

Department of Economics
Chaudhary Charan Singh University, Meerut



Programme Syllabus
Bachelor of Arts (Honours) Economics
Under Choice Based Credit System (CBCS)
(Effective from Academic July, 2019)

ABOUT OF THE DEPARTMENT

The department of Economics was established in 1977 with the objective of promoting post-graduate studies and research in Economics with special thrust on emerging areas in theoretical and applied Economics. The Department of Economics with its team of well-qualified and experienced teachers provides a thorough and in depth training in theoretical and applied economics through its various courses of study. The main objective is to develop skilled manpower capable of analyzing economic problems at different levels of sophistication and suggesting solutions in terms of policy. The students of the department have been well received in the job market and their performance in terms of the success rate at different national examinations has always been above average. It is reflected through their placement in various organizations which include the academic and research institutions at higher level, civil services, commercial banks, the Reserve Bank of India, private corporate business houses, etc. Ever since the recognition of economic factors as the key ingredients of the development of a society or human development, for that matter the importance of economics as a subject of study has grown tremendously. The increase in the demand for professional economists is emerging and new areas are the natural outcome of this development. In addition to the commercial and manufacturing enterprises, both the public and private sector, absorbing a bulk of the manpower trained economics; today there is hardly any social, administrative or developmental organization where the services of economics are not needed.

The department of economics with its team of well qualified and experienced teachers provides a thorough and in-depth training in theoretical and applied economics through its various courses of study. The main objective is to develop skilled manpower capable analyzing economic problems at different levels of sophistication and suggesting solution in terms of policy. The students of the department have been well received in the job market and their performance in terms of the success rate at different national examinations has always been above average. The Department supports undergraduate, postgraduate and doctorate programmes in Economics, which draw a huge number of applicants from all over the country. These programmes have a strong theoretical and quantitative focus with an emphasison empirical applications. Current Faculty members of the department are contributing in theareas of emerging areas of Economics in terms of teaching and research activities.

PROGRAMME OUTCOMES (PO's)

BA (Honours) Economics is an undergraduate programme and its curriculum reflects new developments and dimensions in the economics discipline. The curriculum is structured to develop functional capabilities to enable the students to meet the challenges of the job markets. Moreover, the program aims at producing successful and competent economic analysts who are ethically and socially responsible professionals with an inter-disciplinary orientation. After completing the BA (Honours) in Economics, the student may have career/employment opportunities in the various fields of economics.

PROGRAMME SPECIFIC OUTCOMES (PSO's)

PSO-1: Learning, understanding and interpreting economic aspects through – verbal, demonstrative, mathematical and graphical methods.

PSO-2: Equip students in methodology related to research work and impart skills required to gather information from resources and use them to give need-based quality education in economics at the undergraduate level.

PSO-3: Offers courses to the choice of students with skill-based courses having an inter-disciplinary approach and providing an intellectually stimulating environment to develop skills and enthusiasms of students to the best of their potential.

PSO-4: After the completion of BA (Honours) Economics, there are plenty of opportunities for the students to get employment in the various government and non-government institutions.

Course Outcomes (COs)

BA (Honours) Economics		
Semester	Course	Course Outcome
Semester-I	Introductory Micro Economics I	On successful completion of this course students will be able to: CO1. develop an understanding of different concepts of microeconomics. CO2. understand the links between household behaviour and the economic models of the demand. CO3. understand how demand and supply interact in various market structures to determine the price and quantity of Commodity produced. CO4. explain the theory of production and cost. CO5. explore ample employment opportunities.
	Macro Economics I (Core Course)	On successful completion of this course students will be able to: CO1. discuss the preliminary concepts associated with the determination and measurement of macro-economic variables. CO2. explore the classical view of macroeconomics In the determination of employment, output and prices and comparison with the Keynesian approach. CO3. enable the students to understand the theoretical framework and the working of an economy as a whole. CO4. illustrate the meaning of investment, types and theories of investment. CO5. get employment opportunities in diversified fields.
	Mathematical Tools for Economics	On completion of this course, a student should be able to: CO1. teach some preliminary mathematical concepts and its applications in different fields of economics. CO2. explains how economic theories can be used or tested practically. CO3. allows students how to analyse the economy around them and emerge as future economist. CO4. allows students to understand how they can use a mathematical economic model to predict the future. CO5. generate employability skills.
	Indian Economy-1	After completion of the course, students will be able to: CO1. have an understanding of macroeconomic indicators of the Indian economy. CO2. familiar with the different phases Indian Economy. CO3. know about the structural changes in different sectors of the economy. CO4. find different employment opportunities in different aspects of economics.
Semester-II	Intermediate Micro Economics II	On successful completion of this course students will be able to: CO1. develop an understanding of different concepts of microeconomics. CO2. understand the links between household behaviour and the economic models of the demand. CO3. understand how demand and supply interact in various market structures to determine the price and quantity of Commodity produced. CO4. explain the theory of production and cost. CO5. explore ample employment opportunities.
	Intermediate Macro Economics II	On successful completion of this course students will be able to: CO1. discuss the preliminary concepts associated with the determination and measurement of macro-economic variables. CO2. explore the classical view of macroeconomics in the determination of employment, output and prices and comparison with the Keynesian approach. CO3. enable the students to understand the theoretical framework and the working of an economy as a whole. CO4. illustrate the meaning of investment, types and theories of investment. CO5. get employment opportunities in diversified fields.
	Mathematical Methods for Economics	On completion of this course, a student should be able to: CO1. teach some preliminary mathematical concepts and their applications in different fields of economics.

		<p>CO2. explains how economic theories can be used or tested practically.</p> <p>CO3. allows students to how analyse the economy around them and emerge as a future economist.</p> <p>CO4. allows Students to understand how they can use a mathematical economic model to predict the future.</p> <p>CO5. generate employability skills.</p>
	Indian Economy II	<p>After completion of the course, students will be able to:</p> <p>CO1. have an understanding of macroeconomic indicators of Indian economy.</p> <p>CO2. familiar with the different phases Indian Economy.</p> <p>CO3. know about the structural changes in different sectors of the economy.</p> <p>CO4. find different employment opportunity in different aspects of economics.</p>
Semester-III	Economics of Growth and Development	<p>On completion of this course, a student should be able to</p> <p>CO1. to gain knowledge about recent developments in growth and development,</p> <p>CO2. dynamic growth theories focusing, among other issues, on labor market distortions, pollution and the cost-benefit of projects to be undertaken.</p> <p>CO4. enhance their access to job opportunities.</p>
	Environmental Economics	<p>On successful completion of the course, students will be able to</p> <p>CO1. apply economic principles for applied environmental issues; and</p> <p>CO2. select and apply appropriate economic techniques</p> <p>CO3. solve environmental problems and measure the value of environmental goods.</p> <p>CO4. It is directly related to employability skills.</p>
	Statistical Methods –I	<p>On completion of this course, a student should be able to:</p> <p>CO1. trained the students to use the techniques of statistical analysis, which are commonly applied to understand and analyze economic problems.</p> <p>CO2. helps a student in data collection, presentation, analysis, and drawing inferences about various statistical hypotheses.</p> <p>CO3. equips the students at the postgraduate level to get employability skills.</p> <p>CO4. explore ample employment opportunities in diversified fields.</p>
	Computer Application of Statistics-I	<p>After completion of the course, learners will be able to:</p> <p>CO1. explain the basic concepts of computer and operating Systems,</p> <p>CO2. perform various features of word processing such that Table, Mail merge, Hyperlink, etc.;</p> <p>CO3. prepare a business presentation on MS PowerPoint;</p> <p>CO4. analyse and report the data using MS Excel and SPSS;</p> <p>CO5. generate employment opportunities.</p>
	Fundamentals of Data Analytics	<p>After completion of the course students will be able to:</p> <p>CO1. understand the basic concepts of data analysis,</p> <p>CO2. have a basic understanding of data management;</p> <p>CO3. have an understanding of basic data analysis techniques;</p> <p>CO4. explore employment opportunities as a data analyst.</p>
Semester-IV	Public finance	<p>On successful completion of this paper the students will be able to :</p> <p>CO1. impart the knowledge of basic concepts of finance and related issues</p> <p>CO2. study the governmental activities like income, expenditure and other financial policy matters.</p> <p>CO3. understand various taxes, their incidence, GST, etc.</p> <p>CO4. understand the procedure of formation of a budget, its implementation, etc.</p> <p>CO5. get a job as GST consultant, tax advisor, revenue officer, IES services etc.</p>
	International Economics	<p>On successful completion of this paper the students will be able to :</p> <p>CO1. impart the knowledge of basic concepts of international trades and tariffs.</p> <p>CO2. study the export-import policy matters.</p> <p>CO3. carry out a cost-benefit analysis of trade etc.</p> <p>CO4. get a job in Government and non-government trade organizations/agencies etc.</p>
	Statistical Methods – II	<p>The successful completion of this course will enable the students to :</p> <p>CO1. carry out correlation, regression, and probability analyses independently;</p> <p>CO2. analyse the time series data and different consumer indices;</p> <p>CO3. conduct tests of significance which help them to take the correct decisions;</p> <p>CO4- get employment in statistical institutes, research associates and consultants;</p>

		CO5- Develop employment skills in the world of data (as a data analyst).
	Computer Application of Statistics-II	After completion of the course students will be able to: CO1. use of computer and operating Systems, CO2. perform various statistical analyses; CO3. prepare a business presentation on MS PowerPoint; CO4. analyse and data using MS Excel and SPSS; CO5. explore employment opportunities as a data analyst.
	Database Management System	After completion of the course students will be able to: CO1. understand the basic concepts of database management, CO2. have an understanding of various data management tools; CO3. prepare data entry software and data mining; CO4. explore employment opportunities as a data analyst.
Semester-V	Research Methodology	On successful completion of the course, students will be able to: CO1. to systematic review literature and identify the research gap; CO2. to develop research hypotheses and smart objectives; CO3. familiar with different sample size estimation and sampling techniques; CO4. collect primary data and compile secondary data from different data sources; CO5. Analyses data and report writing; CO4. get job in government and non-government academic and research institute;
	Econometrics-I	On successful completion of this course, students will be able to CO1. learn various basic econometric methods, estimation methods, and related econometric theories; CO2 use software packages to estimate econometric models, interpret econometric estimates and analyze the results. CO3. apply these methods to data or econometric modeling techniques; and CO4. get employment opportunities in the business world.
	Applied Econometrics-I (Lab Work)	On successful completion of this course, students will be able to CO1. use basic econometric methods, estimation methods, and related econometric theories; CO2. use different software packages to estimate econometric models, interpret econometric estimates and analyze the results. CO3. apply these methods to data or econometric modeling techniques; and CO4. get employment opportunities in the business world.
	Agriculture and Rural Development	On successful completion of the course, students will be able to CO1. explain and analyse the concepts of agriculture and rural development; CO2. critically appraisal of various agriculture and rural development programmes; CO3. plan and execute various development interventions; CO4. explore employment opportunities in diversified fields.
	Internship with Corporate World	On successful completion of the course, students will be able to: CO1. have an understanding of different departments/sections of an industry; CO2. have an understanding of the working environment in the corporate sector. CO3. plan for initiation of a new startup. CO4. explore employment opportunities in corporative world.
	Multivariate Analysis	The successful completion of this course will enable the students to: CO1. have an understanding of the various technique of multivariate analyses. CO2. understand the assumptions of different techniques. CO3. analysis of primary and secondary data. CO4. develop employment skills in data analysis.
	Semester-VI	Industrial Organization
Econometrics-II		On successful completion of this course, students will be able to CO1. learn various basic econometric methods, estimation methods, and related econometric theories;

		<p>CO2. use software packages to estimate econometric models, interpret econometric estimates and analyze the results.</p> <p>CO3. apply these methods to data or econometric modeling techniques; and</p> <p>CO4. get employment opportunities in the business world.</p>
	Applied Econometrics-II (Lab Work)	<p>On successful completion of this course, students will be able to</p> <p>CO1. use basic econometric methods, estimation methods and related econometric theories;</p> <p>CO2 use software packages to estimate econometric models, interpret econometric estimates and analyze the results.</p> <p>CO3. apply these methods to data or econometric modeling techniques; and</p> <p>CO4. get employment opportunities in the business world.</p>
	Project Work	<p>On successful completion of the project work, students will be able to:</p> <p>CO1. to systematic review literature and identify the research gap;</p> <p>CO2. to develop research hypotheses and smart objectives;</p> <p>CO3. compile data from different data sources and analyses it, and report writing;</p> <p>CO4. improve employability in the corporative world and development sector.</p>
	Industrial visit	<p>On successful completion of the course, students will be able to:</p> <p>CO1. have an understanding of different departments/sections of an industry;</p> <p>CO2. have an understanding of the working environment in the corporate sector.</p> <p>CO3. plan for initiation of a new startup.</p> <p>CO4. explore employment opportunities in the corporative world.</p>
	Viva voce	<p>After appearing in viva voce, the student will be able to –</p> <p>CO1. assess his/herself knowledge and understanding of the course;</p> <p>CO2. assess his/her further interest in the field.</p> <p>CO3. able to defend his/her work on the different platforms in their life;</p> <p>CO4. attend interviews comfortably, which increases their job prospects.</p>



B.A.(Honors) Economics(Semester-1)

Department of Economics, CCS University, Meerut

Paper-1

Introductory Micro Economics I

Objective:- This course is designed to expose the students to the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

Unit-1- Nature and scope of Economics, Central problem of Economics, Production possibility curve, Inductive and deductive methods, Equilibrium- Types of equilibrium, partial and general equilibrium, stability of equilibrium – Marshall v/s Walras.

Unit-2-Consumer Behaviour – Utility Approach-Total utility & marginal utility, Law of diminishing marginal utility, Law of Equi-marginal utility, Theory of demand – Law of demand, elasticity of demand, price elasticity, income elasticity, cross elasticity and elasticity of substitution; Indifference curve approach- properties, consumer's equilibrium; price, income and substitution effect, Engle curve; Consumer surplus; concept of Revealed preference theory.

Unit- 3-Theory of Production :- Meanings & nature; Production function, Law of variable proportions, Isoquant curves, properties, Producer's equilibrium, Laws of returns to scale, Factor substitution, elasticity of substitution, Ridge lines. Euler's theorem. Cobb- Douglas production function.

Unit-4-Theory of Costs & Revenue_- Law of supply, elasticity of supply, Theories of cost- cost curves and their shape, relationship between short run and long run average cost curves. Revenues – Average and marginal revenues, relation between average revenue and marginal revenue and elasticity of demand; conditions of equilibrium of a firm.

Reading:-

- 1- A Koutsoyiannis (1979), Modern Micro Economics, Macmillan Press, London.
- 2- Richard A Bilal- Micro Economics Theory.
- 3- Gould & Laged Gajear – Micro Economics theory
- 4- Joshi J. M., Theory of value, Distribution and Welfare economics, Vikas Publication House, New Delhi.
- 5- Ray N C, An Introduction to Micro Economics, MacMillan Company.
- 6- Ahuja H. L.Modern Micro Economics, S Chand & Company Ltd, New Delhi.
- 7- Karl E Case & Ray C Fair-Principles of Economics, Pearson Education Inc 8th edition, 2007

Paper-2 **Introductory Macro Economics – I**

Objective: This course aims to discuss the preliminary concepts associated with determination and measurement of Macro variables like GDP, employment, consumption and investment etc. It will also allow the students to critically evaluate various macroeconomic policies in terms of a coherent logical structure .

Unite -1-Nature, scope and importance of Macro Economics. Difference between micro and macro Economics. National Income -Meaning, measurement and limitation of National Income, Circular flow of income –two, three and four sector models .

Unite -2-Employment and Output:- Problems and Types of unemployment. Say’s law of markets, Pigou’s effect, rigid money wage rate. Classical theory of employment . The Keynesian approach to determine price, output and employment.

Unite -3-Consumption :- Consumption function. Theories of consumption –Absolute income hypothesis, Relative income hypothesis, Life cycle hypothesis, Permanent income hypothesis .

Unite –4-Investment Function:- Meaning and types of investment. Theories of Investment- Classical, Neoclassical and Keynesian. Concepts of Multiplier- Investment multiplier, working of multiplier, Leakages , Dynamic multiplier, Paradox of thrift.

Readings :

- 1- Andrew B. Abel and Ben S Bernanke, Macro Economics, Pearson Education, Inc. , 7th edition , 2011
- 2- Dornbuseh, Fisher and Startz, Macro Economics, Mc Graw Hill, 11th edition,2010
- 3- Olivier Blanchard, Macro Economics, Pearson Education, Inc., 5th edition, 2009.
- 4- R T Froyen (2008), Macro Economics, Theory and Policies, Prentice Hall.
- 5- Dewett K K – Macro Economics.
- 6- Ahuja H L – Advanced Macro Economic theory, S Chand & company Ltd, Delhi.
- 7- Bradley R. Schiller, Macro Economy today, Tata Mc graw-Hill, 11th edition.
- 8- Rana K C and K N Verma, Macro Economics Analysis, S Nagin & Co. Delhi.

Paper-3 Mathematical Tools for Economics

Objective:-The objective of this paper is to acquaint the students with the basic tools of mathematics that are commonly applied, to understand and analyse the economic problems.

Unit 1_-Elementary Algebra:- Algebraic Function – Meaning, types, introduction of linear, non-linear and Simultaneous Equations, Real and Natural numbers, Inequalities, Concept of Set theory – Meaning of sets, various types of sets, union and intersections of sets. Elementary Trigonometry.

Unit 2_-Determinants and Matrices: – Determinants –Definition, Properties, Minors and Cofactors, Addition and Multiplication of two determinants. Matrix Algebra- Introduction to Matrix, Types of matrix, Addition, subtraction and multiplication, inverse of matrix ,Rank of Matrix, Cramer’s rule for solving the Simultaneous Equations, application of matrices in Economics.

Unit-3- Differential Calculus:- Concept of Differentiation, derivatives of different functional forms, some theorems related to differentiation, Idea of partial derivatives.Basic idea of maxima and minima, second derivatives test for local maxima and minima, concept of total derivatives. Elementary Idea of differential equations. Application of differential calculus in Economics.

Unit-4-(a)Integral Calculus:- Integration - Meaning, constants of Integration, methods of integration, definite integration, The fundamental theorem of integral calculus. Application of Integral Calculus in Economics.

(b) Introduction to linear Programing problems:- Statement of Linear programming problems (L.P.P), formulation of (L.P.P.) ,slack and surplus variables, L.P.P. in matrix form, convex set, Hyper plane , Extreme points, graphical solution.

Reading :

- 1- Hardley G. (1987), Linear Algebra, Addison Wesley.
- 2- Alpha C. Chiang (1984), Fundamental Methods of Mathematical Economics Mc Graw Hill (3rd Edition)
- 3- K Sydsaeter and P. Hammond, Mathematics for Economic Analysis, Pearson Educational Asia, Delhi, 2002.
- 4- Hoy, M. J. Livernois, C. Mc. Kenna, R. Rees and T. Stengos (2001), Mathematics for Economics, 2nd Edition, Prentice Hall, India
- 5- Simon Carl P., Blume, Lawrence (2010), Mathematics for Economist, Norton.
- 6- Mehta B. C. and Madnani G.M.K. (2004), Mathematics for Economist, Sultan Chand & Sons, New Delhi
- 7- Hardley; The Theory of Liner Programming.

Paper-4

Indian Economy-1

Objective:- Using appropriate analytical frameworks, this course reviews major trends in economic indicators and policy debates in India in post independence period, with particular emphasis on paradigm shifts and turning points.

Unit 1:-Introduction:- Basic Economic indicators and their importance, Natural resources of India, Sectoral changes in Indian economy. Human Development Index, Gender Development indices.

Unit 2-Population:- Problem and policy in India, Poverty and poverty eradication programmes; Unemployment problem–Nature and estimates, Government policy for removing unemployment.

Unit 3-Growth and Distribution- National Income, Poverty, Income inequalities and policy interventions.

Unit 4-Agriculture:-Features, Policies and Performance in agriculture

Readings

1. Alakh Ghosh - Indian Economy - It nature and problems.
2. Jalan Bimal - The Indian Economic Crisis, The way Ahead.
3. Jean Dreze and Amartya Sen, Jean Dreze and Amartya Sen, 2013. An Uncertain Glory: India and its Contradictions, Princeton University Press.
4. Rakesh Mohan, 2008, —Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, Economic and Political Weekly, May. 4
5. Rama Baru et al, 2010, —Inequities in Access to Health Services in India: Caste, Class and Region, Economic and Political Weekly, September
6. Pulapre Balakrishnan, 2007, The Recovery of India: Economic Growth in the Nehru Era, Economic and Political Weekly, November.
7. Himanshu, 2010, Towards New Poverty Lines for India, Economic and Political Weekly, January. 6.
8. Jean Dreze and Angus Deaton, 2009, Food and Nutrition in India: Facts and Intepretations, Economic and Political Weekly, February. 7.
9. Mishra S.K. and Puri V.K. – Indian Economics, Himalaya Publishing House, Delhi.
10. Wadhava C.D. – Some problems of India’s Economics Policy.
11. Uma Kapila, (14th edition), Indian Economy; Performances and Policies, [htbs//www amazon.in](https://www.amazon.in)



Paper-5

B.A. (Honors) Economics (Semester II)
Department of Economics, CCS University, Meerut

Intermediate Micro Economics II

Objective-This course is a sequel to Intermediate Microeconomics I. The emphasis will be on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning. It covers general equilibrium and welfare, imperfect markets and topics under information economics.

Unit-1 Price and output determination: Equilibrium of Firm and industry in Perfect Market Structure. Monopoly, price discrimination, measurement of monopoly power. Monopolistic Competition- equilibrium of firm and industry, product group, free entry, selling costs, excess capacity. Oligopoly- Non collusive oligopoly and kinked demand curve, Collusive oligopoly- cartels and price leadership. Duopoly

Unit-2 Market failure: Asymmetric Information, Public goods, Externality

Unit- 3 Pricing in input markets: Labor markets- determination of factor pricing in perfect and imperfectly competitive markets. Pricing of fixed factors- Capital and rate of return, Rents and Quasi rents.

Unit-4- General Equilibrium and Welfare: Edgeworth Box analysis, Pigou's approach to welfare, Pareto optimality criteria of welfare, First and Second theorem of welfare economics, concept of social welfare function.

Reading:-

1. A Koutsoyiannis (1979), Modern Micro Economics, Macmillan Press, London.
2. Hal R. Varian, Intermediate Microeconomics, a Modern Approach, W.W. Norton and Company/Affiliated East-West Press (India), 8 th edition, 2010. The workbook by Varian and Bergstrom may be used for problems.
3. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010.
4. Karl E Case & Ray C Fair-Principles of Economics, Pearson Education Inc 8th edition, 2007
5. N. Gregory Mankiw, Economics: Principles and Applications, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th edition, 2007.
6. Joseph E. Stiglitz and Carl E. Walsh, Economics, W.W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.



Paper-6

Intermediate Macro Economics-II

Objective- This course is a sequel to Intermediate Micro Economics –I. It covers markets, factor pricing, general equilibrium and welfare economics. The course will illustrate how Micro Economics concepts can be applied to real- life structures.

Unit -1 Demand for and Supply of Money: Quantity Theory of money, Fisher, Cambridge and Keynes liquidity preference theory of money. High powered money, Credit Creation, Broad Money.

Unit – 2 Money, Interest and Income: IS- LM model, Aggregate Demand and Aggregate Supply Curves. Derivation of aggregate demand and aggregate and supply curves, Interaction of aggregate demand and supply.

Unit- 3 Inflation, Unemployment and Expectations: Types of inflation, Phillips curve, Okun's law, rational expectations.

Unit -4 Monetary and Fiscal policies: Tools of Fiscal and Monetary Policies, Fiscal and Monetary multipliers, Interaction of Fiscal and Monetary Policies, Role of Fiscal and Monetary Policies in developed and developing economies.

Readings:-

1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7 th edition, 2010.
3. Olivier Blanchard, Macroeconomics, Pearson Education, Inc., 5 th edition, 2009.
4. Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2 nd edition, 2005.
5. Paul R. Krugman, Maurice Obstfeld and Marc Melitz, International Economics, Pearson Education Asia, 9th edition, 2012.



Mathematical Methods for Economics

Objective:- The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general. The level of sophistication at which the material is to be taught is indicated by the contents of the prescribed textbook.

Unit I –Introduction: Important Micro and Macro Economics parameters, Mathematics and Micro Economic analyse – concept of demand function , production function, cost function and supply function , Mathematics and Macro Economics analyse – concept of consumption function, investment function, national income, multiplier and accelerator, determination of economic parameters – single equation model and simultaneous equation model.

Unit II – Consumer behaviour- Utility maximization function – simple and Lagrange’s method, Indifference curve technique, slusky equation, elasticity of substitution, elasticity of supply, consumer surplus and Reveled preference theory.

Unit III-Theory of Production - Meaning and nature of production function, Cobb – Douglas and C.E.S. Production function, Euler’s theorem, the stages of production operation, Marginal rate of technical substitution, production and cost – Maximisation of production and minimization of cost, Input- output static model.

Unit IV – Market structure: - Perfect competitive markets- features, equilibrium of an Industry and firms. Monopoly- features, conditions of equilibrium of an Industry and firms, profit and sales maximisation, price discrimination in monopoly, monopoly power, duopoly and oligopoly –The cournot’s solution, stackelberg solution and concept of game theory.

Unit V -Economic Growth Models- Importance of Model building and Limitation, Harrod Domer model, Solow growth model, Mahalanobis model and Samuelson’s trade cycle model.

Readings :

1. K.Sydsaeter and P. Hammend (2002) – Mathematical for Economics analyse, passion educational area Delhi.
2. Allen, R.G.D. – Mathematical analyses for Economics, Mc. Millan Press, London.
3. Chiang A.C. & Kevin Kevin Wain wright (2005) – Fundamental Methods of mathematical Economics, 4th edition, Megraw Hill.
4. Hoy, M.J. Livernois, C.Mckenna, Rees and T. Stengos – Mathematics for Economics, 2nd edition, Prentice Hall, India, 2001
5. Alpha C. Chiang (1984) – Fundamental Methods of mathematical Economics, Mc. Grow Hill (3rd edition)
6. Rosses, Mike (2003) – Mathematic for Economics, Routledse (2nd edition).



Paper-8

B.A. (Honors) Economics (Semester II)
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Indian Economy II

Objective-This course examines sector-specific policies and their impact in shaping trends in key economic indicators in India. It highlights major policy debates and evaluates the Indian empirical evidence. Given the rapid changes taking place in the country, the reading list will have to be updated annually.

Unit 1. Macroeconomic Policies and Their Impact Fiscal Policy; trade and investment policy; financial and monetary policies; labour regulation

Unit 2. Policies and Performance in Industry and Services: Growth, productivity, diversification, small scale industries, public sector, competition policy, Foreign Direct Investment.

Unit 3- Policies and Performance in Foreign Trade: Volume, Composition and Direction of Foreign Trade, New Foreign Trade Policy.

Unit 4- Political Institutions and the Functioning of the State: The determinants of democracy; alternative institutional trajectories and their relationship with economic performance; state ownership and regulation; government failures and corruption.

Readings:

1. Shankar Acharya, 2010, —Macroeconomic Performance and Policies 2000-8,|| in Shankar Acharya and Rakesh Mohan, editors, India's Economy: Performances and Challenges: Development and Participation, Oxford University Press.
2. Rakesh Mohan, 2010, —India's Financial Sector and Monetary Policy Reforms,|| in Shankar Acharya and Rakesh Mohan, editors, India's Economy: Performances and Challenges: Development and Participation, Oxford University Press.
3. Pulapre Balakrishnan, Ramesh Golait and Pankaj Kumar, 2008, —Agricultural Growth in India Since 1991, RBI DEAP Study no. 27.
4. B.N. Goldar and S.C. Aggarwal, 2005, —Trade Liberalisation and Price-Cost Margin in Indian Industries, The Developing Economics, September.
5. P. Goldberg, A. Khandelwal, N. Pavcnik and P. Topalova, 2009, —Trade Liberalisation and New Imported Inputs, American Economic Review, Papers and Proceedings, May.
6. Kunal Sen, 2010, —Trade, Foreign Direct Investment and Industrial Transformation in India, in Premachandra Athukorala, editor, The Rise of Asia, Routledge.
7. A. Ahsan, C. Pages and T. Roy, 2008, —Legislation, Enforcement and Adjudication in Indian Labour Markets: Origins, Consequences and the Way Forward, in D. Mazumdar and S. Sarkar, editors, Globalization, Labour Markets and Inequality in India, Routledge.
8. Daron Acemoglu and James Robinson, Economic Origins of Dictatorship and Democracy, Cambridge University Press, 2006.
9. Economic Survey-This year and last year.
10. RBI Reports

Department of Economics, Chaudhary Charan Singh University, Meerut

B A (Honors) Economics (Semester-III)

Computer Applications of Statistics-1

Paper- 12

Course Objective

This course introduces students to the basics of Statistics, with in depth discussions of the various concepts of data, measures of central tendencies, index numbers and time series. This paper has been planned with the objective to train the students to handle the statistical problems through computer software/s. Being an applied-part of Statistical Method-1, This paper is broadly a lab based paper.

Unit-1

Nature, scope and importance and limitations of Statistics in Economics, Primary data & Secondary data: definition ; Time series data, Cross section data, Pooled data; Sample and universe, Tabulation and classification of Data: Discrete and Continuous variable, One way and two way frequency distribution, Diagrammatic and graphic presentation of data

Unit-2

Measures of central Tendency: Arithmetic mean, Median, Mode, Percentiles, Quartiles, Measures of Dispersion: range, Mean Deviation, Quartile Deviation, Standard Deviation, Coefficient of Variation, Skewness, Kurtosis

Unit-3

Index Numbers: - Meaning ,Types of index numbers, Uses of index numbers , Price index number, Quantity index number, Laspeyres, Paasche, Fisher Index Number, Time Reversal, Factor Reversal Test, Consumer Price Index, ,Wholesale Price Index

Unit-4

Time series : Concepts, components, Analysis & measurement of trend, Measuring through simple average method, cyclical variations-residual method; moving average method, growth curves-logistic curves; Interpolation and Extrapolations .

Readings

- Gupta , S.P. : Statistical Methods
- Nagar and Das : Basic Statistics
- Elhance, D. N. : Elements of Statistics
- Yamane, T. : Statistics, An Introductory Analysis
- Wonnacott & Wonnacott : Introductory statistics for Business & Economics
- Umagi : Probability & Statistical Methods

Course Objective

This course introduces students to the basics of growth & development economics, with indepth discussions of the concepts of growth, development, poverty, inequality, demography and globalization. This course begins with a discussion of alternative conceptions of Economic growth & development and their justification. It then proceeds to aggregate models of and cross-national comparisons of the growth experience that can help evaluate these models. The course deals with technological progress and selected dimensions of environmental problems along with globalization.

Unit-1 Introduction-Concept of Economic growth and development, differences and Alternative measures of growth & development, Inequality axioms; comparison of commonly used inequality measures; A theoretical Framework for Economic Development (Yujiro Hayami and Yoshihisa Godo,(2009) Development Economics- From the Poverty to the Wealth of Nation, Oxford University Press , Illrd Edition, 9-30)

Unit-2 Growth Models and Empirics- The Harrod-Domar model, the Solow model and its variants, endogenous growth models, and evidence on the determinants of growth, Population Growth and the Constraints of Natural Growth. (Yujiro Hayami and Yoshihisa Godo, (2009) Development Economics- From the Poverty to the Wealth of Nation, Oxford University Press , Illrd Edition, 63-91)

Unit-3 Pattern and Sources of technological progress, Income Distribution, poverty and Environmental Problems (Yujiro Hayami and Yoshihisa Godo,(2009), Development Economics- From the Poverty to the Wealth of Nation, Oxford University Press , Illrd Edition, 161-241)

Unit-4 Globalisation in historical perspective, the economics and politics of multilateral agreements, trade, production patterns and world inequality, financial instability in a globalised world.

References

- Banerjee, A., Benabou, R., Mookerjee, D. (eds.) (2006). Understanding poverty. Oxford University Press.
- Bardhan, P. (2010). Awakening giants, feet of clay: Assessing the economic rise of China and India. Oxford University Press.
- Basu, K. (2007). The Oxford companion to economics in India. Oxford University Press
- Dasgupta, P. (2007). Economics: A very short introduction. Oxford University Press.
- Deaton, A. (2013). The great escape: Health, wealth and the origins of inequality. Princeton University Press.
- Higgins, B. : Economic Development: Theory and Policies, Central Book Depot, Allahabad, 1963
- Hirschman, A. (1992). Rival views of market society and other essays. Ch. 3: "Linkages in Economic Development". Harvard University Press.
- Human Development Report. Relevant years.
- Olson, M. (1996). Big bills left on the sidewalk: Why some nations are rich, and others poor. Journal of Economic Perspectives, 10, 3-24.
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- Ray, D. (1998). Development economics. Princeton University Press.
- Rodrik, D. (2009). One economics, many recipes: Globalization, institutions and economic growth. Ch. 1: "Fifty Years of Growth (and lack thereof): An Interpretation". Princeton University Press.
- Sen, A. (2000). Development as freedom. Oxford University Press.
- Shleifer, A., Vishny, R. (1993). Corruption. Quarterly Journal of Economics, 108, 599-617.
- Thirlwall, A.P. (1999), Growth and Development, Macmillan, London,
- Todaro, M., Smith, S. (2015). Economic Development. Pearson.
- Todaro, M.P. : Economic Development in Third World, Oxford University, London.
- Yujiro Hayami and Yoshihisa Godo, (2009) Development Economics- From the Poverty to the Wealth of Nation, Oxford University Press , Illrd Edition.

Course Objective

This course introduces students to concepts, methods and policy options in managing the environment using tools of economic analysis. This course should be accessible to anyone with an analytical mind and familiarity with basic concepts of economics. Since several environmental problems are caused by economic activity (for instance, carbon emissions, overharvesting of renewable resources and air and water pollution as a by-product of industrial activity), this course examines different approaches to adjusting behaviour through economic institutions such as markets and incentives as well as through regulation, etc. The course will be useful for students aiming towards careers in the government sector, policy analysis, business, journalism and international organisations.

UNIT-1 Introduction -Key environmental issues and problems, economic way of thinking about these problems, basic concepts from economics; Pareto optimality and market failure in the presence of externalities; property rights and other approaches.

UNIT-2 The Design and Implementation of Environmental Policy- Overview, Pigouvian taxes and effluent fees, tradable permits, implementation of environmental policies in India and international experience; transboundary environmental problems; economics of climate change.

UNIT-3 Environmental Valuation Methods and Applications- Theory of Valuation of non-market goods and services; cost-benefit analysis of environmental policies and regulations

UNIT-4 Sustainable Development- Concepts; measurement; perspectives from Indian experience

Readings

- Roger Perman, Yue Ma, Michael Common, David Maddison and James McGilvray, *"Natural Resource and Environmental Economics"*, Pearson Education/Addison Wesley, 4th edition, 2011.
- Charles Kolstad, *"Intermediate Environmental Economics"*, Oxford University Press, 2nd edition, 2010.
- Robert N. Stavins (ed.), *"Economics of the Environment: Selected Readings"*, W.W. Norton, 6th edition, 2012.
- Robert Solow , "An Almost Practical Step toward Sustainability," Resources for the Future 40th anniversary lecture, 1992.
- Kenneth Arrow et al. , "Are We Consuming Too Much?" *Journal of Economic Perspectives*, 18(3): 147-172, 2004.
- IPCC (Intergovernmental Panel on Climate Change), Fifth Assessment Report (forthcoming 2014).
- Various Government Publications.

Course Objective

This course introduces students to the basics of Statistics, with in depth discussions of the various concepts of data, measures of central tendencies, index numbers and time series. This paper has been prepared to provide the theoretical understanding of the basics of Statistics. Whereas, it's applied part which is based on lab, will be discussed in Computers Applications of Statistics (paper-12).

Unit-1

Nature, scope and importance and limitations of Statistics in Economics, Primary data & Secondary data: definition ; Time series data, Cross section data, Pooled data; Sample and universe, Tabulation and classification of Data: Discrete and Continuous variable, One way and two way frequency distribution, Diagrammatic and graphic presentation of data

Unit-2

Measures of central Tendency: Arithmetic mean, Median, Mode, Percentiles, Quartiles, Measures of Dispersion: range, Mean Deviation, Quartile Deviation, Standard Deviation, Coefficient of Variation, Skewness, Kurtosis

Unit-3

Index Numbers: - Meaning ,Types of index numbers, Uses of index numbers , Price index number, Quantity index number, Laspeyres, Paasche, Fisher Index Number, Time Reversal, Factor Reversal Test, Consumer Price Index, ,Wholesale Price Index

Unit-4

Time series: Concepts, components, Analysis & measurement of trend, Measuring through simple average method, cyclical variations-residual method; moving average method, growth curves-logistic curves; Interpolation and Extrapolations .

Readings

- Gupta , S.P. : Statistical Methods
- Nagar and Das : Basic Statistics
- Elhance, D. N. : Elements of Statistics
- Yamane, T. : Statistics, An Introductory Analysis
- Wonnacott & Wonnacott : Introductory statistics for Business & Economics
- Umagi : Probability & Statistical Methods

UNIT I

Meaning and Scope of Public finance

Meaning and Scope, Public and Private Finance, Principles of Maximum Social Advantage, Concepts of Public Goods, Private Goods, Mixed Goods and Merit Goods.

UNIT II

Public Expenditure

Meaning and Importance – Reasons for the Growth of Public Expenditure – Wagner’s Hypothesis, Peacock - Wiseman Hypothesis, Canon’s of Public Expenditure – Effects of Public Expenditure.

UNIT III

Public Revenue

Meaning and Sources of public revenue, Taxes -Classification of Taxes, Canons of Taxation, Principles of Taxation, Ability and Benefit approach, Impact, Incidence and shifting of Tax Burden, Effects of Taxation, GST and other tax reforms in India.

UNIT IV

Public Debt and Budget: Meaning

Types of Public Debt, Debt Redemption. Budget, Meaning, Types of Budget: Revenue and Capital Budget, Revenue Expenditure and capital expenditure, Revenue Deficit, Fiscal Deficit, Primary Deficit , Budget Deficit, Fiscal Policy – Contra Cyclical Fiscal Policy, Deficit financing, Preparation of Budget in India and contemporary important fiscal issues.

Readings

- Bhatia, H.L., Public Finance, Vikas Publishing House Pvt Ltd. Noida, 30th Edition,2020
- Srivastava D.K, Issues in Indian Public Finance, New Century Publications, 2005.
- Hugh, Dalton, Principles of Public Finance, Rutledge, reprinted, 2013.
- Jonathan ,Gruber, Public Finance and Public Policy, Worth Publishers, 2009.
- Musgrave R.A and P B Musgrave, Public finance in Theory and Practice, Tata MacGraw Hill.
- Jha, Raghendra, Modern Theory of Public Finance, New Age International publishers, 2010.

B.A.(Honors)Economics- Semester-IVth
International Economics

Unit 1

Introduction

Importance of the study of international economics, Inter-Regional and international trade, Concept of autarky and Free Trade, Free trade and Protection, Gains from international trade, An Overview of World trade.

Unit 2

Theories of International Trade

Adam Smith's theory of absolute advantage, Ricardian theory, Heckscher- Ohlin model, New trade theories.

Unit 3

Trade Policy

Tariffs-Classification, Effects under partial & general equilibrium, Quota-Types, purpose and effects of quota, Theory of Customs Unions-Trade creation and Trade Diversion Effects

Unit 4

Terms of Trade

Meaning, types – Net Barter, Gross Barter, Income, Single Factoral, Double Factoral, Real Cost and Utility Terms of Trade. Concept of offer curve, determination of terms of trade, trends of terms of trade, terms of trade with respect to developing countries, international commodity agreements, prebisch-singer thesis.

Readings

1. Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 10th edition, 2011.
2. Paul Krugman, Maurice Obstfeld and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley(Pearson Education India Edition), 9th edition, 2012.
3. Peter B Kenen, The International Economy, Cambridge University Press, 2000, Fourth Edition.
4. Sodersten and Reed , International Economics, Macmillan, 1994, Third Edition.
5. Singh & Vaish , International Economics, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi,
6. Sawyer W.Charles, Sprinkle Richard: International Economics T.T. Publications, 2003

**B.A.(Honors)Economics- Semester-IVth
Statistics-II**

Unit-1 Correlation analysis-Concept of Bivariate and Multiple data, Simple correlation-Types, Measurement methods- Graphical and allegorical methods, Probable and standard errors concepts of partial and multiple correlation

Unit-2 Regression analysis- regression lines and equations, Regression coefficients by least square method concepts of partial and multiple regression, Theory of attributes and consistency, methods of association of attributes

Unit-3 Theory of Probability, Laws of addition and multiplication, Bays theorem, Binomial, Poisson and Normal distribution.

Unit-4 Test of significance –large and small samples, based on t-test, f-test, z-test, χ^2 -test(chi- square)

Readings

- Gupta , S.P. : Statistical Methods
- Nagar and Das : Basic Statistics
- Elhance, D. N. : Elements of Statistics
- Yamane, T. : Statistics, An Introductory Analysis
- Wonnacott & Wonnacott : Introductory statistics for Business & Economics
- Umagi : Probability & Statistical Methods

Objective- This course aims at preparing students to strengthen their research abilities with the standard paraphernalia of research methodology. The contents of this course are designed to facilitate research at micro and macro levels and of both qualitative and quantitative nature. Apart from learning research techniques and developing necessary skills, the participants of this course would also develop scientific and rational thinking.

UNIT-I

Meaning, nature, scope and objectives of social research; Introduction to Descriptive, Analytical, Fundamental, Quantitative and Qualitative Research, Identification of Research problem , hypothesis, stages of scientific research; Motivating factors of social research.

UNIT-II Research Design

Meaning and need of research design; Types of research design (only introduction) –descriptive, exploratory, diagnostic and experimental

UNIT III Data Collection

Facts-features; Primary data collection methods – Direct observation, Questionnaire, Schedule, interview; Secondary data collection methods – Personal documents, Public documents and Limitations.

UNIT IV Data Presentation, Analysis and Report Writing

One- dimensional diagrams; Two- dimensional diagrams; Graphs of time series; Graphs of frequency distribution, Types of Reports- Research Report Format- Documentation: Footnotes and Bibliography- Writing the Report- Presentation.

Readings

- Ghosh, B.N. : Scientific Methods and Social Research, Sterling Publishers Pvt. Ltd, New Delhi, 1982.
- Goode William J. and Hatt, Paul, Methods in Social Research, McGraw Hill, New York.
- Gopal M.H. : An Introduction to Research Procedure in Social Sciences, Asia Publishing House, Bombay, 1964.
- Gupta S.P (1988) –Statistical Methods- Sultan Chand & Sons , Delhi.
- Gupta, S. C. (1993), Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.
- Hans Raj : Theory and Practice in Social Research, Surjeet Publication, New Delhi, 1979.
- Kothari C.R, (1988) Research Methodology Method and Techniques, Wiley Eastern Limited ,New Delhi
- Sadhu A.N. and Singh Amarjit : Research Methodology in Social Sciences, Himalaya Publishing House, Bombay, 1980.
- Tandon B.C. : Research Methodology in Social Science, Chaitanya Publishing House, Allahabad, 1979.
- Wilkinson T.S. and Bhandarkar P.L. : Methodology and Techniques of Social Research, Himalaya Publishing House, Bombay 1979

B A (Honors) Economics (Semester-V)
Econometrics-I

Paper- 20

Objective: This course provides a comprehensive introduction to basic econometrics concepts. It is designed to provide the students with the basic quantitative techniques required for applied econometrics research. It works as the base for advanced course of econometrics in higher classes. The course covers the use of regression model in research projects.

UNIT-I: Nature and Scope of Econometric, Methodology of econometric Research, Data of the Model: Introduction of Time Series, Cross-section and panel data , Statistical Concepts: Statistics and parameter, Formulation of Hypothesis, testing of hypothesis and making inference, Type I and Type II error, Power of a test.

UNIT- II: Simple linear Regression Model: Two variable case, Ordinary least square estimation of a linear model, Properties of OLS estimator (BLUE), Gaus-Markov Theorem, Standard error of OLS estimates, Test of significance of these estimates.

UNIT- III: Multiple Linear Regression Model: Estimation of Parameter, Goodness of fit- R^2 and Adjusted R^2 , ANOVA, test of its significance: F test

UNIT- IV: Violation of Classical Assumptions: Consequences, Detection and Remedies Multicollinearity, Heteroscedasticity, Autocorrelation.

Readings-

Readings

- A. Koutsoyiannis, Theory of Econometrics, 2nd edition, Macmillan.
- Damodar Gujarati , Dawn C Porter and Sangeetha Gunasekar, Basic Econometrics , 5th edition, Tata McGraw-Hill Education Pvt. Ltd,2013.
- J. Johnston, Econometric Methods, 2nd edition, McGraw-Hill.
- Johnston & Dinardo, Econometric Methods, 4th edition, The McGraw-Hill Companies, Inc.
- Nagar, A.L and R.K Das, Basic Statistics, 2nd edition, Oxford University Press, 1976.

B A (Honors) Economics (Semester-V)
Applied Econometrics-I (Lab-I)

Paper- 21

Objective: This course provides a comprehensive introduction to basic econometrics concepts. It is designed to provide the students with the basic quantitative techniques required for applied econometrics research in applied way. It works as the base for advanced course of econometrics in higher classes. The course is purely framed for lab base practice of Econometrics.

UNIT-I: Nature and Scope of Econometric, Methodology of econometric Research, Data of the Model: Introduction of Time Series, Cross-section and panel data , Statistical Concepts: Statistics and parameter, Formulation of Hypothesis, testing of hypothesis and making inference, Type I and Type II error, Power of a test.

UNIT- II: Simple linear Regression Model: Two variable case, Ordinary least square estimation of a linear model, Properties of OLS estimator (BLUE), Gaus-Markov Theorem, Standard error of OLS estimates, Test of significance of these estimates.

UNIT- III: Multiple Linear Regression Model: Estimation of Parameter, Goodness of fit- R^2 and Adjusted R^2 , ANOVA, test of its significance: F test

UNIT- IV: Violation of Classical Assumptions: Consequences, Detection and Remedies Multicollinearity, Heteroscedasticity, Autocorrelation.

Readings-

Readings

- A. Koutsoyiannis, Theory of Econometrics, 2nd edition, Macmillan.
- Damodar Gujarati , Dawn C Porter and Sangeetha Gunasekar, Basic Econometrics , 5th edition, Tata McGraw-Hill Education Pvt. Ltd,2013.
- J. Johnston, Econometric Methods, 2nd edition, McGraw-Hill.
- Johnston & Dinardo, Econometric Methods, 4th edition, The McGraw-Hill Companies, Inc.
- Nagar, A.L and R.K Das, Basic Statistics, 2nd edition, Oxford University Press, 1976.

B A (Honors) Economics (Semester-V)
Agricultural and Rural Development

Paper- 22

Objective- this course aims to provide sufficient knowledge about agriculture and rural development in India. This course is designed covering both the parts agricultural economics and rural development of Uttar Pradesh. In addition to basics of agricultural & rural development and role of agricultural in Economic development, this course deals with production function, Agricultural marketing, credit and price policy.

UNIT-I Definition, scope & nature and need for a separate study of Agricultural Economics and Rural development. Agriculture linkages to other sectors, Role of Agriculture in Economic development

UNIT -II Production function Analysis- factor-product, factor-factor, product-product relationship, types of farm organization and their comparative production efficiency.

UNIT -III Agricultural and Rural Development

Agricultural and Rural development in Uttar Pradesh; Pattern of land-holding and irrigation; production and productivity in agriculture, Farm mechanization, agricultural credit, Agricultural policy and strategies in Uttar Pradesh, Rural Development – Problems and Policies.

UNIT -IV Agriculture Markets- Aim, types and functions of agriculture markets, Agricultural Marketing in India, Agriculture Credit- Importance of credit, Types of Credit, Non-Institutional and Institutional sources of Agriculture credit, Agriculture Price Policy.

Readings

- Acharya, S. S. and Agarwal, N. L.(1994). Agricultural Price Policy. Oxford and IBH Publishing Co. New Delhi.
- Acharya, S. S. and Agarwal, N. L.(1999). Agricultural Marketing in India. Oxford and IBH Publishing Co. New Delhi.
- G. E. Shephard. Agricultural Price Analysis. Iowa State University Press, Ames, Iowa.
- G.Datt and A. Mahajan (2017), Indian Economy, 72nd edition, S.Chand, New delhi.
- Kohls, R. L. and Joseph, N. Uhl. (1980). Marketing of Agricultural Products, Collier Macmillan, New York.
- Reddy, S. and Raghu Ram, P. Agricultural Finance and Management. Oxford and IBH, New Delhi.
- Singh,Sadhu and Singh (2013), Fundamentals of Agricultural Economics, Himalya Publishing house, Delhi
- Publications of the Government of Uttar Pradesh.
- Uttar Pradesh Human Development Reports, UNDP.
- Uttar Pradesh State Development Reports, State Plan Division,
- Planning Commission, Government of India

Objective: The course has been designed to provide a foundation in the issues related to industrial organizations necessary for the job market now-a-days.

UNIT- 1: Imperfect competition and market distortions – pricing – rent seeking – costs – strategies of firms – product quality – asymmetric information – discrimination –advertisement.

UNIT-2: Monopoly and regulation – barriers – Oligopoly models – Cournot, Bertrand, Hotelling, Stackelberg, Spencer-Dixit models – collusion – price wars – quality competition – price rigidity

UNIT- 3: Vertical control – product differentiation – spatial competition – dynamic price competition – tacit collusion – cartel – entry costs – accommodation – merger – acquisition – exit – reputation – limit pricing – Milgrom-Roberts model – predation.

UNIT-4 Contestable markets – R&D – innovation – patent networks – networks and standards – joint ventures. Concentration and market power – structure, conduct and performance theory – persistence of long run profits.

Readings:

- Jean Tirole: The Theory of Industrial Organisation, Prentice Hall.
- Luis Cabral: Introduction to Industrial Organisation, MIT Press.
- Dennis W.Carlton and Jeffrey M. Perloff: Modern Industrial Organisation, University Press.

Objective: The course has been designed to provide a foundation in applied econometric analysis and to develop skill required for job market and empirical research in economics. The course will enable the students to understand the problems with mis-specified models and how they can remove the mis-specification. It develops the understanding of dealing with qualitative data in regression analysis.

Unit I: Introduction to Econometric Software Package,-STATA , Regression Diagnostics and Specification- Mis-specification in variables: omission of a relevant variable, inclusion of irrelevant variable, specification bias

Unit II: Dummy variables, dummy variable for changes in intercept term, slope coefficient, dummy variable trap, dummy variables for testing in the regression coefficient

Unit III: Lagged Variables, Distributed-lag Models, Exogenous Lagged Variables, Endogenous Lagged Variables, autoregressive models,

Unit-IV Simultaneous Equation Model: Endogenous and Exogenous variables, Simultaneous equation bias, Structural and Reduced form equations. The Identification problem: Rank and Order conditions of identifiability. A brief introduction to the methods of Estimation: Indirect Least Squares (ILS), Two-stage least square (2SLS).

Readings:

- A. Koutsoyiannis, Theory of Econometrics, 2nd edition, Macmillan.
- Damodar Gujarati , Dawn C Porter and Sangeetha Gunasekar, Basic Econometrics , 5th edition, Tata McGraw-Hill Education Pvt. Ltd,2013.
- J. Johnston, Econometric Methods, 2nd edition, McGraw-Hill.
- Johnston & Dinardo, Econometric Methods, 4th edition, The McGraw-Hill Companies, Inc.
- Nagar, A.L and R.K Das, Basic Statistics, 2nd edition, Oxford University Press, 1976.
- Wooldridge: Introduction to Econometrics: A Modern Approach, Cengage Learning

Objective: The course has been designed to provide a foundation in applied econometric analysis and to develop skill required for job market and empirical research in economics. The course will enable the students to understand the problems with mis-specified models and how they can remove the mis-specification. It develops the understanding of dealing with qualitative data in regression analysis. This syllabus is to be taught in lab in applied way.

Unit I: Introduction to Econometric Software Package,-STATA , Regression Diagnostics and Specification- Mis-specification in variables: omission of a relevant variable, inclusion of irrelevant variable, specification bias

Unit II: Dummy variables, dummy variable for changes in intercept term, slope coefficient, dummy variable trap, dummy variables for testing in the regression coefficient

Unit III: Lagged Variables, Distributed-lag Models, Exogenous Lagged Variables, Endogenous Lagged Variables, autoregressive models,

Unit-IV Simultaneous Equation Model: Endogenous and Exogenous variables, Simultaneous equation bias, Structural and Reduced form equations. The Identification problem: Rank and Order conditions of identifiability. A brief introduction to the methods of Estimation: Indirect Least Squares (ILS), Two-stage least square (2SLS).

Readings:

- A. Koutsoyiannis, Theory of Econometrics, 2nd edition, Macmillan.
- Damodar Gujarati , Dawn C Porter and Sangeetha Gunasekar, Basic Econometrics , 5th edition, Tata McGraw-Hill Education Pvt. Ltd,2013.
- J. Johnston, Econometric Methods, 2nd edition, McGraw-Hill.
- Johnston & Dinardo, Econometric Methods, 4th edition, The McGraw-Hill Companies, Inc.
- Nagar, A.L and R.K Das, Basic Statistics, 2nd edition, Oxford University Press, 1976.
- Wooldridge: Introduction to Econometrics: A Modern Approach, Cengage Learning
- Richard Startz, E-Views illustrated, University of California , Santa Barbara
- <https://www.stata.com › manuals › u.pdf>