamba Auriyantaliya Publisher
- Om Prakash (2012) Public Economics: Theory and Practice., Vishal Publishing Co. Jalandhar.
- Ambar Ghosh and Chandana Ghosh (2014) Public Finance (2nd Edition) PHI learning Private limited, Delhi.
- H.L.Bhatia ( 2014), Public Finance, 27<sup>th</sup> Edn., Vikas Publishing House.
- J.R. Gupta (2007), Public Economics in India, Atlantic Publishers
- Musgrave R.A. and Musgrave P.B., 1976, Public Finance in Theory and Practice, McGraw Hill, Tokyo.
- Chellaiah Raja J., 2013, Fiscal Policy in Underdeveloped Countries with Special Reference to India, George Allen and Unwin, London.
- Chellaiah Raja J. (Ed), 1981, Trends and Issues in India's Federal Finance, National Institute of Public Finance and Policy, New Delhi.
- Lakadawala D.T., 1969, Union State Financial Relations, Lalwani Publishers House, Mumbai.
- R.B.I. Monthly Bulletins.
- CMIE Monthly Publications.
- Economic Surveys, Government of India, New Delhi.

**SEMESTER-IV**  
**QECO 402: APPLIED ECONOMETRICS**  
**(With effect from 2020-21)**

**Unit 1: Demand Analysis**

Demand functions – Restrictions to be satisfied by Demand functions – Single Equation models, Engel Functions and Curves, Specification of Functional forms and Estimation – Linear Expenditure System - Review of Empirical Studies.

**Unit 2: Consumption Function**

Theories of Consumption Function – Alternative specifications – Absolute Income Hypothesis, Relative Income Hypothesis, Life Cycle Hypothesis, Permanent Income Hypothesis – Problems of Estimating the Consumption Function – Review of some empirical studies.

**Unit 3: Production Functions**

Single Equation Estimation of Production Functions - Cobb-Douglas, CES, Trans-log – Specifications and Estimation Issues – Review of Empirical studies – Functional forms and Estimation of Cost Functions - Estimation of Factor demand Equations - Empirical Studies.

**Unit 4: Macro Econometric Models**

Nature of Simultaneous Macro Econometric Models – Klein-Goldberger Model for USA - Brookings Model – Macro Econometric Models for India – Agarwal, K. Krishna Murthy and N.V. A. Narasimhan Models.

**Unit 5: Other Applications of Single and Simultaneous Equation Models**

Models of Money Demand and Supply – Estimation of Demand for Money Function – Application in Industrial Organization, Labour Economics and Health Systems – Review of Empirical Studies.

**REFERENCES:**

- Dimitriou Asteriou & Stephen G Hall (2015), Applied Econometrics, Palgrave Macmilan
- Chung-ki Min (2019), Applied Econometrics: A Practical Guide, Routledge International
- Dimitriou Asteriou (2005), Applied Econometrics, Palgrave Macmilan
- Intriligator, M. D. (1978) Econometric Models, Techniques and Applications, North-Holland.

**SEMESTER-IV**  
**QECO 403 ENTREPRENEURSHIP AND SKILL DEVELOPMENT**  
**(With effect from 2020-21)**

**Unit I: Entrepreneurship**

Concepts of Entrepreneurship – Entrepreneur and Enterprise- Functions of Entrepreneur – Types of Entrepreneur- Factors influencing Entrepreneurship -Women Entrepreneurship.

**Unit II: Organizations for Entrepreneurship Development**

Programmes for the Development of Entrepreneurship - National and State Level Organizations - Entrepreneurship Development Institute of India (EDII) - National Institute for Entrepreneurship and Small Business Development (NIESBUD) - National Science and Technology Entrepreneurship Development Board (NSTEDB) - National Institute of Small Industry Extension and Training (NISIET).

**Unit III: Identification and Preparation of Project Report**

Identification of Project – Objectives of Project – Methods and Contents of Project Report – Formulation and Appraisal of Project Report.

**Unit IV: Development of Skills**

Need for the Development of Skills –Communication Skills: Verbal and Non-Verbal Communication, Intra and Inter-personal Communication, Barriers to Communication – Individual Interaction Skills – Basic Interaction Skills - Leadership Skills - Personality Development.

**Unit V: Organizations for Skill Development**

Major Skill Development Programmes in India- Skill Development Mission – Ministry of Skill Development and Entrepreneurship (MSDE) – National Skill Development Agency (NSDA) – National Skill Development Corporation (NSDC) – Sector Skill Councils (SSCs)- National Skill Development Fund (NSDF) – AP State Skill Development Corporation (APSSDC)

**REFERENCES:**

- Rameshwari Pandya (2016), Skill Development & Entrepreneurship in India, New Century Publications
- Abhishek kumar (2017), Skill Development In India An Overview of Initiatives and Schemes, Kanishka Publishers
- P. Satyanarayana (2018), Skill Development in India: Aspirations and Achievements, Shipra Publications
- Santosh Mehrotra (2014), India's Skill Challenge: Reforming vocational education and training to harness the demographic dividend, Oxford University Press
- Nagarajan K (2017), Project Management , New Age International Pvt.Ltd.
- Annual Reports, 2017,2018,2019,2020; Ministry of Skill Development and Entrepreneurship, GOI

**SEMESTER-IV**  
**404 (a): WELFARE ECONOMICS**  
**(With effect from 2020-21)**

**Module 1:** Benthamite Approach to Aggregate Welfare; Optimum Resource Allocation and Welfare maximization, Assumption of Uniform Income-Utility Function of Individuals: Question of Income Distribution; issue of Interpersonal comparisons of Utility.

**Module 2:** Marshallian Welfare Economics; Consumer's Surplus : Measurement of Consumer's Surplus-difficulties involved, Criticism; Principle of Compensating variation; Hicks's Four consumers surpluses; concept of Consumer's Surplus; Consumer's Surplus and Tax Bounty Analysis.

**Module 3:** Pareto Optimality Exchange Conditions, The Production Optimum, The consumption Optimum, Concept of Contract curve; Top Level Optimum; Infinite Number of Non-comparable Optima Vs Unique Social Optimum.

**Module 4:** Compensation Criteria-Contributions of Barone, Kaldor and Hicks. The Scitovsky Double Criterion, Concept of Community Indifference Map, Samuelson's Utility possibility Curve; Value Judgments and Welfare Economics- Bergson's Social Welfare Function Arrow's Possibility Theorem.

**Module 5:** Divergence between Private and Social costs; Problems of Non-market Interdependence; Externalities of Production and Consumption; External Economies and Diseconomies; Problem of Public goods; Pigovian Welfare Economics; Second Best Optima; Marginal Cost Pricing, Cost Benefit Analysis, Interdependent Utilities; Attempts to Develop Dynamic Welfare Analysis.

**REFERENCES:**

- Baumol, W.J. (Ed) (2001) Welfare Economics, Edward Elgar Publishing Ltd., UK.
- Nicholas, B.(Ed)(2001), Economic Theory and the Welfare State, Edward Elgar Publishing Ltd., UK.
- Markovits & Richard S (2020), Welfare Economics and Second Best Theory, Springer International Publishing
- Roger A. McCain (2020), Welfare Economics: An Interpretive History, Routledge
- Pigou A.C. (1962), The Economics of Welfare (4<sup>th</sup> Edition), Macmillan.

**SEMESTER-IV**  
**QECO 404 (b): ECONOMICS OF ENVIRONMENT**  
**(With effect from 2020-21)**

**Unit-I: Nature and Scope of Environmental Economics**

Environmental Economics–Nature and Scope of Environmental Economics–Economic Growth and Environmental Degradation–Environmental Kuznets Curve –Limits to Growth–Sustainable Development–Environmental Quality and Economic Development.

**Unit-II: Environmental Degradation and Resource Depletion**

Natural Resources–Renewable and Non-renewable Resources–Approaches to Natural Resources–Theories of Natural Resources–Depletion of Resources–Tragedy of Commons - Causes for Environmental Degradation.

**Unit-III: Sources and Effects of Pollution**

Sources and Types of Pollution: Air, Water, Noise and Solid Waste Pollution–Industrial Pollution–Marine Pollution–Thermal Pollution–Nuclear Pollution–Urban Pollution–Effects of Environmental Pollution on Health, Economic and Social Aspects.

**Unit-IV: Environmental Policy and Principles**

Objectives of Environmental Policy–National Environment Policy, 2006–Policy Measures to Control Environment Pollution–Polluter-Pays-Principle–Pigovian Analysis of Externalities–Taxes and Subsidies – Pollution Permits–Hedonic Pricing Principle.

**Unit-V: Environmental Laws and Management Strategies**

Environmental Laws and Regulations–Air Act, Water Act, Environment Protection Act and Wildlife Protection Act in India–Global Environmental Policies – International Conferences on Environment–Environmental Strategies: Development of Clean Production Technologies, Forest Conservation, Conservation and Management of Common Property Resources and Environmental Education–Social Forestry–Community Participation–Earth Summit.

**REFERENCES:**

- Dales. J.H.(2002), Pollution, Property and Prices,Toronto University Press, Toronto.
- David Pearce. W.D(2000), “Economics and Environment–Essays on Ecological Economics and Sustainable Development”-Edward Elgar Publishers Ltd. UK.
- Karpagam, M.(2019), “Environmental Economics” 3<sup>rd</sup> Edition, Sterling Publishers Private Ltd, New Delhi.
- Katar Singh and Anil Shishodia (2007), Environmental Economics-Theory and Applications-Sage Publications, New Delhi.
- Rabindra N. Battacharya (2001), “Environmental Economics–An Indian Perspective”-Oxford University Press, New Delhi. \
- Ulganathansankar (2001), “Environmental Economics (Ed)”-Oxford University Press, New Delhi.
- Jhingan M L(2009), “Environmental Economics”, Virinda Publications.
- Muthu Krishnan Subashini (2015), “Economics of Envivonment”, PHI Learning Publisher.



**SEMESTER-IV**  
**QECO 404 (c): ECONOMICS OF INSURANCE**  
**(With effect from 2020-21)**

**Unit-I: Introduction**

Economic Security, Exposure to Losses - Definition of Insurance - Risk pooling and Risk Transfer, Social Vs. Private Insurance - Life Vs. Non- Life Insurance - Classification of Life, Health and General Insurance Policies

**Unit-II: Risk and Risk Management**

Fundamentals of Uncertainty and Risk, Classification of Risk - Concepts of Risk Management - Essentials of Risk Management, Elements of Risk Management - Risk Assessment - Risk Control - Risk Financing - Concepts of Re-insurance - Types of Re-insurance - Re-insurance Markets

**Unit- III: Insurance and Economic Development**

Risk Management and Insurance in Economic Development- Insurance Institutions as Financial Intermediaries, Insurance Institutions as Investment Institutions - Regulations governing Investments of Insurance Institutions in India

**Unit-IV: Types of Insurance**

Life and Health Insurance - Fundamentals of Life and Health Insurance - Functions of Life and Health Insurance - Plans of Life Insurance - Selection of Risks - Underwriting of Life and Health Insurance - Group Insurance - General Insurance - Definition of General Insurance - Types of General Insurance - Fundamentals of the Following Concepts - Common Law Equity Proposal - Indemnity, Insurable interest, Contribution, Subrogation - Utmost good faith, Physical and Moral Hazards - Marketing of General Insurance.

**Unit-V: Insurance for Retirement Needs and Regulations**

Retirement Planning Strategies - Investment for Retirement - Pension Plans - Pension Plans in India - Regulation of Insurance - Insurance Regulation in India - Insurance Regulation and Development Authority (IRDA).

**REFERENCES:**

- M N Mishra & S B Mishra (2016), Insurance: Principles and Practice, S.Chand
- Hargovind Dayal (2017), The Fundamentals of Insurance: Theories, Principles and Practices, Notion Press
- Mishra Kaninika (2016), Fundamental of Life Insurance: Theories and Applications, Prentice Hall of India
- George F Rejde & Michael McNamara(2017), Principles of Risk Management and Insurance, Pearson Education India.
- Black, K.Jr and H.D. Skipper, 2000, Life and Health Insurance, Prentice Hall of India
- Dorfman (2015), Introduction to Risk Management and Insurance, Pearson Education India.

**SEMESTER-IV**  
**QECO 405: PROJECT**  
**(With effect from 2020-21)**

Dissertation	- 60 Marks
Viva Voce	- 20 Marks
Seminar	-20 Marks

The objective of the project is to train the students to undertake empirical studies applying their knowledge in economic theory and econometric methods and provide scope to do empirical analysis. The students are expected to demonstrate the practical implementation of the economic theory to an economic problem, identify a suitable econometric method to the issue, demonstrate the empirical implementation of the econometric technique with appropriate data, and with computer applications. The project would enable them to learn the applications of the econometric techniques of preparing project reports.

The project report may be 25-50 pages and consists of the statement of the problem, review of literature, theoretical and empirical methodology, sources and nature of data, econometric method and analysis, economic/statistical inferences, conclusion, and references.

Faculty members will provide continuous guidance to complete the project. The topic of the research will be chosen by the students in consultation with one of the faculty members of the Department who will act as guide and supervisor. The candidates should also present their project work in the seminar before the Department faculty which will evaluate the project work.