



SIDHO-KANHO-BIRSHA UNIVERSITY

POST GRADUATE CURRICULUM

DEPARTMENT OF ECONOMICS

M.A. & M.Sc.

**Under Choice Based Credit
System**

Communicated 2016

(1st) Revised-2021

PREAMBLE

The Department of Economics, Sidho-Kanho-Birsha University of Purulia proposes to revise the syllabus for Post- Graduate studies in Economics leading to Masters degree for the first time in 2016. After five years journey, the department feels to make revisions of the syllabus during 20121 keeping in line with the updated CBCS curriculum at UG level. The basic thrust behind such action is to maintain ourselves updated with other universities as well as fit our products as per the demand in local, national and international market of human capital. Additions, alterations, conciseness, expansions every type of experiments are included in the revision process keeping parity with the Higher Education Department Guidelines of West Bengal, University Grants Commission and MHRD.

The salient features of the syllabus are as follows:

- Total 1200 marks and 96 credit over 4 semesters are distributed between 24 papers.
- Each paper of 50 marks shall be of 4 credit
- Department provides one Open Elective course (Financial Relations & Institutions) of 4 credit where students from other department can make their choices, but it is not under the choice of department of economics students.
- One Outreach course structured by the department of 4 credit which acknowledges the society participation of the students.
- The department also provide one Add-On paper (Data Analysis) of 4 credit, where the students of other department as well as students of economics department can participate.
- The department provides four Special Papers (only one will be chosen), namely Advanced Econometrics, International Economics, Rural Economics and Health Economics of 20 credit each.
- A student has to earn 96 credit to earn PG degree in Economics.
- The performance of a candidate in core and special paper will be assessed by maximum 50 marks of which 40 marks end semester examination is to be held and 10 marks treated as internal evaluation which processed by different modalities like class test, assignment, seminar etc.
- In each semester candidates has to face 300 marks with 24 credits.
- The special paper include one dissertation paper where the students has to

submit one project paper report, and face one presentation seminar.

- As per directives of the Higher Education Department Guidelines of West Bengal, credit transfer is not allowed between universities. In future, if it is allowed, students can join MOOCs in SWAYAM platform.

- The credit divisions of the department is as follows:

	CORE PAPER	SPECIAL PAPER	OPEN ELECTIVE	OUTREACH	ADD- ON	TOTAL
SEM-I	24					24
SEM-II	24					24
SEM-III	8	8	4	4		24
SEM-IV	8	12			4	24
TOTAL	64	20	4	4	4	96

COURSE STRUCTURE AT A GLANCE

SEMESTER-I			
PAPER	PAPER CODE	CREDIT	MARKS
ADVANCED MICROECONOMICS	MECOCCT-101	4	10+40
ADVANCED MACROECONOMICS	MECOCCT-102	4	10+40
QUANTITATIVE TECHNIQUES	MECOCCT-103	4	10+40
DEVELOPMENT THEORIES	MECOCCT-104	4	10+40
THEORITICAL PUBLIC ECONOMICS	MECOCCT-105	4	10+40
STATISTICS AND ECONOMETRICS	MECOCCT-106	4	10+40
	TOTAL	24	300
SEMESTER-II			
PAPER	PAPER CODE	CREDIT	MARKS
APPLIED MICROECONOMICS	MECOCCT-201	4	10+40
APPLIED MACROECONOMICS	MECOCCT-202	4	10+40
INTERNATIONAL TRADE	MECOCCT-203	4	10+40
APPLIED PUBLIC POLICY	MECOCCT-204	4	10+40
FINANCIAL ECONOMICS	MECOCCT-205	4	10+40
RECENT INDIAN ECONOMY	MECOCCT-206	4	10+40
	TOTAL	24	300
SEMESTER-III			
PAPER	PAPER CODE	CREDIT	MARKS
DEMOGRAPHY AND MIGRATION	MECOCCT-301	4	10+40
RESOURCE AND ENVIRONMENT	MECOCCT-302	4	10+40
FOR PAPER-303: AMONG FOUR SPECIAL PAPER STUDENTS WILL ADOPT ONLY ONE			
ADVANCED ECONOMETRICS-I	MECOMET-303A	4	10+40
INTERNATIONAL ECONOMICS-I	MECOMET-303B	4	10+40
RURAL ECONOMICS-I	MECOMET-303C	4	10+40
HEALTH ECONOMICS-I	MECOMET-303D	4	10+40
FOR PAPER-304: AMONG FOUR SPECIAL PAPER STUDENTS WILL ADOPT ONLY ONE			
ADVANCED ECONOMETRICS-II	MECOMET-304A	4	10+40
INTERNATIONAL ECONOMICS-II	MECOMET-304B	4	10+40
RURAL ECONOMICS-II	MECOMET-304C	4	10+40
HEALTH ECONOMICS-II	MECOMET-304D	4	10+40
OPEN ELECTIVE : FINANCIAL RELATIONS & INSTITUTIONS	MECOOET-305	4	50
OUTREACH PAPER	MECOOPP-306	4	50
	TOTAL	24	300
SEMESTER-IV			
PAPER	PAPER CODE	CREDIT	MARKS
ECONOMICS OF SOCIAL SECTOR	MECOCCT-401	4	10+40
OPERATION RESEARCH	MECOCCT-402	4	10+40
FOR PAPER-403: AMONG FOUR SPECIAL PAPER STUDENTS WILL ADOPT ONLY ONE			
ADVANCED ECONOMETRICS-III	MECOMET-403A	4	10+40
INTERNATIONAL ECONOMICS-III	MECOMET-403B	4	10+40
RURAL ECONOMICS-III	MECOMET-403C	4	10+40
HEALTH ECONOMICS-III	MECOMET-403D	4	10+40
FOR PAPER-404: AMONG FOUR SPECIAL PAPER STUDENTS WILL ADOPT ONLY ONE			

ADVANCED ECONOMETRICS-IV	MECOMET-404A	4	10+40
INTERNATIONAL ECONOMICS-IV	MECOMET-404B	4	10+40
RURAL ECONOMICS-IV	MECOMET-404C	4	10+40
HEALTH ECONOMICS-IV	MECOMET-404D	4	10+40
FOR PAPER-405: AMONG FOUR SPECIAL PAPER STUDENTS WILL ADOPT ONLY ONE			
ADVANCED ECONOMETRICS-V (DISSERTATION)	MECOMET-405A	4	50
INTERNATIONAL ECONOMICS-V (DISSERTATION)	MECOMET-405B	4	50
RURAL ECONOMICS-V (DISSERTATION)	MECOMET-405C	4	50
HEALTH ECONOMICS-V (DISSERTATION)	MECOMET-405D	4	50
ADD-ON: DATA ANALYSIS	MECOACT-406	4	50
	TOTAL	24	300
AGGREGATE OF ALL FOUR SEMESTER		96	1200

COURSE OBJECTIVES

- *To reinforce the understanding of the operation of economic principles of an economy.*
- *To augment the understanding of decision making about the use of resources and its interaction with individuals.*
- *To enlarge a consistent thinking about the determination of macroeconomic variables.*
- *To advance the considerate of supply and demand decisions at macro-level decision making.*
- *To afford a solid groundwork in statistics for economists and other social scientists.*
- *To develop the indulgent about econometric models and their estimation techniques.*
- *To improve the perceptive about the econometric models for discrete and limited dependent variables and their estimation techniques.*
- *To afford a considerate how the economies of developing countries function and can be influenced by policy and institutional reforms.*
- *To recover the understanding of public financial management and fiscal policy.*
- *To progress the considerate about the methodologies for appraising large-scale public projects.*
- *To disseminate students with the main economic models of natural resource use.*
- *To establish agricultural economics and its significance in West Bengal economy.*
- *To improve the understanding of students regarding international business and trade between the countries.*
- *To make acquainted students with the WTO agreements and their implication in developing countries.*
- *To organize a report on research problem relating to economics issues.*
- *To make students familiar with research process.*

COURSE OUTCOMES

After completion of Post Graduate in Economics Students should be able to-

- *Recognize and describe basic terms and concepts which are needed for advanced course in Economics.*
- *Investigate Economic performance and resolve the effects on society.*
- *Self-regulating finding, intercultural and regional understanding, global and national standpoints to explain problems relating to Humanities.*
- *Delineate the scientific method used by eminent Economists.*
- *Amalgamate knowledge of Economic concepts.*
- *Elucidate Industrial revolution, new mode of production and its effects on society.*
- *Enlarge information, interviewing and networking dexterities through reading handed out in class material and an examination exercise.*
- *Be memorable with basic procedures of research*
- *Student should be capable to Understand economics problems of consumer, production and market*
- *They would be able to find a rewarding job in the organized job market in the private and the public sector*
- *It will facilitate the students to analyze quantitative and qualitative data.*
- *They can be place themselves as NET / SET /JRF qualifier.*
- *They can join Doctoral Courses*
- *They can be employed by the examination like IAS, IES, WBCS, and Assistant Teacher in Schools.*
- *They can join in Corporate sector specially in the jobs like Analytics.*

DETAIL CURRICULUM

SEMESTER-I

JULY TO DECEMBER

SL	PAPER	PAPER CODE	CREDIT	MARKS		
				IA	TH	TOTAL
I	ADVANCED MICROECONOMICS	MECOCCT-101	4	10	40	50
II	ADVANCED MACROECONOMICS	MECOCCT-102	4	10	40	50
III	QUANTITATIVE TECHNIQUES	MECOCCT-103	4	10	40	50
IV	DEVELOPMENT THEORIES	MECOCCT-104	4	10	40	50
V	THEORITICAL PUBLIC ECONOMICS	MECOCCT-105	4	10	40	50
VI	STATISTICS AND ECONOMETRICS	MECOCCT-106	4	10	40	50
		TOTAL	24			300

PAPER-I

Prerequisite: UG Honours level Microeconomics

Course objectives

- * To expose about the complex consumer behaviour.*
- * To introduce facts of modern production process and its complexities.*
- * To understand imperfect market morphology and their present applications.*
- * To comprehend General Equilibrium process under the backdrop of social welfare*

PAPER CODE- MECOCCT-101

ADVANCED MICROECONOMICS

Gr-A: CONSUMER CHOICES

(Three questions)

Module-I: Consumer Choices

[CONTACT HOURS: 12]

- ❖ Consumer's surplus; Willingness to pay;
- ❖ Compensating and Equivalent Variation;
- ❖ Intertemporal choice.

Module-II: Choice under uncertainty

[CONTACT HOURS: 18]

- ❖ Concepts of Lotteries, Applications;
- ❖ Axioms of choice under uncertainty, Expected Utility Function and its properties, Expected Utility Theorem and its proof, Violations of Expected Utility Theorem – paradoxes.
- ❖ Preferences towards risk, Reducing risk – diversification, Insurance, value of information
- ❖ Applications:
 - Demand for risky asset;
 - The trade-off between risk and return –CAPM
 - Individual Decision making under uncertainty
 - Concept of subjective probability

Gr-B: MARKET & SOCIAL CHOICE

(Three questions)

Module-III: Market Behaviour

[CONTACT HOURS: 18]

- ❖ Oligopoly Models
 - Cournot,
 - Bertrand,
 - Stackelberg and
 - Collusive Oligopoly.

Module-IV: Introduction to Social choice

[CONTACT HOURS: 12]

- ❖ The Two Basic Theorems of Welfare Economics
- ❖ Kaldor-Hicks Criteria for Welfare Improvement
- ❖ Introduction to the Theory of Social Choice.

References:

- *Kreps, D. M. (1990): A Course in Microeconomic Theory, Princeton University Press.*
- *Layard, P.R.G. and Walters, A.W.(1988):Microeconomic Theory. McGrawHill, New York.*
- *Mass-Colell, A., Whinston, M. and Green, J. (1995): Microeconomic Theory, Oxford*

University Press, New Delhi.

- Charavarty S.R. (2010): *Microeconomics*, Allied Publishers Pvt Ltd.
- Hansen, B. (1970): *A Survey of General Equilibrium Systems*, McGraw-Hill Book Co.
- Sen, A. (1999): *Microeconomics; Theory and Applications*, Oxford University Press, New Delhi.
- Varian, H (2000): *Microeconomic Analysis*, W.W. Norton, New York
- Quirk, J. and Saposnik, R.(1968) : *Introduction to General Equilibrium Theory and Welfare Economics*, McGraw Hill, New York.
- Henderson, J.M. and Quandt, R.E.(1980) : *Microeconomic Theory: A Mathematical Approach*, 3rd Edition, McGraw-Hill Book Company.
- Silberberg E and Suen, W.: *The Structure of Economics-a Mathematical Analysis*, 3rd edition, McGraw Hill Publishing Company, International Edition.
- Johnson, S.R., Hassan, Z.A. and Green, R.D. : *Demand Systems Estimations*, The Iowa State University Press, Ames.
- Malinvaud, E. (1976): *Lectures on Microeconomic Theory*, North Holland Publishing Company.
- Graff, J.D.E.V. (1975): *Theoretical Welfare Economics*, Vikas Publishing House. (For Compensation Principle)
- Bator, M. F. (1957): "The Simple Analysis of Welfare Maximisation", *American Economic Review*, vol47. Reprinted in Townsend (ed): *Readings in Price Theory*, Penguin.

Learning Outcomes:

The students will be outfitted with the modern extensions and modifications of the Consumer Behaviour, Production Problems, Competitive models of Market and General Equilibrium. The course is constructed in parity with UG curriculum and the National Eligibility Test provided syllabus

Prerequisite: UG Honours level Macro Economics

Course objectives

As Macro or Aggregative economics analyses and establishes the functional relationship between large aggregates. This paper aims at

- * To developing critical and analytical thinking of students pertaining to macroeconomic environment of an economy.*
- * To understanding systematic facts and latest theoretical development.*
- * To rendering about the Disequilibrium Macro Economics.*
- * To commence facts of Rational Expectation Theory.*
- * To understand complications of Business Cycle theories.*
- * To grasp issues of Open Macro Economics*

PAPER-II

PAPER CODE- MECOCCT-102

THEORETICAL MACROECONOMICS

Gr-A: DISEQUILIBRIUM MACROECONOMICS

(Three questions)

Module-I: Disequilibrium Models

[CONTACT HOURS: 15]

❖ Disequilibrium Models

- Patinkin,
- Clower and
- Barro-Grossman.

Module-II: Rational Expectations Theory

[CONTACT HOURS: 15]

❖ The Rational Expectations Theory,

- Meaning,
- Differences with Adaptive Expectations.

❖ The Lucas Imperfect Information Model,

- Implications and Limitations
- The Phillips Curve and Lucas critique

Gr-B: NEW KEYNESIAN MACRO ECONOMICS

(Three questions)

Module-III: New Keynesian Macroeconomics

[CONTACT HOURS: 15]

- ❖ Menu costs and the need for real rigidity.
- ❖ Efficiency wage model and the theories of unemployment.
- ❖ Shapiro-Stiglitz Model.

Module-IV: Elements of Open Economy Macroeconomics

[CONTACT HOURS: 15]

- ❖ Mundell-Fleming versions under fixed and flexible exchange rates.
- ❖ World capital Market equilibrium.

References:

- Dasgupta D.(1998) :The Macro economy : A Text Book View, Oxford University Press, New Delhi.
- Dornbusch, R(1980) : Open Economy Macroeconomics, Cambridge University Press
- Barro, R.I. and Grossman, H.I (1971) : "A General Disequilibrium Model of Income and Employment", American Economic Review, March 1971, Vol 61(1):82-93.
- Mueller, M.G.(ed)(1978): Readings in Macroeconomics, Surjeet Publications, New Delhi.
- Blaug, M. (1978): Economic Theory in Retrospect, Cambridge University Press.
- Ackley, G. (1978): Macroeconomics: Theory and Policy, Macmillan, New York.

- Rakshit, M(1987): *Money, Credit and Monetary Policy*, SBI Lectures.
- Levacic, R and Rebman, A. (1986) : *Macroeconomics*; 2nd Edition, Macmillan.
- Froyen, R.T.(2007): *Macroeconomics: Theories and Policies*, 8th Edition, Pearson Education.
- Sen, A(ed) (1960): *Growth Economics*, Harmonds worth, Penguin Books
- Romer, D (2001): *Advanced Macroeconomics*, McGraw-Hill International Edition.
- Mankiw, N.G. and D. Romer (ed.) (1991): *New Keynesian Economics*, 2 volumes, MIT Press, Cambridge.
- Romer, D (2001): *Advanced Macroeconomics*, McGraw-Hill International Edition
- Lucas, R.E Jr. (1988): "On the Mechanics of Economic Development", *Journal of Monetary Economics*, 22(July) :3-42.

Learning Outcomes:

The students will understand the scientific method of analysis based on empirical economic knowledge. Like before the paper helps the students for the preparation of National Eligibility Test, Indian Economic Service and Indian Civil Service Examinations. Those who are going to deal with problems of international economics and business cycles can receive a lot from such papers.

Prerequisite: UG Honours/General in Economics/Mathematics

Course objectives

- * To provide an understanding of the basic concepts and methods of Economics, for application in Mathematical analysis.*
- * To provide Mathematical skill required for the analysis of Model building.*
- * Emphasis is on application (including analysis and interpretation) rather than theoretical derivations.*
- * The idea is to impart training on how to make an argument with Economic models.*

PAPER-III

PAPER CODE-MECOCCT-103

QUANTITATIVE TECHNIQUES

Gr-A: LINEAR ALGEBRA & REAL ANALYSIS

(Three questions)

MODULE-I: Linear Algebra

[CONTACT HOURS: 10]

- ❖ Vector Spaces, Sub-Spaces, Linear Dependence,
- ❖ Matrices, Characteristics root, Quadratic Forms.

MODULE-II: Real Analysis

[CONTACT HOURS: 15]

- ❖ Basic Concepts of Real Analysis,
- ❖ Differential Calculus,
- ❖ Convex Analysis.

Gr-B: STATIC & DYNAMIC OPTIMISATION

(Three questions)

MODULE-III: Static Optimization

[CONTACT HOURS: 12]

- ❖ Unconstrained Optimization,
- ❖ Constrained Optimization (linear and Inequality constraints)
- ❖ The Envelope Theorem and Duality: Comparative Static Analysis

MODULE-IV: Dynamic Analysis

[CONTACT HOURS: 18]

- ❖ Differential Equations, Phase Diagram, Stability
- ❖ Dynamic Optimization Theory
- ❖ Lagrangian vs Hamiltonian.
- ❖ Control theoretic problem.
- ❖ Use of Hamiltonian-finite and infinite time horizon cases with discrete and continuous time points.
- ❖ The control, state and co-state variables.
- ❖ The steady-state.
- ❖ Current value Hamiltonian.
- ❖ Difference with present value Hamiltonian.
- ❖ Finite and infinite time horizon cases with discrete and continuous time points.
- ❖ Economic applications of control theory

References:

- Simon, C. P. and Blume, L. (1994): *Mathematics for Economists*, W. W. Norton & Company.
- Chiang, A. C. (1986): *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York.
- Chiang, A. C. (1992) : *Elements of Dynamic Optimization*, McGraw-Hill, Inc.
- Conrad, J.M. and Clark, C.W (1987): *Natural Resource Economics: Notes and Problems*, Cambridge University Press.
- Allen, R. G. D. (1974): *Mathematical Analysis for Economists*, Macmillan Press and ELBS. London

- Dixit, A.K (1989).: *Optimization in Economic Theory*, Oxford University Press.
- Gravell, H. and Reese, R. (1992): *Microeconomic Theory*, Longman, London (2nd Edition)
- Hadley, G. (1962): *Linear Programming*, Addison Wesley, Publishing Co. Massachusetts.
- Hands, D. W. (2004): *Introductory Mathematical Economics*, 2nd Edition, Oxford University Press, New York.
- Henderson, J.M. and Quandt, R.E.(1980): *Microeconomic Theory: A Mathematical Approach*, 3rd Edition, McGraw-Hill Book Company.
- Intriligator, M.D. (1971): *Mathematical Optimization and Economic Theory*, Prentice Hall, Engelwood Cliffs.
- Lancaster, K(1968): *Mathematical Economics*, Macmillan, New York.
- Silberberg E and Suen, W.: *The Structure of Economics-a Mathematical Analysis*, 3rd edition, McGraw Hill Publishing Company, International Edition.
- Sydsacter, K. and Hammond, P.J.: *Mathematics for Economic Analysis*, Pearson Education.

Learning Outcomes:

Student should be able to understand mathematical approach to understand economic principles and policies. Students can earn knowledge of expertise from the content like Dynamic Optimisation which is largely used in modern research and industries.

Course Title-DEVELOPMENT THEORIES
Course Code: MECOCCT 104

Number of credits-4
Total Contact Hours-60

Prerequisite: UG Honours level Development Economics

Course objectives

** Economic development attracted the attention of Economist and policy makers as a measure to meet the issues and challenges of developing economy. The study of availability of basic amenities and procedure of evaluation of development indicators are essential for pragmatic study.*

** This paper aims to develop critical and analytical thinking for measuring socio-economic development indicators based on classical and neo-classical theories.*

**It also introduces the student about microfinance programme and its issues and challenges.*

PAPER-IV

PAPER CODE-MECOCCT-104

DEVELOPMENT THEORIES

Gr-A: DEVELOPMENT VS UNDER DEVELOPMENT

(Three questions)

Module-I: Indicators of development & Dual Economy [CONTACT HOURS: 15]

- ❖ Calculating the human development indices-HDI, HPI-1, HPI- 2, GDI, GEM;
- ❖ MDG- Components & Constructions
- ❖ SDG- Components & Construction
- ❖ H-T Model
- ❖ Cordon & Findley model of Migration
- ❖ Ranis and Fei model;

Module-II: Poverty, Nutrition and Labour Market [CONTACT HOURS: 15]

- ❖ Poverty
- ❖ Inequality
- ❖ Nutrition
- ❖ Child Labour

Gr-B: LAND & CREDIT MARKET

(Three questions)

Module-III: Land Market [CONTACT HOURS: 15]

- ❖ Ownership & Tenancy,
- ❖ Rental Contract,
- ❖ Sharecropping

Module-IV: Rural Credit market [CONTACT HOURS: 15]

- ❖ Features,
- ❖ Theories of informal credit market,
- ❖ Alternative credit policies,
- ❖ Vertical Linkage,
- ❖ Micro Finance-Group
- ❖ Lending under joint Liabilities and individual liability

References:

- Todaro, M P. *Economic Development*, Perason India.
- Thirwal, A.P. *Growth and Development*, Palgrave Macmillan.
- Ghatak, S. *An Introduction to Development Economics*, Allen and Unwin
- Kindleberger, C.P. *Economic Development*, McGraw Hill,
- Adelman, I. *Theories of Economic Growth and Development*, Stanford University Press.
- Barro U. K., Robert J and Xavier Sala-i-Matin, *Economic Growth*, PHI.
- Dasgupta, P. *An Enquiry into Well-being and Destitution*, Clarendon Press
- Higgins, B. *Economics Development*, W.W. Norton

- *Hogendorn J.S. Economic Development, Addison, Wesley, New York.*
- *Ray, D. Development Economics, Oxford University Press*
- *Sen,A.PovertyandFamines:AnEssayonEntitlementandDeprivationOxfordUniversityPress*
- *Basu, K.: The Less Developed Economy, Basil Blackwell.*
- *Basu, K.: Analytical Development Economics, MIT Press*
- *HarrisJ. R. and Todaro, M.P. (1970):“Migration, Unemployment and Development: A Two-Sector Analysis”, American Economic Review, 60:126-142.*
- *Corden, W.M. and Findlay, R (1975) : “Urban Unemployment, Intersectoral Capital Mobility and Development Policy”, Economica, 29: 59-78.*
- *Harper, M.(ed) (2003): Microfinance: Evolution, Achievements and Challenges , I.T.D.G. Publishing Company.*
- *Fisher, T and Sri Ram (2003): Beyond Microcredit: Putting Development Back into Microfinance, Sage Publishing Company.*
- *Articles on Microfinance from Journal of Development Economics*
- *Jones R.W(1979): International Trade: Essays in Theory, Amsterdam, North Holland*
- *Chaudhuri, S. and Mukhopadhyay, U (2009): Revisiting the Informal Sector: A General Equilibrium Approach, New York, Springer.*
- *Parikh K.S. and Sudarshan, R.(1993): Human Development and Structural Adjustment, MacMillan India Ltd., Madras.*
- *NationalHumanDevelopmentReport(2002),PlanningCommission.OxfordUniversityPress.*
- *Various Human Development Reports, UNDP*
- *Indian Human Development Reports*
- *State Human Development Reports*

Learning Outcomes:

The paper analyse the qualitative aspects thus making the students to understand the broad gamut of development. Considering the design aspects of research objectives such arrangements are made in the aspects of development economics.

Prerequisite: UG Honours level Public Finance

Course objectives

- * This paper aims to develop among students the conceptual framework about public economic policies and its instruments.*
- * Its covers the importance of role of government in an organised society and the principles guiding public expenditure.*
- * After the completion of this paper the students will understand the reasons for changes in fiscal policies by the government and its impact on resource mobilisation.*

PAPER-V

PAPER CODE-MECOCCT-105

THEORETICAL PUBLIC ECONOMICS

Gr-A: GOVERNMENT & TAXATION

(Three questions)

Module-I: Role of Government

[CONTACT HOURS: 15]

- ❖ **Market Failure**
 - Free rider problem,
 - Imperfection,
 - Decreasing Costs,
 - Externalities;
- ❖ **Pigouvian taxation, Coase theorem; License, Internalisation**
- ❖ **Theory of Second Best**

Module-II: Taxation

[CONTACT HOURS: 15]

- ❖ **Theory of optimal taxation**
 - The Inverse Elasticity Rule and
 - The Ramsey Rule;
 - Diamond-Mirrlees Production efficiency lemma
- ❖ **Income Taxation**
 - Income tax & Labour supply,
 - Optimal Income taxation

Gr-B: PUBLIC DEBT & VOTING

(Three questions)

Module-III: Public Debt

[CONTACT HOURS: 15]

- ❖ **Compensatory aspect of debt policy**
 - Intergeneration equity,
 - Debt sustainability,
 - Public Borrowings and Price Level;
 - Crowding Out of Private Investment and Activity;
 - Principles of debt management.

Module-IV: Voting

[CONTACT HOURS: 15]

- ❖ **Majority Rule,**
 - Alternatives to Majority Rule,
 - Paradox of voting

References:

- A. Atkinson and J. Stiglitz (1980), *Lectures on Public Economics*, McGraw-Hill
- A. Bagchi(ed) (2005), *Readings in Public Finance*, OUP
- John Cullis and Philip Jones, *Public Finance and Public Choice*, OUP
- R. Jha (1997), *Modern Public Economics*, Rutledge

- *Hindriks, Jean and Gareth D. Myles, Intermediate Public Economics, Prentice Hall of India*
- *Auerbach, A.J. and M. Feldstern (Eds) (1985), Handbook of Public Economics, Vol. I. North Holland Amsterdam.*
- *Musgrave, R.A and P.B. Musgrave (1976), Public Finance in Theory and Practices, McGraw Hill Kogakusha, Tokyo*

Learning Outcomes:

After the completion of this paper the students will understand the reasons for changes in fiscal policies by the government and its impact on resource mobilisation. The student will understand the complete procedure of formation and execution of public policies based on scientific methodologies.

Prerequisite: UG Honours level Statistics & Econometrics

Course objectives

- * To Provide Basic Knowledge Data Handling with econometric methods.*
- * To empower the analyzing the data behaviour with econometric methods.*
- * To understand the data handling problems and econometric interpretation.*
- * To handle the qualitative variables with econometrics.*

PAPER-VI

PAPER CODE-MECOCCT-106

STATISTICS & ECONOMETRICS

Gr-A: DISTRIBUTIONS & CLRM

(Three questions)

Module-I: Basic Statistics

[CONTACT HOURS: 10]

- ❖ Joint Distribution, Expectation Theory
- ❖ central limit theorem,
- ❖ Specific distributions:
 - Gamma,
 - Beta,
 - Chi-square,
 - F and t
 - Pareto distribution
 - Relation of all with Gamma distribution,
- ❖ Parametric & Non-parametric test.

Module-II: Two Variable CLRM

[CONTACT HOURS: 20]

- ❖ Estimation
- ❖ Gauss-Markov Theorem
- ❖ alternative measures of goodness of fit
- ❖ Inference
- ❖ Prediction

Gr-B: VIOLATION OF CLRM ASSUMPTIONS

(Three questions)

Module-III: Violation of CLRM

[CONTACT HOURS: 20]

- ❖ Heteroscedasticity,
 - Nature of the problem,
 - Consequences,
 - Detection,
 - Possible solutions
- ❖ Autocorrelation
 - Nature of the problem,
 - Consequences,
 - Detection
 - Possible solutions

Module-IV: Problem due to nature of Regressors

[CONTACT HOURS: 10]

- ❖ Multicollinearity
 - Nature of the problem,
 - Consequences,
 - Detection of multicollinearity, and

➤ Possible solutions.

References:

- Johnston, J. (1977 and 1984): *Econometric Methods*, 2nd and 3rd Editions, McGraw Hill.
- Johnston, J. and Dinardo, J. (1997) : *Econometric Methods*, 4th Edition, McGraw Hill International Edition
- Maddala, G.S. (1988) : *Introduction to Econometrics*, Macmillan, London.
- Maddala, G.S. (1997): *Econometrics*, McGraw Hill, New York.
- Gujarati, D.N. (1995): *Basic Econometrics* 4th Edition, McGraw Hill, New Delhi
- Wooldridge, J.M. (2009) : *Econometrics*, Cengage Learning, India Edition
- Nachane, D.M. (2006) : *Econometrics: Theoretical Foundations and Empirical Perspectives*, Oxford University Press, New Delhi.
- Greene, W.H. (2000): *Econometric Analysis*, Prentice Hall International.
- Desai, M. (1976).: *Applied Econometrics*, P. Allen.
- Klein, L.R. (1975) : *A Text Book of Econometrics*: Prentice Hall, New Delhi.
- Intrilligator, M.D. (1978): *Econometric Methods, Techniques and Applications*, Prentice Hall, New Jersey

Learning Outcomes:

Such Courses helps the students to use econometric and statistical software. In Analytics the knowledge of econometric used rigorously and can create a huge chances of employability

DETAIL CURRICULUM

SEMESTER-II

JANUARY TO JUNE

SL	PAPER	PAPER CODE	CREDIT	MARKS		
				IA	TH	TOTAL
I	APPLIED MICROECONOMICS	MECOCCT-201	4	10	40	50
II	APPLIED MACROECONOMICS	MECOCCT-202	4	10	40	50
III	INTERNATIONAL TRADE	MECOCCT-203	4	10	40	50
IV	APPLIED PUBLIC POLICY	MECOCCT-204	4	10	40	50
V	FINANCIAL ECONOMICS	MECOCCT-205	4	10	40	50
VI	CONTEMPORARY INDIAN ECONOMY	MECOCCT-206	4	10	40	50
		TOTAL	24			300

Course Title-APPLIED MICROECONOMICS
Course Code: MECOCCT 201

Number of credits-4
Total Contact Hours-60

Prerequisite: PG level Microeconomic Analysis-I

Course objectives

The course is designed to introduce the fundamentals of game theory. Game theory is the study of multi-person decision problems. The course emphasizes both on the economic applications of the game theory as well as the pure (game) theory itself.

** To prepare the students familiar with the recent developments in the field of Game Theory. The students are taught four classes of games: static games of complete information, dynamic games of complete information, static games of incomplete information, and dynamic games of incomplete information. In order to accentuate the broad potential scope of the theory, the course introduced applications from micro, labour, macro, trade and other applied fields in Economics.*

** Precisely, it focuses on the basic concepts and techniques, various ways of describing and solving games, and encourages various applications in Economics*

PAPER-I

PAPER CODE-MECOCCT-201

APPLIED MICROECONOMICS

Gr-A: GAME THEORY

(Three questions)

Module-I: Games with Complete Information

[CONTACT HOURS: 15]

❖ Static Games of Complete Information

- Strictly dominated strategy,
- Pure and mixed strategy Nash equilibrium,
- Applications

❖ Dynamic Games of Complete Information

- Backwards induction outcome,
- Sub-game perfect Nash equilibrium ,
- Application.

❖ Repeated Games

- Finite Horizon,
- Infinite Horizon,
- Application

Module-II: Games with Incomplete Information

[CONTACT HOURS: 15]

❖ Static Games of Incomplete information

- Bayesian Nash equilibrium,
- Applications.

❖ Dynamic Games of Incomplete information

- Perfect Bayesian equilibrium,
- Signalling Games

Gr-B: Economics of Contracts

(Three questions)

Module-III: Complete Contracting Theory

[CONTACT HOURS: 15]

- ❖ Pre and Post Contractual Problems.

Module-IV: Incomplete Contracting Theory

[CONTACT HOURS: 15]

- ❖ Renegotiation and Hold-up problems,
- ❖ Specific Investments,
- ❖ Strategic ambiguity,

❖ Applications.

References:

- D Fudenberg and J Tirole. *Game Theory*, MIT Press
- J.J. Laffont and D. Martimort. *Theory of Incentives: The Principal Agent Model*, Princeton University Press.
- M Osborne and A Rubinstein. *A Course in Game Theory*, MIT Press
- Mas-Colell, M. Whinston and J Green. *Microeconomic Theory*, Oxford University Press, 1995.
- P. Bolton and M. Dewatripont: *Contract Theory*, The MIT Press, 2005.
- R Gibbons. *Game Theory for Applied Economists*. Princeton University Press, 1992
- Steven Tadelis. *Game Theory: An Introduction*, Princeton University Press

Learning Outcomes:

The students will be able to relate the presented models to real world cases and policy applications. They will develop the technical skills required to understand standard industrial organisation models. They can relate with the applied Microeconomics topics like Contract theory, Actuarial Science, IPR etc which will improve the research potential.

Course Title-APPLIED MACROECONOMICS
Course Code: MECOCCT 202

Number of credits-4
Total Contact Hours-60

Prerequisite: PG level Macroeconomic Analysis & UG Growth Economics

Course objectives

- * This paper will discuss basic and some typical theories of economic growth.
- * Solow model and endogenous growth theories are the two main pillar of the syllabus.
- * The understanding of economic growth will help us to understand the movements of macroeconomic variables more confidently

PAPER-II

PAPER CODE-MECOCCT-202

APPLIED MACROECONOMICS

Gr-A: GROWTH MODELS & FINANCIAL CRISIS

(Three questions)

Module-I: The Solow-Swan Model

[CONTACT HOURS: 15]

- ❖ **Steady-state equilibrium**
 - Effects of increase in savings rate
 - Golden Rule of capital accumulation
 - Impact of technological progress
 - Absolute versus conditional convergence
 - Applicability of the model.
 - Neutrality of Technical Progress and
 - Returns to scale-different types of technological progress
 - Technical progress function

Module-II: International Financial Markets and Crises

[CONTACT HOURS: 15]

- ❖ Integration and efficiency of international financial markets,
- ❖ Modigliani- Miller theorem –leverage and cost of bankruptcy;
- ❖ Indicators of financial crises:
 - Different approaches to financial crises
 - Reforming the international financial architecture

Gr-B: ENDOGENOUS GROWTH & EXCHANGE RATE DYNAMICS

(Three questions)

Module-III: Modern Theory of Growth

[CONTACT HOURS: 15]

- ❖ Dissatisfaction with neoclassical theory
- ❖ One sector models of endogenous growth: the AK model
- ❖ Endogenous growth and human capital formation: the Lucas model
- ❖ Endogenous growth and R&D- Romer model.

Module-IV: Exchange Rate and Capital Flow

[CONTACT HOURS: 15]

- ❖ Alternative exchange rate regimes-an overview;
- ❖ Capital flow to developing countries and its macroeconomic implications;
- ❖ Some useful models of exchange rate dynamics

References:

- Dasgupta D.(1998) :The Macroeconomy : A Text Book View, Oxford University Press, New Delhi.
- Froyen,R.T.(2007):Macroeconomics:TheoriesandPolicies8thEd,PearsonEducation.
- Barro, R.J. and Sala-i-Martin, X. (1998) :Economic Growth, MIT Press, Cambridge, Massachusetts.
- Solow,R.M.(2000):GrowthTheory:AnExposition,2ndEdition,OxfordUniversityPress,USA.

- Lucas, R.E Jr. (1988): "On the Mechanics of Economic Development", *Journal of Monetary Economics*, 22(July) :3-42.
- Romer, P.M. (1990): "Endogenous Technological Change", *Journal of Political Economy*, 98, October (part 2): S71-S102.
- Barro, R. J. (1990): "Government Spending in a Simple Model of Endogenous Growth", *Journal of Political Economy*, 98(5): S103-S125.
- Dasgupta, D. (2005) : *Growth Theory: Solow and his Modern Exponents*, Oxford University Press, New Delhi.

Learning Outcomes:

This paper will give a broad idea about the measurement and causes of fluctuation in economic growth path. The macroeconomic variables and their behaviour can be vigorously grasped by the learners.

Course Title-INTERNATIONAL TRADE
Course Code: MECOCCT 203

Number of credits-4
Total Contact Hours-60

Prerequisite: UG Honours Course Paper International Economics

Course objectives

- * To prepare the student to understand the theoretical phases of international trade and other international organization to facilitate the students to know the significance of the international trade.*
- * To enlarge the conceptual frame work about different international theory and trade policies.*
- * To provide the knowledge about to understand Jones work in International Trade.*
- * Enabling students to analyze current economic issues and find solutions in the categories like North-South Models.*

PAPER-III

PAPER CODE-MECOCCT-203

INTERNATIONAL TRADE

Gr-A: GENERAL EQUILIBRIUM & WELFARE

(Three questions)

Module-I: General Equilibrium Theories of Trade [CONTACT HOURS: 15]

- ❖ Jones (1965) general equilibrium trade model for a small open economy.
- ❖ The role of the decomposability property.
- ❖ The Rybczynski Theorem.
- ❖ The Stolper-Samuelson Theorem-the price magnification effects.
- ❖ Invalidity of Jones (1971) model in the presence of fixed coefficient technology.

Module-II: Trade and Welfare [CONTACT HOURS: 15]

- ❖ The Brecher- Alejandro(1977) proposition examined in terms of Jones (1971),
- ❖ Three-sector hybrid model like Beladi-Marjit(1992).

Gr-B: UNEVEN DEVELOPMENT & I O MODELS OF TRADE

(Three questions)

Module-III: Uneven Development, Trade and Growth [CONTACT HOURS: 15]

- ❖ Structuralist Theories: Lewis-Nurkse Growth Process and Economic Dependence;
- ❖ Environment-migration of dirty industries,
- ❖ The industrial flight and the pollution haven hypotheses;
- ❖ North-South Trade, Models by
 - Findlay (1980),
 - Sarkar (1989),
 - Chichilinski (1994).

Module-IV: IO model of Trade [CONTACT HOURS: 15]

- ❖ Alternative forms of intervention and their consequences.
 - Reciprocal Dumping and related trade policy;
 - Monopolistic competition,
 - Oligopoly in International Trade - Pattern of trade,
- ❖ Lobbying and endogenously determined trade policies:
 - The different approaches;
 - Level and mode of protection under political-support function approach;
 - Lobbying and contribution approaches; cross-country evidences

References:

BOOKS

- Caves R, Frankel J.A. and Jones R.W(1990): World Trade and Payments, Boston,

Little, Brown and Co.

- Krugman P.R. and Obstfeld M. (1991) : *International Economics : Theory and Policy*, 2nd Edn, New York, Harper-Collins.
- Chacoliades, M.(1978): *International Trade: Theory and Policy*, New York, McGraw hill.
- Sodersten, B. and Reed G. (1994): *International Economics*, Macmillan, London, 3rd edition
- Batra R. N (1972): *Studies in the Pure Theory of International Trade*, Macmillan
- Jones R.W(1979): *International Trade: Essays in Theory*, Amsterdam, North Holland
- Chaudhuri, S. and Mukhopadhyay, U (2009): *Revisiting the Informal Sector : A General Equilibrium Approach* , New York, Springer.
- Gandolfo, G.(2006): *International Trade Theory and Policy*, Springer International Edition.
- Jones, R.W. (2000): *Globalization and the Theory of Input Trade*, The MIT Press.
- Marjit, S. (2008): *International Trade and Economic Development: Essays in Theory and Policy*, Oxford University Press, New Delhi

ARTICLES

- Batra, R.N. and Naqvi, N. (1987) : "Urban Unemployment and the Gains from Trade", *Economica*, 54:381-395
- Beladi, H and Marjit, S (1992) : "Foreign Capital and Protectionism", *Canadian Journal of Economics*, 25 : 233-238
- Chandra, V. and Khan, M.A. (1993) : " Foreign Investment in the Presence of an Informal Sector", *Economica*, 60 :79-103.
- Chichilinski, G. (1994): "North-South Trade and Global Environment", *American Economic Review*, 84(4):857-875.
- Corden, W.M. and Findlay, R(1975) : "Urban Unemployment, Intersectoral Capital Mobility and Development Policy", *Economica*, 29: 59-78.
- Findlay, R. (1980) : "The Terms of Trade and Equilibrium Growth in the World Economy", *American Economic Review*, 70(3):291-299.
- Gupta, M.R. (1994): "Foreign Capital, Income Inequality and Welfare in a Harris-Todaro Model", *Journal of Development Economics*, 45:407-414.
- Gupta, M.R. (1997): "Foreign Capital and the Informal Sector: Comments on Chandra and Khan", *Economica*, 64:353-363.
- Harris J.R. and Todaro, M.P. (1970): " Migration, Unemployment and Development : A Two- Sector Analysis", *American Economic Review*, 60:126-142.
- Jones, R.W. (1965): "The Structure of Simple General Equilibrium Models", *Journal of Political Economy*, 73:551-572.
- Jones, R.W. (1971): "A Three Factor Model in Theory, Trade and History" in Bhagwati, Jones, Mundell and Vanek (eds) 'Trade, Balance of Payments and Growth' , North Holland, Chap1 : 3- 21.
- Khan M. A. (1980): "The Harris-Todaro Hypothesis and the Heckscher- Ohlin-Samuelson Trade Model : A Synthesis", *Journal of International Economics*, 10 :527-547.
- Sarkar, A.(1989): "A Keynesian Model of North-South Trade", *Journal of Development Economics*, 30:179-188.

Learning Outcomes:

Student should be able to understand international Economics problems and the conceptual frame work about, Trade theory and they would be able to identify the problems and capable to decide the application for future development and Research.

Course Title-APPLIED PUBLIC POLICY
Course Code: MECOCCT 204

Number of credits-4
Total Contact Hours-60

Prerequisite: PG Course Public Finance

Course objectives

** Public finance touches our everyday life – not just taxation but also through public expenditure, debt collection and repayment and budgetary growth.*

This paper aims to

- i. Develop understanding among students about working of fiscal federalism in India,*
- ii. Focusing the understanding of taxation principles and their theories, canon and impact of public debt on economy.*

PAPER-IV

PAPER CODE-MECOCCT-204

APPLIED PUBLIC POLICY

Gr-A: PUBLIC POLICY STRATEGY

(Three questions)

Module-I: India's Developmental Strategy

[CONTACT HOURS: 15]

- ❖ Planning Commission to NITI Aayog
- ❖ Poverty: measurement and Recent alleviation programmes
- ❖ Role of Private Sector
- ❖ Budget: Types, Process and Deficit Budget

Module-II: Privatisation & Urban Growth

[CONTACT HOURS: 15]

- ❖ Impact of Privatisation: Agriculture; Labor; and Water;
- ❖ Urban growth in India;
- ❖ Urban planning framework;
- ❖ Satellite town development.
- ❖ Adoption of information technology for urban planning and management.

Gr-B: GENDER & DIGITALISATION

(Three questions)

Module-III: Gender and Public Policy

[CONTACT HOURS: 15]

- ❖ Work and Livelihood (Formal, Informal Sectors, Role of labour unions, Facilities at work);
- ❖ Property and Ownership;
- ❖ Education, health and nutrition;
- ❖ Personal laws;
- ❖ Domestic Violence.

Module-IV: Current Challenges & Digitalisation

[CONTACT HOURS: 15]

- ❖ Technological Dependence;
- ❖ Development and Equity: Regional Imbalances
- ❖ Governance online: Service Delivery, Communication; Transparency; Citizens participation Citizens
- ❖ National security, surveillance, privacy and civil liberties.
- ❖ Cybercrime, cyber policing; Competition and Anti-trust, Net-neutrality, consumer protection.

References:

- A. Bagchi (ed) (2005), *Readings in Public Finance*, OUP
- Ambar Ghosh and Chandana Ghosh, *Economics of the Public Sector*, PHI
- Raghbendra Jha, *Modern Theory of Public Finance*, New Age International (P)Ltd.
- A. Atkinson and J. Stiglitz (1980), *Lectures on Public Economics*, McGraw-Hill

- Auerbach, A.J. and M. Feldstern (Eds) (1985), *Handbook of Public Economics*, Vol. I. North Holland
- Musgrave, R.A and P.B. Musgrave (1976), *Public Finance in Theory and Practices*, McGraw Hill
- R. Jha (1997), *Modern Public Economics*, Rutledge
- Report of recent most Finance Commission of India.

Learning Outcomes:

The student will understand the complete procedure of formation and execution of public policies based on scientific methodologies.

Course Title-FINANCIAL ECONOMICS
Course Code: MECOCCT 205

Number of credits-4
Total Contact Hours-60

Prerequisite: PG level Microeconomic Analysis-I, Basic Statistics

Course objectives

- * To understand the concepts of financial markets.
- * Some preparedness regarding the risk measurement approach.
- * Understanding the basic structure of International financial market operation.
- * Comprehend the Role of commercial & Central bank as financial variants.

PAPER-V

PAPER CODE-MECOCCT-205

FINANCIAL ECONOMICS

Gr-A: MEAN-VARIANCE MODEL & VAR

(Three questions)

Module-I: CER & Portfolio Theory

[CONTACT HOURS: 18]

- ❖ Mean Variance Criterion-Systematic & Unsystematic risk
- ❖ Portfolio Diversification- Simple & Markowitz
- ❖ Efficient Frontier & Capital Market Line
- ❖ Capital Asset Pricing Model
- ❖ Arbitrage Pricing Theory
- ❖ Software Applications (R, STATA)

Module-II: Applied Finance

[CONTACT HOURS: 12]

- ❖ Application of Factor Models (Mutual Funds)
- ❖ Rational Valuation Formula (RVF)
- ❖ Stock Price Volatility & VAR
- ❖ Behavioural Models of Finance:
 - DeLong Model of Noise Traders;
 - Shleifer-Vishny Model

Gr-B: INDUSTRIAL ORGANISATION APPROACH OF BANKING

(Three questions)

Module-III: IO Approach to Banking

[CONTACT HOURS: 20]

- ❖ Banking in Arrow-Debreu Model;
- ❖ Perfectly competitive Banking sector;
- ❖ Monti-Klein Model of Monopolistic & Oligopolistic Bank;
- ❖ Location Model of Salop

Module-IV: Relationship Banking

[CONTACT HOURS: 10]

- ❖ Payment Card & Two sided Market
- ❖ Competing Payment Card Networks
- ❖ Monopoly Network
- ❖ Card Use

References:

- Eichberger and Harper (1997),:Financial Economics, Oxford University Press
- David Blake (2004),:Financial Market Analysis, 2nd Edition, John Wiley And Sons Ltd.
- Stephen F. Leroy and Werner (2001),:Principles of Financial Economics, Cambridge University Press.
- Hart, O. (1995):Firms, Contracts and Financial Structure, Oxford: Clarendon Press
- Bebchuk, R. N. (2003):Asymmetric Information in Financial Market
- Roy E. Bailey, (2005):The Economics of Financial Markets, Cambridge University Press.

- Yvan Lengwiler (2004): *Micro-foundations of Financial Economics*, Princeton University Press

Learning Outcomes:

Student should be able to understand Financial market working policies conceptual frame work about banking function under such backdrop. They would be able to find a rewarding job in the organized financial market in the National as well as International. The opportunities in business house regarding their financial health calculation and policy framing is another one.

Course Title-CONTEMPORARY INDIAN ECONOMY
Course Code: MECOCCT 206

Number of credits-4
Total Contact Hours-60

Prerequisite: UG level Indian economy

Course objectives

The aim of the paper is to develop

- i. Understanding among students about the development experiences of Indian economy.*
- ii. Critically analysing Issues, challenges and opportunities.*

PAPER-VI

PAPER CODE-MECOCCT-206

CONTEMPORARY INDIAN ECONOMY

Gr-A: AGRICULTURE & LABOUR MARKET

(Three questions)

Module-I: Agriculture after 1991

[CONTACT HOURS: 15]

- ❖ **Agricultural Growth and Distribution after liberalisation,**
- ❖ **Agriculture Commodity Markets after liberalisation,**
- ❖ **Contract Farming,**
- ❖ **Technology and Agriculture,**
- ❖ **Rural Indebtedness after liberalisation**

Module-II: Labour market reforms After 1991

[CONTACT HOURS: 15]

- ❖ **Employment and Unemployment in formal and informal sectors after liberalisation**
- ❖ **Jobless growth, Skill formation,**
- ❖ **Social Protection for Unorganized Labour after liberalisation;**
- ❖ **Labour market discrimination,**
- ❖ **Migration after liberalisation**

Gr-B: FINANCIAL & ALTERNATIVE SECTOR

(Three questions)

Module-III: Financial Sector Reforms in India after 1991

[CONTACT HOURS: 15]

- ❖ **Issues relating to reforms in banking after liberalisation;**
- ❖ **Insurance, pensions, exchange rate and capital market after liberalisation;**
- ❖ **Monetary Policy reforms and their implications**

Module-IV: Alternative Sector Reforms in India after 1991

[CONTACT HOURS: 15]

- ❖ **Transportation,**
- ❖ **Tourism,**
- ❖ **Information & Technology,**
- ❖ **Retail Chain Business.**
- ❖ **SEZ**

References:

- *Kapila U, "Indian Economy since Independence", Academic Foundation, New Delhi*
- *Ahluwalia, I.J. and I.M.D Little (eds.) (1999), India's Economic Reforms and Development (Essays in honour of Manmohan Singh), OUP, New Delhi*
- *Bhahmananda, P.R. and V.R. Panchmukhi (Eds.) (1987), The Development Process of the Indian Economy, Himalaya Publishing House, Bombay.*
- *Hanumantha Rao, C.H. and H. Linnemann (Eds.) (1996), Economic Reforms and Poverty Alleviation in India, Sage Publications, New Delhi.*

- Government of India, *Economic Surveys (Annual)*, Economic Division, Ministry of Finance, New Delhi.
- Bardhan, P.K. (1999): *Political Economy of Development in India*, Oxford University Press, New Delhi.
- Basu, K.(ed) (2006) : *India's Emerging Economy : Performance and Prospects in the 1990s and Beyond*, 3rd Edition, Oxford University Press, NewDelhi.
- Chakravarty S. (1987): *Development Planning: The Indian Experience*, Oxford University Press, NewDelhi.
- Kapila, U. (2007a): *Indian Economy- Performance and Policies*, AcademicFoundation.
- Kapila, U. (2007b): *The Indian Economy since Independence*, 16th Edition, Academic Foundation.
- Kapila,R.andKapila,U.(2002):*A Decade of Economic Reforms in India*, Academic Foundation.
- Parikh, K. (ed) (1999): *India Development Report, 1999-2000*, Oxford University Press, New Delhi.
- West Bengal State Planning Board- *Human Development Report: Purulia, Bankura, Birbhum, West Midnapur*.
- Various issues of *Economic Survey, Census Report and Statistics for Planning*.
- Bouma,J.,VanSoest,D.andBulte,E.(2007):“How Sustainable is Participatory Watershed Development in India?”, *Agricultural Economics* 36(2007)pp13-22.
- Government of India (2008): “*Common Guidelines for Watershed Development Project*”, Planning Commission

Learning Outcomes:

By this the students will be able to understand the current economic scenario and their routes in history

DETAIL CURRICULUM

SEMESTER-III

JULY TO DECEMBER

SL	PAPER	PAPER CODE	CREDIT	MARKS		
				IA	TH	TOTAL
I	DEMOGRAPHY & MIGRATION	MECOCCT-301	4	10	40	50
II	RESOURCE & ENVIRONMENT	MECOCCT-302	4	10	40	50
FOR PAPER-303: AMONG FOUR SPECIAL PAPER STUDENTS WILL ADOPT ONLY ONE						
III	ADVANCED ECONOMETRICS-I	MECOMET-303A	4	10	40	50
	INTERNATIONAL ECONOMICS-I	MECOMET-303B	4	10	40	50
	RURAL ECONOMICS-I	MECOMET-303C	4	10	40	50
	HEALTH ECONOMICS-I	MECOMET-303D	4	10	40	50
FOR PAPER-304: AMONG FOUR SPECIAL PAPER STUDENTS WILL ADOPT ONLY ONE						
IV	ADVANCED ECONOMETRICS-II	MECOMET-304A	4	10	40	50
	INTERNATIONAL ECONOMICS-II	MECOMET-304B	4	10	40	50
	RURAL ECONOMICS-II	MECOMET-304C	4	10	40	50
	HEALTH ECONOMICS-II	MECOMET-304D	4	10	40	50
V	OPEN ELECTIVE: FINANCIAL RELATIONS & INSTITUTIONS	MECOOET-305	4			50
VI	OUTREACH	MECOOPP-306	4			50
		TOTAL	24			300

Course Title-DEMOGRAPHY & MIGRATION

Number of credits-4

Course Code: MECOCCT 301

Total Contact Hours-60

Prerequisite: UG/PG level Development Economics

Course objectives

The aim of the paper is to develop

- i. *Understanding among students about the development experiences of Demography & Migration Theories & Applications.*
- ii. *Critically analysing Issues, challenges and opportunities.*

SEMESTER-III

PAPER CODE-MECOCCT-301

PAPER-I DEMOGRAPHY & MIGRATION

Gr-A DEMOGRAPHY

(Three questions)

Module-I: Basic Demography

[CONTACT HOURS: 10]

❖ **Introduction:**

- Definition & Scope,
- Demographic Transition,
- Historical population trend,

❖ **Sources of Demographic data:**

- Data Requirement, Type, Sources,
- World Census, Indian Census,
- Vital Registration System,
- Sample Registration System,
- NSSO, NFHS, DLHS,

❖ **Age-Sex structure & its Dynamics:**

- Role, Present levels,
- Determinants,
- Consequences,
- Demographic Dividend,
- Ageing.

Module-II: Fertility & Mortality, Morbidity, Public Health [CONTACT HOURS: 20]

❖ **Fertility:**

- Terms & Concepts,
- Fertility Transition in Developed & Developing Countries,
- Framework for fertility analysis,
- Hypothesis & Theories of Fertility {Bongaarts model, Coale-Trussel's Model},
- Fertility Measures (CBR, GFR, ASFR, TFR);

❖ **Mortality:**

- Basic Concepts and measures of Mortality,
- Life Tables,
- Measures of Morbidity,

- Burden of Disease,
- Infant & Child Mortality,
- Child Survival Framework,
- Mortality and health transitions,
- Causes of Death,

References:

- K. Srinivasan (1998) *Basic demographic techniques and applications*, Sage, Delhi.
- Colin Newell (1988) *Methods and models in Demography*, Belhaven Press, London.
- R. N. Forthofer, E. S. Lee and M. Hernandez (2007) *Biostatistics: A guide to design, analysis and discovery*, 2/e, Elsevier Academic Press, 30 Amsterdam.
- Duflo E, and Kremer M. (2003) *Use of Randomization in the Evaluation of Development Effectiveness. Paper prepared for the World Bank Operations Evaluation Department (OED) Conference on Evaluation and Development Effectiveness, Washington, D.C., 15-16 July, 2003.*
- Duflo E, R. Glennerster and M. Kremer (2006) *Using randomization in Development Economics research: A Toolkit. Centre for Economic and Policy Research, Discussion Paper 6059.*
- Christopher B. Barrett and Michael R. Carter (2010) *The Power and Pitfalls of Experiments in Development Economics: Some Nonrandom Reflections, Applied Economics Perspectives*, 32(4): 515-548

Gr-B MIGRATION

(Three questions)

Module-III: Basic concepts & Theories

[CONTACT HOURS: 15]

- ❖ Migration-Concept, types, factors, measures, patterns and effects;
- ❖ Determinants of migration,
- ❖ Migration as an investment in human capital,
- ❖ Factors affecting migration,
- ❖ Push-pull hypothesis,
- ❖ Migration rates and ratios;
- ❖ Theories of migration
 - Ravenstein,
 - Strouffer,
 - Lee,
 - Todaro;

Module-IV: Measures and Consequences

[CONTACT HOURS: 15]

- ❖ Estimation of migration – Direct & Indirect estimation of migration,
- ❖ Indirect measures of migration –Types, determinants and consequences;
- ❖ Migration and efficiency;
- ❖ Problems of measuring migration,
- ❖ Consequences of migration on both places;
- ❖ The Economic Benefits of Immigration.

References:

- *World Migration Report 2020. International Organization for Migration, 2019.*

- Coxhead, Ian; Cuong, Nguyen Viet; Vu, Linh Hoang (2015). "Migration in Vietnam: New Evidence from Recent Surveys". SSRN Electronic Journal. doi:10.2139/ssrn.2752834.
- Caves, R. W. (2004). Encyclopedia of the City. Routledge. pp. 461. ISBN 9780415252256.
- Economic Theory & International Migration: George J. Borjas, Int. Migration Review, 1989
- Bansak, C., N. Simpson, and M. Zavodny. The Economics of Immigration. Oxford: Routledge, 2015.
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- Rotte, R., and M. Vogler. Determinants of International Migration: Empirical Evidence for Migration from Developing Countries to Germany. IZA Discussion Paper No. 12, 1998.
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Learning Outcomes:

By this the students will be able to understand the demographic pattern of different countries and able to work in different demographic institutes. Migration also open the prospects of research among them

Prerequisite: PG Microeconomic Analysis-II (Dynamic Optimisation)**Course objectives**

- * Such course is deal with the very practical problem of mankind.*
- * Resource is a significant word and used for several understanding.*
- * The paper deals with determination of optimum use of basic resources like Fishery, Forestry and other non-renewable one.*
- * How the sustainability issue is related with the optimum use is another introspection of this paper.*
- * The intergeneration equity under the backdrop of resource utilisation is the main purpose of such study.*
- * To develop the understanding of students with the theories and applications of Economics to environmental problems like market failures in allocation of environmental goods optimally, valuation of environmental amenities, pollution control instruments etc.*
- * To analyse the international environmental problems through which the students will learn how environmental regulations affect trade flows across countries.*
- * To equip students with the currently debated environmental problems and policies in India and other countries*
- * To familiarize with the Environmental and Natural Resource Problems in India.*

PAPER-II**PAPER CODE-MECOCCT-302****RESOURCE & ENVIRONMENT****Gr-A RESOURCE ECONOMICS****(Three questions)****Module-I:Economics of Exhaustible Resources****[CONTACT HOURS: 8]**

- ❖ Optimal extraction of an exhaustible resource.
- ❖ Dynamic framework with optimal control-competitive and monopolistic mining.
- ❖ Towards a backstop- exploration and technical progress

Module-II: Economics of Renewable Resources**[CONTACT HOURS: 22]****Fishery:**

- ❖ Static model of fishery; Logistic specification;
- ❖ The concept of MSY; Concepts of fish catch, fishing effort and fish stock;
- ❖ Gordon-Schaefer production function.
- ❖ Static optimization under alternative fishery management regimes;
- ❖ Open access solutions.
- ❖ Dynamic model of fishery-application of control theory:
- ❖ Steady-state levels of fish catch, fishing effort and fish stock.
- ❖ Mangrove-fishery linkages. Illustrations

Forestry:

- ❖ The volume function and mean annual increment.
- ❖ The optimal single rotation.
- ❖ The Faustmann rotation.
- ❖ Timber supply.
- ❖ The optimal stock of old growth forest

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(Three questions)

Module-III: Economy and Environment

[CONTACT HOURS: 15]

- ❖ Interaction Between Ecological and Economic Systems;
- ❖ Laws of Thermodynamics;
- ❖ Environmental Kuznets Curve (EKC):
 - Concepts and Genesis.
 - Explanations of inverted-U shaped EKC;
 - Empirical evidence;
 - N-shaped EKC;
- ❖ Environmental Pollution as a Negative Externality (Pigou Model).
- ❖ The issue of Property Rights (Coase).
- ❖ Optimal Pollution

Module-IV: Environmental Valuation

[CONTACT HOURS: 15]

- ❖ Meaning of environmental valuation;
- ❖ The uses of economic value;
- ❖ Total economic value,
- ❖ Option value,
- ❖ Existence value,
- ❖ Empirical measures of option and existence value,
- ❖ Total economic value and decision making;
- ❖ Direct and Indirect Valuation of Environmental Goods:
 - The hedonic price approach,
 - Contingent valuation,
 - Travel cost approach,
 - Willingness to pay vs. Willingness to accept.

References:

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Learning Outcomes:

- ❖ After such course students acquire knowledge about optimization techniques used in resource economics. They can participate in research platform of World Bank, UNDP, SANDEE etc. In Public sector developmental works like physical resource planning they also can contribute.
- ❖ This course will prepare the students for analyzing issues in Environmental Economics and Policies. For example, they will be able to use consumer choices to infer demand for environmental quality, design regulation which corrects market failures and allocate environmental goods optimally. They can also predict the effects of government policies on the economy and the environment. Due to this skill they will be able to do serious research works in this field and can also contribute in Public sector developmental works.

COURSE OBJECTIVES OF SPECIAL PAPERS

Course Objectives-A (ADVANCED ECONOMETRICS)

- * To equip the students with the analysis of individual-level data on the economic behaviour of individuals or firms (Micro-econometrics Analysis). This type of analysis usually entails applying regression methods to cross-section and panel data. Under cross-section analysis the focus is to develop the understanding of GLRM and analyse the concept of qualitative dependent variable models. In the Panel data methods, the objective is to make the students familiar with the idea of panel data and introduce some updated topics like Advanced Panel data methods, Dynamic Heterogeneous Panels*
- * To make the students acquainted with the concepts of Time Series theory and methods of analysis.*
- * Special emphasis is given understanding of estimation methods (for cross-section , panel, Time Series datasets) and interpretation of results*
- * To prepare the students familiar with the economic software (STATA, Eviews, R) and by using real economic data so that they become sound enough to empirically evaluate problems in Micro-econometrics and Time Series.*
- * To create ideas to deals with simultaneous equation system based problems.*
- * To generate detail ideas regarding axiomatic probability theory, some special distribution and special types of inference problems.*

Course Objectives-B (INTERNATIONAL ECONOMICS)

This course affords a critical overview of theoretical, empirical & policy matters relating to trade.

The paper of the course endow with an introduction to the main theories of trade, including standard Neo-classical free trade approaches and recent theories speaking to imperfect competition, economics of scale, national competitiveness issue and managed trade.

It also tells us about the income distribution and poverty, debate over import substitution and export promotion and alternative trade policy.

It also deals with international finance and macroeconomics including balance of payments, exchange rate policy, international capital flows and financial crisis.

Course Objectives-C (RURAL ECONOMICS)

- i. To impart knowledge and understanding of Agriculture sector and its importance in rural development.*
- ii. To show the trend of rural credit market and the various issues and reforms in farm and non-farm sectors.*
- iii. To acquaint the knowledge and overview of poverty in rural India.*
- iv. This paper tries to induce the learner to understand the magnitude and extent of centrally sponsored schemes and the role of different stake holders in implementation and monitoring of programmes.*
- v. This paper will demonstrate advance knowledge of the principles of economics and their application in agricultural issues.*

It will provide the students an ambit to expose themselves to the various sub sectors of agricultural economics through productivity, efficiency and cost-benefit analysis.

Course Objectives-D (HEALTH ECONOMICS)

The learning objectives of such special paper are that learners are buoyant to accomplish in order to successfully complete the course. The course, as a whole, has been planned to afford learners with the knowledge and skills that they will need to realize the following:

- *To illustrate and converse the concepts of health status and health care utilization, and the relationship between the two.*
- *To portray the association of the health care system in India, in terms of specific economic dimensions.*

- * To utilize economic analysis to predict patterns of health care utilization.*
- * To analyze and appraise complex policy and organizational challenges at both the micro level and at higher levels within health care systems.*
- * To use economic models to comprehend behaviors of performers in the health care sector.*
- * To do analyses of requirements for health care services.*
- * To make analyses of efficiency and eminence of health care organizations.*
- * To find and exploit relevant data sources describing.*
- * To use pertinent econometric models for the analysis of the health economic agents' behaviour.*
- * To expand decision tree models and Markov models for economic evaluation of pharmaceuticals and health technology and evaluate uncertainty in such models.*
- * To widen and perform simple health technology assessment studies.*
- * The key analytical reasoning and tools of health economics and their normative foundations and ethical implications.*
- * Basic economic theories and models of regulation applied to health care providers as GPs, hospitals and long-term care organizations.*
 - * The health-related behavioural determinants and an overview of some recent policies aimed at improving the populations' lifestyles.*

COURSE OUTCOMES OF SPECIAL PAPERS

Course Outcome-A (ADVANCED ECONOMETRICS)

- Students will get acquainted with co-integration and error correction models, autoregressive models with distributed lags, understand their application in economics. Considered methods and models should be They will acquire the knowledge of examining financial processes*
- It will make an orientation of the students towards the statistical methods and their application in modern applied micro-econometrics research.*
- Will have the skill of using statistical software.*
- Scope of employability is very high - be as a financial analytics or as an Econometrician or purely in academic research work.*
- Students after getting such special paper acquire profound and detail acquaintance on applied economic problems which can be crack with the help of econometrics.*

Course Outcome-B (INTERNATIONAL ECONOMICS)

On successful achievement of the course, students will be capable to:

- *Have a good abstract understanding of the key concepts and practical applications of both international trade and international finance.*
- * Sketch the development trade theory historically, differentiating standard classical and orthodox trade theories.*
- * Analyse the relations between trade, international finance, economic growth and globalisation, with a particular emphasis on the experiences of developing countries.*
- * Critically remark on and participate in current debates on international economic policy.*
- * contrast alternative theories of international trade*
- * Analyze and experiment international trade models*
- * Assess the impact of tariffs and non-tariff barriers*
- * Recognize the soundness and efficiency of protectionist policies*
- * Approximation the impact of preferential trade arrangements*
- * Understand and analyze the nation's balance of payment*
- * Appreciate how a foreign exchange market functions*
- * Envisage movements in the value of the currencies in rejoinder to changes in the world economy and macroeconomic policies*
- * Balance the exchange rate regimes and international monetary standards*
- * Analyze international investment, banking, debt, and risk elucidate financial crises in emerging economies, their causes and solutions*

Course Outcome-C (RURAL ECONOMICS)

On successful completion

- i. Gain insight into structure of socio-economic structure of rural India*
- ii. The students will be able to track/undertake/recognise the programme and policies of rural development.*
- iii. This paper will provide ample opportunities to undertake research and further studies on agriculture and rural development.*

Course Outcome-D (HEALTH ECONOMICS)

After completion of the course, learners are endowed with

** To distinguish between the functions, roles and responsibilities of healthcare managers to make successful negotiations.*

** To classify and relate key quality concepts in health care organizations.*

** To administer organizational processes, including redesigning organizations.*

** To efficiently and economically foster innovation within care settings.*

**To display personal and professional ethical accountability in all managerial and organizational decision making.*

** To make capability to pertain economic concepts and models to the fields of demand for health, demand for health services, demand for health insurance, provision of health insurance and provision of health care.*

** To create capacity to illustrate, analyze and critically address economic aspects of health care organizations.*

**To understand economic theories and models of health programme evaluations.*

** To comprehend essential theories of decision making under uncertainty related to health.*

**To create competence in distinguishing different decision-making frameworks, like informed decision making, situated judgment, political decision making related to health.*

** To make knowledge in different methods to estimate the effects of a treatment or a policy intervention.*

Special Paper-303
STUDENTS WILL ADOPT ONLY ONE

Special Paper-MECOMET-303A	Advanced Econometrics-I
Special Paper- MECOMET-303B	International Economics-I
Special Paper- MECOMET-303C	Rural Economics-I
Special Paper- MECOMET-303D	Health Economics-I

Prerequisite: PG ECONOMETRICS & STATISTICS

SPECIAL PAPER-I

PAPER CODE-MECOMET-303A

(ADVANCED ECONOMETRICS-I)

Gr-A DUMMY & LAGGED VARIABLES

(Three questions)

Module-I:Regression with Qualitative Regressors

[CONTACT HOURS: 15]

- ❖ Dummy Independent Variables –Use; Classification system;
- ❖ Dummy Variable Trap;
- ❖ Interpretation of estimated coefficients;
- ❖ Class-effect and Interaction-effect;
- ❖ Testing structural stability of regression models comparing two regressions,
- ❖ Estimating seasonal effects, ANOVA vs ANCOVA, piecewise linear regressions;
- ❖ Applications

Module-II: Models with Lagged Variables

[CONTACT HOURS: 15]

- ❖ Lagged effects in a dynamic model,
- ❖ Impact multiplier/ Short Run multiplier,
- ❖ Equilibrium Multiplier/ Long Run Multiplier,
- ❖ Lag Operators Finite and Infinite Distributed Lag Models
 - Almon Lag,
 - Koyck Lag,
 - Adaptive Expectations Model,
 - Partial Adjustment Model,
 - Partial Adjustment with Adaptive Expectations Model
- ❖ Autoregressive Distributed Lag model

Gr-B: SIMULTANEOUS EQUATION & FACTOR ANALYSIS

(Three questions)

Module-III: Simultaneous Equation System

[CONTACT HOURS: 18]

- ❖ Forms of Simultaneous Equation System
Structural, Reduced and Final Forms of Simultaneous Equation system with examples
- ❖ Identification Problem
The concept of identification with economic examples. Observationally equivalent structure. Order and Rank Conditions
- ❖ Estimation Problem
 - Consequences of estimating simultaneous equation system by OLS method.
 - Unbiasedness and consistency of estimator-use of the concept of plim. Recursive system.
 - ILS estimator with properties,
 - IV estimator with properties,
 - 2SLS estimator with properties,
 - LVR estimator with properties,
 - 3SLS estimator with properties

Module-IV: Exploratory Data Analysis

[CONTACT HOURS: 12]

- ❖ **Principal Component Analysis with application**
- ❖ **Cluster Analysis with application**

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Course Title-INTERNATIONAL ECONOMICS -I
Course Code: MECOMET 303B

Number of credits-4
Total Contact Hours-60

Prerequisite:UG/PG INTERNATIONAL ECONOMICS

SPECIAL PAPER-I

PAPER CODE-MECOMET-303B
(INTERNATIONAL ECONOMICS-I)

Gr-A: ORTHODOX THEORIES& POLICY

(Three questions)

Module-I:Neo-Classical Orthodox Trade Theory: [CONTACT HOURS: 15]

- ❖ Revision of general equilibrium trade models
 - ✓ (a) Jones (1965) model along with its implications.
 - ✓ (b) Specific factor model of Jones (1971).
 - ✓ (c) Hybrid models of Jones (1965) and Jones (1971) along with its applications for developing countries.
 - ✓ (d) General equilibrium trade models with labour market distortions.
- ❖ Some Refinements of the Orthodox Theory
 - ✓ (a) Natural Resources, “Dutch Disease” and Deindustrialization
 - ✓ (b) International Factor Mobility and Trade in Factors
 - ✓ Directly Unproductive (DUP)Activities and International Trade.

Module-II: Trade Policy [CONTACT HOURS: 15]

- ❖ Intermediate goods and effective rate of protection.
- ❖ Distortions in domestic goods markets.
- ❖ Distortions in domestic factor markets.
- ❖ Preferential Trading Cooperation:
 - ✓ The various degrees of cooperation,
 - ✓ The effects of a Customs Union.
- ❖ The “New” Protectionism.
 - ✓ Voluntary export restraints and import expansion.
 - ✓ Subsidies.
- ❖ Administered and Contingent Protection and Fair Trade:
 - ✓ Dumping and antidumping,
 - ✓ Countervailing duty,
 - ✓ Safeguard actions.

Gr-B: NEW TRADE THEORIES

(Three questions)

Module-III: The Precursors to New Trade Theories [CONTACT HOURS: 15]

- ❖ Technology Gaps.
- ❖ The Product Cycle.
- ❖ Income Effects:
 - ✓ Linder’s Theory ,
 - ✓ Baker’s Variety Hypothesis.
- ❖ Intra-Industry Trade:
 - ✓ Perfectly Homogeneous Goods
 - ✓ Differentiated Products

Module-IV: The New Trade Theories & Strategic Trade Policy [CONTACT HOURS: 15]

- ❖ **The Neo-Heckscher-Ohlin Trade Theories and Trade Policy.**
- ❖ **Monopolistic Competition and International Trade:**
 - ✓ (a) **Introduction,**
 - ✓ (b) **A Model of Monopolistic Competition:**
 - Love for variety and demand,
 - The production side,
 - International trade, tariffs.
- ❖ **Oligopoly and International Trade**
 - ✓ (a) **Homogeneous Goods, Oligopoly and Trade:**
 - A Cournot-type model,
 - The equilibrium solution,
 - Stability,
 - Strategic trade policy-tariffs and subsidies.
 - ✓ (b) **Vertically Differentiated Goods, Oligopoly and International Trade:**
 - Consumers,
 - Firms and
 - Market equilibrium, international trade.
 - ✓ (c) **Horizontal Differentiation, Oligopoly and Trade:**
 - Demand for characteristics,
 - The production side,
 - International trade and strategic trade policy.

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- *Caves R, Frankel J.A. and Jones R.W.(1990).: World Trade and Payments, Boston, Little, Brown and Co.*
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SPECIAL PAPER-I**PAPER CODE-MECOMET-303C****Gr-A: APPROACHES TO RURAL DEVELOPMENT & GOVERNANCE****(Three questions)****Module-I: Rural Development: Concept, Approaches [CONTACT HOURS: 15]**

- ❖ Rural Development: concepts, rationale, basic indicators
- ❖ Approaches to Rural Development
- ❖ Problems and challenges of Rural Development

Module-II: Decentralised Institutions and Governance [CONTACT HOURS: 15]

- ❖ Evolution of Panchayati Raj—73rd Constitutional Amendment Act—present status of implementation—factors explaining the relatively poor performance of panchayats in most states—Accountability framework for panchayats.
- ❖ Impact of Decentralized Governance on Rural Development. Role of NGOs in rural development. E-governance – people's participation in rural development – participatory planning / micro level planning.

Gr-B: RURAL INFRASTRUCTURE & INDUSTRIALISATION**(Three questions)****Module-III: Rural Infrastructure Development [CONTACT HOURS: 15]**

- ❖ *Rural Education:*
Education and Rural Development – Formal and Non-formal education National Policy on Education – Educational facilities in rural areas. Right of Children to Free and Compulsory Education Act, 2009. Schemes for rural education : National literacy Programmes – Sarva Shiksha Abhiyan (SSA).
- ❖ *Rural Health:*
Rural Health care- Primary health care – Development of health care services in rural India – National Health Policy and Programmes- Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) – ICDS.
- ❖ *Rural Sanitation:*
 - a) Policies and Programmes in the provision of Sanitation at various levels: Central Rural sanitation Programme (CRSP)-Nirmal Bharat Abhiyan (NBA) - Sanitation and MDGs
 - b) Access to Sanitation -role of institutions in public health services Public Private Partnership (PPP)-community participation - Sanitation and environment-Sanitation and health-Swath Bharath Mission

Module-IV: Rural Industrialisation and Agro-food system [CONTACT HOURS: 15]

- ❖ Concept; Role and the place of village industries in Indian economy; Growth and development of village industries in India;
- ❖ Prospects of rural Industries, Rural Industrial Sector : Agro-based Industries, Handicrafts- Hand Loom, Khadi, small scale and micro Enterprises, cottage and

village Industries.

- ❖ **Industrial Sickness-Problems & Policy measures. Concentration Downstream in the 'Agrifood' system.**
- ❖ **Globalization and three waves of consolidation. Rural Processing and impact on the RNFE : Emerging Evidence.**
- ❖ **Prospects of Rural Industrialisation & Employment potentiality.**

References:

Journals

1. Dube S.C., *India Changing Village*, *Ekistics* Vol. 7, No. 41, (March 1959), pp 242-247
2. Govt. of India(2008):, Ministry of Panchayati Raj- *The State of the Panchayats 2007-08*.
3. Govt. of India(2006):*Report of the Expert Group: Planning at the Grassroots Level*, Ministry of Panchayati Raj, Govt of India.
4. Govt. of India(2007 : *Second Administrative Commission : Sixth Report : Local Governance*,
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6. Bhaumik, A. K.(2001) : *Political Economy of Panchayat Finance in West Bengal*.
7. Articles on NGOs by 1. Damodar Sura& et al(2006), and 2. Mokbul Morshed Ahmad (2006) in M.C.Behera (ed)- *Globalising Rural Development*, Sage.
8. *Economics of Education*: J. Vaizey: Faber and Faber:1962
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12. V.M. Rao, 'Evolution of Rural Development Programmes in India', in U.G. Jha (ed),*Rural Development in India Problems and Prospects*, Anmol publications Pvt. Ltd., 1999

Books

1. Desai. A.R., *Rural Sociology in India*, Sage Publications
2. Bertrand A.L., *Rural Sociology*, McGrawhill Inc., US
4. Shah. G., *Gandhian Approach to Rural Development*
5. Dey. S.K., *Panchayati Raj*
6. Puri. K.E., *Social System in Rural India*
7. Mukherjee, N.(2002): *Participatory Learning and Action*, Concept Publishers.
8. *Cost-Benefit Analysis in Educational Planning*: M. Wood hall: UNESCO: 1992
9. *Private Health Care in India: Social Characteristics and Trend*: R.V Baru:1998
10. Visaria ,L: *Mortality Trends and Health Transition*,. Krishnaraj, M (ed.): *Gender Population and Development*, Oxford University Press,.
11. *National family Health Survey*, Government of India.
12. *The Right to Sanitation in India: Critical Perspectives* by Philippe Cullet, Sujith Koonan, and Lovleen Bhullar, Published to Oxford Scholarship Online: April 2019.
13. Katar Singh, *Rural Development Principles, policies and managements*, Sage publications.
14. Robert Chambers, *Rural Development-Putting the last first*, Routeledge
15. Basu, K.: *Analytical Development Economics*, MIT Press
16. Ray, D. *Development Economics*, Oxford University Press

Course Title-HEALTH ECONOMICS -I
Course Code: MECOMET 303D

Number of credits-4
Total Contact Hours-60

Prerequisite: PG DEVELOPMENT ECONOMICS

SPECIAL PAPER-I

PAPER CODE-MECOMET-303D

(HEALTH ECONOMICS-I)

Gr-A: BASIC CONCEPTS OF HEALTH ECONOMICS

(Three questions)

Module-I: Introduction to Health Economics

[CONTACT HOURS: 15]

- ❖ Uniqueness of health as a commodity
- ❖ Market failures
- ❖ Characteristics of health market
- ❖ Evolution of health economics as a separate discipline

Module-II: Individuals as Producers of their Health

[CONTACT HOURS: 15]

- ❖ Health as a part of human capital
- ❖ Grossman model
- ❖ Production of health as modification of a stochastic process

Gr-B: DEMAND FOR HEALTH & MEDICAL CARE

(Three questions)

Module-III: Demand for Health Capital

[CONTACT HOURS: 15]

- ❖ Demand for health care as an investment – Marginal Efficiency of Investment (MEI) and rate of return
- ❖ Changes in equilibrium – Age, Wage, Education and Uncertainty
- ❖ Medical care - Public health issues
- ❖ Medical care - Public health responsibility
- ❖ Hospitals and long-term care

Module-IV: The Medical Care Market

[CONTACT HOURS: 15]

- ❖ The Industrial Organization of Health Care Markets
- ❖ Agency and demand for health care
- ❖ Pharmaceutical Industry

References:

- Arrow K (1963). Uncertainty and the welfare economics of medical care. *American Economic Review*, 53(5):941-973.
- Hammer PJ, Haas-Wilson D, Sage WM (2001). Kenneth Arrow and the changing economics of health care: "Why Arrow? Why now?" *Journal of Health Politics, Policy and Law*, 26(5):835-849.
- Glied, S. and Smith P. C. Edtd. (2011) The Oxford Handbook of Health Economics, Oxford
- Grossman, M. (2000) "The Human Capital Model" in Culyer, A. J. and Newhouse, J. P. (edtd.) Handbook of Health Economics, Vol. IA, Chap. 7, Nort-Holland
- Grossman, M. (1972) "On the Concept of Health Capital and the Demand for Health," *Journal of Political Economy*, 80(2): 223- 255.
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Oxford

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- Morris, *Economic Analysis of Health care*, John Wiley.
- Folland et al., *Economics of Health and Health Care*, 5th Edition, Pearson.
- Morris, *Economic Analysis of Health care*, John Wiley.
- Folland et al., *Economics of Health and Health Care*, 5th Edition, Pearson. 26
- Henderson, *Health Economics and policy*, South-western Press.
- Dranove, D. and Satterthwaite, M. A.(2000) "The Industrial
- Halfon, Larson & Russ (2010) Why Social determinants? *Healthcare Quarterly*, October.
- Helen Keleher & B. Murphy (2004) *Understanding Health – A determinants approach*, Oxford.
- Glied, S. and Smith P. C. Edtd. (2011) *The Oxford Handbook of Health Economics*, Oxford
- Mary Jone Schneider, *Introduction to Public Health*, Jones & Bartlett.
- "Organization of Health Care Markets" in Culyer, A. J. and Newhouse, J. P. (edtd.) *Handbook of Health Economics*, Vol. IB, Chap. 20, North-Holland
- Glied, S. (2000) "Managed Care" in Culyer, A. J. and Newhouse, J. P. (edtd.) *Handbook of Health Economics*, Vol. IA, Chap. 13, North-Holland
- Scherer, F. M. (2000) "The Pharmaceutical Industry" in Culyer, A. J. and Newhouse, J. P. (edtd.) *Handbook of Health Economics*, Vol. IA, Chap. 25, North-Holland

Special Paper-304
STUDENTS WILL ADOPT ONLY ONE

Special Paper-MECOMET-304A	Advanced Econometrics-II
Special Paper- MECOMET-304B	International Economics-II
Special Paper- MECOMET-304C	Rural Economics-II
Special Paper- MECOMET-304D	Health Economics-II

Prerequisite: PG ECONOMETRICS & STATISTICS

SPECIAL PAPER-II

PAPER CODE-MECOMET-304A

(ADVANCED ECONOMETRICS-II)

Gr-A: NONLINEAR ECONOMETRIC MODELS

(Three questions)

Module-I: General Approaches to Nonlinear Estimation [CONTACT HOURS: 15]

- ❖ **Maximum Likelihood and Nonlinear Least-Squares Estimation**
- ❖ **Generalized Method of Moments and Systems Estimation**

Module-II: Limited Dependent Variable Models [CONTACT HOURS: 15]

- ❖ **Linear Probability Model**
- ❖ **Logit Model**
- ❖ **Probit Model**
- ❖ **Specification Issues in Binary Response Models**

References:

- *Cameron A. Colin and Pravin K. Trivedi: Micro-econometrics: Methods and Applications, Cambridge University Press*
- *G.S. Maddala: Limited Dependent and Qualitative Variables in Econometrics, Cambridge University Press*
- *Greene, W.H.: Econometric Analysis, Prentice Hall.*
- *Wooldridge, J. M.: Econometric Analysis with Cross Section and Panel Data, MIT Press*

Gr-B: TIME SERIES

(Three questions)

Module-III: Basics of Time Series Econometrics [CONTACT HOURS: 15]

- ❖ **Properties of time series,**
- ❖ **ACF and PACF - Some Useful Processes**
 - **White Noise,**
 - **Random Walks,**
 - **MA Processes,**
 - **AR Processes,**
 - **ARMA Processes and**
 - **ARIMA Processes**
- ❖ **ARIMA models- identification, estimation, diagnostic testing,**
- ❖ **Analysis of Time Series and Box-Jenkins Method, Barlett's test, Box-pierce Q-test, Ljung-Box test, Unit Root Tests,**
- ❖ **Trend Stationary and Difference Stationary process,**
- ❖ **Forecasting- MA(1), ARMA(1,1) and ARIMA(1,1,0) processes, Seasonality**

Module-IV: Modeling Volatility [CONTACT HOURS: 15]

- ❖ **Models with Trends - Deterministic and Stochastic Trends, Unit Roots, Dickey-Fuller Tests**

- ❖ Linear time series model and its limitations,
- ❖ Non-Linear Time series
- ❖ Testing for nonlinear models;
- ❖ Types of non-linear time series models:
 - ARCH model- testing for ARCH effects, estimation of ARCH model by iteration;
 - GARCH model,
 - GARCH (1,1) as an infinite ARCH(q),
 - Maximum Likelihood Estimation of GARCH models,
 - Introduction to EGARCH model

References:

- Johnston, J. (1977 and 1984): *Econometric Methods*, 2nd and 3rd Editions, McGraw Hill.
- Johnston, J. and Dinardo, J. (1997) : *Econometric Methods*, 4th Edition, McGraw Hill International Edition
- Hamilton, J. D. (1994): *Time Series Analysis*, Princeton University Press.
- Granger, C.W.J. and Newbold, P. (1977) : *Forecasting Economic Time Series*, 2nd Edition, Academic Press.
- Greene, W.H. (1997): *Econometric Analysis*, 3rd Edition, Prentice Hall.
- Gujarati, D.N. (1995): *Basic Econometrics* 4th Edition, McGraw Hill, New Delhi
- Enders, W. (2004): *Applied Econometric Time Series*, Wiley.
- Maddala, G.S. (1997): *Econometrics*, McGraw Hill, New York.

Prerequisite: UG/PG INTERNATIONAL ECONOMICS

SPECIAL PAPER-II

PAPER CODE-MECOMET-304B

(INTERNATIONAL ECONOMICS-II)

Gr-A: INTERNATIONAL FINANCE

(Three questions)

Module-I:The International Financial System:

[CONTACT HOURS: 15]

- ❖ The Foreign Exchange Market.
- ❖ International Money Markets.
- ❖ Eurocurrencies and Euromarkets: External Financial Markets
- ❖ A Broad Picture of the Open Economy.
- ❖ National Income Accounting for an Open Economy.
- ❖ The Balance of Payments accounts.

Module-II: Income, Trade and Capital Flows

[CONTACT HOURS: 15]

- ❖ Fixed and Flexible Exchange Rates:
 - Determination of Output,
 - Employment, and the Trade Balance.
 - Fixed Exchange Rates and Foreign Exchange Intervention.
 - Macroeconomic Policy under Floating Exchange Rates.
 - Expectations, Exchange Rate Dynamics and Economic Policy.
 - Inflation, Unemployment and Economic Policy in the Open Economy.

Gr-B: BALANCE OF PAYMENT

(Three questions)

Module-III: The Monetary Approach to the BOP

[CONTACT HOURS: 15]

- ❖ Money, Interest Rates, Price Level and Exchange Rates.
- ❖ Inflation and Exchange Rate Dynamics

Module-IV: Portfolio in an Open Economy

[CONTACT HOURS: 15]

- ❖ Asset Stock Adjustment in a Partial Equilibrium Framework.
- ❖ Portfolio and Macroeconomic Equilibrium under Fixed Exchange Rates.
- ❖ Portfolio and Macroeconomic Equilibrium under Flexible Exchange Rates.
- ❖ Rational Expectation and Overshooting

References:

- Rivera – Batiz (1989) :*International Finance and Open Economy Macroeconomics*, Macmillan Publishing Company, New York
- Giancarlo G.(2000):*International Finance and Open Economy Macroeconomics*, Springer
- Krugman, P. R. and Obstfeld, M. (1991): *International Economics: Theory and Policy*, 2nd Edn, New York, Harper-Collins.
- Levi, M., *International Finance and Open Economy Macroeconomics*,
- Caves R, Frankel J.A. and Jones R.W.(1990).: *World Trade and Payments*, Boston, Little, Brown and Co.
- Dornbusch, R. (1980) :*Open Economy Macroeconomics*, Basic Books, Inc Publishers, New York

Prerequisite: PG DEVELOPMENT ECONOMICS

SPECIAL PAPER-II

PAPER CODE-MECOMET-304C

(RURAL ECONOMICS-II)

Gr-A: CULTIVATION & AGRICULTURAL DEVELOPMENT

(Three questions)

Module-I: Ownership Cultivation & Tenorial Contracts [CONTACT HOURS: 15]

- ❖ Farm Efficiency of different Tenorial contracts vis-à-vis ownership cultivation.
- ❖ Uncertainty and share tenancy.
- ❖ Coexistence of Share Tenancy, Fixed Rent Tenancy.
- ❖ Factors determining the leasing decision - factor market imperfections.
- ❖ Agricultural Stagnation - Semi feudal character - Bhaduri model. Risk and Uncertainty analysis.

Module-II: Issues Concerning Agricultural Development [CONTACT HOURS: 15]

- ❖ National Resource base of Indian agriculture,
- ❖ India's position in World Agriculture,
- ❖ Agricultural price determination,
- ❖ Consumption Economics, agricultural development in India,
- ❖ Growth in use of technological factors in production - irrigation, seed, fertilisers, capital during last five decades. farm mechanisation.

GR-B: AGRICULTURAL MARKETING

(Three questions)

Module-III: Agricultural Marketing Management [CONTACT HOURS: 15]

- ❖ Review of Concepts in Agricultural Marketing - Characteristic of Agricultural product and Production - Problems in Agricultural Marketing from Demand and Supply and Institutions sides.
- ❖ Market intermediaries and their role - Need for regulation in the present context - Marketable & Marketed surplus estimation.
- ❖ Marketing Efficiency - Structure Conduct and Performance analysis - Vertical and Horizontal integration - Integration over space, time and form-Vertical co-ordination.

Module-IV: Regulated Market and Supply chain Management [CONTACT HOURS: 15]

- ❖ Marketing Co-operatives
- ❖ APMC Regulated Markets
- ❖ Direct marketing, Contract farming and Retailing
- ❖ Supply Chain Management
- ❖ State trading, Warehousing and other Government agencies
- ❖ Performance and Strategies
- ❖ Market infrastructure needs, performance and Government role
- ❖ Value Chain Finance.

References:

Journals

1. Bardhan P. (1980), 'Interlocking Factor Markets and Agrarian Development: A Review of Issues', *Oxford Economic Papers*, 32(1).
2. Bhadhuri, A. (1973): "A Study in Agricultural Backwardness under Semi-feudalism", *Economic Journal*, 83: 120-137.
3. Gupta M. R. (1990), 'Production Uncertainty, Lenders' Risk and Landlord's incentive to innovate in an interlinked Credit Share Cropping Contract', *Journal of Quantitative Economics*, 6(1):11- 18.
4. Chadhuri, S. (2004) :Some Aspects of Agricultural Credit in a Developing Economy, *Serials Publication*, New Delhi.
5. Ashutosh Kumar Tripathi (2013), *Agricultural Price Policy, Output, and Farm Profitability—Examining Linkages during Post-Reform Period in India*, *Asian Journal of Agriculture and Development*, Vol. 10, No. 1, retrieved from https://ageconsearch.umn.edu/record/199109/files/AJAD_2013_10_1_6Tripathi.pdf
6. *Agricultural Price Policy in the Context of Economic Development*, *American Journal of Agricultural Economics*, Vol. 51, No. 5, Oxford University Press.
7. Randy Schnepf (2006), *Price Determination in Agricultural Commodity Markets: A Primer*, CRS Report for Congress, retrieved from https://digital.library.unt.edu /ark:/67531 /metacrs9219/m1/1/highres_d/RL33204_2006Jan06.pdf
8. *Report of the Working Group on Agricultural Marketing Infrastructure, Secondary Agriculture and Policy Required for Internal and External Trade for the XII Five Year Plan 2012-17*, 2011, Agriculture Division, Planning Commission, GOI.
9. *Report of The Research Study on Estimation of Marketing Efficiency of Horticultural Commodities under Different Supply Chains in India*, 2010, NCAP, New Delhi.
10. Acharya, S.S., 2007, "Agribusiness in India: Facts and Emerging Issues", *Agricultural Economics Research Review*, Vol. 20, Conference Issue, pp. 409-424
11. Arora V.P.S., 2010, *Promoting Agribusiness in India*, *Indian Journal of Agricultural Marketing*, Vol. 24, No 3, P-1-31
12. Vaidyanathan, A., 2013, *Future of Cooperatives in India*, *Economic and Political Weekly*, Vol. 48, No. 18, pp.30-34.

Books

1. *Fundamentals of Agricultural Economics*, by A. Singh, A.N. Sandhu and J. Singh, Himalaya Publishing House.
2. *Rural Development -Principles, Policies and Management*, (4th edition) by Kartar Singh and Anil Sishodia, Sage Publications.
3. Acharya and Agarwal, 1987, *Agricultural Marketing in India*, Oxford & IBH Publishing Company.
4. Johnson, F. P. (2006), "Supply chain management at Wal-Mart", Ivey Publishing.
5. Chopra, S. and P. Meindl (2016), "Supply Chain Management: Strategy, Planning, and Operation", 6th Edition, Pearson.

Prerequisite: PG DEVELOPMENT ECONOMICS

SPECIAL PAPER-II

PAPER CODE-MECOMET-304D

(HEALTH ECONOMICS-II)

Gr-A: HEALTH & MARKET FAILURE

(Three questions)

Module-I: Market Failure and Some Possible Response [CONTACT HOURS: 15]

- ❖ Health Goods and Market Failure
- ❖ Asymmetric Information
 - Moral Hazard
 - Health Insurance Market; Failure in Health Insurance Market
- ❖ Development and Growth of Managed Care

Module-II: Health Issues in Developing Countries [CONTACT HOURS: 15]

- ❖ Investing in health in developing countries
- ❖ Linkage between health, growth, inequality and poverty
- ❖ Burden of disease
 - Concepts of QALY, HYE and DALY
- ❖ Empirical evidence on disease burden in developing countries.

Gr-B: MATERNAL HEALTH & EQUITY

(Three questions)

Module-III: Maternal and Child Health [CONTACT HOURS: 15]

- ❖ Importance of Maternal and Child Health
- ❖ Infant, Child and Maternal Mortality
- ❖ Nutritional Issues in Child and Women Health
- ❖ Reproductive health
- ❖ Policy measures in India

Module-IV: Equity, Needs and Ethics in Healthcare [CONTACT HOURS: 15]

- ❖ Healthcare consequences of socio-economic change
- ❖ Understanding reasons for health inequality: Conceptual issues
- ❖ Measuring health inequality
- ❖ Social exclusion and care of elderly
- ❖ Epidemiology and Economics - evidence for policy and intervention
- ❖ Ethical issues in medical care & medical resource allocation
- ❖ Physician's Practice: Conflict between public health and medical profession, Licensing and Regulation
- ❖ Concept of Community Financing

References:

- Morris, *Economic Analysis of Health care*, John Wiley.
- Folland et al., *Economics of Health and Health Care*, 5th Edition, Pearson.
- Culter, D. M. and Zeckhauser, R. J. (2000) "The Anatomy of Health Insurance" in Culyer, A. J. and Newhouse, J. P. (edtd.) *Handbook of Health Economics*, Vol. 1A, Chap. 11, North Holland
- Glied, S. and Smith P. C. Edtd. (2011) *The Oxford Handbook of Health Economics*, Oxford.
- World Bank, *World Development Report, 1993: Investing in Health*, World Bank.
- Alleyne & Cohen (2002) *Health, Economic Growth and Poverty Reduction: Report of the*

Working group on Macroeconomics of Health, WHO, Geneva.

- *Duraiswamy and Mahal (2005) Health, poverty and economic growth in India, Background papers to National Commission on Macroeconomics of Health, MoHFW.*
- *Wagstaff A. (2001) Poverty and health. Commission on Macroeconomics and Health Working Paper Series WGI: 5, Geneva: WHO.*
- *Mary Jone Schneider, Introduction to Public Health, Jones & Bartlett.*
- *Sen & Ostlin, "Gender as a social determinant of health: Evidence, policies and innovations", in Sen & Ostlin (ed) (2010) Gender equity in Health, Routledge.*
- *Rajiv Dasgupta (2010) Child health inequity in India. In S. Bhattacharya, S. Messenger & C. Overy (ed) Social determinants of health, Orient Blackswan*
- *Hurley, J. (2000) "An Overview of the Normative Economics of Health Sector" in Culyer, A. J. and Newhouse, J. P. (edtd.) Handbook of Health Economics, Vol. IA, Chap. 2, North-Holland*

Prerequisite: Basic Ideas of Financial Institutions

Course objectives

**The main objective of the course is to make students aware of the Macroeconomic issues at national and international level.*

** This paper will disclose about the organisational structure of IMF & World bank and its coverage including procedure of grants allocation.*

PAPER-V

PAPER-CODE-MECOOET-305

OPEN ELECTIVE

FINANCIAL RELATIONS & INSTITUTIONS

(NOT FOR THE PG STUDENTS OF ECONOMICS)

Module-I: National Monetary System

[CONTACT HOURS: 15]

- ❖ **Determinants of Money Supply**
- ❖ **Central Bank- Role & Function**
- ❖ **Commercial Bank-Role & Function**
- ❖ **Payments Bank & Payment Card Network**

Module-II: International Monetary System

[CONTACT HOURS: 15]

- ❖ **IMF-Economic Functions**
- ❖ **World Bank- Economic Functions**
- ❖ **BRICS- Economic Functions**

Module-III: Central Budget

[CONTACT HOURS: 15]

- ❖ **Definition of Budget**
- ❖ **Scope of Budget**
- ❖ **Budgetary Accounts- Revenues & Expenditures**
- ❖ **Budget Deficit- Surplus**

Module-IV: Central- State Financial Relation

[CONTACT HOURS: 15]

- ❖ **Tax-revenue Distribution**
- ❖ **Finance Commission & Reports**
- ❖ **GST**

References:

- ❖ *Laidler, D. 1991, The Golden age of Quantity Theory, Princeton*
- ❖ *Woodford, Michael (2003). Interest and prices: Foundations of a theory of monetary policy. Princeton, New Jersey: Princeton University Press. ISBN 0-691-01049-8.*
- ❖ *Acemoglu, D., and J. Robinson, 2008, "Persistence of Power, Elites and Institutions," American Economic Review, Vol. 98, No. 1, pp. 267–93*
- ❖ *Alvaredo, F., T. Atkinson, T. Piketty, and E. Saez, 2013, "The World Top Incomes Database," available at <http://topincomes.g-mond.parisschoolofeconomics.eu/>*
- ❖ *Ascher, W. "New development approaches and the adaptability of international agencies: the case of the World Bank" International Organization 1983. 37, 415–439.*
- ❖ *Bilbert, C., and C. Vines, eds. The World Bank: Structures and Policies (Cambridge UP, 2000)*
- ❖ *https://www.indiabudget.gov.in/budget_archive/ub2008-09/keybud/keybud2008.htm*
- ❖ *<https://rbidocs.rbi.org.in/rdocs/Bulletin/PDFs>*
- ❖ *Agarwal, P. (2012). Fiscal Federalism in India: Impact of Union Transfers on State Finances. New Delhi: New Century Publications.*
- ❖ *Jha, R. (2000). India's Public Finances: Selected Issues and Suggested Reforms, Indira Gandhi Institute of Development Research, Oxford University Press.*

- ❖ *Mitra, S. (2014, October). Significance of the Finance Commission. Budget Track, 10(1-2), 3.*
- ❖ *Chand, G. (1930). The Essentials of Federal Finance: A Contribution to the Problem of Financial Re-adjustment in India. London: Humphrey Milford, Oxford University Press*

Learning Outcomes:

Students from such course acquire their knowledge how the international and national financial system performs

Prerequisite: Basic Ideas of Socio-Economic Problems**Course objectives**

- *To empower the student about their encompassed socio-economic problems.*
- * To Make an interaction to understand the nature and deep root of the problems.*
- * To Interpret the Problems in a simple way.*
- * To improve thinking power of the students for the most possible solutions of the identified problem.*
- * To understand them about the social structure and their responsibility for the society.*

PAPER-IV**PAPER CODE-MECOOPP-306****OUTREACH****COURSE NORMS**

- Students are divided into different groups
- Each groups consist of 4 students (Maximum) and 2 students (Minimum)
- Each group will choose an Economic problem of the local society.
- They will know the nature, cause and effects of that problem.
- They will find most expected remedies and deliver them to the Society.
- They will prepare a report (Group wise) on the respective problem.
- There will be one interaction seminar on the problem.
- Students will be evaluated on the basis of overall performance.

Module-I: Identification of the Problem and Statement [CONTACT HOURS: 15]

Module-II: Place & Target group identification [CONTACT HOURS: 15]

Module-III: Field visits for observation, FGD etc [CONTACT HOURS: 15]

Module-IV: Report Preparation [CONTACT HOURS: 15]

REPORT SUBMISSION**PRESENTATION & VIVA****Learning Outcomes:**

Students from such course acquire their knowledge for kinds of socio-economic problems. The responsibility of a citizen for their encompassing society can be identified by such role of the students.

DETAIL CURRICULUM

SEMESTER-IV

JANUARY TO JUNE

SL	PAPER	PAPER CODE	CREDIT	MARKS		
				IA	TH	TOTAL
I	ECONOMICS OF SOCIAL SECTOR	MECOCCT-401	4	10	40	50
II	OPERATION RESEARCH	MECOCCT-402	4	10	40	50
FOR PAPER-403: AMONG FOUR SPECIAL PAPER STUDENTS WILL ADOPT ONLY ONE						
III	ADVANCED ECONOMETRICS-III	MECOMET-403A	4	10	40	50
	INTERNATIONAL ECONOMICS-III	MECOMET-403B	4	10	40	50
	RURAL ECONOMICS-III	MECOMET-403C	4	10	40	50
	HEALTH ECONOMICS-III	MECOMET-403D	4	10	40	50
FOR PAPER-404: AMONG FOUR SPECIAL PAPER STUDENTS WILL ADOPT ONLY ONE						
IV	ADVANCED ECONOMETRICS-IV	MECOMET-404A	4	10	40	50
	INTERNATIONAL ECONOMICS-IV	MECOMET-404B	4	10	40	50
	RURAL ECONOMICS-IV	MECOMET-404C	4	10	40	50
	HEALTH ECONOMICS-IV	MECOMET-404D	4	10	40	50
FOR PAPER-405: AMONG FOUR SPECIAL PAPER STUDENTS WILL ADOPT ONLY ONE						
V	ADVANCED ECONOMETRICS-V	MECOMET-405A	4	10	40	50
	INTERNATIONAL ECONOMICS-V	MECOMET-405B	4	10	40	50
	RURAL ECONOMICS-V	MECOMET-405C	4	10	40	50
	HEALTH ECONOMICS-V	MECOMET-405D	4	10	40	50
VI	ADD-ON: DATA ANALYSIS	MECOOET-406	4			50
TOTAL			24			300

Prerequisite: PG Development Economics, Public Economics-I & II

Course objectives

This paper tries

- i. *To establish the relationship between the economic growth and social development.*
- ii. *It aims at providing knowledge about the current scenario and challenges related education, environment, health and Gender.*
- iii. *It further exposes students to theoretical as well as empirical issues of labour market in India.*

PAPER-I

PAPER CODE-MECOCCT-401

ECONOMICS OF SOCIAL SECTOR

Gr-A: EDUCATION & LABOUR

(Three questions)

Module-I:Economics of Education

[CONTACT HOURS: 15]

- ❖ Education as an instrument for economic growth,
- ❖ Human Capital vs Physical Capital,
- ❖ Components of Human capital,
- ❖ Private demand and social demand for education,
- ❖ Determinants of demand for education
- ❖ Cost of education
 - ✓ Expenditure on education,
 - ✓ Private costs and
 - ✓ social costs and
 - ✓ wastage and
 - ✓ stagnation,
- ❖ Benefits of education
 - ✓ Direct and indirect benefits,
 - ✓ Private and social benefits,
- ❖ Resource Mobilisation and Utilisation,
- ❖ Pricing and Subsidies,
- ❖ Effects of educational financing on income distribution

Module-II: Economics of Labour:

[CONTACT HOURS: 15]

- ❖ Demand for and supply of labour,
- ❖ Rural urban migration and labour supply labour market policies,
- ❖ Social security of labour,
- ❖ Some specific problems of labour-child labour,
- ❖ Female labour & Discrimination
- ❖ Globalization and Market for labour,
- ❖ Labour Market reforms
 - ✓ Exit policy,
 - ✓ Need for safety nets.
- ❖ Technological change in organized private sector industries and employment.
- ❖ Analysis of education unemployment.

Gr-B: HEALTH & SOCIAL SECTOR

(Three questions)

Module-III: Health Economics

[CONTACT HOURS: 15]

- ❖ Health dimension of development,
- ❖ Determinants of Health poverty,
- ❖ Malnutrition and environmental issues,
- ❖ Economic dimensions of health care- demand and supply,
- ❖ Financing of health care and resource constraints,
- ❖ Distributional issues in health care delivery.
- ❖ Theory and empirical studies of production of health care,
- ❖ Inequalities in health: class and gender perspectives

Module-IV: Social Services

[CONTACT HOURS: 15]

- ❖ Private Vs. public sector financing,
- ❖ Current performance of social sectors in India
 - ✓ Labour and employment,
 - ✓ Education,
 - ✓ Population,
 - ✓ Family welfare,
 - ✓ Health, water supply and sanitation,
 - ✓ Development of women and children,
 - ✓ Social welfare

References:

- *Equality, Quality and Quantity*: J.P. Naik Allied Publisher:1975
- *The theory of Externalities and Public Goods*: R. Crones and T. Sandler: Cambridge University Press,1989
- *Economics of Education*: J. Vaizey: Faber andFaber:1962
- *Cost-Benefit Analysis in Educational Planning*: M. Wood hall: UNESCO:1992
- *Private Health Care in India: Social Characteristics and Trend*: R.VBaru:1998
- *Economics and Labour Management Relation : Dynamics of Change*: C.S Venkata Ratnam: L Saja 2001
- Parikh,K.S.andRadhakrishna,R.(2002):*IndiaDevelopmentReport*,OxfordUniversity Press.
- Prabhu, K.S. (2001): *A Study of Two Indian States, Economic Reforms and Social Sector Development*, SagePublications.
- Prabhu, K.S. and Chatterjee,S (1993): *Social Sector Expenditures and Human Development: A Study of Indian States*, Department of Economic Analysis and Policy, RBIDev.
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- Jhabvala, R (ed.) (2001): *The Unorganised Sector*,Sage.
- Parikh K.S. and Sudarshan, R.(1993): *Human Development and Structural Adjustment*, MacMillan India Ltd.,Madras.
- *National Human Development Report (2002)*,Planning Commission. Oxford University Press.
- Dreze, J. and A.K. Sen (1989): *Hunger and Public Action*, Oxford ClarendonPress.

- Coale A. J. and Hoover, E. M. : *Population Growth and Economic Development In Low Income Countries: A Case study of India's Prospects*, Princeton University Press.
- Visaria, L.: *Mortality Trends and Health Transition*,. Krishnaraj, M (ed.): *Gender Population and Development*, Oxford University Press,.
- Gulati S. C.: *Fertility in India: An Econometric Study*, Sage.
- Agnihotri S. B.: *Sex Ratio in Indian Population: A Fresh Exploration*, Sage.
- Krishnaji M. ; Sudarshan R.M and Shariff A.: *Gender Population and Development*, Oxford University Press.
- Gillis, M, Parkins, D, Roemer, M and Snodgrass, D. R. (1996): *Economics of Development*, W.W. Norton and Co.
- Sixth all India Education Survey, West Bengal (1999), Volume I, NCERT.
- A survey conducted jointly by the Indian Statistical Institute, Calcutta and the SCERT, West Bengal (1995): *Achievement Level of Primary School Children at the End of Class Four*.
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- Gillis, M, Parkins, D, Roemer, M and Snodgrass, D. R. (1996): *Economics of Development*, W.W. Norton and Co.
- India Health Report, Oxford.
- Health for All, ICSSR, 1998-99.
- Duggal, R, Nandraj, S. and Vadair, A. (1995): "Health Expenditure Across States", Parts I & II, in *Economic and Political Weekly*, April 15 & 22.
- National family Health Survey, Government of India.
- Ellis, F. (1993), *Peasant Economics*, Cambridge University Press. (Chapter 9)
- Kabeer, N. (1994): *Reversed Realities: Gender Hierarchies in Development Thought*, Verso.
- Kalpagam, U. (1994): *Labour and Gender: Survival in Urban India*, Sage
- World Bank Country Study (1991): *Gender and Poverty in India*.
- UNDP (2010): *Human Development Report*, Oxford University Press.
- Sen, A (2004): "Development as Capability Expansion in Fukuda," Parr, S. and Kumar, S. *Readings in Human Development*, Oxford University Press.

Learning Outcomes:

This paper thoroughly highlights the critical issues and hindrances in operation and execution of social development policies.

Course Title-OPERATION RESEARCH
Course Code: MECOCCT 402

Number of credits-4
Total Contact Hours-60

Prerequisite: PG MICROECONOMICS & MATHEMATICAL ECONOMICS

Course objectives

- * To expose about the complex consumer behaviour.*
- * To introduce facts of modern production process and its complexities.*
- * To understand imperfect market morphology and their present applications.*
- * To comprehend General Equilibrium process under the backdrop of social welfare*

PAPER-II

PAPER CODE-MECOCCT-402

OPERATION RESEARCH

Gr-A:MARKOV CHAINS, NETWORK & INVENTORY CONTROL

(Three questions)

Module-I:Markov Analysis

[CONTACT HOURS: 15]

❖ **Markov Chains**

- Concepts,
- Characteristics and long run properties;
- Continuous time Markov Chains;
- Markov decision process

Module-II: Network Analysis & Inventory Control Theory **[CONTACT HOURS: 15]**

❖ **Network Analysis**

- Theory of graph and Network Construction;
- Maximal flow problem and its solution;
- Application of network theory in Project management

❖ **Inventory Control Theory**

- Concepts relating inventory;
- Model Building;
- Solutions under different conditions

Gr-B: SIMULATIONS & QUEENING

(Three questions)

Module-III: Simulations, & Integer Linear Programming **[CONTACT HOURS: 15]**

❖ **Simulations**

- Concepts and procedures;
- Applications of simulations in different fields

❖ **Integer Linear Programming**

- Concepts and Procedure of solution;
- Applications

Module-IV: Queuing Theory

[CONTACT HOURS: 15]

❖ **Concepts and features;**

❖ **Different types of queuing models and the techniques of solutions**

References:

- *F. S. Hiller and G. J. Liberman. Introduction to Operations Research, Mc Graw Hill, 1990.*
- *H. A. Taha. Operations Research: An Introduction, Pearson, 2010.*

- *J. K. Sharma. Quantitative Techniques for Managerial Decisions, Macmillan, 2001.*
- *M. K. Starr and D. W. Miller. Inventory Control – Theory and Practice, Prentice Hall, 1962.*

Learning Outcomes:

The students will be outfitted with the modern extensions and modifications of the Consumer Behaviour, Production Problems, Competitive models of Market and General Equilibrium. The course is constructed in parity with PG curriculum and the National Eligibility Test provided syllabus

Special Paper-403
STUDENTS WILL ADOPT ONLY ONE

Special Paper-MECOMET-403A	Advanced Econometrics-III
Special Paper- MECOMET-403B	International Economics-III
Special Paper- MECOMET-403C	Rural Economics-III
Special Paper- MECOMET-403D	Health Economics-III

Prerequisite: PG ECONOMETRICS & STATISTICS

SPECIAL PAPER-III

PAPER CODE-MECOMET-403A

ADVANCED ECONOMETRICS-III

Gr-A: NON-LINEAR ECONOMETRIC MODELS

(Three questions)

Module-I: Advanced Topics in Limited Dependent Variable Models

[CONTACT HOURS: 15]

- ❖ **Multinomial Response Models**
 - **Multinomial Logit**
 - **Probabilistic Choice Models**
- ❖ **Ordered Response Models**
 - **Ordered Logit and Ordered Probit**

Module-II: Tobit and Selection Models

[CONTACT HOURS: 15]

- ❖ **Censored and Truncated Models**
- ❖ **Tobit Model**
- ❖ **Two-Part Model**
- ❖ **Sample Selection Models**

References:

- *Cameron A. Colin and Pravin K. Trivedi: Micro-econometrics: Methods and Applications, Cambridge University Press*
- *G.S. Maddala: Limited Dependent and Qualitative Variables in Econometrics, Cambridge University Press*
- *Greene, W.H.: Econometric Analysis, Prentice Hall.*
- *Wooldridge, J. M.: Econometric Analysis with Cross Section and Panel Data, MIT Press*

Gr-B: TIME SERIES

(Three questions)

Module-III: Modeling with trends

[CONTACT HOURS: 15]

- ❖ **Deterministic and stochastic trends,**
 - **Removing the trend,**
 - **Spurious Regression,**
- ❖ **Cointegration:**
 - **General cointegrated system,**
 - **Error correction model and tests for cointegration;**
 - **Cointegration in single equations-**
 - **Engle-Granger method,**
 - **CRDW test,**
 - **System estimation method – Johansen procedure**

Module-IV: Multi-equation Time series Models

[CONTACT HOURS: 15]

- ❖ **Introduction to VAR Analysis**
 - **Estimation and Identification - Granger Causality,**
- ❖ **Advanced tests for Non-stationarity and structural breaks.**
- ❖ **Cointegration with structural breaks**

References:

- Johnston, J. (1977 and 1984): *Econometric Methods*, 2nd and 3rd Editions, McGraw Hill.
- Johnston, J. and Dinardo, J. (1997) : *Econometric Methods*, 4th Edition, McGraw Hill International Edition
- Hamilton, J. D. (1994): *Time Series Analysis*, Princeton University Press.
- Granger, C.W.J. and Newbold, P. (1977) : *Forecasting Economic Time Series*, 2nd Edition, Academic Press.
- Greene, W.H. (1997): *Econometric Analysis*, 3rd Edition, Prentice Hall.
- Gujarati, D.N. (1995): *Basic Econometrics* 4th Edition, McGraw Hill, New Delhi
- Enders, W. (2004): *Applied Econometric Time Series*, Wiley.
- Maddala, G.S. (1997): *Econometrics*, McGraw Hill, New York.

Prerequisite: UG/PG INTERNATIONAL ECONOMICS

SPECIAL PAPER-III

PAPER CODE-MECOMET-403B

INTERNATIONAL ECONOMICS-III

Gr-A: INTERDEPENDENCE & MONETARY SYSTEM

(Three questions)

Module-I:Interdependence in the World Economy

[CONTACT HOURS: 15]

- ❖ The International Monetary System;
 - ✓ History and
 - ✓ Controversies.
- ❖ International Organisations:
 - ✓ The IMF,
 - ✓ The World Bank.
- ❖ International Monetary Integration:
 - ✓ Optimum Currency Areas and
 - ✓ Monetary Unions.

Module-II: Problems of the International Monetary System [CONTACT HOURS: 15]

- ❖ Policy Optimisation, Game Theory and International Coordination.
- ❖ The Problem of the Reference Model and the Obstacles to Coordination.
- ❖ The Debt Problem.
- ❖ Capital Movements, Speculation and Currency Crisis.
- ❖ Proposals for the International Management of Exchange rates.

Gr-B:TRADE & DEVELOPMENT

(Three questions)

Module-III: Trade Policies and Development

[CONTACT HOURS: 15]

- ❖ Foreign Capital and Development Issues.
- ❖ Outsourcing. Issues of North- South Terms of Trade

Module-IV: Trade and inequality

[CONTACT HOURS: 15]

- ❖ Issues in Regional Inequality.
- ❖ Trade and Wage Inequality in Developing Countries

References:

- Marjit, S. and Beladi H.(1996), 'Protection and the Gainful Effects of Foreign Capital', *Economics Letters*, 53, 3, 311-16.
- Chao, C. and. Yu, E. (1994), 'Foreign Capital Inflows and Welfare in an Economy with Imperfect Competition', *Journal of Development Economics*, 45, 1,141-54
- Bhagwati, J., Panagariya, A. and Srinivasan, T. N. (2004), 'The Muddles over Outsourcing', *The Journal of Economic Perspectives*, Vol. 18, No. 4, pp.93-114.
- Sarkar, P (2004), 'Export Diversification, Market Shares and Issues of North-South Terms of Trade' in Bhattacharya, A. and Marjit, S. (Eds.), *Globalization and the Developing Economies: Theory and Evidence*. Manohar Publishers and Distributors, New Delhi,157-176.
- Sikdar, S. (2002), 'Multinational Corporations and Direct Foreign Investment' in

Contemporary Issues in Globalization. OUP, New Delhi, 79-101.

- Feenstra, R. and Hanson, G. (1998), 'Foreign Direct Investment and Relative Wages: Evidence from Mexico's Maquiladoras', *Journal of International Economics*, 42, 3/4, 371-93.

Prerequisite: PG DEVELOPMENT ECONOMICS

SPECIAL PAPER-III

PAPER CODE-MECOMET-403C

RURAL ECONOMICS-III

Gr-A: CREDIT MARKET & INTERLINKAGES

(Three questions)

Module-I: Rural credit market

[CONTACT HOURS: 15]

- ❖ Features of rural credit market
- ❖ Advantages and Limitations of Formal and Informal Credit in India
- ❖ Lender's Risk Hypothesis
- ❖ Simple models of Credit rationing
- ❖ Information asymmetry
- ❖ Monitoring and Collusion

Module-II: Rural Credit Market and Inter linkages

[CONTACT HOURS: 15]

- ❖ Different explanations for high interest rate in informal credit market
- ❖ Under-pricing of Collateral – delay in disbursement of formal credit. linkages between land and credit market,
- ❖ Credit-Product Interlinkage – ICPC vs. NICPC – Price uncertainty.
- ❖ Credit-Labour Interlinkage – Potential Risk, Bardhan Model, Basu's model – inter-linkage in risk less world, M.R. Gupta model

Gr-B: RURAL FINANCING & INSURANCE

(Three questions)

Module-III: Rural economy with finance

[CONTACT HOURS: 15]

- ❖ Area and project approach in bank lending,
- ❖ Domestic institutional sources (NABARD),
- ❖ Decentralised credit planning (district and block level planning),
- ❖ Lead bank approach, RRBs and Cooperative banks, small financing,
- ❖ Joint liability approach and group lending approach

Module-IV: Rural Insurance – Coverage and Development [CONTACT HOURS: 15]

- ❖ Introduction to Agriculture Insurance - Situation in India, Risk in agriculture – changing faces of agriculture risk,
- ❖ Climate change and managing Agriculture risk.
- ❖ Evolution of Crop Insurance in India, Individual based crop insurance – PCIS and CCIS, ECIS and NAIS.
- ❖ Farm Income Insurance Scheme (FIIS), Types of Agricultural Insurance – Obligations of Insurers in rural sector,
- ❖ Crop Insurance vs agriculture relief – Key elements and generic, State government sponsored group insurance schemes and Agriculture reinsurance.

References:

Journal/ Working Papers/ Reports

1. S.S.Raju and Ramesh Chand (2008), Agriculture Insurance in India – Problem and Prospects, NCAP working paper No. 8, National Centre for Agricultural Economics and Policy

Research (Indian Council of Agricultural Research), retrieved from <https://www.rfilc.org/wp-content/uploads/2020/08/Agricultural-Insurance-in-India-Problems-and-Prospepects.pdf>

2. B. C. Roy et.al. (2018), Performance Evaluation of Pradhan Mantri Fasal Bima Yojana in West Bengal, Study Number 188, Agro-Economic Research Centre, Viswa Bharati, retrieved from <http://www.viswabharati.ac.in/file/Final-Report-188.pdf>

3. Agricultural Insurance in Developing countries, UNCTAD 1994, retrieved from https://unctad.org/system/files/official-document/unctadsddins1Rev.1_en.pdf

4. Reports of Risk Management in Agriculture (2007 – 12), retrieved from https://niti.gov.in/planningcommission.gov.in/docs/aboutus/committee/wrkgrp11/wg11_risk.pdf

Books

1. Protecting livelihoods: Linking Agriculture Insurance and Social Protection, Food and Agriculture Organisation (FAO), Rome 2021, retrieved from <http://www.fao.org/3/cb2690en/cb2690en.pdf>

- Ray, D. Development Economics, Oxford University Press, chapters 10, 14,

- Basu, K. (1984) :The Less Developed Economy, Oxford University Press.

- Harper, M.(ed) (2003): Microfinance: Evolution, Achievements and Challenges , I.T.D.G. Publishing Company.

- Fisher, T and Sri Ram (2003): Beyond Microcredit: Putting Development Back into Microfinance, Sage Publishing Company.

- Articles on Microfinance from Journal of Development Economics,1999, vol60.

- Bardhan P. (1980), 'Interlocking Factor Markets and Agrarian Development: A Review of Issues', Oxford Economic Papers, 32(1).

- Bardhan P. (1984), Land Labour and Rural Poverty : Essays in Economic Development , OUP.

- Basu, K. (1984):The Less Developed Economy: A Critique of Contemporary Theory, OUP.

- Chaudhuri, S. (1996), 'Credit Product Interlinkage : Different Explanation' The IndianJournal of Economics, 77(305).

- Chaudhuri, S. (1996):'Price Uncertainty and Credit-Product Interlinkage – A Note' KeioEconomic Studies, 33(2): 102-115.

- Chadhuri, S. (2004) :Some Aspects of Agricultural Credit in a Developing Economy,Serials Publication, New Delhi.

- Gupta M. R. (1990), 'Production Uncertainty, Lenders' Risk and Landlord's incentive toinnovate in an interlinked Credit Share Cropping Contract', Journal of QuantitativeEconomics, 6(1):11- 18

- Rakshit, M. (1982): The Labour Surplus Economy, Macmillan, New Delhi andHumanities Press, New Jersey.

Basu K (1993), The Emergence of Isolation and Interlinkage in Rural Markets, *Oxford Economic Papers*, New Series, Vol. 35, No. 2 (Jul, 1983), pp. 262-280 (19 pages), Oxford University Press

Gill A (2004), Interlinked Agrarian Credit Markets: Case Study of Punjab, Economic and Political Weekly, Vol. 39, No. 33 (Aug. 14-20, 2004), pp. 3741-3751

Bardhan, P and Rudra, A (1978), Interlinkage of Land, Labour and Credit Relations: An Analysis of Village Survey Data in East India, Economic and Political Weekly, Vol. 13, No. 6/7, Annual Number (Feb., 1978)

Bhuvana M and Vasantha S (2016) LEAD BANK SCHEME – A STRATEGY FOR ACHIEVING FINANCIAL INCLUSION, Global Journal of Engineering Science and Research Management

[http: // www.gjesrm.com](http://www.gjesrm.com) © Global Journal of Engineering Science and Research Management , 3 (5), May
Ahmed J U (2015), Performance Evaluation of Regional Rural Banks: Evidence from Indian Rural Banks, Global Business Review, 22 September, Srivastava P and Samanta D (2015), Impact of Joint Liability Group on Sustainable Livelihood and Social Capital Promotion: A Study in the Context of Bihar, International Conference on Global Economic Growth and Sustainability : Challenges and Prospects - November 20-21, 2015, Mysuru, India

SPECIAL PAPER-III

PAPER CODE-MECOMET-403D

HEALTH ECONOMICS-III

Gr-A: ENVIRONMENTAL HEALTH & QUALITATIVE DEPENDENT MODELS

(Three questions)

Module-I: Environmental Health

[CONTACT HOURS: 15]

- ❖ Importance of Environmental Health
- ❖ Role of Government
- ❖ Identification of Hazard
- ❖ Setting of standard
- ❖ Occupational Health

Module-II: Qualitative Dependent Models

[CONTACT HOURS: 15]

- ❖ Binary Responses
- ❖ Multinomial and Ordered Responses
- ❖ Decomposition
- ❖ Limited Dependent Variables with special reference to Two part, Selectivity and Hurdel Models

Gr-B: STATISTICAL APPLICATIONS OF HEALTH ECONOMICS

(Three questions)

Module-III: Hypothesis Testing

[CONTACT HOURS: 15]

- ❖ Preliminaries in tests of hypothesis - Recapitulation about parametric hypothesis tests
- ❖ Non-parametric tests:
 - Sign Test,
 - Wilcoxon Signed Rank test,
 - Wilcoxon Rank Sum test,
 - Kruskal Wallis Test,
 - Friedman test.
- ❖ Application in STATA, SPSS& R

Module-IV: Analyzing Categorical Data

[CONTACT HOURS: 15]

- ❖ Goodness of fit test
- ❖ 2 X 2 Contingency Table
- ❖ Odds Ratio, Fisher's Exact Test, Matched Pair studies
- ❖ r X c Contingency Tables
- ❖ Testing absence of association, testing absence of trend
- ❖ Multiple 2 X 2 Contingency Tables, Analyzing Tables separately,
- ❖ Cochran-Mantzel-Haenszel test,
- ❖ Mantzel- Haenszel Common Odd ratio.

References:

- Mary Jone Schneider, *Introduction to Public Health*, Jones & Bertlett.
- Jones, A. M. 'Health Econometrics' in Culyer, A. J. and Newhouse, J. P. (edt.) *Hand Book of Health Economics*, Vol. 1A, Chapter 6, North-Holland.
- Peter M. Lance (1991) *Odds Ratio. Mathematical Subjects Classification*
- Oaxaca, R. L. (1973). *Male-Female Wage Differentials in Urban Labour Markets*.

International Economic Review, 14, 693-709.

- Fairlie, R. W (2005). *An extension of the Blinder-Oaxaca Decomposition Technique to Logit and Probit Models*. *Journal of Economic and Social Measurement*, 30, 305-16.
- R. N. Forthofer, E. S. Lee and M. Hernandez (2007) *Biostatistics: A guide to design, analysis and discovery*, 2/e, Elsevier Academic Press, Amsterdam.
- Jones, A. M. 'Health Econometrics' in Culyer, A. J. and Newhouse, J. P. (edtd.) *Hand Book of Health Economics*, Vol. 1A, Chapter 6, North-Holland.
- R. N. Forthofer, E. S. Lee and M. Hernandez (2007) *Biostatistics: A guide to design, analysis and discovery*, 2/e, Elsevier Academic Press, Amsterdam

Special Paper-404

STUDENTS WILL ADOPT ONLY ONE

Special Paper-MECOMET-404A	Advanced Econometrics-IV
Special Paper- MECOMET-404B	International Economics-IV
Special Paper- MECOMET-404C	Rural Economics-IV
Special Paper- MECOMET-404D	Health Economics-IV

Course Title-ADVANCED ECONOMETRICS -IV
Course Code: MECOMET 404A

Number of credits-4
Total Contact Hours-60

SPECIAL PAPER-IV

PAPER CODE-MECOMET-404A

ADVANCED ECONOMETRICS-IV

Gr-A: PANEL DATA ANALYSIS

(Three questions)

Module-I: Basics of Static Panel Data

[CONTACT HOURS: 15]

- ❖ Sources and Types of Panel Data
- ❖ Pooled Estimator
- ❖ Random Effect Model
- ❖ Fixed Effect Model
- ❖ Fixed versus Random Effects Model
- ❖ Hausmann Test

Module-II: Advanced Panel Data Models

[CONTACT HOURS: 15]

- ❖ Unbalanced Panels –Fixed and Random Effects.
- ❖ Heteroscedasticity and Robust Covariance Estimation.
- ❖ Dynamic Panel Data Models

Gr-B: APPLIED ECONOMETRICS

(Three questions)

Module-III: Frontier Analysis

[CONTACT HOURS: 15]

- ❖ Basic Concept of Efficiency and Classification
- ❖ Deterministic Frontier Production Function Approach
- ❖ Theoretical Implication of Frontier Analysis
- ❖ Stochastic Frontier Production Function Approach:
 - Maximum Likelihood,
 - Method, Moments of OLS Residuals,
 - Gamma Distribution Model,
 - Exponential Model
- ❖ Time Series Analysis of DEA:
 - Window Analysis,
 - Malmquist Productivity Index,
 - Total Factor Productivity Growth and Malmquist Productivity Index

Module-IV: Demand Analysis & Non-Parametric Analysis [CONTACT HOURS: 15]

- ❖ Demand Analysis:
 - Demand functions and elasticities,
 - Engel curve analysis,
 - Aggregation issue,
 - Methodologies for estimation of unconstrained demand functions using aggregative data and using micro data.
 - Demand systems.
- ❖ Non-Parametric Analysis:
 - Introduction to differencing,
 - Smoothing (simple, kernel and spline smoother),
 - Non-parametric functions of several functions.
 - Applications: Poverty, Income Inequality and Growth - An Analysis with Illustrations from Indian Data.

References:

- Johnston, J. (1977 and 1984): *Econometric Methods*, 2nd and 3rd Editions, McGraw Hill.
- Johnston, J. and Dinardo, J. (1997) : *Econometric Methods*, 4th Edition, McGraw Hill International Edition
- Gujarati, D.N. (1995): *Basic Econometrics* 4th Edition, McGraw Hill, New Delhi
- Maddala, G.S. (1997): *Econometrics*, McGraw Hill, New York.
- Desai, M. (1976).: *Applied Econometrics*, P. Allen.
- Sen, A. *On Economic Inequality*
- Nachane, D.M. (2006): *Econometrics: Theoretical Foundations and Empirical Perspectives*, Oxford University Press.
- Intriligator, M.D. (1978): *Econometric Methods, Techniques and Applications*, Prentice Hall, New Jersey.
- Krishna, K.L. (ed) (1999): *Econometric Applications in India*, Oxford University Paperbacks, Oxford University Press, New Delhi.
- Ray S., DEA, Oxford Univ Press

Course Title-INTERNATIONAL ECONOMICS -IV
Course Code: MECOMET 404B

Number of credits-4
Total Contact Hours-60

Prerequisite: UG/PG INTERNATIONAL ECONOMICS

SPECIAL PAPER-IV

PAPER CODE-MECOMET-404B

INTERNATIONAL ECONOMICS-IV

Gr-A:LABOUR-GROWTH-WELFARE ASPECTS OF TRADE

(Three questions)

Module-I:Trade and Labour

[CONTACT HOURS: 15]

- ❖ Trade, Wages and Labour Mobility.
- ❖ Trade Policy Reforms and Informal Sector

Module-II: Trade, Growth and Welfare

[CONTACT HOURS: 15]

- ❖ Theory of Immiserizing Growth and its applications.
- ❖ Welfare Implications of Directly Unproductive Profit-Seeking Activities

Gr-B:TRADE & POLITICAL ECONOMY

(Three questions)

Module-III: Regional Trade Blocs

[CONTACT HOURS: 15]

- ❖ Theories of Customs Unions and Free Trade Areas.
- ❖ Recent Developments of the Institutional Frameworks of the RTBs.
- ❖ Welfare implications

Module-IV: Political Economy of Trade Policy

[CONTACT HOURS: 15]

- ❖ Lobbying and endogenously determined trade policies:
 - The different approaches;
 - Level and mode of protection under political-support function approach;
 - Lobbying and contribution approaches; cross-country evidences

References:

For Trade and Labour

- Deardorff, A.V. (2000), 'Policy Implications of the Trade and Wage Debate', *Review of International Economics*, 8(3), 478-496.
- Marjit, S. and Kar, S. (2004), 'Wages, Labour Mobility, and International Trade' in Bhattacharya, A. and Marjit, S. (Eds.), *Globalization and the Developing Economies: Theory and Evidence*. Manohar Publishers and Distributors, New Delhi, 135-156.
- Kar, S. and Marjit, S. (2001), 'Informal Sector in General Equilibrium: Welfare Effects of Trade Policy Reforms', *International Review of Economics and Finance*, 10(3), 289-300.

For Trade, Growth and Welfare

- Bhagawati, J.N. (1973), 'The Theory of Immiserizing Growth: Further Applications', in Feenstra, R.C. (Ed.), *Essays in International Economic Theory*, Vol.1 (1983), MIT Press, Cambridge, 121-129.
- Bhagawati, J.N. (1969), 'Optimal Policies and Immiserizing Growth', in Feenstra, R.C. (Ed.), *Essays in International Economic Theory*, Vol.1 (1983), MIT Press, Cambridge, 130-133.
- Bhagawati, J.N. (1982), 'Directly Unproductive Profit-Seeking (DUP) Activities' in Feenstra, R.C. (Ed.), *Essays in International Economic Theory*, Vol.1 (1983), MIT Press, Cambridge, 259-273.

- *Bhagwati, J.N. and Bent Hansen (1973), 'A Theoretical Analysis of Smuggling' in Feenstra. R.C.(Ed.), Essays in International Economic Theory, Vol.1 (1983), MIT Press, Cambridge, 286-301.*

For Regional Trade Blocs

- *Lipsey, R.G. (1960), 'The Theory of Customs Unions: A General Survey', The Economic Journal, Vol.70, No. 279, pp.496-513.*
- *Krauss, M.B. (1972), 'Recent Developments in Customs Union Theory: An Interpretive Survey', Journal of Economic Literature, Vol.10, No. 2, pp.413-436.*
- *Panagariya, A. and. Krishna, P. (2002), 'On Necessarily Welfare-Enhancing Free Trade Areas', Journal of International Economics, 57,353-367*

Course Title-RURAL ECONOMICS -IV
Course Code: MECOMET 404C

Number of credits-4
Total Contact Hours-60

Prerequisite: PG DEVELOPMENT ECONOMICS

SPECIAL PAPER-IV

PAPER CODE-MECOMET-404C

RURAL ECONOMICS-IV

Gr-A: RURAL EMPLOYMENT & INFRASTRUCTURE

(Three questions)

Module-I: Employment Programme and Policies

[CONTACT HOURS: 15]

- ❖ Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)- Objectives, Design and Coverage issues, Implementation Challenges. State – wise Performance, Sectoral Allocation- achievements and Failure. Watershed Management: Sustainable Integrated Watershed Management in arid & Semi-arid regions, Integrated Water resources Management conjunctive use of Water Resources, Standard Modelling Approach, Water legislation and implementation.
- ❖ Swarnajayanthi Gram Swarojgar Yojana (SGSY): IRDP- Limitations, Reshaping and Challenges, SHG – Peer Pressure, Social Capital, Bank- Linkage – Issues and Challenges, Problem of fake and multiple membership, SHG Vs Co-operatives, JLG. NRLM-features, objectives, functions, roles in rural development

Module-II: Rural Infrastructure –Programme and Policies

[CONTACT HOURS: 15]

- ❖ Rural Roads: Planning of Rural Roads, Transport Priority Index (TPI), Link Choice, Rural Road development Indicators, Rural Access Index, Inter-state Evaluation, Sustainable Rural Road Maintenance, Rural Infrastructural Development Fund (RIDF).
- ❖ Rural Housing: Rural Housing Policy, Status and Policy Changes of Indira Aawas Yojana (IAY), Pradhan Mantri Awas Yojana - Gramin, Rajiv Awas Yojana.

Gr-B: RURAL ENTREPRENEURSHIP & TECHNOLOGY

(Three questions)

Module-III: Rural Entrepreneurship and Industrialisation

[CONTACT HOURS: 15]

- ❖ Rural Entrepreneurship, agripreneurship and cooppreneurship, Entrepreneurial Culture, Relevance of rural entrepreneurs in solving Socio-economic problems. Problems of Rural Entrepreneurship in India – Reasons and Remedies.
- ❖ Importance of rural industrialization, strategy of Rural Industrialization, Trends, Problems, Prospects and policies of rural Industries in India in the post liberalization era. KVI sector entrepreneurs - National Institute of design. Product development design, Intervention & packaging (PRODIP) scheme, rural Industries – services centers (R/SC) Rural Industries consultancy service (RICS), Central silver plants (CSPs) Raw material godowns & warehouses.

Module-IV: Science and Technology and Rural Development

[CONTACT HOURS: 15]

- ❖ Science and Technology for Rural Development in India;
- ❖ The role of Ministry of Science and technology;
- ❖ Government schemes focusing on science and technology at rural areas;
- ❖ E-governance initiatives for Rural Development;
- ❖ Computerised Rural Information System Project;
- ❖ National e-governance Plan;
- ❖ E-governance Projects in Rural India;
- ❖ E -Gyandoot- Jagriti e seva-Akashganga Kissan Call Centres Rural Development

in India.

References:

Journals

1. Rajiv Ranjan, Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA): A Critical appraisal of its performance since its inception, IIM Ahmadabad retrieved from https://www.researchgate.net/publication/317958092_Mahatma_Gandhi_National_Rural_Employment_Guarantee_Act_MGNREGA_A_Critical_appraisal_of_its_performance_since_its_inception
2. Nair M., Ariana P., Ohuma EO., Gray R., De Stavola B., Webster P. (2013), Effect of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) on malnutrition of infants in Rajasthan, India: a mixed methods study. Medawar Pathogen Research, University of Oxford.
3. N. S. Srinivasan, Planning of Rural Roads, NRIDA retrieved from <https://pmgsy.nic.in/planning-rural-roads>
4. SINGH, D V, GUPTA, A K & Kumar, P (1997), Planning Practices For Rural Roads In India - A Critical Review, <http://worldcat.org/oclc/1790571>
5. Peter Roberts Shyam KC Cordula Rastogi, Rural Access Index: A Key Development Indicator, Transport papers, March 2006 retrieved from <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.379.3693&rep=rep1&type=pdf>
6. Meenakshi Rajeev A Critical Analysis of the RIDF, Economic and Political Weekly, Vol. 43 (7), pp- 27-31.
7. C.L. Dadhich (2014) Revisiting Rural Infrastructure Development Fund (RIDF) Scheme, *Indian Journal of Agricultural Economics*, 2014, vol. 69, issue 1, 8.
8. Madhusudan Ghosh (2017), Infrastructure and Development in Rural India, Margin: The Journal of Applied Economic Research retrieved from <https://journals.sagepub.com/doi/full/10.1177/0973801017703499>
9. Sthitapragyan Ray (2008), Alleviating Poverty through Micro-finance: SGSY Experience in Orissa, *Sociological Bulletin* Vol 57 (2).
10. H.S. Shylendra and Kishore Bhirdikar (2005), Good Governance' and Poverty Alleviation Programmes: A Critical Analysis of the Swarnjayanti Gram Swarozgar Yojana, *International Journal of Rural Management (IRMA)*, Sage Publications vol. 1 (2).
11. Diganta Kumar Das (2020), Role of National Rural Livelihood Mission (NRLM) on cost of living standard of the scheduled caste communities at Dhemaji and Lakhimpur district of Assam, *International Journal of Research- Granthaalayah*,

Books

1. Rural development in India - Vasant Desai, Himalaya Publishing House, Mumbai.
2. Dynamics Entrepreneurial development and management - Vasant Desai, Himalaya, Mumbai.
3. Co- -operative entrepreneurship in action A. K Ravichandran, S. Nakkiran, Studera press- New Delhi.
4. Entrepreneurship- A South- Asian perspective- D. F. Kuratko, T. V. Rao,engage leaving Andover, Melbome.
5. A. M. Abramson and E. G. Means, E-Government, Price water house Coopers Endowment for the Business of Government, (Rowman& Littlefield Publishers Inc, 2001)
6. World Bank, Issue Note: E-Government and the World Bank, 2001 12. V. B. Singh and N. Yadav, "E-Governance: Past, Present and Future in India", *International Journal of Computer Applications*, 53(7), 2012, 36-48
7. A. H. Rizvi, "A study of E-Governance Educational Projects in India", *Global Journal for Research Analysis*, 5(1), 2016, 37-38

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9. Ashok Pankaj "Right to work and Rural India-Working of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Sage Publications
10. Rob Jenkins and James Manor (2017) Politics and the Right to Work: India's National Rural Employment Guarantee Act, Oxford University Press.
11. National Rural Livelihood Mission (NRLM): Manual for District 2017 National Rural Livelihood Mission Manual for District - Level Functionaries
12. Biswas A K (2007), Watershed management, International journal of Water Resources Development, Vol. 4, Issue-4, May, Taylor and Francies.
13. Muthy J.V.S., Watershed Management in India, Willy eastern, New Delhi, 1994.
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Government website:

1. Objectives of NRLM: <https://aajeevika.gov.in/en/content/objectives>

Course Title-HEALTH ECONOMICS -IV
Course Code: MECOMET 404D

Number of credits-4
Total Contact Hours-60

Prerequisite: PG DEVELOPMENT ECONOMICS

SPECIAL PAPER-IV

PAPER CODE-MECOMET-404D

HEALTH ECONOMICS-IV

Gr-A:HEALTH ECONOMETRICS

(Three questions)

Module-I: Multivariate Analysis of Limited Dependent Models [CONTACT HOURS: 15]

- ❖ Estimating Logit/Probit, Odds Ratio, Marginal effects.
- ❖ Multinomial Logit and Relative Risk Ratio
- ❖ Ordered Logit, Marginal effects, Brant test, Tests of Nestedness, Alternative specifications of Ordered Logit
- ❖ Decomposition Analysis
- ❖ Tobit and truncated regression Model

Module-II: Longitudinal and Hierarchical Data

[CONTACT HOURS: 15]

- ❖ Preparing data for panel data analysis
- ❖ LM and Hausman test under alternative specifications
- ❖ Estimating REM and FEM model
- ❖ Incorporating categorical dependent variable

Gr-B:HEALTH SURVEYS

(Three questions)

Module-III: Some Important Household Survey Data Sets [CONTACT HOURS: 15]

- ❖ Demographic Health Survey dataset
- ❖ National Sample Survey Organization LATEST Rounds
- ❖ India Human Development Survey data set

Module-IV: Analyzing health equity using HH survey datasets [CONTACT HOURS: 15]

- ❖ Analyzing health equality using household survey data

References:

- Andrew Jones (2007) *Applied Econometrics for Health Economists*, 2nd Edition, Radcliffe Publishing
- Jones, A. M. 'Health Econometrics' in Culyer, A. J. and Newhouse, J. P. (edtd.) *Hand Book of Health Economics*, Vol. 1A, Chapter 6, North-Holland.
- O'Donnell, E. Doerslaer, A. Wagstaff and M. Lindelow (2008) *Analyzing health equality using household survey data*, World Bank

Special Paper-405 (DISSERTATION)

STUDENTS WILL ADOPT ONLY ONE

Special Paper-MECOMET-405A	Advanced Econometrics-V
Special Paper- MECOMET-405B	International Economics-V
Special Paper- MECOMET-405C	Rural Economics-V
Special Paper- MECOMET-405D	Health Economics-V

Course Title-ADVANCED ECONOMETRICS -V
Course Code: MECOMET 405A
Total Contact Hours-60
DISSERTATION

Number of credits-4

Prerequisite:

Students will have to prepare a project report using software related to econometric and statistical packages and primary/secondary data. The project report will be evaluated by the departmental teachers and 30 marks will be allotted for that. For viva-voce and/or presentation of the project report 20 marks will be allotted. During the viva-voce and/or presentation one external will be present along with the departmental teachers for evaluation. Students will be given a list of topics and the concerned teachers will give some general guidelines. Students will have to prepare the project reports on their own.

SPECIAL PAPER-V

PAPER CODE-MECOMET-405A

ADVANCED ECONOMETRICS-V

DISSERTATION PAPER

- **SUBMISSION OF SCHEMATIC PROPOSAL (FORMAT WILL BE SUPPLIED BY THE DEPARTMENT)** **[CONTACT HOUR 10]**
- **PREPARATION & SUBMISSION OF QUESTIONNAIRE /BACKGROUND /OBJECTIVES OF THE STUDY** **[CONTACT HOUR 15]**
- **DATA COLLECTION, PROCESSING & ANALYSIS** **[CONTACT HOUR 15]**
- **FINAL REPORT PREPARATION** **[CONTACT HOUR 20]**
- **SUBMISSION OF FINAL REPORT**
- **PRESENTATION & VIVA-VOCE**

Course Title-INTERNATIONAL ECONOMICS -V
Course Code: MECOMET 405B

DISSERTATION

Number of credits-4
Total Contact Hours-60

Prerequisite:

Students will have to prepare a project report using software related to econometric and statistical packages and primary/secondary data. The project report will be evaluated by the departmental teachers and 30 marks will be allotted for that. For viva-voce and/or presentation of the project report 20 marks will be allotted. During the viva-voce and/or presentation one external will be present along with the departmental teachers for evaluation. Students will be given a list of topics and the concerned teachers will give some general guidelines. Students will have to prepare the project reports on their own.

SPECIAL PAPER-V**PAPER CODE-MECOMET-405B****INTERNATIONAL ECONOMICS-V****DISSERTATION PAPER**

- **SUBMISSION OF SCHEMATIC PROPOSAL (FORMAT WILL BE SUPPLIED BY THE DEPARTMENT) [CONTACT HOUR 10]**
- **PREPARATION & SUBMISSION OF QUESTIONNAIRE/BACKGROUND/OBJECTIVES OF THE STUDY [CONTACT HOUR 15]**
- **DATA COLLECTION, PROCESSING & ANALYSIS [CONTACT HOUR 15]**
- **FINAL REPORT PREPARATION [CONTACT HOUR 20]**
- **SUBMISSION OF FINAL REPORT**
- **PRESENTATION & VIVA-VOCE**

Course Title-RURAL ECONOMICS -V**Number of credits-4****Course Code: MECOMET 405C**
Total Contact Hours-60
DISSERTATION

Prerequisite:

Students will have to prepare a project report using software related to econometric and statistical packages and primary/secondary data. The project report will be evaluated by the departmental teachers and 30 marks will be allotted for that. For viva-voce and/or presentation of the project report 20 marks will be allotted. During the viva-voce and/or presentation one external will be present along with the departmental teachers for evaluation. Students will be given a list of topics and the concerned teachers will give some general guidelines. Students will have to prepare the project reports on their own.

SPECIAL PAPER-V**PAPER CODE-MECOMET-405C****RURAL ECONOMICS-V****DISSERTATION PAPER**

- **SUBMISSION OF SCHEMATIC PROPOSAL (FORMAT WILL BE SUPPLIED BY THE DEPARTMENT)** **[CONTACT HOUR 10]**
- **PREPARATION & SUBMISSION OF QUESTIONNAIRE /BACKGROUND /OBJECTIVES OF THE STUDY** **[CONTACT HOUR 15]**
- **DATA COLLECTION, PROCESSING & ANALYSIS** **[CONTACT HOUR 15]**
- **FINAL REPORT PREPARATION** **[CONTACT HOUR 20]**
- **SUBMISSION OF FINAL REPORT**
- **PRESENTATION & VIVA-VOCE**

Course Title-HEALTH ECONOMICS -V**Number of credits-4****Course Code: MECOMET 405D**
Total Contact Hours-60
DISSERTATION

Prerequisite:

Students will have to prepare a project report using software related to econometric and statistical packages and primary/secondary data. The project report will be evaluated by the departmental teachers and 30 marks will be allotted for that. For viva-voce and/or presentation of the project report 20 marks will be allotted. During the viva-voce and/or presentation one external will be present along with the departmental teachers for evaluation. Students will be given a list of topics and the concerned teachers will give some general guidelines. Students will have to prepare the project reports on their own.

SPECIAL PAPER-V**PAPER CODE-MECOMET-405D****HEALTH ECONOMICS-V****DISSERTATION PAPER**

- **SUBMISSION OF SCHEMATIC PROPOSAL (FORMAT WILL BE SUPPLIED BY THE DEPARTMENT)** **[CONTACT HOUR 10]**
- **PREPARATION & SUBMISSION OF QUESTIONNAIRE /BACKGROUND /OBJECTIVES OF THE STUDY** **[CONTACT HOUR 15]**
- **DATA COLLECTION, PROCESSING & ANALYSIS** **[CONTACT HOUR 15]**
- **FINAL REPORT PREPARATION** **[CONTACT HOUR 20]**
- **SUBMISSION OF FINAL REPORT**
- **PRESENTATION & VIVA-VOCE**

Prerequisite: Basic Ideas of Statistics

Course objectives

**Such a paper not only for the students of this department, but also other department students can participate. The objectives is to create understanding of applied economics.*

PAPER-VI

PAPER CODE-MECOACT-406

ADD-ON PAPER

DATA ANALYSIS

Module-I: BASIC DATA ANALYSIS

[CONTACT HOURS: 15]

- ❖ Data Presentation and Data Management
- ❖ Filtering and Sorting Data
- ❖ Formulae and Functions.
- ❖ Methods for Describing Univariate and Bivariate Data Set
- ❖ Application (MODULE-I) in Excel

Module-II: Graphical & Numerical Techniques-I

[CONTACT HOURS: 15]

- ❖ Measure of Center, Spread, Relative Standing,
- ❖ Applications (MODULE-II) by ANY ONE Software (STATA/SPSS/EVIEWS/R)

Module-III: Graphical & Numerical Techniques-II

[CONTACT HOURS: 15]

- ❖ Data management
- ❖ Correlation – Regression and some extensions, Estimation & Hypothesis testing
- ❖ Applications (MODULE-III) by ANY ONE Software (STATA/SPSS/EVIEWS/R)

Module-IV: Graphical& Numerical Techniques-III

[CONTACT HOURS: 15]

- ❖ Basic ideas of Multicollinearity & Heteroscedasticity
- ❖ Basic ideas of Qualitative Variables
- ❖ Applications (MODULE-IV) by ANY ONE Software (STATA/SPSS/EVIEWS/R)

Learning Outcomes:

This paper thoroughly highlights the critical issues and hindrances in operation and execution of social development policies.