

Learning Outcomes Based Curriculum Framework (LOCF)

for

Economics

Postgraduate Programme



Department of Economics

Cotton University

Panbazar, Guwahati - 781001

Assam

PART I

1.1 Introduction

“Economics is the science which studies human behaviour as a relationship between given ends and scarce means which have alternative uses.” –Lionel Robbins

The word "economics" is derived from the Greek word “oikonomia” (*oikos* meaning "family, household, estate, and *nomos* meaning custom, law, management) which means "household management". Over time, the word "oikonomia" was used for an economy as a whole in the sense that how a nation takes steps to fulfill its desires and preferences with the help of scarce means. That is why economics was called political economy in its early ages. In the words of the British economist Alfred Marshall, “Political Economy or Economics is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of wellbeing”. Thus, it is on one side a study of wealth; and on the other, a part of the study of man. For a layman, economics is all about money. Economics is not just about money. It is about making choices or weighing different alternatives. The reason behind this is that human wants are unlimited but the means or resources to satisfy these wants are scarce. That is why economics is nicknamed a “*dismal science*” because it is all about running out of resources and managing our desires with limited resources. Economics is the study of scarcity and its implications for the use of resources. It emphasises efficient utilisation of resources and avoiding wasteful choices. Economics, therefore, enhances decision-making skills. As a social science, Economics encompasses within its mandate various issues such as production and employment, investment and savings, education, health, money, the banking system, government policies on taxation and spending, international trade, industrial organization and regulation, urbanization, population dynamics and environmental issues.

This postgraduate course in Economics has been designed to impart advanced knowledge of various branches of Economics like Microeconomics, Macroeconomics, International Economics, Financial Economics, Monetary Economics, Public Economics, Development Economics, and Environmental Economics, along with acquiring skills in Statistics, Mathematical Economics, and Econometrics, keeping consistency with the undergraduate

course. The syllabus incorporates research work in the final semester to generate research skills. This programme will facilitate student's pursuance of their choice of preferred career options in the future.

1.2 Programme Outcomes (POs) for Postgraduate programme

POs are statements that describe what the students graduating from any of the educational Programmes should be able to do. They are the indicators of what knowledge, skills and attitudes a graduate should have at the time of graduation.

1. **In-depth knowledge:** Acquire a systematic, extensive and coherent knowledge and understanding of their academic discipline as a whole and its applications, and links to related disciplinary areas/subjects of study; demonstrate a critical understanding of the latest developments in the subject, and an ability to use established techniques of analysis and enquiry within the subject domain.
2. **Understanding Theories:** Apply, assess and debate the major schools of thought and theories, principles and concepts, and emerging issues in the academic discipline.
3. **Analytical and critical thinking:** Demonstrate independent learning, analytical and critical thinking of a wide range of ideas and complex problems and issues.
4. **Critical assessment:** Use knowledge, understanding and skills for the critical assessment of a wide range of ideas and complex problems and issues relating to the chosen field of study.
5. **Research and Innovation:** Demonstrate comprehensive knowledge about current research and innovation, and acquire techniques and skills required for identifying problems and issues to produce a well-researched written work that engages with various sources employing a range of disciplinary techniques and scientific methods applicable.
6. **Interdisciplinary Perspective:** Commitment to intellectual openness and developing understanding beyond subject domains; answering questions, solving problems and addressing contemporary social issues by synthesizing knowledge from multiple disciplines.
7. **Communication Competence:** Demonstrate effective oral and written communicative skills to convey disciplinary knowledge and to communicate the results of studies undertaken in an academic field accurately in a range of different contexts using the main concepts, constructs and techniques of the subject(s) of study
8. **Career development:** Demonstrate subject-related knowledge and skills that are relevant to academic, professional, soft skills and employability required for higher education and placements.

| | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| critical thinking | | | | | | | | | | | | | | |
| Research and Innovation | | x | | | x | | x | | x | x | x | x | x | x |
| Interdisciplinary Perspective | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Communication Competence | | | | | x | | | | x | x | x | x | x | x |
| Career development | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Teamwork | | | | | x | | | | x | x | x | | x | x |
| Commitment to the society and the Nation | | x | | | x | | x | | | x | x | x | x | x |

| PO-CO mapping: Special papers, Open elective and DPW | | | | | | | |
|---|--------|--------|---------|---------|---------|----------|---------|
| Programme Outcomes | 904SP1 | 904SP2 | 1002SP3 | 1002SP4 | 905OPE1 | 1003OPE2 | 1004DPW |
| In-depth knowledge | x | x | x | x | x | x | x |
| Specialised knowledge and skills | x | x | x | x | x | x | x |
| Analytical and critical thinking | x | x | x | x | x | x | x |
| Research and Innovation | x | x | x | | x | x | x |
| Interdisciplinary Perspective | x | x | x | x | x | x | x |
| Communication Competence | x | x | x | | x | x | x |
| Career development | x | x | x | | x | x | x |

| | | | | | | | |
|--|---|---|---|--|---|---|---|
| Teamwork | x | x | x | | x | x | x |
| Commitment to the society and the Nation | | x | x | | x | x | x |

| PSO-CO Mapping | | | | | | | | | | |
|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | Semester-I | | | | | Semester-II | | | | |
| | Core Course 1 | Core Course 2 | Core Course 3 | Core Course 4 | Core Course 5 | Core Course 6 | Core Course 7 | Core Course 8 | Core Course 9 | Core Course10 |
| PSO1 | X | X | X | X | X | X | X | X | X | X |
| PSO2 | X | X | X | X | X | X | X | X | X | X |
| PSO3 | X | X | X | X | X | X | X | X | X | X |
| PSO4 | | X | | X | X | | X | | X | X |
| PSO5 | | X | | | | | X | | | X |

| PSO-CO Mapping | | | | | | | | | | | |
|----------------|----------------|----------------|----------------|--------------------|-----------|-----------------|----------------|--------------------|-----------|------|------------------|
| | Semester-III | | | | | | Semester-IV | | | | |
| | Core Course 11 | Core Course 12 | Core Course 13 | Special Paper (SP) | | Open Elective I | Core Course 14 | Special Paper (SP) | | DP W | Open Elective-II |
| | | | | Elective -1 | Elective2 | | | Elective -1 | Elective2 | | |
| | | | | | | | | | | | |
| PSO1 | X | X | X | X | X | X | | | | | X |
| PSO2 | | X | | X | X | X | | | X | X | X |
| PSO3 | X | X | X | X | X | X | X | X | X | X | X |
| PSO4 | X | X | X | X | X | X | X | X | X | X | X |
| PSO5 | X | X | X | X | X | X | X | X | X | X | X |

1.4 Teaching-learning process

The department of Economics, Cotton University has a strong student-centric teaching-learning process for a fruitful learning experience of the students. The department mostly undertakes classrooms lectures which are substantially interactive. Teaching is generally facilitating in nature to encourage self-learning on the part of the learners. Practice sessions for better understanding of the courses offered are regularly scheduled.

Exposure visits, orientation programs, invited lectures, seminars are regularly arranged to enhance learning, develop applications of the skills acquired, encourage innovative thinking and creativity, provide exposure to the academic and research advancements in the field of Economics.

Students are encouraged and facilitated in taking up minor research projects. To motivate the students towards research and creativity, they are engaged in various activities relating to department project works. Students are assisted in their learning by providing library facilities in the department.

1.5 Assessment methods

The department of Economics considers a few assessment methods appropriate to the discipline, based on the overall course requirements. Student's progress towards achievement of the learning outcomes is on the basis of continuous evaluation. This process comprises both internal assessment covering 30% of the total evaluation and external assessment covering the remaining 70% of the total. The systems in place include class assignments, oral presentations, Dissertation & Project work, viva-voce and practice sessions for data handling using various software packages available. Paper setting for each course meticulously considers the understanding, application skills, analytical and evaluative capabilities as well as creative power of each learner.

Structure of Post-Graduate programme in Economics

Course structure

PG SEMESTER I

| Course | Paper Title | Credits (L+T+P) |
|---------------|--------------------------------------|------------------------|
| ECO701C | Microeconomics-I | 3+1+0 |
| ECO702C | Macroeconomics-I | 3+1+0 |
| ECO703C | Mathematical Methods for Economics-I | 3+1+0 |
| ECO704C | Statistical Methods for Economics | 3+1+0 |
| ECO705C | Environmental Economics | 3+1+0 |

PG SEMESTER II

| Course | Paper Title | Credits (L+T+P) |
|---------------|--|------------------------|
| ECO801C | Microeconomics-II | 3+1+0 |
| ECO802C | Macroeconomics-II | 3+1+0 |
| ECO803C | Mathematical Methods for Economics-II | 3+1+0 |
| ECO804C | Elements of Econometrics | 3+1+0 |
| ECO805C | Research Methodology for Social Sciences | 3+1+0 |

PG SEMESTER III

| Course | Paper Title | Credits (L+T+P) |
|---------------|------------------------------------|------------------------|
| ECO901C | Development Economics-I | 3+1+0 |
| ECO902C | Economics of the Public Sector (C) | 3+1+0 |
| ECO903C | International Economics (C) | 3+1+0 |
| ECO904SP1 | Econometric Methods (E) | 4+1+0 |
| ECO904SP2 | Financial Economics (E) | 4+1+0 |
| ECO905OPE1 | Population Studies (OPE) | 3+1+0 |

PG SEMESTER IV

| Course | Paper Title | Credits (L+T+P) |
|---------------|--------------------------------------|------------------------|
| ECO1001C | Indian Economy in the Global Context | 3+1+0 |
| ECO1002SP3 | Advanced Development Economics (E) | 4+1+0 |
| ECO1002SP4 | Advanced Quantitative Techniques (E) | 4+1+0 |
| ECO1003OPE2 | Demography (OPE) | 3+1+0 |
| ECO1004DPW | Dissertation and Project Work (DPW) | 0+0+6 |

PG 1st Semester

| Course | Paper Title | Credits (L+T+P) |
|---------------|---|------------------------|
| ECO701C | Microeconomics-I | 3+1+0 |
| ECO702C | Macroeconomics-I | 3+1+0 |
| ECO703C | Mathematical Methods for Economics-I | 3+1+0 |
| ECO704C | Statistical Methods for Economics | 3+1+0 |
| ECO705C | Environmental Economics | 3+1+0 |

Paper: ECO701C

Microeconomics-I

4 Credits (L+T+P): 3+1+0

45 Lecture Hours

Course Objectives:

- Apprise the learners about the recent developments in consumer behaviour.
- Acquaint students with welfare implications of consumer choice preferences
- To understand the role of production functions and cost function in

- optimisation of firm behaviour.
- Knowledge about fiscal policies and price-output behaviour under different market structures
- An understanding of firm behaviour in the face of ownership-management divide

Course outcomes (CO)

CO1: Understand alternative approaches to the analysis of consumer's behaviour using mathematical tools

CO2: Understand and **analyse** production function in real life application

CO3: Analyse fiscal policies under perfect and imperfect market structures

CO4: Evaluate the behaviour of firms with a dominant management strategy

Course Outline:

Unit – I: Consumer's Behaviour (15)

The violation of the premises of the indifference curves approach, The theory of Revealed Preference; Satiation and Lexicographical ordering; Linear expenditure systems, separable and additive utility functions, homogenous and homothetic utility functions, Choice of an utility index–indirect utility function and duality in consumption; duality theorems, dual properties of utility and expenditure functions, Ray's identity-ordinary and compensated demand curves and measures of welfare change; composite commodities; consumer's surplus.

Unit –II: Theory of the firm (15)

Technical Progress and Production Function:- Forms of Production Function; Cobb-Douglas, CES and Fixed coefficient Type and properties, elasticity of substitution, duality in production – the Ideas of Partial and Total Factor Productivity - Single Decision of a Firm; Choice of Optimal Factor Combination – Expansion Path – Derivation of Cost Function from Production Function – Multi-product Firm production Efficiency Locus, Production Possibility Frontier and Choice of Optimal Combination of Output of Products.

Unit -III: Market Equilibrium: (15)

Tax and entry consideration under perfect competition, monopoly and monopolistic competition; Monopsony: pricing and output, Duopoly- Bertrand and Stackelberg; Managerial theories of the firm: contributions of Baumol, Marris and Williamson to managerial theories of the firm.

Readings:

Henderson, J. and Quandt, R.E. *Microeconomic Theory: A Mathematical Approach*. McGraw-Hill Inc., USA; 3rd revised edition, (1980)

Varian, H.R. *Intermediate Microeconomics: A Modern Approach*, Eighth Edition

Nicholson, W. Snyder, C. *Microeconomic Theory Basic Principles and Extensions*, Cengage; 11th edition (2014)

Perloff, J. M. Mason, C. Robert, Whaples, M. *Microeconomics Theory & Applications with Calculus*, Pearson Education Inc. (2013)

Paper: ECO702C
Macroeconomics-I
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course Objective:

After completing this paper, students will have good understanding of the principle macroeconomic variables that are considered to be the four wheels of a free market open economy

Course Outcome:

- CO1: Understand** the estimation of national income in a four sector economy
- CO2: Apply** different approaches to reconcile empirical evidence arising from short run and cross sectional, and long run time series data pertaining to consumption
- CO3: Analyse** the investment behaviour following neoclassical, non-Keynesian approaches; basic multiplier-accelerator interaction model
- CO4: Evaluate** the relative efficiency of fiscal and monetary policies both under fixed exchange rate and flexible exchange rate regime, using the framework of Mundel-Flemming Model

Course Outline:

Unit-1: National Income: (11)

Income Determination with Government sector and Foreign Trade, Foreign Trade Multiplier

Unit-2: Consumption (11)

The Consumption Data; The Absolute Income Hypothesis, The Relative Income Hypothesis; The Permanent Income Hypothesis; The Life Cycle Hypothesis; Random Walk Hypothesis; Consumption as a Random Walk; Further Aspects of Consumption Behaviour

Unit-3: Investment: (12)

Fixed Investment: The Rental Price of Capital, the Cost of Capital and Determination of Investment; Residential and Inventory Investment: nature and determinants; the Accelerator Model, Multiplier Accelerator Interaction Process, flexible accelerator, Tobin's q theory

Unit-4: Open Economy Macroeconomics: (11)

The Open Economy IS-LM Model; BP Line, the Mundell-Fleming Model, extension of Mundell-Fleming Model to flexible exchange rate regime

Recommended Readings:

N. GragoryMankiw, *Macroeconomics*, Cengage

Brian Snowdon and H R Vane, *Modern Macroeconomics*

RaghabendraJha, *Macroeconomics for a Developing Economy*

Soumen Sikdar, *Principles of Macroeconomics*, OUP

Eugene Diulio , *Theory and Problems on Macroeconomics* 3rd edition, Schaums Outline Series

John Sloman, *Economics*, Third Edition, Prentice Hall of India Private Limited, New Delhi, 2002

Levacic and Rebman: *Macroeconomics: An Introduction to Keynesian NeoClassical Controversies*

Ola Olson, *Essentials of Advanced Macroeconomic Theory*

Paper: ECO703C (Core)
Mathematical Methods for Economics-I
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course Objective:

- To impart knowledge about mathematical tools relevant to solving economic problems
- To apprise students about the use of input-output analysis to understand sectoral interdependence in economics

Course outcomes:

CO1: Understand the application of mathematical tools for optimisation in economics

CO2: Apply integral calculus in solving economic problems

CO3: Analyse sectoral inter-dependence using input-output technique

Course Outline:

Unit 1: Unconstrained optimization: (10)

Unconstrained maxima and minima with more than one explanatory variables- economic application: equilibrium of discriminating monopoly in the case of two and three variables; Multi – product equilibrium, Multi-plant equilibrium, equilibrium of firm with advertisement expenditure.

Unit 2: Optimization with equality constraint: (10)

Geometric characterization, Lagrange characterization using calculus and economic applications; Review: utility maximization and consumer's behavior; comparative static analysis of utility maximization, least cost combination of inputs.

Unit 3: Integration: Economic Application (10)

Applications of Integrals, estimation of consumer's surplus, producer's surplus (review). Problems relating to investment, capital formation and derivation of simple growth process (Domar); present value of a cash flow; present value of a perpetual flow.

Unit 4: Matrix Algebra and its Applications: (15)

Review – Properties of Trace, Rank, matrix multiplication, transpose and Inverse; Hessian Matrix, Jacobian Matrix; Matrix applications - National Income, IS-LM and Input –Output

models; Eigenvalue and Eigenvector; Eigendecomposition of a matrix; Definiteness of matrix; Quadratic form and definiteness of the associated matrix; Random matrix: Mean vector, covariance and correlation matrix, variance of a random variable.

Recommended Readings:

A.C. Chiang, “Fundamental Methods of Mathematical Economics”, McGraw Hill

S. Baruah, “Basic Mathematics and its Economics Applications”, MacMillan

J. M. Henderson and R. E. Quandt, “Micro-economic Theory – A Mathematical Treatment.”

R.G.D. Allen, “Mathematical Analysis for Economists.”

Mouhammed, “Introduction to Mathematical Economics”, Prentice Hall of India.

R. A. Johnson and D. W. Wichern, “Applied Multivariate Statistical Analysis” Pearson

Paper: ECO704C (Core)
Statistical Methods for Economics
4 Credits (L+T+P): 3+1+0

45 Lecture Hours

Course Objective:

- To understand the use of statistical tools in the context of economic phenomena
- To facilitate the knowledge of inference based on sample and sampling distribution
- To enable research studies using statistical concepts and application

Course Outcomes:

CO1: Understand the role of probability theory in quantitative analysis under expectation and uncertainty

CO2: Apply econometric tools using probability distribution

CO3: Apply and analyse sampling distributions and statistical inference in empirical analysis

Course Outline:

Unit 1: Probability: Basic Ideas (13)

Review of Terminology and related concepts, different approaches to probability: classical, statistical and axiomatic; derivation of basic probability rules; conditional probability; pairwise and mutual independence; Bayes' Theorem (concept only); Random variable; Probability Distribution of a random variable; mathematical expectation; variance of random variable in terms of expectations; moments relating to discrete random variables.

Unit-2: Theoretical Probability Distributions (10)

Binomial, Poisson and Normal Distributions with Properties-Moment Generating Function-The central Limit Theory (without proof)

Unit – 3: Sampling and Estimation (10)

Concept of Sampling Distribution and Standard Error of a Statistic – Methods of Estimation – Principles of Moments, Least Square and Maximum Likelihood (Concepts only)

Unit – 4: Statistical Inference (12)

Testing of Hypothesis: Type I and Type II Errors, One-tailed and Two-tailed Tests – Test based on Standard Normal, t Distribution, Chi-Square Distribution and F- Distribution.

Readings:

- Yamane, Taro, “Statistics – An Introductory Analysis”,
- Hooda, P.R., “Statistics for Business and Economics”, Macmillan
- Gupta, S.C. and Kapoor, V.K., “Fundamentals of Mathematical Statistics”
- Nagar, A.L. and Das, R.K., “Basic Statistics”, Oxford.
- Salvatore, Dominick and Reagle, Darrick, “Statistics and Econometrics”, TMH
- Yamane, Taro, “Statistics – An Introductory Analysis”.
- Hooda, P.R., “Statistics for Business and Economics”, Macmillan
- Gupta, S.C. and Kapoor, U.K., “Fundamentals of Mathematical Statistics”
- Nagar, A.L. and Das, R.K., “Basic Statistics”, Oxford.
- Salvatore, Dominick and Reagle, Darrick, “Statistics and Econometrics”, TMH

Paper: ECO705C (Core)

Environmental Economics
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course Objective:

The objective of the course is to acquaint the learners with core issues related to the economics of environment, valuation techniques therein, and sustainable use of environmental resources

Course Outcomes:

CO1: Understand the impact of anthropogenic activities on the environment

CO2: Analyse market failure in allocating environmental resources and to compare alternative policy options to deal with it

CO3: Analyse the use of various methods in place for valuing the environment

CO4: Evaluate the conditions for static and dynamic efficiency in resource allocation

Course Outline:

Unit 1: Environment-Economy nexus, Market failure and its solution (10)

Economy-Environment linkages, Thermodynamics laws and their implications for environment; Types of externalities; welfare analysis of externalities; externalities and market failure; information asymmetry and market failure; solution to externalities - Pigovian tax, property rights and Coase Theorem; Efficient provision of Public Goods, environment as a public good, commons and their degradation

Unit 2: Valuing the environment (10)

Why value the environment? Types of values and Total Willingness to Pay, Concept of Willingness to Accept; Valuation approaches: Revealed Preference Methods— Hedonic Pricing, Travel Cost method, Defensive Expenditure method; Stated Preference Method- The contingent valuation method;

Unit 3: Resource allocation (08)

Resource taxonomy; allocation of non-renewable resources – equilibrium in current period, dynamic equilibrium for two periods, infinite periods and Hotellings rule; Schaefer model and sustainable yield of renewable resources: static and dynamic efficient sustainable yield

Unit 4: Economics of Pollution Control (08)

Optimal pollution level, pollutant Taxonomy; scale of pollution impacts; Pollution control Approaches – Command and Control, Market based approach; Policy making under uncertainty; structuring pollution control policies

Unit 5: Trade, Environment and sustainable development (09)

Trade and Environment – the role of property rights, Pollution Haven Hypothesis, Porter Hypothesis; concept of sustainable development; weak versus strong sustainability ; rules of sustainable development – Solow-Hartwick rule, London school approach, safe minimum approach, Daly's operational principle; Indicators of sustainable development – pressure indicator, impact indicators, sustainable indicators; Green accounting – SNA versus IEEA, concept of Green GNP.

References

Hanley, N; Shogren, J. and White, B. (2006) *Environmental Economics: In Theory & Practice*, Second Edition 2nd ed., Palgrave, McMillan

Eugene, T. (2017)., *Environmental Economics*, Vrinda Publication

Karpagam, M. (2012) *Environmental Economics: A Textbook*, Sterling Publishers

Stavins, Robert N., (Ed). *Economics of the environment*, W.W. Norton, 4th edition

R. Bhattacharya, *Environmental Economics – An Indian Perspective*, OUP

PG 2nd Semester

| Course | Paper Title | Credits (L +T+P) |
|---------------|--|-------------------------|
| ECO801C | Microeconomics-II | 3+1+0 |
| ECO802C | Macroeconomics-II | 3+1+0 |
| ECO803C | Mathematical Methods for Economics-II | 3+1+0 |
| ECO804C | Elements of Econometrics | 3+1+0 |
| ECO805C | Research Methodology for Social Sciences | 3+1+0 |

Paper: ECO801C (Core)
Microeconomics-II
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course Objectives:

- Introduction to different aspects of auctions and game theory as applied in the domain of auctions.
- Knowledge about general equilibrium concepts in the context of welfare analysis.
- Introduction to theoretical deliberations on welfare
- Apprise about governmental role in maintaining allocative efficiency and equity.
- Learn about welfare maximisation, efficient outcomes and equity in the presence of market failures.
- Impart knowledge about use of emerging technology in market dynamics.

Course Outcome:

CO1: Understand and apply game theory strategies in conduct of auctions

CO2: Analyse welfare implications of economic phenomena through sound theoretical conceptualisations

CO3: Evaluate the impact of governmental decision-making processes on maintenance of efficiency and equity in the economy, across sectors and population groups

CO4: Evaluate and assess market failures in the context of economic planning

CO5: Create understanding of market failures with respect to use of emerging technological knowledge in the domain of economics

Course Outline

Unit –I: Game theory (11)

Overview of game theory; Auctions: elements of auctions; Classification and types; Bidding strategies; Private-value auctions and applications; Auction as a Game-Auction design; Problems with auction-the winner's curse.

Unit-II: General Equilibrium Analysis (12)

An overview of the two-person, two commodity pure exchange model; Production: The Robinson Crusoe economy; Alternative technologies: returns to scale; Production and trading, comparative advantage, Efficient product mix, competition, Production and the First Welfare Theorem, Production and the Second Welfare Theorem;

Unit –III: Welfare economics (12)

Welfare aggregation of preferences, social welfare functions, welfare maximization, individualistic social welfare functions, fair allocations, envy and equity; Quasilinear

preferences and the Coase Theorem; Production externalities: interpretation of the conditions; Market signals; Tragedy of the Commons and the efficient utilization of common resources.

Unit –IV: Information Technology: (10)

Markets with Network Externalities, Market Dynamics, Network Externalities in Computer Software, Implications of Network Externalities, Two sided Markets; Rights Management (concept only)

Readings:

Henderson, J. and Quandt, R.E. Microeconomic Theory: A Mathematical Approach.
McGraw-Hill Inc., USA; 3rd revised edition (1980)

Varian, H.R. Intermediate Microeconomics: A Modern Approach, Eighth Edition ·
Nicholson, W. Snyder, C. Microeconomic Theory Basic Principles and Extensions,
Cengage; 11th edition (2014)

Perloff, J. M. Mason, C. Robert, Whaples, M. Microeconomics Theory & Applications
with Calculus, Pearson Education Inc. (2013)

Paper: ECO802C (Core)
Macroeconomics-II
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course Objective:

- Introduction to the basic macroeconomic controversies and issues pertaining to growth.

Course Outcome:

CO1: Understand the classical and Keynesian models of macro-economy in AD-AS framework

CO2: Analyse the issues of business cycles through two competing approaches namely-Keynesian and Monetarist

CO3: Understand and **evaluate** the three prominent theories of growth and its familiarity with still evolving growth theory in the form of endogenous theory

Course Outline

Course Outline

Unit 1: Aggregate Demand (AD), Aggregate Supply (AS), and Great Depression: (12)
Aggregate demand and supply curves; AD Curve: Flexible prices and AD curve, shifting of AD curve with monetary and fiscal policies; AS curve: Alternative shapes of short run AS (SAS) curve, SAS curve when nominal wage rate is constant; Fiscal and Monetary expansion in the short and long run; Classical Macroeconomics: The QTM and self-correcting economy; The Keynesian Revolution: The failure of self-correction.

Unit 2: Macroeconomic Economic Controversies: unemployment and inflation (12)
-Inflation and unemployment: the moderate monetarist position; the new classical position; the modern Keynesian position; the role of expectation; advances in business cycle theories real business cycle theory

Unit 3: Growth Theory (10)

Determinants Growth, Harrod- Domar Model: Instability of Equilibrium, Solow's Neoclassical Model and Steady State Growth, the Alternative Theory: Kaldor's theory of Distribution and Growth

Unit 4: Further Issues in Growth Theory (11)

The Convergence Debate; Role of Technical Progress; Learning by Doing; Human Capital, Immigration and the Solow puzzles; Endogenous Growth Theories, Accounting for Sources of Economic Growth.

Recommended Readings:

N. Gragory Mankiw, Macroeconomics

Brian Snowdon and H R Vane, Modern Macroeconomics

Levacic and Rebman: Macroeconomics: An Introduction to Keynesian Neo- Classical Controversies

SoumenSikdar, Principles of Macroeconomics

Ola Olson, Essentials of Advanced Macroeconomic Theory

David Romer, Advanced Macroeconomics

Robert J Gordon, Macroeconomics, Twelfth Edition, PHI Learning Private Limited, New Delhi, 2011

Paper: ECO803C (Core)
Mathematical Methods for Economics-II
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course Objective:

- To impart knowledge about mathematical tools optimizing producer and consumer choices
- To apprise students about the use of input-output analysis to understand sectoral interdependence in economics
- Familiarity with use of game theory in strategic decision making

Course outcomes:

CO1: Understand the application of difference and differential equations in dynamic analysis

CO2: Apply linear programming technique in economic decision making.

CO3: Apply and analyse Game Theory in strategic decision making in economics

CO4: Evaluate the comparative analysis of different production functions

Course outline:

Unit -1: Differential Equation and Economic Applications (08)

First order differential equation and its solutions – application to dynamic stability of market and simple growth process (Harrod-Domar).

Unit- 2: Difference Equation and Economic Applications (07)

First order difference equation and its solution - application of difference equation – lagged market model (Cobweb) and Harrod's model of growth.

Unit -3: Optimization with inequality constraint (10)

Linear programming, General formulation Transportation problem, diet problem and production problem – Simplex method of solution for well behaved and ill behaved functions (two variables, two constraints only) – Concept of duality, Formulation of dual equations.

Unit-4: Game Theory (10)

Basic concepts; Types – non-cooperative *versus* cooperative games, static *versus* dynamic games, games with perfect and complete information; Normal form game and Nash Equilibrium; Applications – Cournot and Bertrand duopoly models, the problem of commons; Mixed strategy game – existence of equilibrium with examples; Extensive form game, Finite and infinitely repeated games (concepts only).

Unit-5: Production Function (10)

Forms of Production Function; Cobb-Douglas and CES production function: Estimation; Elasticity of Substitution of C-D and CES production function; Comparison between C-D and CES production function.

Recommended Readings:

A.C. Chiang, “Fundamental Methods of Mathematical Economics”, McGraw Hill.

S. Baruah, “Basic Mathematics and its Economics Applications”, MacMillan

J. M. Henderson and R. E. Quandt, “Micro-economic Theory – A Mathematical Treatment”

R.G.D. Allen, “Mathematical Analysis for Economists.”

Mouhammed, “Introduction to Mathematical Economics”, Prentice Hall of India

M. Metwally, “Mathematical Treatment of Micro-Economics.”

Robert Gibbons, *Game Theory for Applied Economists*, Princeton University Press,
Princeton, New Jersey

Paper: ECO804C (Core)
Elements of Econometrics
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course Objective:

- To understand the use of econometrics in solving economic problems
- To facilitate the knowledge of inference based on applied econometrics
- Application of econometrics in research studies

Course outcomes:

CO1: Understand and analyse the causes and consequences of violations of OLS assumptions

CO2: Apply econometric skills using advanced econometric techniques

CO3: Create the understanding of time series modelling

Course outline:

Unit 1: Classical Linear Regression (13)

Concept, The General Linear Regression Model – Quantitative and Qualitative Explanatory Factors – Least Square Assumptions – OLS Estimators and their Properties – The Coefficient of Determination – Test of Hypothesis about Regression Coefficients – Prediction with the Linear Regression Equation.

Unit2: Further Topics in Linear Regression (12)

Consequences of Omission of Relevant Regressors and Inclusion of Irrelevant Regressors; Multi-collinearity: Effects, Detection and Remedies, Dummy Variable Trap; Heteroscedasticity: Consequences, Tests and Remedy; Auto-correlated Disturbances: Consequences, Detection and Remedy.

Unit 3: Introduction to Stochastic Time Series (10)

The Idea of a Stochastic Time Series - Stationary and Non-stationary – Random Walk Without drift and Random Walk with Drift–Unit Root Test – Spurious Regression–Integrated Series and Co-integration (concept only)

Unit 4: Introduction to Simultaneous Equation Model (10)

Structural and Reduced Forms – Simultaneity Bias – Informal Introduction to Identification Problem, Indirect Least Squares and Two Stage least Squares.

Recommended Readings:

Damodar N. Gujarathi and Sangeetha, Basic Econometrics, Tata McGraw Hill Education Private Limited

Christopher Daugherty, Introduction to Econometrics, OUP

Jeffery M Wooldridge, Introductory Econometrics: a Modern Approach

Johnston and Dinardo, Econometric Methods, McGraw Hill

Research Methodology for Social Science
ECO805C
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course objective:

To provide fundamentals of research to enable learners for research work

Course outcomes:

CO1: Understand and differentiate between the different types of research approaches

C02: Evaluate a research problem from scratch and configure its different components

C03: Analyse a research plan to carry out the study

C04: Create skill for data collection, and writing report

Course outline:

Unit–1: Meaning and types of research (10)

Meaning, Research methods versus methodology, Research approaches-Types of research- Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical, Other types of research, Qualities of a researcher, Significance of research and types of research: Quantitative, qualitative, mixed method

Unit2: The research process (10)

Steps in formulating a research problem; formulation of research problem in quantitative research, Formulation of objectives and hypothesis; types of hypothesis, Data Collection and Sampling- Types of sampling, Determination of the size of sample, Sampling Procedure, Choice of Sampling Technique,

Unit–3: Research Design (08)

Meaning and feature of good research design; Types of research design-exploratory research design-descriptive and diagnostic research design hypothesis-testing research design; Characteristics of a good research design

Unit–4: Data collection and preparation (10)

Experiment and survey; collection of primary data ;collection of secondary data; criteria for selection of appropriate method for data collection ;case study method ;steps in data preparation;

Measures of central tendency; measures of dispersion; measures of skewness and kurtosis; covariance; correlation; chi-square test; hypothesis test for mean, Small sample Large sample test; chi-square test; Analysis of variance

Unit-5: Report writing an presentation (07)

Structure and component of a research report, characteristics of a good report-framework of a report-parts of a research report; Format and presentation of a report

Recommended Readings

- Bhandarkar,P.L. and T.S.Wilkinson, *Methodology And Techniques Of Social Research*. Himalaya Publishing
- Kothari,C.R.,*ResearchMethodology:MethodsandTechniques*,NewAgeInternational
- Druckman, Daniel, *Doing Research*, Sage

PG SEMESTER-III

| Course | Paper Title | Credits (L+T+P) |
|---------------|---|------------------------|
| ECO901C | Development Economics-I | 3+1+0 |
| ECO902C | Economics of the Public Sector (C) | 3+1+0 |
| ECO903C | International Economics (C) | 3+1+0 |
| ECO904SP1 | Econometric Methods (E) | 4+1+0 |
| ECO904SP2 | Financial Economics (E) | 4+1+0 |
| ECO905OPE1 | Population Studies (OPE) | 3+1+0 |

Paper: ECO901C
Development Economics-I
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course Objective:

This course is designed to impart knowledge about policy making for development, roles of Market, State, and Civil Society under the existing institutional framework

Course outcome

CO1: Understand the role of institutions in economic development

CO2: Understand and **apply** the development strategies with the help of theories

CO3: Analyze the rural urban divide and linkage in development

CO4: Evaluate how land is instrumental in development

CO5: Analyze the role of market, state and civil society in development

Course Outline:

Unit - 1: The role of institution in development economics (06)

Introduction, the role of institution; measuring institutions and the debate on institution versus geography, the role of democracy

Unit - 2: Development Strategies (08)

Big Push: Rosenstein-Rodan; Balanced Growth: Nurkse; Unbalanced Growth: Hirschman; Critical Minimum Efforts: Leibenstein; Kremer's O-Ring model of development

Unit-3: Rural versus Urban issues of development (08)

The structural viewpoint, Formal and informal urban sectors, Agriculture , The ICRISAT villages, Rural-urban interaction, Two fundamental resource flows, The Lewis model , Rural-urban migration, The basic model Floors on formal wages and the Harris-Todaro equilibrium , Government policy

Unit 4: Land (08)

Introduction, Ownership and tenancy; Land rental contracts; Land ownership

Unit-5: Development Policymaking and the Roles of Market, State, and Civil Society (15)

The Planning Mystique, The Nature of Development Planning, The Rationale for Development Planning, The Planning Process: Some Basic Models. Aggregate Growth Models: Projecting Macro Variables, Multi sector Models and Sectoral Projections, Project Appraisal and Social Cost-Benefit Analysis, Problems of Plan Implementation and Plan Failure, Government Failure and the Resurgent Preference for Markets over Planning, The Market Economy, and Development Political Economy: Theories of Policy Formulation and Reform Understanding Voting Patterns on Policy Reform

Recommended Readings:

Barro&Salai-Martin, "Economic Growth" Prentice Hall of India

Basu, K, "Analytical Development Economics. OUP

Meier, G.M., "Leading Issues in Economic Development", OUP

Ray. D., "Development Economics", OUP

Thirwal. A. P. "Growth and Development" Palgrave

Todaro, M.P. 'Development Economics", Pearson.

UNDP, "Human Development Reports", OUP.

World Bank, "World Development Reports", OUP

Paper: ECO902C
Economics of the Public Sector (C)
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course Objective:

The learners would be equipped with the understanding of public choice, market failure, government intervention and cost benefit analysis of private and public investments.

Course Outcome:

- CO1: Understand** the concept of Pareto efficiency and the causes and implications of market failure
- CO2: Understand** and **analyse** the issues of public choice
- CO3: Apply** the concept of tax incidence in different market conditions along with its impact on efficiency
- CO4: Evaluate** the need for government intervention in various social security systems and their distributional consequences
- CO5: Apply** cost benefit analysis for government and private investments

Course outline

Unit-1: Equity and Efficiency Principles (09)

Pareto efficiency versus alternative criteria: Equity and efficiency; defining a social welfare function, alternative theories of the role of the state; Vertical and horizontal equity; Externalities and market failure; private bargaining solutions – the Coase theorem; Government intervention – Pigouvian tax and subsidy;

The theory of public goods: efficiency conditions for public goods: Samuelson, Lindahl, Tiebout models; club goods and merit goods;

Unit-2: Public Choice (09)

Public mechanisms for allocating resources: problems of eliciting preferences and reconciling differing views. Majority voting: the median voter theory and the voting paradox. Arrow's Impossibility Theorem. Special interest groups: Rent-seeking behaviour, Theory of bureaucracy. The "Principal-agent" problem; government failure

Unit-3: Taxation (08)

Public revenue: Tax & Non-Tax Revenue, Direct & Indirect Taxes, Progressive and non-Progressive Taxation Effects of taxation, nature of tax burden, incidence of taxation - concepts, measurement, tax incidence in competitive and monopolized markets: deadweight loss and price elasticity; taxation and economic efficiency; taxation and equity; tax neutrality and optimal taxation (concepts only)

Unit-4: The Analysis of Expenditure Policy (10)

Alternative forms of government intervention: benefits in cash and in kind, interdependent preferences. Private sector responses to government programs: Income and substitution effects. Distributional consequences; Social Security System- Social security and private insurance, effects on saving and labour supply, funded and 'pay-as-you go'; welfare programmes- targeting and incentives- universal basic income vs. targeted transfer-means testing and self-targeting

Unit-5: Cost-Benefit Analysis (09)

Private cost-benefit analysis: NPV and IRR methods. Social cost-benefit analysis: Measuring non-monetized costs and benefits; shadow prices and market prices, the problem of choosing an appropriate discount rate for social cost-benefit analysis; The evaluation of risk

Recommended Readings:

Bagchi (Ed.), *Readings in Public Finance*, OUP, 2005

Atkinson, A. and Stiglitz, *Lectures in Public Economics*, McGraw-Hill,

Connolly, S. and A. Munro, *Economics of the Public Sector*, Prentice Hall Europe

Stiglitz, J. *Economics of the public Sector*,

Auerbach and M. Feldstein, *Handbook of Public economics*, Vol.1-2. NorthHolland, 1990.

Barr, N. *The Economics of the Welfare State*, Oxford University Press,

Hyman, *Public Finance: A Contemporary Application of Theory to Policy*.

Musgrave, R. and P. Musgrave, *Public Finance in Theory and Practice*; McGraw-Hill, 1989

Rosen, H. *Public Finance*, Irwin.

Paper: ECO903C
International Economics (C)
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course Objective:

After having done this course the learners would know about post Heckscher-Ohlin alternative theories of trade, impact of growth on trade, commercial policies, and international organizations directly related to trade and balance of payment

Course Outcome:

CO1: Understand non-traditional alternative explanation of international trade

CO2: Analyse the inter-relation between international trade and economic growth

CO3: Understand and **analyse** issues concerning commercial policies that influence international trade

CO4: Evaluate the role of international movements towards economic integration, international monetary system and role of international institutions to facilitate international liquidity and BoP equilibrium

Course Outline

Unit 1: Economies of scale, Imperfect competition, and International Trade (10)

Monopolistic competition and trade: effects of increased market size, gains from integrated market, economies of scale and comparative advantage, the significance of intra-industry trade; External Economies and international trade: External economies and patterns of trade, trade and welfare with external economies, dynamic increasing returns

Unit 2: Economic Growth and International Trade (08)

Effects of Growth on Trade– Growth, Trade and National Income–Trade and Technical Progress–Terms of Trade Effects–Prebisch-Singer Thesis on Terms of trade

Unit 3: International Trade Policy (09)

Types of Tariff–Partial Equilibrium Analysis of Tariff–General Equilibrium Analysis (Small Country Case)–Tariff and World Welfare–Tariff and Income Distribution– Effective Protection–Economic and Non-economic Arguments for Protection Instruments of Commercial Policy: Export Tax and Subsidy – Quantitative Restrictions–International Cartels–Dumping–Other Non Tariff Barriers

Unit 4: Regional Economic Integration (09)

Preferential Trading Club- Free Trade Area–Customs Union–Common Market– Economic Union–Trade Creation and Diversion-Dynamic Effects of Customs

Unit 5: The International Monetary System (09)

Types–Characteristics of a Good IMS–the Gold Standard–Inter-War Period– The Britton Woods System–Present System of Managed Flexibility

Recommended Readings:

Chacholiades, M., *International Trade: Theory and Policy*, McGraw Hill.

Soderston, B., *International Economics*, Tata McGraw Hill

Bo Sodersten and Geoffrey Reed, *International Economics*, Macmillan Press Ltd

Paul Krugman and Maurice Obstfeld, '*International Economics-Theory and Policy*', Pearson Education, 2009

Paper: ECO904 SP (Elective-I)
Econometric Methods (E)
5 Credits (L+T+P):4+1+0
60 Lecture Hours

Course Objective:

- To understand the application of advanced econometric methods
- To facilitate the knowledge of inference based on time series modelling

Course outcomes (CO)

CO1: Apply Generalized Least Square, Maximum Likelihood Method for economic decision making

CO2: Apply Non-linear Regression models

CO3: Understand advanced time series modelling

CO4: Create advanced econometric skills using distributed lag models and simultaneous equation models

Course outline:

Unit1: Generalized Least Squares and Maximum Likelihood Estimation (12)

Non-spherical Disturbance and GLS–Feasible GLS and its Properties, Seemingly Unrelated Regression Estimation;. Maximum Likelihood Method, Estimation and Properties

Unit–2:Non-Linear Estimation (12)

Non-Linear Least Squares and Iteration process–Models with Binary Dependents Variables–Logit and Probit Models

Unit–3: Distributed Lag Models (12)

Lag Structure and Parameters–Koyck Model–Partial Adjustment and Adaptive Expectation Models–Estimation of Models with a Lagged Dependent Variable.

Unit–4: Simultaneous Equation Models (12)

Formalization of Identification Problem–Order and Rank Conditions of Identification –Recursive Models–Methods of Estimation: IV, 2SLS, 3SLS and FIML–Simulation and Forecasting.

Unit 5: Time Series Modeling (12)

Univariate Time Series Modeling,-Autocorrelation Function and Correlelogram – Basic Features of AR, MA, ARMA and ARIMA models–Trend versus Difference Stationary - Co-integration, Error Correction Mechanism, VAR and ARDL models.

Recommended Readings:

Johnston and Dinardo, *Econometric Methods*, McGraw Hill

Pindyck and Rubinfeld, *Econometric Models and Econometric Forecasts*, McGraw Hill

Greene, William, *Econometric Analysis*, Macmillan

Christopher Daugherty, *Introduction to Econometrics*, OUP

Damodar N. Gujarathi, Sangeetha, *Basic Econometrics*, Tata McGraw Hill Education Private Limited.

Jeffery M Wooldridge, *Introductory Econometrics: A Modern Approach*, Cengage

Paper: ECO905SP (Elective-II)

Financial Economics (E)

5 Credits (L+T+P):4+1+0

60 Lecture Hours

Course Objective:

The Course will enable the students to have a comprehensive understanding of features of financial intermediaries, risks associated with financial transactions, financial innovations, the financial meltdown of 2007-08, and the status of International institutions and practices in relation to financial stability.

CO1: Understand the features and functioning of financial intermediaries and risk management

CO2: Analyse the urgency of financial innovations for risk reduction, enhanced liquidity and efficiency and sustainability of the financial markets

CO3: Create skill to assess and identify the techniques to manage financial instability

CO 4: Create evidence based thinking of the foreign exchange market and its management and policy choices

Course Outline

Unit-1: Financial Intermediaries and Risk: (15)

Common characteristics of financial institutions (FIs), Services provided by the FIs, Types of risks managed by FIs, principal assets and liabilities of major FIs

Unit-2: Financial Innovation: (15)

Meaning, factors behind financial innovation, analytical foundations of financial innovation, early financial innovations, innovations in the payment system, derivatives: forward, futures, and option agreements; swap agreements, credit derivatives, securitization; the financial system of the future

Unit-3: Financial Instability and Strains on the Financial System (15)

Financial intermediation, risk, and financial crisis; the problem of moral hazard in financial intermediation; the Great financial meltdown of 2008; Minsky's hypothesis of financial instability, other areas of concern

Unit-4: The International Financial System (15)

The foreign exchange market, managing exchange rate risk under the managed float, the role of US dollar under the managed float; Major International Financial Organizations: IMF, World Bank, the Bank for International Settlements (BIS); Road to international financial stability.

Reading List:

Baye, R. Michael & Jonson, W. Bennis, "Money, Banking and Financial Market-An Economic Approach", AITBS Publishers

Pathak, Barati, B., "Indian Financial System", Pearson Publication.

Chandler, V.L., "The Economics of Money and Banking"

Gupta, S.B., "Monetary Economics: Institutions, Theory and policy"

Maureen Burton and Bruce Brown, 'The Financial System and the Economy

Principles of Money and Banking', Fifth Edition, PHI Learning Private Limited, 2009

Paper: ECO906 OE-I
Population Studies (OE)
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course Objectives:

- Comparative study of population between countries.
- To understand population-development symbiosis.
- Knowledge about population data sources and their relevance to socio-economic functioning.
- To analyse vital statistics, with special emphasis on fertility and mortality.
- To sensitize learners about importance of health, education and gender studies influencing population variables.

Course Outcomes:

CO1: Understand the developmental impact of population transition

CO2: Analyse and identify the authenticity of population statistics

CO3: Understand and **analyse** socio-cultural and economic aspects of population reflected by population data

CO4: Apply and **analyse** formulation of country-specific fertility and mortality policies and its implications for education, health and gender studies

Course Outline

Unit1: Introduction to Population studies (12)

Present population situation and past and future trends in the world and in developed and developing countries; Theory of Demographic Transition, Sources of population data: population census, uses and limitations; Indian population censuses; Vital Registration System; National Sample Survey, Sample Registration System and Demographic Health Surveys.

Unit 2: Vital Statistics (21)

Fertility: Importance of fertility study in population dynamics; Basic concepts (fertility, fecundity) used in the study of fertility; pattern of fertility transition in developing countries; Causes of high fertility in Asia and Africa; Fertility measures (CBR, GFR, ASFR, TFR, GRR, NRR)

Mortality- Need and importance of study of mortality; Definition of deaths and foetal deaths according to WHO; Sources of mortality data and its quality with respect to developing countries; Measure of mortality: CDR, ASDR, Standardised death rates (direct and indirect) Infant Mortality rates: pre-natal, neo-natal, post-natal. Need and importance of studying infant mortality rate .Concept of MMR; Life table- concept, types and relationship between different life table functions; Central Mortality Rate

Unit3: Economics of health and education (12)

Role of health and education in population dynamics; Human capital: concepts; earnings and education; Education and Labour market; Limits to growth; Social Security; Population, development and environment; Gender sensitization-Issues relating to gender - gender budgeting, health and education

Recommended Readings:

Bhende and Kanitkar, *Population Studies*

Ramakumar, R., *Technical Demography*

Pathak,K. B.& Ram, F., *Techniques of Demographic Analysis*. • Psacharopolous, G., *Economics of Education, Research and Studies*. • Census of India, Population Census, 2001, 2011.

Todaro, M.P. *Development Economics*

PG SEMESTER IV

| Course | Paper Title | Credits (L+T+P) |
|---------------|--------------------------------------|------------------------|
| ECO1001C | Indian Economy in the Global Context | 3+1+0 |
| ECO1002SP3 | Advanced Development Economics (E) | 4+1+0 |
| ECO1002SP4 | Advanced Quantitative Techniques (E) | 4+1+0 |
| ECO1003OPE2 | Demography (OPE) | 3+1+0 |
| ECO1004DPW | Dissertation and Project Work (DPW) | 0+0+6 |

ECO1001C
Indian Economy in the Global Context
4 Credits (L+T+P): 3+1+0
45 Lecture Hours

Course objective

- This course provides empirical evidence of the growth of the Indian economy, with particular emphasis on the economy of Assam. It is preparatory in nature for identifying various research problems and conducting research on relevant economic issues.

Course Outcomes (CO)

CO1: Understand the overall background of planning in the Indian economy and the onset of various reforms, with its implications on the economy of Assam

CO2: Analyse the role of institutional changes in Indian agriculture at the national and state level

CO3: Evaluate the impact of economic reforms in India's economy vis-à-vis the global economy

CO4: Create insights for identification of relevant data sources for undertaking research in various issues of the Indian and Assam economy

Course Outline

Unit – 1: Changing contours of India's economic policy (10)

Evaluation of planning era in India; Advent of Neo-liberalism post-1991; trends and composition in national income: Spatial variations; Importance of industrialization; strategy of industrial development; industrial policy reforms since 1991; Public sector reforms; Reflection of these mainstream changes on the economy of Assam

Unit – 2: Institutional reforms in agriculture (12)

Agriculture Policy: Institutional Reforms: price policy, Credit policy, taxation and insurance mechanism, technology mission: mechanization, oil seed and pulses, livestock, horticulture; evaluation of budgetary provision; Economic Reforms and their impact on Agriculture of India with a special reference to Assam

Unit – 3: India's Economic Reforms (13)

Rationale for Economic Reforms: India's Economic Reforms in the Global Context; Foreign Trade Policy; Convertibility of Rupee; Impact of WTO on Indian Economy; Foreign Investment and Multinational Corporations; Privatisation and Competition – Financial Sector Reforms

Unit: 4 Sources of data for the Indian economy (10)

Overview of Indian Official Statistics; National Account Statistics- Concepts of national accounts aggregates, historical perspective, and the recent revisions; National Sample Survey-concepts, subject coverage (introduction to the latest rounds), Coverage and objective

of the following survey-National Family Health Survey, Annual Survey of Industries, Economic Census; (available data sources for Assam economy)

Readings:

Bardhan, P., “The Political Economy of Development of India”, OUP

Brahmananda, P.R. and Panchamukhi, V.R., “The Development Process of Indian Economy”, Himalaya

Kapila, Uma (Ed), “India’s Economic Reforms”, Academic Foundation □ Jalan, Bimal (Ed), “The Indian Economy – Problems and Prospects”, Viking.

Sen, A. and Dreeze, J., “Economic Development and Social Opportunities”, OUP

Hazari, R.K., “Industrial Planning and Licensing Policy”, Final Report

Wadhwa, C. (Ed), “Some Problems of India’s Economic Policy”, Tata McGraw

Rao, V.K.R.V., “India’s National Income, 1950-1980”, Sage

Hill O’Brien, Robert and Marc Williams; Global Political Economy: Evolution and Dynamics, Palgrave Macmillan

R Dutta and K P M Sundaram: Indian Economy, S Chand

D. Mazumdar and S Sarkar: Globalisation, Labour Markets and Inequality in Planning Commission: Eleventh Five Year Plan, Vol I, II and III, Academic India, Routledge Foundation

Francine R Frankel: India’s Political Economy, 1947-2004,

Government of India: Economic Survey (relevant issues) 2nd Ed OUP.

Anne O Krugger: Economic Policy Reforms and the Indian Economy, OUP

J Dreze and A Sen: India, Development and participation, OUP

V Joshi and I M D Little: India, Macroeconomics and Political Economy, 1964- 1991, OUP

T. J. Byres (ed): The State, Development Planning and Liberalisation in India, OUP

D Nayyar: Liberalisation and Development, OUP

D Nayyar and A Bhaduri: Intelligent Person’s Guide to Liberalisation, Penguin

S Chakravarty: Development Planning, An Indian Experience, OU

ECO1002SP3

Advanced Development Economics

5 Credits (L+T+P): 4+1+0
60 Lecture Hours

Course Objective:

This course will help students to understand the process and sources of financing development, trade and related policies for development keeping parity with human capital, agriculture and environment

Course Outcomes:

CO1: Understand and identify the internal and external sources for financing development

CO2: Understand the evolving nature of trade and policy implications

CO3: Create a comprehensive understanding of linkages between environment and development

CO4: Understand and **evaluate** the political economy of health and education in developing countries

CO5: Evaluate the agrarian systems and their transformation towards inclusive rural development

Course Outline

Unit 1: Financing of Development (12)

Domestic Sources: Private Savings, Taxation, Financing by Money Creation and its Effects; The Dual Gap Analysis; Saving-Investment Gap and the Foreign Exchange Gap, Foreign Borrowing and the Debt Servicing/Problem; Private Foreign Investment: Portfolio and Direct Investment, Effects on Host and Investing Countries- Direct Investment and Exploitation

Unit-2: Trade policy and Development (12)

Gains from trade; trade policy: import substitution and export promotion; the move away from import substitution: the crisis of eighties and structural adjustment, Terms of Trade and LDCs: Prebisch, Singer and Myrdal's Views.

Unit-3: Development and environment (12)

Sustainable development and environmental accounting; population, resources and environment poverty and environment; environment and its relation with growth, rural and

urban development; climate change and Stern review; adaptation to climate change: local and global

Unit-4: Human capital and Economic Development (12)

Role of education and health; the human capital approach; child labour; the gender gap and its consequences; educational system and development: the political economy of educational supply and demand, social vs private benefits and cost, distribution of education, education-inequality and poverty, education-internal migration and brain drain; health: distribution, productivity and development

Unit-5: Agricultural transformation and rural development (12)

The imperative of agricultural progress and rural development, agricultural growth: past progress and current practices, the structure of agrarian system in the developing world, the important role of women, the economics of agricultural development: transition from peasant subsistence to specialized commercial farming, Towards a strategy of agricultural and rural development.

Recommended Readings:

Aghion, PandStevenNDurlauf(ed), "Handbook of Economic Growth", Volume 1A, Else vier

Basu, K., "The Less Developed Economy:" OUP

G. Psacharopoulos(ed), "Economics of Education", Pergaman Press.

Ian Beardwell and Len Holden (ed), "Human Resource Management- Contemporary Perspective", MacMillan.

Meier, G.M., "Leading Issues in Economic Development", OUP.

Thirlwal. A.P "Growth and Development", Palgrave

Todaro, M.P., "Development Economics". Pearson. World Bank.

"World Development Reports", OUP Roy, D., "Development Economics", OUP.

ECO1002SP4
Advanced Quantitative Techniques
5 Credits (L+T+P): 4+1+0
60 Lecture Hours

Course Objective:

- To impart the use of mathematical modelling in economic analysis
- To facilitate investment decision making

Course outcomes:

CO1: Understand the different models for market stability

CO2: Understand investment behaviour using econometric models

CO3: Apply Engel's Law in estimation of demand function

CO4: Apply different models in the analysis of growth process

Course Outline

Unit1: General Economic Equilibrium (15)

Equilibrium of exchange; equilibrium with fixed production coefficients; General market equilibrium; Stability of market equilibrium-Walrasian and Marshallian conditions of stability-Hicks conditions of stability

Unit 2: Investment Function and their estimation (15)

Accelerator Models- Financial Factors influencing investment behaviour –Jorgenson's Neo-classical Model – Data and estimation problems.

Unit3: Statistical Demand Analysis. (15)

Specification of the Demand Equation- the aggregation problem-estimation from time series data- Engel's Law- Engel curves –different forms of Engel curve

Unit 4: Simple Growth Process. (15)

The Accelerator; Philips Model of the Multiplier; Philips model of multiplier and accelerator, Samuelson-Hicks model of multiplier and accelerator

Recommended Readings :

Allen RGD "Mathematical Economics" MacMillan

J.M. Henderson and R.E.Quandt, "Micro-economic Theory- A Mathematical Treatment"

Baldani, Bradfield& Turner, "An Introduction to Mathematical Economics" Cengage learning

Taro Yamane, "Mathematics for Economics."

ECO1003OPE2

Paper: Demography

4 Credits (L+T+P): 3+1+0

45 Lecture Hours

Course Objective:

The study of population theories will enable students to assess and evaluate population movement and trends. This will enable policy formulation with regard to different aspects of population. This paper will help learners in assisting in population projections and formulating labour and migration policies and encourage gender studies that would have economic and social relevance.

Course Outcomes:

CO1: Understand the basic concepts used in demographic studies

CO2: Analyse the socio-economic impact of demographic processes

CO3: Apply statistical tools in estimating and analysing population data

CO4: Understand and **analyse** the impact of international migration on the economy and labour markets

CO5: Analyse and **evaluate** policy formulation and implementation with respect to family planning, labourmarket, migration and women-centric programme implementation

Course Outline

Unit 1: Population Theories and Policy:(11)

Theories: Malthus, Pearl and Reed, Leibenstein, Theory of Optimum Population. Policy issues affecting fertility and mortality in an economy. Population policy of India; Population policy instruments introduced in Assam.

Unit 2: Nuptiality (11)

Sources and quality of nuptiality data; Measures-crude and specific, order-specific; nuptiality tables- gross and net; Singulate Mean age At Marriage; Age at Marriage in India

Unit 3: Population Projection (10)

Components of population change, population projection; Component and Mathematical methods of population projection; Economically active population; Dependency burden; work force participation rates; dynamics of female work-force participation rates

Unit 4: Migration (13)

Concepts of mobility and migration; census definition of migrants; Types of migration: Internal migration- types, determination, consequences, measures; international migration- types, determinants and consequences, categories of international migrants (concepts only)- permanent, temporary labour migrants, highly skilled, asylum seekers, forced migration, family members, refugee, illegal, brain drain; Theories- Lee, Ravenstein, Harris-Todaro, L F-R.

Readings:

Bhende, A and Kanitkar T: Population Studies

Pathak, K B & Ram, F. Techniques of Demographic Analysis

Psacharopolous, G: Economics of Education, Research and Studies

Census of India, Population Census, 2001, 2011

Ramakumar, R: Technical Demography

ECO1004DPW

Paper: Dissertation and Project Work (DPW)

6 Credits (L+T+P):

0+0+6

Course objectives:

This course will enable students to take up research studies by adopting appropriate research methodology to create new knowledge.

Course Outcomes:

CO1: Understand and identify areas to take up research studies

CO2: Apply the concepts, tools and techniques in research

CO3: Create expertise in the collection, analysis and interpretation of data

CO4: Apply software in research

CO5: Evaluate and compare public policies with the expected outcomes and identify areas for improvement