

Bodoland University::Department of Economics

Debargaon, Kokrajhar, BTC, Assam

Important guidelines in accordance with UGC

- a) There may be a 2-year programme with the second year devoted entirely to research for those who have completed the 3-year Bachelor's programme.
- b) For students completing a 4-year Bachelor's programme with Honours/ Honours with Research, there shall be a 1- year Master's Programme.
- c) There may be an integrated 5-year Bachelor's/Master's programme.
- d) Higher education qualifications leading to a degree/diploma/certificate shall be as described by the NHEQF (National Higher Education Qualifications Framework).
- e) PG framework should be in sync with National Credit Framework (NCrF) for the creditization of all learning and assignment, accumulation, storage, transfer & redemption of credit, subject to assessment. In accordance with the NHEQF, the levels for the Master's programmes are given in the **Table 1**.

Table 1: Credit Distribution

Programmes / Qualifications	Level	Credits
PG Diploma	6.0	40
1 year PG after a 4 years UG Programme	6.5	40
2 year PG after a 3 years UG Programme	6.5	80

- f) **For 2-year PG:** Students entering 2-year PG after a 3-year UG programme can choose to do
(i) only course work in the 3rd and 4th semester or (ii) course work in the 3rd semester and research in the 4th semester or (iii) only research in the 3rd and 4th semester.

Refer table 2.

Table 2: Two-year PG Programme

Curricular Components			Course Level	CREDITS OF			Total Credit
Year	Nature of Course	Semester		Course work	Research/ Thesis/ Project	(Semester wise)	
1 st Year	Course Work	1 st Semester	400	20	----	20	40
		2 nd Semester	500	20	----	20	
2 nd Year	Only Course Work	3 rd Semester	500	20	----	20	40
		4 th Semester	500	20	----	20	
	Course Work + Research	3 rd Semester	500	20	----	20	40
		4 th Semester	----	----	20	20	
	Only Research	--	----	----	40	----	40

(g) Students entering 1-year PG after a 4-year UG programme can choose to do (i) only coursework or (ii) course work and research or (iii) research. **Refer Table 3.**

Table 3: PG Programme (One Year) for 4-year UG (Hons. / Hons with research)

Curricular Components			Course Level	CREDITS OF			Total Credit
Year	Nature of Course	Semester		Course work	Research/ Thesis/Project	(Semester wise)	
2 nd Year	Only Course Work	3 rd Semester	500	20	--	20	40
		4 th Semester	500	20	--	20	
	Course Work + Research	3 rd Semester	500	20	--	20	40
		4 th Semester	--	--	20	20	
	Only Research	--	--	--	40	--	40

(h) Programmes that are intended to sharpen the students' analytical abilities to optimally solve problems, the curriculum, in general, comprises advanced skills and real-world experience and less of a research component.

(i) **400-499**: Advanced courses which would include lecture courses with practicum, seminar-based course, term papers, research methodology, advanced laboratory experiments/software training, research projects, hands-on-training, internship/apprenticeship projects at the undergraduate level or First year postgraduate theoretical and practical courses.

(j) **500-599**: For students who have graduated with a 4-year bachelor's degree. It provides an opportunity for original study or investigation in the major or field of specialization, on an individual and more autonomous basis at the postgraduate level.

For 2-Year PG Programme

Option-A: Only course work

SEMESTER-I

Paper Code	Paper Name	Credits	L+T+P	Contact Hours	Internal	External	Marks
ECOADL 14014	Microeconomics-I	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14024	Macroeconomics-I	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14034	Mathematical Economics-I	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14044	Statistical Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14054	Development Economics-I	4	3+1+0	(45 + 15) = 60	30	70	100

SEMESTER – II

Paper Code	Paper Name	Credits	L+T+P	Contact Hours	Internal	External	Marks
ECOADL 14064	Microeconomics- II	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15074	Macroeconomics- II	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15084	Mathematical Economics-II	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15094	Elements of Econometrics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15104	Development Economics-II	4	3+1+0	(45 + 15) = 60	30	70	100

SEMESTER - III

Paper Code	Courses	Credits	L+T+P	Contact Hours	Internal	External	Marks
ECOSPL 25014	International Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25024	Population and Human Resources	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25034	Monetary Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25044	Public Finance	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25054	Issues in Indian Economy	4	3+1+0	(45 + 15) = 60	30	70	100

SEMESTER - IV

Papers		Credits	L+T+P	Contact Hours	Internal	External	Marks
ECOSPL 25064	Economics of Environment	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25074	Labour Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25084	Agricultural Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25094	Demography (E)	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25104	Econometrics (E)	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25114	Industrial Economics (E)	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25124	Dissertation (E)	4	0+0+4	(45 + 15) = 60	30	70	100

Example for Code: ECOADL14014

ECO – Subject code (Economics) same as UG (NEP)

ADL – Advanced learning

1 – Year

4 – Level

01 – Sequence of paper (Paper Number)

4 – Credit

SPL – Special learning

For 2-Year PG Programme
Option-B: Only Research

Year 1

SEMESTER-I

Paper Code	Paper Name	Credits	L+T+P	Contact Hours	Internal	External	Marks
ECOADL 14014	Microeconomics-I	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14024	Macroeconomics-I	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14034	Mathematical Economics-I	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14044	Statistical Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14054	Development Economics-I	4	3+1+0	(45 + 15) = 60	30	70	100

SEMESTER – II

Paper Code	Paper Name	Credits	L+T+P	Contact Hours	Internal	External	Marks
ECOADL 14064	Microeconomics-II	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15074	Macroeconomics-II	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15084	Mathematical Economics-II	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15094	Elements of Econometrics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15104	Development Economics-II	4	3+1+0	(45 + 15) = 60	30	70	100

YEAR 2

Research thesis/Project with minimum 2 conferences papers. Peer reviewed research publication should be encouraged.

For 2-Year PG Programme

Option-C: Course work + Research

YEAR 1

SEMESTER-I

Paper Code	Paper Name	Credits	L+T+P	Contact Hours	Internal	External	Marks
ECOADL 14014	Microeconomics-I	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14024	Macroeconomics-I	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14034	Mathematical Economics-I	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14044	Statistical Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOADL 14054	Development Economics-I	4	3+1+0	(45 + 15) = 60	30	70	100

SEMESTER – II

Paper Code	Paper Name	Credits	L+T+P	Contact Hours	Internal	External	Marks
ECOADL 14064	Microeconomics-II	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15074	Macroeconomics-II	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15084	Mathematical Economics-II	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15094	Elements of Econometrics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 15104	Development Economics-II	4	3+1+0	(45 + 15) = 60	30	70	100

YEAR 2

Research thesis/Project with minimum 2 conferences papers. Peer reviewed research publication should be encouraged.

1-Year PG Programme

Option A – Only Coursework

SEMESTER - III

Paper Code	Courses	Credits	L+T+P	Contact Hours	Internal	External	Marks
ECOSPL 25014	International Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25024	Population and Human Resources	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25034	Monetary Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25044	Public Finance	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25054	Issues in Indian Economy	4	3+1+0	(45 + 15) = 60	30	70	100

SEMESTER - IV

Papers		Credits	L+T+P	Contact Hours	Internal	External	Marks
ECOSPL 25064	Economics of Environment	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25074	Labour Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25084	Agricultural Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25094	Demography (E)	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25104	Econometrics (E)	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL	Industrial	4	3+1+0	(45 + 15)	30	70	100

25114	Economics (E)			= 60			
ECOSPL 25124	Dissertation (E)	4	0+0+4	(45 + 15) = 60	30	70	100

Example for Code: ECOADL14014

ECO – Subject code (Economics) same as UG (NEP)

ADL – Advanced learning

1 – Year

4 – Level

01 – Sequence of paper (Paper Number)

4 – Credit

SPL – Special learning

1-Year PGProgramme

Option B–Only Research

Research thesis/Project with minimum 2 conferences papers. Peer reviewed research publication should be encouraged.

1-Year PGProgramme

Option C– Coursework + Research

SEMESTER - III

Paper Code	Courses	Credits	L+T+P	Contact Hours	Internal	External	Marks
ECOSPL 25014	International Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25024	Population and Human Resources	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25034	Monetary Economics	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25044	Public Finance	4	3+1+0	(45 + 15) = 60	30	70	100
ECOSPL 25054	Issues in Indian Economy	4	3+1+0	(45 + 15) = 60	30	70	100

SEMESTER - IV

Research thesis/ Project with minimum 1 conference paper. Peer reviewed research publication should be encouraged.

DETAIL SYLLABUS OF COURSE WORK

SEMESTER-I

Paper Code	Paper Title	Credits(L+T+P)
ECOADL 14014	Microeconomics-I	3+1+0
ECOADL 14024	Macroeconomics-I	3+1+0
ECOADL 14034	Mathematical Economics-I	3+1+0
ECOADL 14044	Statistical Economics	3+1+0
ECOADL 14054	Development Economics-I	3+1+0

Micro Economics- I (ECOADL14014)

Course Objectives:

- Acquaint students with the recent developments in consumer behaviour.
- Apprise the learners about the role of production functions and cost function
- Knowledge about decision making under uncertainty and Attitude towards Risk
- To understand the price-output behaviour under different market structures

Course outcomes (CO)

CO1: Understand alternative methods to the analysis of consumer's behaviour

CO2: Understand and analyse production function

CO3: Analyse on decision making under uncertainty and attitude towards risk real life application

CO4: Evaluate the behaviour of different markets

Course Outline:

Unit-1

Theory of Consumer Behaviour(10)

The violation of the premises of the indifference curves approach, The theory of Revealed Preference; Satiation and Lexicographical ordering. Indirect Utility function-Roy's Identity; Dual properties of Utility and Expenditure functions. Linear Expenditure system; Distributed lag models of demand

Unit-2

Theory of Production and Costs(12)

Forms of Production Function; Cobb-Douglas, CES and Fixed co-efficient Type and properties, elasticity of substitution, 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. Basic Concept of costs.

Unit-3

Decision making under uncertainty and Attitude towards Risk(8)

Uncertainty and Imperfect Competition Uncertainty, Probabilities and Expected values, Attitude towards risk, Insurance and Gambling, Asymmetric information: Market for Lemons. The Insurance markets and Adverse selection, the problem of moral Hazard, Signaling. Principal-Agent Problem, Uncertainty in Public and Private Enterprise.

Unit-4: Market (15)

perfect competition, monopoly and monopolistic competition; Oligopoly Market; Non collusive oligopoly- Duopoly Market- Cournot, Bertrand, Chamberlin, Stackelberg, Kinked-Demand: Collusive Oligopoly-Cartels, Price leadership and Basing point price system.

Recommended Readings:

1. Hal A. Varian (1992), Microeconomic Analysis, W. W. Norton and Co.
2. Walter Nicholson (1992), Microeconomics, Salvatore
3. Pindyck and Rubinfeld (1992) Microeconomics, PHI.
4. D. M. Kreps, A Course on Microeconomics, EHI
5. Koutsoyianis , A., “ Modern Microeconomics” , Macmillan
6. Anindya Sen , “Microeconomics Theory”. Oxford University Press.
7. Madalla Miller. “Microeconomics”, McGraw Hill.
8. Mukherjee, S., “Business and Managerial Economics”, New Central Book Agency.
9. Juneja and Chawla, “Book Keeping and Accountancy.

MACROECONOMICS-I (ECOADL14024)

Course Objective:

To make the students good understanding and providing good knowledge of the principle macroeconomic variables that are considered to be the four wheels of a free market open economy is the basic objectives of this paper.

Course Outcome:

CO1: Understanding the estimation process and method of national income in a four sector

economy including exclusions and inclusions.

CO2: Understanding different approaches to reconcile empirical evidence arising from short run and cross sectional data and long run time series data pertaining to consumption behaviour.

CO3: Understanding the investment behaviour including user cost, internal funds and liquidity effects; including multiplier-accelerator interaction model.

CO4: Understanding the relative efficiency of fiscal and monetary policies to achieve the objectives of full employment and desirable rate of interest under both fixed exchange rate and flexible exchange rate regime, using the framework of Mundell- Fleming Model.

Course Outline

Unit- 1: National Income, employment and income determination in Short run(12)

National Income - Concepts and Accounting Methods - Inclusions and Exclusions – National Income and Welfare – Adjustment required - Income determination with Foreign Trade – The Foreign Trade Multiplier – Classical and Keynesianism. - Determination of Income and Employment – Demand and Supply of Labour – Classical view.

Unit- 2: Consumption Function: An empirical study (11)

The Consumption Function Puzzle – Relative Income Hypothesis – Permanent Income

Hypothesis–Life Cycle Hypothesis- Further aspects of Consumption Behavior - Consumption and Uncertainty.

Unit – 3: Investment Function (11)

Residential and Inventory Investment-The User Cost and Liquidity Effects – Lags in the Investment Function.-Marginal Efficiency of Investment; The Accelerator theories and Investment Behaviour – Influence of policy measures on Investment;

Unit- 4: Monetary Theory (11)

Classical Theory of Money - Say's Law and Walras' Law; The Neutrality of Money; Friedman's Modern Quantity Theory of Money; Pigou Effect and Real Balance Effect.

Recommended Readings:

1. Jha, Raghubendra,(1991) ,Contemporary Macroeconomics Theory and Policy, Wiley Eastern Ltd, New Delhi
2. Branson W.H.(1989), Macroeconomics: Theory and Policy, Harper and Row,New York
3. Brooman, F.S.” Macroeconomics” George Allen & Unwin, London
4. Michl, “Macro Economics Theory- A Short Course”, Prentice Hall of India
5. Shapiro, Edward (1996). “Macroeconomic Analysis” Galgotiapublications,New Delhi
6. Dornbusch, R , Stanley F and Fischer, S(2000), Macro Economics”Tata McGraw- Hill, New Delhi
7. Mankiw, N.G, “Macroeconomics” McMillan International, New york
9. Gupta, R.D & Rana, A.S, “Keynes Post Keynesian Economics”, Kalyani Publisher, New Delhi
- 10.Gupta, S.B. (1997). Monetary Economics, S. Chand and Company, New Delhi
- 11.Patinkin, D. (1965). Money, Interest and Prices, Harper and Row, New York.
12. Survey of Economic Theory, (1972), Vol.I: Money, Interest & Prices, Macmillan, New York.
13. Sikdar, S. (2011). Principles of Macroeconomics: Second Edition Paperback, OUP.
- 14.Hejdra, B.J. and F.V. Ploeg (2001), Foundations of Modern Macroeconomics, Oxford University Press, Oxford.

MATHEMATICAL ECONOMICS-I

(ECOADL14034)

Objectives: Mathematical tools for economic analysis is an essential part of any economic analysis. This basic tools are handy for higher mathematical modellings in understanding complex economic issues. The significance of Mathematical Economics lies in its ability to provide a structured and quantitative framework for analyzing economic phenomena. By employing mathematical models, economists can describe relationships between variables, test theories empirically, and make informed predictions about economic behavior. This discipline plays a vital role in valuing assets, optimizing capital allocation, and improving resource allocation, which are key components in the development of market-based economies.

Outcome:

CO1:This paper will enable and enhance the mathematical tools and its applications analyzing economic issues.

CO2:

Understanding and mastering these units will equip you with the quantitative skills necessary to analyze complex economic issues, contribute to academic research, and inform policy-making.

CO3: Mathematical economics supports the creation of precise models that lead to exact conclusions, which are crucial for policy decisions and economic predictions.

Unit- 1: Matrix Algebra

Concepts, Types, Its solutions; It's application to input-output table-Static Leontief system – Closed and Open, Domestic and external sectors.

Unit- 2: Integration

Concept, Basic Rules and Properties: Applications; derivation of total functions from marginal functions, estimation of consumer's surplus, Producer's surplus, problems relating to investment, capital formation and derivation of simple growth process(Domar)

Unit- 3: Unconstrained Optimization

Maxima and Minima of functions of single variable- application to cost minimization, revenue maximization, tax revenue maximization, profit maximization and equilibrium of firm. Unconstrained maxima and minima with more than one variable-application to discriminating monopoly, Multi-product equilibrium, Multiplan equilibrium of firm with advertisement cost and subsidy

Unit- 4: Optimization with inequality constraint

Linear programming, General formulation- optimum; Application to Transportation problem, Diet problem and production problem – Simplex method of solution, Concept of duality and Solutions.

Recommended Readings:

1. A.C. Chiang, “Fundamental Methods of Mathematical Economics,” McGraw Hill.
2. S. Baruah, “Basic Mathematics and its Economic Applications, Macmillan
3. R.G.D Allen, “Mathematical Analysis for Economists.”
5. Taro Yamane, “Mathematics for Economists.”
6. E.T Dowling. “Theory and Problems of Mathematical Methods for Business and Economics,” McGraw Hill
7. Mouhammed, “Introduction into Mathematical Economics,” Prentice Hall of India.
8. M. Metwally, “Mathematical Treatment of Micro-Economics.”

**STATISTICAL ECONOMICS
(ECOADL14044)**

Objective: The content of is of paramount importance for several reasons, particularly in the context of your interest in academic writing and research. Overall, the content of equips students and researchers with the statistical tools necessary to conduct rigorous empirical research, which is indispensable for understanding complex economic relationships and contributing to the discourse on economic analysis.

Outcome:

CO1: This content will provide a clear trajectory for students to grasp the foundational elements of statistical analysis and its applications in various fields.

Unit-1: Probability theory and expected value

The Concept of Probability, distribution and a density function. Axiomatic Definition and derivation of Basic probability Rules-Conditional Probability, Baye’s theorem (Concept Only) Random variable-mathematical expectation and moments relating to both Discrete and Continuous random Variables. Binomial distribution, Poisson distribution and normal distributions with properties-Moment Generating function-The Central Limit Theory.

Unit-II: Sampling and Estimation

Sampling and sample designs: simple random sampling, stratified random sampling, systematic sampling and cluster sampling. Concept of Sampling Distribution and Standard Error of Statistic–Methods of Estimation principles of Moments, Least Square and Maximum Likelihood (Concept Only)-Characteristics of a Good estimator.

Unit -III: Analysis of Time Series and Index number

Components of time series-fitting of trend, moving average method, fitting of linear and exponential trend curves. Classification of index numbers, unweighted price index numbers, relative of aggregate method and average of price relatives, weighted price index numbers: Laspeyre's, Paasche's and Fisher's ideal index numbers. Time reversal test and factor reversal test and chain based index numbers.

Unit IV: Statistical inferences

One-tailed and two-tailed tests, testing of Hypothesis: Type I and Type II Errors, Tests- based on standard normal, t , F and chi-square distribution and its applications.

Recommended Readings:

1. Yamana, Taro, "Statistics-an Introductory Analysis"
2. Gupta, S.C, and Kapoor, U.K. fundamentals of mathematical statistics"
3. Nagar, A.L. and Das, R.K. "Basic statistics", oxford
4. Salvatore, Dominick and Darrick, "Statistics and Econometrics".
5. Goon, Gupta, Das Gupta," Fundamental of Statistics, Vol. II

DEVELOPMENT ECONOMICS 1 (ECOADL14054)

Course objective:

This course is designed to impart in depth knowledge of the basic economic growth and development, theories and models developed by different development economists.

Course outcomes:

CO1: Understand the basic concept of economic development, measurement and inequality.

CO2: This help to understand the various theories of economic growth.

CO3: Understand the theories of economic underdevelopment.

CO4: This contents help to understand the basic theories of economic development and strategies.

Unit 1: Development, Inequality, Measurement

Development: Concept and measurement, Indicators of Economic Development: PQLI, HDI, GDI, SDGs, Poverty Gap, Capability Approach of Sen, Inequality and Growth.

Unit 2: Theories of Economic Growth

Harrod-Domar , Solo,Joan Robinson, Kaldor, Technical progress- Disembodied & embodied, Endogenous growth theory.

Unit 3: Theories of Underdevelopment

The International Dependence Revolution: Neo-colonial Dependence model, False Paradigm, The Dualistic Development Thesis, The Process of Cumulative Causation: Myrdal, The Vicious Circle Theory.

Unit4: Theories of Development and Strategies

The Stages of Growth: Rostow, The Big push: Rosenstein- Rodan, Balanced Growth: Nurkse, Unbalanced Growth: Hirschman, Horris-Todaro Model of Migration.

Recommended Readings:

1. Higgins, Benjamin, Economic Development, Universal Book Stall.
2. Todaro, MP, Development Economics, Pearson.
3. Meir, GM, Leading Issues in Economics development, OUP.
4. Basu, Kausik, Analytical Development Economics, OUP.
5. Barro &Salai-Martin, Economic Growth, Prentice Hall of India.
6. Thirlwal, AP, Growth & Development, Palgrave.
7. Sen, Amartya, On Economic Inequality, OUP
8. World Bank, World Development Reports, OUP.
9. UNDP, Human Development Reports. OUP

SEMESTER-II

Paper Code	Paper Title	Credits(L+T+P)
ECOADL 14064	Microeconomics-II	3+1+0
ECOSPL 15074	Macroeconomics-II	3+1+0
ECOSPL 15084	Mathematical Economics-II	3+1+0
ECOSPL 15094	Elements of Econometrics	3+1+0
ECOSPL 15104	Development Economics-II	3+1+0

Micro Economics- II

(ECOADL14064)

Course Objectives:

- Evaluate the behaviour of managerial theories
- An understanding the pricing of factors of production and income distribution
- Information about general equilibrium concepts
- Introduction to theoretical deliberations on welfare

Course Outcome:

CO1: Understand the importance and applicability of managerial theories

CO2: Understand the importance of determining price of factors and how it is determined.

CO4: Evaluate the general equilibrium concepts

CO3: Analyse welfare implications of economic phenomena through sound theoretical conceptualisations

Unit-1 Market

Managerial Theories of the Firm- Baumol's, Marris; Behavioral theory of the Firm (Model of Cyert and March); Full cost pricing principle; Limit pricing principle (Bains, Sylos-Labini, Modigliani); Issues regarding existence, purpose and objectives of a firm.

Unit-2 Factor Pricing

Firm's and Industry's input demand curves; Monopsony and Monopoly in Input markets; Unions as monopolists; Bilateral monopoly; Choice of optimal combination of inputs; Adding-Up Problem; Product Exhaustion theorems – Euler's and Clark-Wicksteed-Walras theorems.

Unit-3 General Equilibrium Analysis:

General Equilibrium Meaning of General Equilibrium, Partial vs General Equilibrium, Walrasian General Equilibrium System: Tatonnement, Existence, Stability and Uniqueness of the Equilibrium. **Pareto-Optimality, Kaldor – Hicks and Wealth Maximization** , Critique of General Equilibrium Theory – Non–tatonnement Process. Contributions of Arrow and Debreu Dynamic Stability of General Equilibrium.

Unit-4 Welfare Economics: Social Welfare Function

The Fundamental Theorems of Welfare Economics: Adam Smith, Bentham, Cardinalist, Pareto Optimality: Market Failure: Causes and instances, externality and public good, Bentham, Kaldor and Hicks, Bergson: Maximization of Social Welfare, Choice, Arrow's contribution, Trade protection and Economic Welfare.

Recommended readings:

1. Koutsoyiannis, A.: Modern Microeconomics.
2. Varian, H.: Microeconomic Analysis.
3. Gravelle and Rees: Microeconomics.
4. Quirk and Saposnik: General Equilibrium and Welfare Economics.
5. Domonick Salvatore: Microeconomics-Theory and Application.
6. G.S. Maddala and Ellen Miller: Microeconomic Theory and Applications.

Additional Readings

1. Anjan Mukherjee: General Equilibrium.
2. Kreps, David M.: A Course in Microeconomic Theory MACROECONOMICS –I

MACROECONOMICS –II

(ECOADL15074)

Course Objective:

Introduction to the basic macroeconomic controversies – inflation and unemployment; understanding the economic fluctuations – relative efficacy of monetary and fiscal policies including demand and supply of money.

Course Outcome:

CO1: Understanding the views of different schools on inflation including empirical study on Phillips curve.

CO2: Understanding the macro economic variables in an open economy under the Mundell-Fleming model with fixed and flexible exchange rate regime.

CO3: Understanding the issues of business cycles; different approaches of economic movements and fluctuations.

CO4: Understanding the economic issues of demand for and supply of money.

Course Outline

Unit -1 Macroeconomic Controversy - Theory of Inflation and Unemployment (13)

Keynesian, Monetarist and Structuralist view on Inflation– Modern Approaches to Inflation – Tobin’s view; Philips curve analysis – Short run and Long run Behavior - Empirical study on Phillips Curve; the Natural Rate of Unemployment Hypothesis; - Policies to control Inflation.

Unit- 2: Macroeconomics in the open economy (12)

IS-LM Model in an open economy - Effect of a shifting in IS and LM function; Mundell - Fleming Model – Targets of Interest Rate and Full Employment - Effectiveness of Monetary and Fiscal Policy under Fixed and Flexible Exchange Rate System.

Unit- 3: Business Cycle Theories (10)

Characteristics of Change and Movements; Accelerator and Multiplier Principles and their Interactions; Theories of Business Cycle- Kaldor, Samuelson and Hicks - Control of Business Cycle; Relative Efficacy of Monetary and Fiscal Policies.

Unit- 4: The Demand and Supply of Money (10)

The Demand for money – Classical and Keynesian Approach - Liquidity Trap - Approach of Baumol and Tobin: Measures of Money Supply - Determinants of Money Supply-Money Multiplier Theory.

Recommended Readings:

1. Jha, Raghubendra,(1991) ,Contemporary Macroeconomics Theory and Policy, Wiley Eastern Ltd, New Delhi
2. Frisch, H: Theories of Inflation, Cambridge University Press
3. Branson W.H.(1989), Macroeconomics: Theory and Policy, Harper and Row,New York
4. Brooman, F.S.” Macroeconomics” George Allen & Unwin, London
5. Shapiro, Edward (1996). “Macroeconomic Analysis” Galgotiapublications,New Delhi
6. Dornbusch, R , Stanley F and Fischer, S(2000), Macro Economics”Tata McGraw- Hill, New Delhi
7. Mankiw, N.G, “Macroeconomics” McMillan International, New york
8. Gupta, R.D & Rana, A.S, “Keynes Post Keynesian Economics”, Kalyani Publisher, New Delhi
- 9.Gupta, S.B. (1997). Monetary Economics, S. Chand and Company, New Delhi
- 10.Patinkin, D. (1965). Money, Interest and Prices, Harper and Row, New York.
11. Levacic, R. and A. Rebman: Macroeconomics: An Introduction to Keynesian and Neo-Classical Controversies
12. Sikdar, S. (2011). Principles of Macroeconomics: Second Edition Paperback, OUP.
14. Keynes, J.M. (1936), The General Theory of Employment, Interest and Money, Macmillan, London

Mathematical Economics –II (ECOADL15084)

Objective: The objectives of the content provided are to apply optimization principles to consumer and producer equilibrium in factor markets .Grasp the properties and solutions of first-order difference equations. Comprehend two-person zero-sum games with and without saddle points, and the rule of dominance.Learn the concept and nature of optimal control theory. This will provide a deep understanding of advanced economic theories and their practical applications in various economic scenarios.

Outcome:

CO1: The outcome of the content is to equip learners with the ability to Apply optimization principles

CO2: Understand and solve first-order difference equations

CO3: Master the strategic aspects of game theory and learn the fundamentals of optimal control theory and its economic applications. This educational trajectory is designed to deepen the learner's grasp of economic concepts and analytical techniques, preparing them for advanced applications in the field of economics

Unit- I: Optimization with Equality Constraint

Optimization with equality constraints, Lagrange's multiplier method- application to consumer's equilibrium and producer's equilibrium in factor market. Homogenous, homothetic equations and solution. Solution to system of simultaneous equations

Unit- II: Difference and Differential Equation and their Applications

First order difference equation, Properties and solution. Stability of equilibrium. The Cobweb model. First order differential equation with constant coefficient and constant term, properties and solution. Dynamics of market price. Application in growth models.

Unit- III Game Theory

Two- person zero sum game- pure strategies with saddle point, game without saddle point, rule of dominance, mixed strategy. Non-Cooperative Games: Nash equilibrium, Prisoner's dilemma, Repeated Games and its application to simple market models.

Unit- IV Optimal control theory

Concept, Nature, Economic application: Lifetime utility maximization, Exhaustible resource with illustrative examples.

Recommended Readings:

1. A.C. Chiang, 'Fundamental methods of Mathematical Economics', McGraw Hill.
2. S.Barua, 'Basic Mathematical and its Applications', MacMillan.
3. Taro Yamane, 'Mathematics for Economists'.
4. Jaydeb Sarkhel " An Introduction to Mathematical Techniques for Economic Analysis", Book Syndicate, Kolkata
5. C P Simon, " Mathematics for Economists"
6. Mathematical Economics by Akira Takamaya
7. Statistics for business and economics by McClave Benson Sincich
8. For Optimal Control Theory <https://www.pdfdrive.com/schaums-outline-theory-and-problems-of-introduction-to-mathematical-economics-e54318490.html>

Elements of Econometrics (ECOSPL15094)

Objective: The objective of the content is to prepare students with the necessary analytical tools for robust economic research and analysis. This objective serves to build a strong foundation in econometrics, essential for students to effectively apply these concepts in real-world economic analysis.

Outcome:

CO1: The outcome of the content is to provide students with a foundational understanding of econometric principles and their application in economic analysis.

CO2: To understand the meaning, uses, and scope of econometrics, such as classical Linear Regression Model and the general linear regression model and OLS estimation.

CO3: Additionally it delves into advanced topics in linear regression. This structured outcome aims to equip students with the analytical tools necessary for conducting robust economic research and analysis.

Elements Econometrics-I

Unit 1: Introductory Econometrics

Econometrics: Meaning, Uses and Scopes. Classical Linear Regression Model: Two Variable linear Regression, properties of least square estimates (Gauss-Markov), test of hypothesis, confidence interval, standard errors.

Unit 2: Multiple Linear Regression Model and its estimation

The general linear Regression model- Standard Assumption- OLS estimation and their properties- R^2 and Adjusted R^2 .

Unit 3: Further Topics in Linear Regression Model

Multicollinearity, Effects, detection and remedies- Specification Errors and their consequences, Dummy Variables, Functional forms of regression models.

Unit 4: Introduction to simultaneous Equation models

Structural and reduced forms- Simultaneity bias- informal introduction to identification problem Formalization of identification problem- order and rank condition of identification.

Recommended Readings:

1. Johnston and Dinardo, *Econometric Methods*, McGraw Hill
2. Gujarathi, *Basic Econometrics*, McGraw Hill.
3. Daugherty, *Basic Econometrics*, McGraw Hill
4. GMK Madhani, "Introduction to Econometrics: Principles and Applications", Oxford and IBH Publishing.
5. Jeffrey M. Wooldridge, "Introductory Econometrics: A Modern Approach", South-Western Cengage Learning

Development Economics-II
(ECOSPL15104)

Course objective:

This course will help students to understand the development planning, financing, trade and development, environment and agriculture.

Course outcomes:

CO1: Understand the basic concept of development planning.

CO2: Understand the various sources of development finance.

CO3: Understand the trade, development and environmental issues.

CO4: This contents help to understand the sectoral aspect of development.

Unit- : Development Planning:

Concept and nature of development planning, types of planning, rationale for development planning, planning process, Project evaluation and social cost-benefit analysis

Unit-2: Development Financing:

Internal sources: private savings & taxation. Public and private borrowing: advantages & disadvantages, foreign borrowing: importance, disadvantages. Foreign investment: portfolio and direct foreign investment-importance/ advantages & disadvantages,

Unit-3: Trade, development and Environment:

Trade as an Engine of growth- trade and aid-gain from trade; Terms of trade and underdeveloped countries, singer & Myrdal's views; Environment & Environmental degradation, Forestation & deforestation- consequences, concept of sustainable development and role of state in environmental preservation

Unit-4: Sectoral aspects of Development:

Role of agriculture in economic development, commercialisation in agriculture, problems & causes of low agricultural development, rationality and pattern of industrialization in developing countries, relation between agriculture-industry.

Recommended readings:

1. Todaro, M.P. : Development Economics, McGraw Hill
2. Thirlwal, A.P. : Development Economics, Pearson
3. Misra&Puri, : Economics of Development & Planning, HPH
4. Lekhi, R, K. : The Economics of Development & Planning

SEMESTER-III

Paper Code	Paper Title	Credits(L+T+P)
ECOSPL 25014	International Economics	3+1+0
ECOSPL 25024	Population and Human Resources	3+1+0
ECOSPL 25034	Monetary Economics	3+1+0
ECOSPL 25044	Public Finance	3+1+0
ECOSPL 25054	Issues in Indian Economy	3+1+0

INTERNATIONAL ECONOMICS (ECOSPL25014)

Course Objective:

Learning of this course would provide the knowledge about Heckscher-Ohlin and post Heckscher-Ohlin alternative theories of trade, impact of growth on trade, commercial policies, international organizations relating to issues of trade and economic policies.

Course

Outcome:

CO1: Understanding the basic issues of international trade; modern alternative explanation of trade theories.

CO2: Understanding the inter-relationship between economic growth and international trade including technological changes.

CO3: Understanding issues concerning commercial policies that influence international trade and welfare.

CO4: Understanding the role of international movements towards economic integration, international monetary system and role of international institutions to facilitate international liquidity.

Course Outline

Unit - 1: International Trade Theories, Economies of scale and Imperfect Competition (10)

Theories of Trade: Foundational Propositions - Ricardian and Heckscher- Ohlin Trade Theory - Alternatives to the Standard Trade Theories – Product Cycle and Technology Gap Models, Availability Approach - Monopolistic Competition and Analysis of Gains from Trade.

Unit-2: Economic Growth and International Trade (8)

Effects of Growth on Trade –Rybczynski and Stolper-Samuelson Theorems- Trade and National Income – Trade and Technical Progress –Neutral Technical Progress, Labour - Saving Technical Progress, Capital – Saving Technical Progress.

Unit- 3: International Trade Policy and Regional Economic Integration (19)

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.

Preferential Trading Club - Free Trade Area– Customs Union –Common Market – Economic Union – Trade Creation and Trade Diversion - Dynamic Effects of Customs Union –WTO and Preferential Treatment to Developing Countries.

Unit- 4: The International Monetary System (8)

Characteristics of a Good IMS – The Gold Standard –The Britton Woods System – Present System of Managed Flexibility – Optimum Currency Area – European Monetary System.

Recommended Readings:

1. R.N.Batra: Pure Theory of International Trade. Chapter 4, 10
2. Wilfred Ethier: Modern International economic s
3. Chacholiades, M., “International Trade: Theory and Policy”, McGraw Hill.
4. Kindleberger, C.P., “International Economics”, Irwin.
5. Soderston, B., “International Economics”, Tat McGraw Hill
6. Lipsey, R.G., “The Theory of Custom Union”, Windfield.
7. Roy, P.N., “International Trade: Theory and Policy”

8. M.M. Conden, “Economics of Protection.”

**Population and Human Resource
(ECOSPL25024)**

Course Objective:

Learning of this course would provide the knowledge about the aspects of demographic pattern, demographic transition including vital statistics relating to it. The course would provide the scope for understanding the issues relating to economics of education and health services.

Course

Outcome:

CO1: Thorough understanding of theories of population and demographic transitions.

CO2: Understanding the various measures of demographic components and variables.

CO3: Understanding issues concerning economics of education; issues of financing pattern, economic efficiency and equity issues..

CO4: Understandingthe role of health care services, its problems and prospects and cost-benefit analysis of health care services.

Course Outline

Unit 1: Concepts and Basic Theories

The Malthusian Theory of Population—Theory of Optimum Population—Theory of Demographic Transition—Sources of Population Data—Population Pyramids.

Unit 2: Elements of Vital Statistics

Measure of Fertility—Crude Birth Rate, Fertility Rate, Age Specific Fertility Rate, Measures of Reproductivity—Total Fertility Rate, Gross Reproduction Rate, Net Reproduction Rate—Measure of Mortality—Crude Death Rates, Age Specific Death Rates, Concept of Infant Mortality Rate, Life Table.

Unit 3: Economics of Education (12)

Concept of Human Capital - Education and Economic Development—Residual Factor Approach-Cost Benefit Analysis of Education - Public and Private Financing of Education—Criteria for Adequacy of Education Finance—Education and Economic Efficiency -Financing of Education and Equity,—Financing for Higher Education in India and its Problems.

Unit 4: Health Economics (10)

Primary Health Services - Problems of Health care Services in India and Developing Countries- Health and Economic Development, Cost and Benefit Analysis of Health Care Services.

Recommended Readings:

1. Bhende, A and T. Kanitkar: Principles of Population Studies
2. Gupta and Kapoor: Fundamental of Applied Statistics
3. Ramkumarr, R : Technical Demography
4. G. Psacharopolous (ed): Economics of Education
5. Gupta, S.K and R. Joshi: Human Resource Management

MONETARY ECONOMICS (ECOSPL25034)

Course Objectives:

This course covers the theory and practice of monetary economics, focusing on the role of money in the economy, the functioning of financial institutions, monetary policy, and the interaction between monetary policy and the broader economy. The course combines theoretical models with empirical evidence and policy discussions.

Course Outcome

CO1: Understand the role of money and financial institutions in the economy.

CO2: Analyze the effects of monetary policy on inflation, unemployment, and economic growth.

CO3: Evaluate the transmission mechanisms of monetary policy.

CO4: Discuss the design and implementation of monetary policy in different economic contexts.

Course Outline:

Unit 1 Money Supply and Demand

The money creation process, Measures of money supply , Demand for money theories: Classical, Keynesian, and Friedman's Monetarism

Unit 2 Central Banking and Monetary Policy Transmission Mechanisms

Structure and functions of central banks, Tools of monetary policy, Goals of monetary policy: Inflation targeting, price stability, and other objectives, Interest rate channels, Credit channels, Exchange rate channels, Asset price channels

Unit 3 Money, Inflation, Monetary Policy in Open Economies

The relationship between money supply and inflation, The Phillips curve, Hyperinflation case studies, Balance of payments and exchange rate regimes, Mundell-Fleming model, International monetary systems and crises

Unit 4 Current Issues and Debates in Monetary Policy

Central bank independence, Monetary policy and financial stability, Digital currencies and the future of monetary policy

Recommended Readings:

- Mishkin, F. S. (2019). *The Economics of Money, Banking, and Financial Markets*. Chapters 1-2.
- Friedman, M., & Schwartz, A. J. (1963). *A Monetary History of the United States, 1867-1960*. Chapter 1.
- Mishkin, F. S. (2019). Chapters 3-4.
- Friedman, M. (1956). "The Quantity Theory of Money – A Restatement".
- Mishkin, F. S. (2019). Chapters 15-16.
- Bernanke, B. S., & Blinder, A. S. (1992). "The Federal Funds Rate and the Channels of Monetary Transmission".

- Mishkin, F. S. (2019). Chapters 18-19.
- Bernanke, B. S., & Gertler, M. (1995). "Inside the Black Box: The Credit Channel of Monetary Policy Transmission".
- Mishkin, F. S. (2019). Chapters 22-23.
- Sargent, T. J. (1982). "The Ends of Four Big Inflations".
- Obstfeld, M., & Rogoff, K. (1995). "The Mirage of Fixed Exchange Rates".
- Mishkin, F. S. (2019). Chapters 21-22.
- Bernanke, B. S. (2020). "The New Tools of Monetary Policy".
- Mishkin, F. S. (2019). Chapter 24.
- Goodhart, C. A. E. (2010). "The Changing Role of Central Banks".
- Rogoff, K. S. (2017). *The Curse of Cash*. Chapter 12.
- Mishkin, F. S. (2019). *The Economics of Money, Banking, and Financial Markets*. 12th Edition.
- Walsh, C. E. (2017). *Monetary Theory and Policy*. 4th Edition.
- Bernanke, B. S. (2013). *The Federal Reserve and the Financial Crisis*.
- Blinder, A. S. (1998). *Central Banking in Theory and Practice*.

PUBLIC FINANCE (ECOSPL25044)

Course Objectives:

Acquaint students with the Role of the government in the economy, The learners would be equipped with the understanding of public choice, market failure, government intervention, Public Revenue & Public Debt

Course outcomes (CO)

CO1: Understand the importance of state in an Economy

CO2: Understand the role of public expenditure

CO3: Analyse on the importance and its sources of Public Revenue & Public Debt

CO4: Analyse on Public Budget and its different types

Course Outline:

Unit-1 : State Role

State Role in the Economy & Provision of Public Goods Role of the government in the economy- allocation, distribution and stabilization functions. The nature of Public Goods. Market Failure and Remedial Measures. The efficient provision for public goods, Basic concepts-The Theory of Clubs, Tiebout Hypothesis, Voluntary Bargaining in Small Groups (Coase's analysis), Public goods- externalities, corrective policies and viability of government intervention

Unit 2:Public Expenditure Theories

Public Expenditure Theories of Public Expenditure- Lindhal's Model of Voluntary Exchange, Samuelson's Benefit Theory of Public Expenditure, Musgrave's Optimum Budget Theory Public Expenditure on non-marketed goods, fixed quantity subsidy for marketed goods and excise subsidy –their impact on allocation.

Unit-3: Public Revenue & Public Debt

Public Revenue & Public Debt- Tax & Non-Tax Revenue, Direct & Indirect Taxes, Progressive and non-Progressive Taxation, Tax Ratio, Buoyancy and elasticity of taxation, Rate schedules of taxation, tax credit, Exemption and Deduction, Excess burden of tax and taxable capacity, Incidence and Effects of Taxation. Value Added Tax. Principle of taxation – The Benefit Principle, The Ability to pay principle, the Maximum Welfare Principle of Budget Determination. The Neo-classical Theory of Incidence and Shifting. Public Debt and its management -Musgrave's Budget Incidence ,Theory Public Debt- sources, burden and effects, Optimality in Public Debt Management, Pay- As- You- Use and Pay- As- You-go Finance, Musgrave's Intergeneration Equity Theory.

Unit-4: Public Budget & Fiscal Policy (13)

The Modern Theory of public Budgeting, Structure of a Public Budget, Incremental and Zero-base Budget Concepts: Budget Deficit, Revenue Deficit and fiscal deficit. The current Union and State Budget. Fiscal Policy and its role in the economy Fiscal Policy-Functional Finance and Pump Priming-Fiscal Policy under condition of inflation, Fiscal Policy under condition of unemployment, The Balanced Budget Multiplier, Built in the compensatory mechanism. Incidence of deficit financing-The Ricardian Equivalence Theorem- Impact of deficit finance on the capital market. The Crowding out effect. The welfare cost of deficit finance. Rational and methods of reducing deficits

Recommended Readings:

1. Cullis, John & Jones, Philip: Public Finance and Public Choice.
2. Browning, E.K & Browning, J.M : Public Finance and the price system.
3. Musgrave & Musgrave: Public Finance in Theory and Practice.
4. Buchanan, J.M: The Public Finance

ISSUES IN INDIAN ECONOMY (ECOSPL25054)

Course Objectives

This course provides an in-depth understanding of the Indian economy, covering its historical evolution, structural characteristics, key sectors, policy frameworks, and contemporary issues. The course integrates theoretical analysis with empirical data to examine the dynamics of the Indian economy.

Course Outcomes

CO1: Students will be able to understand the historical development and structural changes in the Indian economy.

CO2: It will analyze the performance and issues of different sectors.

CO3: Students will be able to evaluate economic policies and their impacts.

Course Outline:

Course Outline

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

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: India's Economic Reforms

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 3 : Primary, secondary and tertiary sector

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. Evolution of industrial policy in India, Industrial growth and structural transformation, MSMEs and their role in the economy, Growth and composition of the service sector, Information Technology and its impact, Challenges and future prospects

Unit 4: Poverty, Inequality, and Employment

Measurement and trends in poverty and inequality, Employment patterns and challenges, Government policies and their effectiveness

Recommended Readings:

Ahluwalia, M. S. (2002). "Economic Reforms in India Since 1991: Has Gradualism Worked?".

Joshi, V., & Little, I. M. D. (1996). *India's Economic Reforms 1991-2001*. Chapters 1-2.

Bhalla, G. S., & Singh, G. (2012). *Economic Liberalisation and Indian Agriculture*. Chapters 3-4.

Vaidyanathan, A. (2010). *Agricultural Growth in India: Role of Technology, Incentives, and Institutions*. Chapters 1-2.

Panagariya, A. (2008). Chapters 6-7.

Mohan, R. (2002). "Small Scale Industry Policy in India: A Critical Evaluation".

Ghani, E. (2010). *The Service Revolution in South Asia*. Chapters 5-6.

Banga, R., & Goldar, B. (2007). "Contribution of Services to Output Growth and Productivity in Indian Manufacturing: Pre and Post Reforms".

Dreze, J., & Sen, A. (2013). *An Uncertain Glory: India and its Contradictions*. Chapters 4-5.

Dev, S. M. (2000). "Economic Reforms, Poverty, Income Distribution, and Employment".

Roy, A., & Hulme, D. (2012). "Inclusive Growth in India: A Perspective".

Ahluwalia, I. J., & Mohan, R. (2014). *Urbanisation in India: Challenges, Opportunities, and the Way Forward*. Chapters 2-3.

Chakravarty, S. (1987). *Development Planning: The Indian Experience*.

Ahluwalia, I. J., & Little, I. M. D. (1996). *India's Economic Reforms 1991-2001*.

SEMESTER-IV

Paper Code	Paper Title	Credits(L+T+P)
ECOSPL 25064	Economics of Environment	3+1+0
ECOSPL 25074	Labour Economics	3+1+0
ECOSPL 25084	Agricultural Economics	3+1+0
ECOSPL 25094	Demography (E)	3+1+0
ECOSPL 25104	Econometrics (E)	3+1+0
ECOSPL 25114	Industrial Economics (E)	
ECOSPL 25124	Dissertation (E)	

**ECONOMICS OF ENVIRONMENT
(ECOSPL25064)**

Course Objective:

The objective of the course is to provide the learners with basic issues relating to the economics of environment, valuation techniques environmental resources, and sustainable use of non-renewable environmental resources in the society.

Course Outcomes:

CO1: Understanding the core issues of sustainable development; the environmental accounting and various measures of it- both weak and strong sustainability rules; learning the issues of market success and market failure.

CO2: Understanding the way of sustainable exploitation of environmental resources.

CO3: Understanding the valuation techniques of environmental resources, both use and non-use values.

CO4: Understanding the issues of global warming, ozone layer depletion and international protocol and conventions.

Unit-I: Economy and the Environment (13)

Economy-Environment linkages - Poverty and the Environment- Concept and indicators of Sustainable Development- Environmental Accounting Policy for Sustainable Development.- Weak and Strong Sustainability Rules -Safe Minimum Approach - Solow-Hartwick Rule - Genuine Savings - Green GNP Accounts.

Environmental degradation and Market Failure – Externalities - Externalities and Market Failure - Property Rights and Transaction Costs- Environmental Public Goods: Efficient provision of Public Goods, Environment as a Public Good, Property rights - Environmental Kuznets Curve.

Unit-2: Economic issues of Environmental Resources (9)

Economic issues of Renewable and Non renewable Resources - Optimal depletion of Environmental Resources - Hotelling Rules - Common Property Resources- Open access- the Tragedy of Commons.

Unit-3: Valuation of Environmental Goods: Damages and Benefits (12)

The value of Environmental Resources - Use and Non - use values - Willingness to Pay and Willing to Accept - Valuation Methods - Direct and Indirect Methods - Stated Preference, Contingent Valuation Method, Revealed Preference Methods, Hedonic Pricing and Travel Cost Methods ; Environment Impact Assessment.

Unit-4 Current issues in Global Environment (11)

The issues of Climate change, Global Warming, Loss of Biodiversity, Ozone Layer Depletion - International Conventions and Protocols- Trade and Environment- Pollution Havens.-Pollution Prevention -,Market based Instruments - Taxes vs Tradable Pollution Permits - Pigovian Tax.

Recommended readings:

1. Nick Hanley, Janson F. Shogren and Ben White: environmental Economics, Macmillan Publications
2. Bhattachariya, R.: environmental Economics, Oxford University Press
3. Shankar, U. : Environmental Economics, Oxford University Press
4. Kolstad, Charles D: Environmental Economics, Oxford University Press

LABOUR ECONOMICS (ECOSPL25074)

Course objective:

This course is designed to impart in depth knowledge of the labour economics- labour markets, wage determination, discrimination of labour based on gender caste, Trade unions and collective bargaining and various issue of labour of Indian labour markets.

Course outcomes:

CO1: Understand the basic concept and theories of labour markets.

CO2: This help to understand the various theories of wage and labour productivity.

CO3: Understand the Discrimination in labour markets, Trade Union and Collective Bargaining.

CO4: This contents help to understand the basic issues of Indian labour markets.

Unit I: Labour Market

Meaning/concepts of labour: Nature and characteristics of labour markets; Supply and Labour Demand; The Short- and Long-run Labour Supply and Labour Demand Curves and their Elasticities; Labour Market Equilibrium; Competitive Equilibrium across Labour Markets; The Cobweb Model; Non-Competitive Labour Markets; Monopoly, Monopsony and Bilateral Monopoly;

Unit 2: Wage Determination

Theories of Wage-Classical, New classical and modern, Concepts of minimum wage and efficiency wage; Wage determination in organised and unorganised sector; Human Capital theory of wage; wage differentials; relationship between wage and employment; Labour Productivity: concept and measurement, wage price and employment; Labour mobility.

Unit 3: Labour Market Discrimination, Trade Union and Collective Bargaining

Labour market discrimination; Caste and gender in the labour market, the crowding model, Employer and employee discrimination, Trade Unions- determinants of union membership, Economic impact of unions-Union wage advantage, Efficiency and productivity of unionism. Collective bargaining: Economic sanctions of collective bargaining, bargaining power in collective bargains, counteracting pressures- Employers resistance, potential impact on union.

Unit 4: Issues in Indian labour market

Indian labour markets: size, composition in the organised and unorganised labour; Major issues in Indian labour markets; labour productivity in India; Labour turnover and absenteeism in India; women and child labour in India; Agriculture and rural labour; Employment and wage policy in India; Informal labour and Social security measures; Globalization and labour market.

Lester, R.A. (1964). Economics of Labour, (2nd Edition), Macmillan, New York.

C.R MC Connel and S.L.Bruce, Contemporary Labour Economics, McGraw Hill,1986

Butler,A.D. (1972): Labour Economics and Institutions, American Publishing Companies

Goers,J.B (1996): Labour Economics, McGrawHill.,NY.

Ashenfelter, Orley and Richard Layyard, The Handbook of Labour Economics. Vol.1 and 2. NY: North Holland, 1986.

Papola T.S., P.P. Ghosh and A.N.Sharma (EDS) (1993) Labour Employment : Industrial Relation in India, B.R. Publishing Corporation

Praveen Jha B.R. Agriculture Labour in India, Vikas Publication,2001

Hicks J.R. (1932). The Theory of Wages. Clarendon Press, Oxford.

• Jhabvala, R. &Subrahmanya,R.K. (Eds.) (2000).The Unorganised Sector: Work Security and Social Protection. Sage Publications, New Delhi.

AGRICULTURAL ECONOMICS

(ECOSPL25084)

Course Objectives:

It will Acquaint students with agricultural economics and helps understand the role of production functions in agricultural economics. Students will gain knowledge about the pricing of factors of production and income distribution

Course Outcome:

CO1: Understand the importance and applicability of agricultural economics

CO2: Understand the importance and applicability of production function in agricultural economics.

CO3: Analyse price determination of different factors of production and income distribution among them.

CO4: Analyse different development models of agriculture

Unit-1

Nature and scope of agricultural economics

Unit-1 Introduction to agricultural Economics Nature and scope of agricultural economics-role of agriculture in economic Development-special Characteristics of the primary sector-interdependence between agriculture and rest of the Economy farming system-the Chayanovian farm Household model-farm size and productivity

Unit-2 Production functions

The Economics Agricultural Production functions of Agricultural Production --input-output relationship-farm Budgeting -rotation of crops, location of crops, cropping pattern determinants of cropping pattern.

Unit-3 Factor market:

Agricultural markets Land market: Land use and land prices, lease market-land tenure system-mobility of labour-marginal product of labour-credit market-role of capital in agricultural development-the rural credit market in India-micro finance. Demand for farm product-factors affecting demand for food, Engels law and Engels elasticity-supply of agricultural products-supply of individual crops and aggregate supply - supply response to perennial crops-marketed supply and marketable supply-cowweb market model, Nerlover's PAAE model.

Unit-4 Models of agricultural development

Behaviour of agricultural prices, models of agricultural development Features of agricultural prices-agricultural price policy-role and functions-sectoral terms of trade and economic growth. Lewis, Fei-Ranis, Jorgenson, Mellor, Schultz and Boserup models

Recommended readings:

1. Heady, E.O: Economics of Agricultural Production and Resource Use, prentice Hall
2. Heady, E.O: The Economic Organisation of Agriculture, Mc Graw Hill
3. Fei, Ranis: Economic Growth-An Evolutionary Perspective.
4. Ray, Debraj: Development Economics-Oxford University Press

DEMOGRAPHY (E) **(ECOSPL25094)**

Course objective:

The course will help to understand basic demographic aspect of population growth and development, nuptiality and vital statistical measures. It also imparts knowledge about the urbanization, migration, population projections and policies of the government.

Course outcomes:

CO1: Understand the population growth and development.

CO2: Understand nuptiality and vital statistical measures.

CO3: It helps to understand migration and urbanization.

CO4: Understand the Population projection and work-force participation.

Unit-I: Population and Economic development

Population and Development; Meaning and scope of demography; population growth and their interdependence; International aspects of population growth and distribution; Pattern of age and sex structure in developed and less developed countries.

Unit-II Nuptiality, vital rates and the life table

Nuptiality: Concept and analysis of marital status, Singulate Mean Age of Marriage, Trends in age at marriage in India. Measures of mortality: standardized death rates, infant mortality and maternal mortality rate.

Life table- relationships among various life table functions, curate expectation of life, central mortality rate: construction of abridged life tables from death registration and census data, reed-Merrell method

Unit-III Urbanization and migration

Urbanization: Growth and distribution of rural–urban population in India, forces of urbanization in developed and developing countries, trends in urbanization in India, Migration: concept of migration, Types of migration: internal migration-determinant and consequences, International migration-types, determinants and consequences, migration modal-push-pull hypothesis-todaro’s model of rural-urban migration

Unit-IV Population projection

Component of population change, population projection: mathematical and component methods of projection, economically active population, composition and size of labour force participation rate, female work force participation rate.

Recommended Readings:

1. Bose, A. (1996), India’s Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi.
2. Choubey, P.K. (2000), Population Policy in India, Kanishka Publications, New Delhi.
3. Coale, A.J. and E.M. Hoover (1958), Population Growth and Economic Development in Low Income Countries: A Case Study of India’s Prospectus, Princeton University Press, Princeton
4. Bhende, A and T. Kantikar, principles of Population Studies’
5. Thomson and Lewis: population problems
6. Gupta, SP and VK Kapoor: Fundamentals of applied statistics’
7. Ramkumar, R: Technical Demography

ECONOMETRICS (ECOSPL25104)

Objective: This content will enable students with the skills to perform sophisticated econometric analyses, essential for empirical research in economics and finance.

Outcome:

CO1: To develop a comprehensive understanding of advanced econometric techniques and their applications addressing analytical issues such as heteroskedasticity and autocorrelation.

CO2: To master nonlinear least squares, binary dependent variable models and estimation of ARDL models.

CO3: To understand stationary and non-stationary series, random walk models, unit root tests, causality tests, co-integration, error correction mechanisms, and the basics of panel data models.

Unit-1 Multiple Regression Analysis: Issues

Heteroskedasticity, Autocorrelation – Tests, Detection and Remedies.

Unit-2 Non linear Estimation and distributed Lagged models

Non Linear least squares and its iteration process-models with binary dependent variable-Logit and Pobit models, Tobit Model, Koyck model-partial adjustment and adaptive expectation model, estimation of model with lagged dependent variable(ARDL).

Unit-3 Simultaneous Equation Models

Identification through restrictions on the covariance matrix of structural disturbances, recursive model-methods of estimation ILS, 2SLS, IV, 3SLS and FIML methods with properties, forecasting and simulation in SEM.

Unit-4 Time series modeling

Stationery and Non stationery series, random walk model, unit root time series modeling, causality test-Granger and sim's test, co-integration/integrated series,error correction mechanism. Introduction to Panel Data - Fixed and Random Effect models.

Selected Reading:

1. Johnston and Dinardo: econometrics Methods, McGraw Hill
2. Gujarati, D: Basic Econometrics, McGraw Hill
3. Pindyck and Rubinfeld: econometrics Models and econometrics Forecast, McGraw Hill
4. Greene William: Econometrics Analysis, McGraw Hill
5. G.S Madalla: Introduction to Econometrics, Macmillan, New York
6. Jeffrey M. Wooldridge, "Introductory Econometrics: A Modern Approach", South-Western Cengage Learning

INDUSTRIAL ECONOMICS

(ECOSPL25114)

Course Objectives:

Students will gain knowledge about Industrial economics. The course will acquaint students with production and productivity under industrial economics. Knowledge about industrial finance and various government planning for industrial development will shape the student to be industrialist.

Course Outcome:

CO1: Understand the importance industrial economics

CO2: Understand the role and importance of productivity in industrial economics

CO3: Understand the role, importance and sources of industrial finance

CO4: Understand about the influencing factors of industrial location

Course Outlines:

Unit-1 Introduction to industrial Economics

Introduction to industrial Economics Meaning-Scope-Need & Significance of the Study of Industrial Economics Industrial Profile -Private Sector, Large, Medium & Small Scale Industries Village Industries-Public Sector-Role and Problems of Public Sector-Industries-Disinvestment-Policy. Integration, Industrial Combinations - Causes, Mergers & Amalgamations, Effects of Industrial Monopoly

Unit-2 Industrial Location

Theories of Industrial Location Theories of Industrial Location- Factors Influencing Location of Industries-Theories of Industrial Location, Weber, and Sargent Florence-Industrial Imbalance, Causes and Measures-Need for Balanced Regional Development of Industries

Unit-3 Production and productivity:

Industrial Productivity & Efficiency Productivity - Norms and Measurement, Factors affecting Productivity and Capacity Utilization Importance of Productivity in the Competitive Environment, Measures required for Improving Productivity and Efficiency

Unit-4 Industrial Finance

Industrial Finance Meaning, Scope, Importance of Industrial Finance, Sources of Industrial Finance: Private, Public and Co-operative Sector -Shares, Debentures, Bonds, Deposits, Loan etc Foreign capital: Need for Foreign Capital, Governments Policy towards, Foreign Capital. Direct Investment, Foreign Institutional Investment, Euro Issues, GDR, ADR, External Commercial Borrowings Unit 5 Indian Industrial Growth Brief Outline of Industrial Policies of 1948, 1956, 1977, Industrial Policy – 1991; Trends in Industrial Growth after 1991 Make in India, Look East Policy, North East Industrial and Investment Policy, Performance & Problems of Small Scale & Cottage Industries in India, Role of MNC's in India.

Recommended readings:

1. Alhuwalia I.J. (1985), Industrial Growth in India, Oxford University Press, New Delhi.
2. Barthwal R.R. (1985), Industrial Economics, Wiley Eastern Ltd., New Delhi.

3. Cherunilam, F. (1994), Industrial Economics: Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai
4. Desai, B. (1999), Industrial Economics in India (3rd Edition), Himalaya Publishing, House, Mumbai
5. Divine, P.J. and R.M. Jones et.al (1976), An Introduction to Industrial Economics, George, Allen and Unwin Ltd., London. Government of India, Economic Survey (Annual)
6. Hay D. and D.J. Morris (1979), Industrial Economics Theory and Evidence, Oxford University Press, New Delhi
7. Kuchhal S.C. (1980), Industrial Economy of India (5th Edition), Chaitanya, Publishing Houses, Allahabad.
8. Singh, A and A.N. Sandhu (1988), Industrial Economics, A Himalaya Publishing, House, Bombay

DISSERTATION (E)

(ECOSPL25124)