

**B.A. (Honours) Economics
Four-Year Undergraduate Programme
(Eight - Semester Course)**

**Learning Outcomes based Curriculum Framework (LOCF)
for (B.A. Economics)
Undergraduate Programme 2022**

**Under
CHOICE BASED CREDIT SYSTEM
in view of NEP - 2020**



COURSE CONTENTS

Department of Economics
Oriental College (Autonomous)
Takyel, Imphal
AFFILIATED TO MANIPUR UNIVERSITY, CANCHIPUR

4 Year Undergraduate Programme Structure Economics (Honours)

There are a total of eighteen economics core courses that students are required to take across eight semesters. All the core courses are compulsory. In addition to core courses in economics, a student of B.A. (Honours) Economics will choose four Discipline Specific Elective (DSE) Courses, six generic elective (GE) courses and some value addition courses.

The Discipline Specific Elective (DSE) Courses are offered in the last four Semesters of the 4-year under-graduate programme namely the 5th, 6th, 7th and 8th Semesters of the 4 year undergraduate programme.

The generic elective courses which are meant for students of other departments are being offered from 3rd semester through 8th semester (a table for it is attached separately). The students are required to take six GE courses during the whole programme, one per semester running through 3rd semester to 8th semester.

Contact Hours: Each course has 5 lectures and 1 tutorial (per group) per week. The size of a tutorial group is 8-10 students.

Note on Course Readings: The nature of several of the courses is such that only selected readings can be specified in advance. Reading lists should be updated and topic-wise readings should be specified at regular intervals, ideally on an annual basis.

Learning Outcome-based Approach

The B.A. (Hons) Economics programme provides a firm basis for much of the advanced thinking in the Economics discipline. It provides the student with a logical paradigm of modelling and interpreting the behaviour and interactions of households, firms, and government institutions. The programme is consistent with global standards in the Economics discipline. It offers training that is comparable to that of an undergraduate student at the world's best universities. The curriculum allows students to choose elective courses from a set of courses with contemporary relevance, thereby offering students the flexibility to prepare for careers in academia, law, management, journalism, government, and many other fields.

3. Graduate Attributes

Upon completion of this programme, a student will have the necessary skills to understand and analyse in a logical manner all major economic phenomena. A student will be able to analyse government policies and regulations, and demonstrate their significance. Knowing how an economy functions, and how decisions are made by consumers, producers, and regulators, the student will have the necessary skills to identify, analyse, and solve problems in a logical and efficient way. The programme provides the basic ingredients of economic theory and the opportunity to learn how to process and analyse economic data based on sound statistical principles, in order to arrive at economically meaningful conclusions.

4. Qualification Description

Upon successfully completing the programme, a student will be awarded the degree of B.A. Honours (Economics).

Programme Objectives

The programme aims to:

1. Train students in basic economic theory;
2. Equip students with the mathematical and statistical techniques necessary for a proper understanding of the discipline;
3. Discuss real world economic issues and problems facing the country and the world;
4. Enable students to understand proper policy responses to economic problems;
5. Train students to collect primary data and learn sampling techniques;
6. Train students to use statistical and econometric methods to arrive at conclusions about the validity of economic theories;
7. Train students to learn the art of economic modelling.

6. Programme Learning Outcomes

Students will:

1. Get an understanding of basic economic theory;
2. Learn the mathematical and statistical techniques necessary for a proper understanding of the discipline;
3. Get an introduction to real world economic issues and problems facing the country and the world;
4. Gain an understanding of proper policy responses to economic problems;
5. Get trained to collect primary data and learn sampling techniques;
6. Learn to use scientific empirical methods to arrive at conclusions about the validity of economic theories;
7. Get trained in the art of economic modelling.

Teaching Learning Process

Teaching and learning in this programme involves classroom lectures as well as tutorials. The tutorials allow a closer interaction between the students and the teacher as each student gets individual attention. In tutorials, the teacher can keep track of each student's progress and address her/his individual difficulties. Written assignments and projects submitted by students as part of the course are also discussed in tutorials. Some courses also have a laboratory component and some require the students to undertake an independent research project and submit a written report at the end of the project. Research projects will encourage independent thinking among students and prepare them to carry out research on their own after completion of the degree. Students will be assigned regular home assignments and will be tested periodically through quizzes and class tests to ensure that they have properly learnt the course material.

8. Assessment Methods / Evaluation Scheme

Assessment methods and evaluation schemes will be as *per* College norms. Maximum marks for each theory paper will be 100(60 for Semester end examination and 40 for internal assessment)

Table:1**Structure of B.A Honours (Economics) 4 - Year LOCF Programme**

Semester	CC (18 courses x 6 credit each)	#DSEC (4 courses x 6 credit each)	GEC (6 courses x 6 credit each)	SEC (2 courses x 4 credit each)	AECC (2 courses x 4 credit each)	VAC (8 courses x 2 credit each)
Year I (Level 5) total credits: 2 Sem. x24=48						
I	ECO-HC 501			ECO-SE 501	GEN-AE 1/ MAN-AE 1	VAC 1
	ECO-HC 502					VAC 2
II	ECO-HC 503			ECO-SE 502	EVS-AE 2	VAC 3
	ECO-HC 504					VAC 4
Year II (Level 6) total credits: 2 Sem. x 26 = 52						
III	ECO-HC 601		ECO-HG 601			VAC 5
	ECO-HC 602					
	ECO-HC 603					
IV	ECO-HC 604		ECO-HG 602			VAC 6
	ECO-HC 605					
	ECO-HC 606					
Year III (Level 7) total credits: 2 Sem. x 26 = 52						
V	ECO-HC 701	ECO-HE 701/ ECO-HE	ECO-HG 701			VAC 7
	ECO-HC 702	701/-ECO-HE 701				
VI	ECO-HC 703	ECO-HE 702/ ECO-HE 702/ ECO-HE 702	ECO-HG 702			VAC 8
	ECO-HC 704					
Year IV (Level 8) total credits: 2 Sem. x 24 = 48						
VII	ECO-HC 801	ECO-HE 801/ ECO-HE 801/ ECO-HE 801	ECO-HG 801			
	ECO-HC 802					
VIII	ECO-HC 803	ECO-HE 802 Dissertation	ECO-HG 802			
	ECO-HC 804					
Grand Total Credits = 200						

Abbreviation:

ECO - Economics

ECO-HC - Economics Honours Core Course: 18 Courses for 108 Credits (Course Code: HC)

DSEC - Discipline Specific Elective Course: 4 Courses & 24 Credits (Course Code: HE)

GEC - Generic Elective Course: 6 Courses & 36 Credits (Course Code: HG)

SEC - Skill Enhancement Course: 2 Courses & 8 credits (Course Code: SE)

AECC -Ability Enhancement Compulsory Course: 2Courses & 8 credits (Course Code: AE)

VAC: Value Addition Course (To be specified by the college): 8 Courses & 16 Credits

Table:2

**SCHEME FOR CHOICE BASED CREDIT SYSTEM in 4 YEAR
B.A.HONOURS (ECONOMICS)**

SEMESTER	COURSE CODE	COURSE NAME	Credits
I	GEN-AE-1	English for Communications	4
	ECO-HC 501	Introductory Microeconomics	6
	ECO-HC 502	Mathematical Methods for Economics-I	6
	ECO-SE 501	Data Analysis	4
	VAC 1	Value Addition Course 1	2
	VAC 2	Value Addition Course 2	2
Total credits in Semester I			24
II	EVS-AE 2	Environmental Studies	4
	ECO-HC 503	Introductory Macroeconomics	6
	ECO-HC 504	Mathematic for Economics-II	6
	ECO-SE 502	Research Methodology	4
	VAC 3	Value Addition Course 3	2
	VAC 4	Value Addition Course 4	2
Total credits in Semester II			24
III	ECO-HC 601	Intermediate Microeconomics	6
	ECO-HC 602	Intermediate Macroeconomics	6
	ECO-HC 603	Statistical Methods for Economics	6
	ECO-HG 601	Introductory Microeconomics	6
	VAC 5	Value Addition Course 5	2

Total credits in Semester III			26
IV	ECO-HC 604	Introductory Microeconomics-II	6
			6
	ECO-HC 605	Intermediate Macroeconomics-II	
			6
	ECO-HC 606	Introductory Econometrics	
			6
	ECO-HG 602	Introductory Macroeconomics	6
	VAC 6	Value Addition Course 6	2
Total credits in Semester IV			26
V	ECO-HC 701	Indian Economy-I	6
	ECO-HC 702	Development Economics-I	6
	ECO-HE 701	Political Economy-I/Topics in Microeconomics-I/Money and Financial Market	6
	ECO-HG 701	Indian Economy-I	6
	VAC 7	Value Addition Course 7	2
Total credits in Semester V			26
VI	ECO-HC 703	Indian Economy-II	6
	ECO-HC 704	Development Economics-II	6
	ECO-HE 702	Political Economy-II/ Topics in Microeconomics-II/Environmental Economics	6
	ECO-HG 702	Indian economy-II	6
	VAC 8	Value Addition Course 8	2
Total credits in Semester VI			26
VII	ECO-HC 801	International Economics	6
	ECO-HC 802	Public Finance	6
	ECO-HE 801	Applied Econometrics/ Economics of Health & Education/ Economic History of India(1857-1947)	6

	ECO-HG 801	Environmental Economics	6
Total credits in Semester VII			24
VIII	ECO-HC 803	The Economy of Manipur	6
	ECO-HC 804	Environmental Economics	6
	ECO-HE 802	Contemporary Economic Issues/ (Dissertation)	6
	ECO-HG 802	Public Finance	6
Total credits in Semester VIII			24
Grand Total credits			200

CORE ECONOMICS COURSE 1

ECO-HC-501

Introductory Microeconomics

Course Objective

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

Course Learning Outcomes

The course introduces the students to the first course in economics from the perspective of individual decision making as consumers and producers. The students learn some basic principles of microeconomics, interactions of supply and demand, and characteristics of perfect and imperfect markets.

Course Outline

1. Exploring the subject matter of Economics

Definition of economics. Why study economics? The scope of economic theory and basic economic problems; scarcity and choice; the question to what to produce, how to produce and how to distribute output. Methods of economics. Concept of equilibrium.

15 lectures
25 marks

2. Supply and Demand: How Markets Work, Markets and Welfare

Markets and competition; Behaviour of profit maximising firms; Production functions. how prices allocate resources? controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the market. Equilibrium of competitive firm and industry.

15 lectures
25 marks

3. Consumer Theory

Cardinal Utility Analysis: meaning of demand. The law of demand. consumer's equilibrium. Indifference Curve Theory; consumer equilibrium; income effect, substitution effect and price effects. Slutsky equation. revealed preference theory; preference hypothesis and strong ordering.

15 lectures
25 marks

4. The Households

The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; labour supply and savings decision - choice between leisure and consumption.

15 lectures

25 marks

Readings

1. Karl E. Case and Ray C. Fair, *Principles of Economics*, Pearson Education Inc., 8th Edition, 2007.
2. N. Gregory Mankiw, *Economics: Principles and Applications*, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th edition, 2007.
3. Joseph E. Stiglitz and Carl E. Walsh, *Economics*, W.W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.

Economics Core Course 2

MATHEMATICAL METHODS IN ECONOMICS–I (ECO-HC-502)

Course Objective

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

Course Learning Outcomes

The course sharpens and upgrades the mathematical skills acquired in school and paves the way for the second semester course Mathematical Methods in Economics II. Collectively, the two papers provide the mathematical foundations necessary for further study of a variety of disciplines including economics, statistics, computer science, and finance and data analytics. The analytical tools introduced in this course have applications wherever optimisation techniques are used in business decision-making. These tools are necessary for anyone seeking employment as an analyst in the corporate world. The course additionally makes the student more logical in making or refuting arguments.

Course Outline

1. Preliminaries

Number System; Variables, Constants and Parameters; Equation and Identities; Sets and set operations.

12 lectures
20 marks

2. Functions of one real variable

Types of functions: Quadratic, Polynomial, Power, Exponential, Sequences and Series, Convergence, Continuous functions:- Characterisation, properties with respect to various operations and applications.

12 lectures
20 marks

3. Differential calculus

Differentiation of a function; Basic rules of differentiation, partial and total differentiation; Second and higher order derivatives for single variable; economic applications of differentiation.

12 lectures
20 marks

1. Single variable optimization

Local and global optima; geometric characterization, characterization using calculus; tests for maximization and minimization; applications: profit maximization, cost minimization, revenue maximization.

12 lectures
20 marks

2. Integration of functions

Meaning and significance of integration, basic rules of integration; significance of a constant after integration; Economic application: derivation of total functions from marginal functions.

12 lectures
20 marks

Readings

K. Sydsaeter and P. Hammond : Mathematics for Economic Analysis: Pearson Educational Asia.

A.C Chiang and K. Wainwright : Fundamental Methods of Mathematical Economics, Mc Graw Hill.

Economics Core Course 3

(ECO-HC503)

INTRODUCTORY MACROECONOMICS (ECO-HC503)

Course Objectives

This is the first module in a three-module sequence that introduces students to the basic concepts of Macroeconomics. Macroeconomics deals with the aggregate economy. This course discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like GDP, savings, investment, money, inflation, and the balance of payments. It also introduces students to simple analytical frameworks (e.g., the IS-LM model) for determination of equilibrium output.

Course Learning Outcomes

This course aims to develop the broad conceptual frameworks which will enable students to understand and comment upon real economic issues like inflation, money supply, GDP and their inter-linkages. It will also allow them to critically evaluate various macroeconomic policies in terms of a coherent logical structure.

Course Outline

1. Introduction to Macro economics

Meaning and subject matter of Macroeconomics; Micro vs Macroeconomics; Basic issues studied in Macroeconomics; Importance and limitation of Macroeconomics.

12 lectures
20 marks

2. National Income Accounting

National Income Accounting; Concepts- GDP, GNP, NDP and NNP, Per Capita income; Significance of National Income Estimates, Measurement of GDP-income, expenditure and circular flow methods; Real versus Nominal GDP; National Income Accounting for an open economy; Balance of payments: Current and Capital account.

12 lectures
20 marks

3. Money

Meaning; Functions of money; Quantity theory of money; Determination of money supply and demand; credit creation, Tools of monetary policy.

12 lectures
20 marks

4. Inflation

Types of inflation; Causes and its effects on production & distribution ; Hyperinflation; Price Indices. Anti-Inflationary Measures; deflation.

12 lectures
20 marks

5. The closed Economy in the short run

Classical and Keynesian system; Simple Keynesian model of income determination; IS-LM model;

12 lectures
20 marks

Readings:

Dornbusch, Fischer and Startz : Macroeconomics, Mc Graw Hill

N. Gregory Mankiw : Macroeconomics, Worth Publishers

Errol D' Souza : Macroeconomics, Pearson Education.

**CORE ECONOMICS CORSE 4
ECO-HC-504**

Mathematical Methods in Economics - II

Course Objective

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

Course Learning Outcomes

The course provides the mathematical foundations necessary for further study of a variety of disciplines including postgraduate economics, statistics, computer science, finance and data analytics. The analytical tools introduced in this course have applications wherever optimization techniques are used in business decision-making for managers and entrepreneurs alike. These tools are necessary for anyone seeking employment as an analyst in the corporate world.

Course Outline

1. Linear Algebra

Matrix Algebra: Matrix operations: addition, subtraction, multiplication; determinant, rank and inverse of matrix; Cramer;s rule for solution of simultaneous equations.

**12 lectures
20 marks**

2. Functions of several real variables

Homogeneous and Homothetic Functions: Concepts; homogeneous functions & Euler's theorem; Cobb-Douglas production function& its properties; Implicit Function Theorem and applications.

**12
lecturess**

20 marks

3. Multi-variable optimization

Constrained optimization with equality constraints, the methods and interpretation of Lagrange multiplier, its application to economic problems.

**12 lectures
20 marks**

4. Differential Equation

Meaning, linear first order differential equation, application to market model

12 lectures

20 marks

5. Difference Equation

First order difference equation, Cob-web market model.

12 lectures

20 marks

Reading:

K. Sydsaeter and P. Hammond : Mathematics for Economic Analysis: Pearson Educational Asia.

A.C Chiang and K. Wainwright : Fundamental Methods of Mathematical Economics, Mc Graw Hill.

**CORE ECONOMICS COURSE 5
ECO-HC-601**

Intermediate Microeconomics -I

Course Objective

The course is designed to provide a sound training in microeconomic theory to formally analyze the behaviour of individual agents. Since students are already familiar with the quantitative techniques in the previous semesters, mathematical tools are used to facilitate understanding of the basic concepts. This course looks at the behaviour of the consumer and the producer and also covers the behaviour of a competitive firm.

Course Learning Outcomes

The course trains the students of Economics about the basic elements of consumer theory and production theory and the functioning of perfectly competitive market. This course aims to give students a solid grasp of microeconomic analysis at the intermediate-level using mathematical techniques where appropriate.

Course Outline

1. Monopoly Market Structure

Monopoly, simple monopoly & discriminating monopoly, price and output determination, degrees of monopoly power, monopoly and anti-trust policy; government policy towards competition.

**15 lectures
25 marks**

2. Input Market

Labour & land markets: basic concepts-- derived demand, productivity of an input, marginal productivity of labour, marginal revenue product & value of marginal product; demand for labour, derivation of labour demand curves, shifts in the demand curves; competitive labour markets and public policy.

**15 lectures
25 marks**

3. Production, Cost and Perfect Competition

Isoquants; production with one or more variable inputs; factor prices; laws of production, returns to scale and returns to a variable factor; least cost combination of factors; technological progress and production function.

**15 lectures
25 marks**

4. Oligopoly and Monopolistic Markets

Monopolistic competition; selling costs and product differentiation, equilibrium of the firm under monopolistic market; Oligopoly—Kinky demand curve model;

**15 lectures
25 marks**

Readings:

1. Hal R. Varian, *Intermediate Microeconomics, a Modern Approach*, W.W. Norton and Company/Affiliated East-West Press (India), 8th edition, 2010. The workbook by Varian and Bergstrom may be used for problems.
2. C. Snyder and W. Nicholson, *Fundamentals of Microeconomics*, Cengage Learning (India), 2010.
3. B. Douglas Bernheim and Michael D. Whinston, *Microeconomics*, Tata McGraw-Hill (India), 2009.

**CORE ECONOMICS COURSE 6
ECO-HC-602**

Intermediate Macroeconomics –I

Course Objective

This is the second module of a three-module sequence on Macroeconomics. This course introduces students to formal modeling of the macro economy in terms of analytical tools. It discusses various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context. It also introduces students to various micro-founded theories of macro behaviour, e.g., consumption and investment behaviour of households and the demand for money generated in the household sector.

Course Learning Outcomes

This course enables students to analyse the macroeconomic performance of various countries using formal analytical tools. It also allows them to evaluate important macroeconomic policies and their implications

Course Outline

1. Aggregate Demand and Aggregate Supply

Concepts of aggregate demand and aggregate supply derivation of aggregate demand and aggregate supply curves in the IS-LM model; interaction of aggregate demand and aggregate supply; causes and impact of shifting of IS-LM curves on equilibrium level of employment, output and prices.

**12 lectures
20 marks**

2. Inflation, Unemployment and Expectations

Inflation-unemployment Trade off and Phillips curve; Adaptive and Rational Expectations; The policy ineffectiveness and challenges.

**12 lectures
20 marks**

3. Open Economy Macroeconomics

Balance of Payments - Concepts, Equilibrium and Disequilibrium in Balance of payments ; Causes of disequilibrium and corrective measure. Determination of Foreign Exchange Rate - Purchasing Power Parity Theory, fixed vs flexible exchange rates.

**12 lectures
20 marks**

4. Open Economy Models

Short run open economy models; the basic Mundell - Fleming Model, Dornbusch's overshooting model.

**12 lectures
20 marks**

5. Financial Market

Feature and functions of financial markets Banks and Financial Markets; Adverse selection and Moral Hazard; Major Financial sector reforms in India; Lessons from the Global Financial Crisis and the policy Response in India.

12 lectures
20 marks

Readings:

Dornbusch, Fischer and Startz : Macroeconomics, Mc Graw Hill

N. Gregory Mankiw : Macroeconomics, Worth Publishers

Errol D' Souza : Macroeconomics, Pearson Education.

CORE ECONOMICS COURSE 7
ECO-HC-603
Statistical Methods for Economics

Course Objective

The course teaches students the basics of probability theory and statistical inference. It sets a necessary foundation for the econometrics courses within the Honours programme. The familiarity with probability theory will also be valuable for courses in advanced microeconomic theory.

Course Learning Outcomes

At the end of the course, the student should understand the concept of random variables and be familiar with some commonly used discrete and continuous distributions of random variables. They will be able to estimate population parameters based on random samples and test hypotheses about these parameters. An important learning outcome of the course will be the capacity to analyse statistics concerned with various problems.

Course Outline

1. Introduction and Overview

The distinction between population and samples and between population parameters and sample statistics; the use of measures of location and variation to describe and summarize data; population moments and their sample counterparts.

12 lectures
20 marks

2. Elementary Probability Theory

Sample space and events, probability axioms and properties; probability of an event, addition and multiplication theorems. mutually exclusion and complementary events, conditional probability and Bayes' Rule.

12 lectures
20 marks

3. Random Variables and Probability Distributions

Defining random variables; probability distributions; expected values of random variables and of functions of random variables; properties of commonly used discrete and continuous distributions (uniform, binomial, normal, poisson and exponential random variables).

12 lectures
20 marks

4. Random Sampling and Jointly Distributed Random Variables

Density and distribution functions for jointly distributed random variables; computing expected values; covariance and correlation coefficients.

12 lectures
20 marks

5. Sampling

Main steps in a sample survey; methods of sampling; the role of sampling theory; properties of random samples.

12 lectures
20 marks

Readings:

Jay L. Devore, *Probability and Statistics for Engineers*, Cengage Learning, 2010.

John E. Freund, *Mathematical Statistics*, Prentice Hall, 1992 *and its Applications*, Prentice Hall, 2011.

Richard J. Larsen and Morris L. Marx, *An Introduction to Mathematical Statistics*

William G. Cochran, *Sampling Techniques*, John Wiley, 2007

CORE ECONOMICS COURSE 8
ECO-HC-604
Intermediate Microeconomics-II

Course Objective

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

Course Learning Outcomes

This course helps the students to understand efficiency of markets and the environment where the standard market mechanism fails to generate the desirable outcomes. The issues of market imperfection and market failures are important building blocks of this course

Course Outline

1. General Equilibrium, Efficiency

Concept of general equilibrium, shortcomings of partial equilibrium analysis; the Walrasian system, static properties of general equilibrium ; efficiency in pure exchange and production.

15 lectures
25 marks

2. Social welfare

Social welfare vs Individual welfare; measuring social welfare—the Pareto optimality Criterion, Kaldor-Hicks compensation principle; welfare maximisation & perfect competition.

15 lectures
25 marks

3. Market Failure

Externalities and public goods; negative & positive externalities, externalities & common property resource ; tragedy of commons; measures of correcting market failure.

15 lectures
25 marks

4. Markets with Asymmetric Information

Quality uncertainty; market signalling, problem of adverse selection; moral hazard; Free rider problem; principal agent problem in private & public enterprises.

15 lectures
25 marks

Readings:

1. Hal R. Varian, *Intermediate Microeconomics, a Modern Approach*, 8th edition, W.W. Norton and Company/Affiliated East-West Press (India), 2010. The workbook by Varian and Bergstrom could be used for problems.
2. C. Snyder and W. Nicholson, *Fundamentals of Microeconomics*, Cengage Learning (India), 2010.

CORE ECONOMICS COURSE 9
ECO-HC-605
Intermediate Macroeconomics – II

Course Objective

This course is a sequel to Intermediate Macroeconomics I. In this course, students are introduced to long run issues like growth, technical progress, economics of ideas, R&D, innovation and knowledge creation. This course also provides insights into modern business cycle analysis. Finally it introduces students to open economy macro issues. At the end, it provides a long run perspective to policy-making by framing policies in a dynamic context.

Course Learning Outcomes

This course will enable students to combine their knowledge of the working of the Macro economy with long run economic phenomena like economic growth, technological progress, R&D and innovation. It will also enable students to understand business cycles and the concomitant role of policies.

Course Outline

1. Modelling Economic Growth

The Basic Harrod-Domar Model: The basics Solow Model; Joan Robinson and the Golden Rule; Technological Progress and Endogenous Growth.

12 lectures
20 marks

2. Consumption and Investment Functions

Income-consumption relationship; Propensities to consume and Psychological law of consumption; factors influencing consumption function; measures to raise consumption function; Absolute, Relative, lifecycle and permanent income hypotheses. Investment function- autonomous and induced investment; residential and inventory investment; determinants of business fixed investment; decision to invest and MEC.

12 lectures
20 marks

3. Demand for and Supply of Money

Demand for money in classical, Neo-classical and Keynesian approaches; The Keynesian Liquidity Trap and its implications. Supply of money-classical, neoclassical and Keynesian analysis; measures of money supply in India.

12 lectures
20 marks

4. Fiscal and Monetary Policy

Active or Passive; Monetary Policy- objectives and targets rules vs discretion in monetary policy; Time consistency. Fiscal Policy- objectives; budget as an automatic stabilisers; the government debt and Ricardian equivalence.

12 lectures
20 marks

5. Schools of Macroeconomic Thoughts

Classicals, New classicals, Keynesians and New Keynesians.

12 lectures
20 marks

Readings:

Dornbusch, Fischer and Startz : Macroeconomics, Mc Graw Hill

N. Gregory Mankiw : Macroeconomics, Worth Publishers

Errol D' Souza : Macroeconomics, Pearson Education.

CORE ECONOMICS COURSE 10
ECO-HC-606
Introductory Econometrics

Course Objective

This course introduces students to the econometric methods used to conduct empirical analysis in Economics. The course is designed to provide the students with the basic quantitative techniques needed to undertake applied research projects. It also provides the base for more advanced optional courses in econometrics.

Course Learning Outcomes

Students will learn to estimate linear models using ordinary least squares and make inferences about population parameters. They will also understand the biases created through mis-specified models, such as those that occur when variables are omitted

Course Outline

1. Nature & Scope of Econometrics & Basic Statistical Concepts

Definition, nature and scope of econometrics; econometric and economic models; econometrics and statistics.

Statistical Concepts; Normal Distribution- concepts, properties and uses; Tests of significance, chi-square, t and F distribution; hypothesis testing. Type I and Type II errors; Power of a test; Parameters- estimation and properties of estimators.

12 lectures
20 marks

2. Linear Regression Model

Two variable case, estimation of model by method of Ordinary Least Squares, properties of estimators, Standard errors Gauss-Markov Theorem; Goodness of fit; Forecasting.

12 lectures
20 marks

3. Multiple Linear Regression Model

Estimation of parameters; properties of OLS estimators, goodness of fit – R^2 and Adjusted R^2 ; partial regression coefficients; testing hypothesis – Individual & joint; Functional forms of regression models.

12 lectures
20 marks

4. Violation of Classical assumptions

Causes, consequences, detection & remedies ; Multicollinearity, Heteroscedasticity and Serial Correlation .

12 lectures
20 marks

5. Specification Analysis

Omission of relevant variable; inclusion of irrelevant variable; tests of specification errors.

12 lectures

20 marks

Reading:

D.N Gujarati and D.C Porter:	:	Essentials of Econometrics, McGraw Hill
Christopher Dougherty	:	Introduction to Econometrics, Oxford University Press.
Koutsoyannis, A.	:	Theory of Econometrics, Macmillan , New York.

**CORE ECONOMICS COURSE 11
ECO-HC-701**

Indian Economy-I

Course Objective

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

Course Learning Outcomes

At the end of the course, a student should be able to understand the development paradigm adopted in India since independence and evaluate its impact on economic as well as social indicators of progress and well-being. Further the students will aware of the economy of north eastern states and institutions relating to the development of the region.

Course Outline

1. Economic Development since Independence

Major features of the economy at independence; growth and development under different policy regimes—goals, constraints, institutions and policy framework; an assessment of performance—sustainability and regional contrasts; structural change, savings and investment.

**15 lectures
25 marks**

2. Population and Human Development

Demographic trends and issues; Education; Health and Malnutrition.

**15 lectures
25 marks**

3. Growth and Distribution

Trends and policies in poverty; inequality and unemployment.

**15 lectures
25 marks**

4. Economy of North-Eastern Region:

Basic Features: Trends of GSDP and Sector-Wise contribution North-Eastern States.
Institutions for Development of North-Eastern States: North Eastern Council.

**15 lectures
25marks**

Readings:

1. Jean Dreze and Amartya Sen, Jean Drez and Amartya Sen, 2013. *An Uncertain*

Glory: India and its Contradictions, Princeton University Press.

2. Pulapre Balakrishnan, 2007, The Recovery of India: Economic Growth in the Nehru Era, *Economic and Political Weekly*, November.

3. Rakesh Mohan, 2008, —Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, *Economic and Political Weekly*, May.

4. S.L. Shetty, 2007, —India's Savings Performance since the Advent of Planning, in K.L. Krishna and A. Vaidyanathan, editors, *Institutions and Markets in India's Development*.

5. Himanshu, 2010, Towards New Poverty Lines for India, *Economic and Political Weekly*, January.

6. Jean Dreze and Angus Deaton, 2009, Food and Nutrition in India: Facts and Interpretations, *Economic and Political Weekly*, February.

7. Himanshu. 2011, —Employment Trends in India: A Re-examination, *Economic and Political Weekly*, September.

8. Rama Baru et al, 2010, —Inequities in Access to Health Services in India: Caste, Class and Region, *Economic and Political Weekly*, September.

9. Geeta G. Kingdon, 2007, —The Progress of School Education in India, *Oxford Review of Economic Policy*.

10. J.B.G. Tilak, 2007, —Post Elementary Education, Poverty and Development in India, *International Journal of Educational Development*.

11. T. Dyson, 2008, —India's Demographic Transition and its Consequences for Development in Uma Kapila, editor, *Indian Economy Since Independence*, 19th edition, Academic Foundation.

12. Kaushik Basu, 2009, —China and India: Idiosyncratic Paths to High Growth, *Economic and Political Weekly*, September.

13. K. James, 2008, —Glorifying Malthus: Current Debate on Demographic Dividend in India, *Economic and Political Weekly*, June.

14. Reetika Khera, 2011, —India's Public Distribution System: Utilisation and Impact *Journal of Development Studies*.

15. Aniruddha Krishna and Devendra Bajpai, 2011, —Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1992-2005, *Economic and Political Weekly*, September.

16. Kaushik Basu and A. Maertens, eds, 2013, *The New Oxford Companion to Economics*, Oxford University Press.

17. North-East Vision Document (2020).

18. Shukla Commission Report (1997)

19. Basic Statistics of North-East , NEC, Shillong(Various Issues)

CORE ECONOMICS COURSE 12
ECO-HC-702
Development Economics-I

Course Objective

This is the first part of a two-part course on economic development. The course begins with a discussion of alternative conceptions of development and their justification. It then proceeds to aggregate models of growth and cross-national comparisons of the growth experience that can help evaluate these models. The axiomatic basis for inequality measurement is used to develop measures of inequality and connections between growth and inequality are explored. The course ends by linking political institutions to growth and inequality by discussing the role of the state in economic development and the informational and incentive problems that affect state governance.

Course Learning Outcomes

This course introduces students to the basics of development economics, with in depth discussions of the concepts of development, growth, poverty, inequality, as well as the underlying political institutions.

Course Outline

1. Conceptions of Development

Alternative measures of development, documenting the international variation in these measures, comparing development trajectories across nations and within them.

15 lectures
25 marks

2. Growth Models and Empirics

The Harrod-Domar model, the Solow model and its variants, endogenous growth models and evidence on the determinants of growth.

15 lectures
25 marks

3. Poverty and Inequality: Definitions, Measures and Mechanisms

Inequality : concept and measurement; connections between inequality and development; poverty measurement; characteristics of the poor; mechanisms that generate poverty traps and path dependence of growth process.

15 lectures
25 marks

4. Political Institutions and the Functioning of the State

Democracy and economic performance; state ownership and regulation; government failures and corruption.

15 lectures
25 marks

Readings

1. Debraj Ray, *Development Economics*, Oxford University Press, 2009.
2. Partha Dasgupta, *Economics, A Very Short Introduction*, Oxford University Press, 2007.
3. Abhijit Banerjee, Roland Benabou and Dilip Mookerjee, *Understanding Poverty*, Oxford University Press, 2006.
4. Kaushik Basu, *The Oxford Companion to Economics in India*, OUP, 2007.
5. Amartya Sen, *Development as Freedom*, OUP, 2000.
6. Daron Acemoglu and James Robinson, *Economic Origins of Dictatorship and Democracy*, Cambridge University Press, 2006.
7. Robert Putnam, *Making Democracy Work: Civic Traditions in Modern Italy*, Princeton University Press, 1994

**CORE ECONOMICS COURSE 13
ECO-HC-703**

Indian Economy-II

Course Objective

This course examines sector-specific policies and their impact in shaping trends in key economic indicators in India. It highlights major policy debates and evaluates the Indian empirical evidence.

Course Learning Outcomes

At the end of the course, a student should be able to understand the role of economic policies in shaping and improving economic performance in agriculture, manufacturing and services.

Course Outline

1. Macroeconomic Policies and Their Impact

Fiscal Policy; trade and investment policy; financial and monetary policies; labour regulation.

**15 lectures
25 marks**

2. Policies and Performance in Agriculture

Growth; productivity; agrarian structure and technology; capital formation; trade; pricing and procurement .Farm Bill 2020.

**15 lectures
25 marks**

3. Policies and Performance in Industry

Growth; productivity; diversification; Micro, Small & Medium Enterprises (MSME); public sector; competition policy; foreign investment.

**15 lectures
25 marks**

5. Trends and Performance in Services

Meaning & Types & importance of Service Sector in India's economic development. Trend of growth of service sector since independence; Economic Reforms & Service Sector.

**15 lectures
25 marks**

Readings:

1. Shankar Acharya, 2010, —Macroeconomic Performance and Policies 2000-8,|| in Shankar Acharya and Rakesh Mohan, editors, *India's Economy: Performances and Challenges: Development and Participation*, Oxford University Press.
2. Rakesh Mohan, 2010, —India's Financial Sector and Monetary Policy Reforms,||

- in Shankar Acharya and Rakesh Mohan, editors, *India's Economy: Performances and Challenges: Development and Participation*, Oxford University Press.
3. Pulapre Balakrishnan, Ramesh Golait and Pankaj Kumar, 2008, —Agricultural Growth in India Since 1991, *RBI DEAP Study no. 27*.
 4. B.N. Goldar and S.C. Aggarwal, 2005, —Trade Liberalisation and Price-Cost Margin in Indian Industries, *The Developing Economics*, September.
 5. P. Goldberg, A. Khandelwal, N. Pavcnik and P. Topalova, 2009, —Trade Liberalisation and New Imported Inputs, *American Economic Review, Papers and Proceedings*, May.
 6. Kunal Sen, 2010, —Trade, Foreign Direct Investment and Industrial Transformation in India, in Premachandra Athukorala, editor, *The Rise of Asia*, Routledge.
 7. A. Ahsan, C. Pages and T. Roy, 2008, —Legislation, Enforcement and Adjudication in Indian Labour Markets: Origins, Consequences and the Way Forward, in D. Mazumdar and S. Sarkar, editors, *Globalization, Labour Markets and Inequality in India*, Routledge.
 8. Dipak Mazumdar and Sandeep Sarkar, 2009, —The Employment Problem in India and the Phenomenon of the 'Missing Middle', *Indian Journal of Labour Economics*.
 9. J. Dennis Rajakumar, 2011, —Size and Growth of Private Corporate Sector in Indian Manufacturing, *Economic and Political Weekly*, April.
 10. Ramesh Chand, 2010, —Understanding the Nature and Causes of Food Inflation, *Economic and Political Weekly*, February.
 11. Bishwanath Goldar, 2011, —Organised Manufacturing Employment: Continuing the Debate, *Economic and Political Weekly*, April.
 12. Kaushik Basu and A. Maertens, eds, 2013, *The New Oxford Companion to Economics in India*, Oxford University Press.

CORE ECONOMICS COURSE 14
ECO-HC-704
Development Economics –II

Course Objective

This is the second course of the economic development sequence. It begins with basic demographic concepts and their evolution during the process of development. The structure of markets and contracts is linked to the particular problems of enforcement experienced in poor countries. The governance of communities and organizations is studied and this is then linked to questions of sustainable growth. The course ends with reflections on the role of globalization and increased international dependence on the process of development.

Course Learning Outcomes

This course teaches the student various aspects of the Indian economy, as well as important themes relating to the environment and sustainable development. It also introduces them to some issues of globalisation.

Course Outline

1. Demography and Development

Demographic concepts; birth and death rates, age structure, fertility and mortality; demographic transitions during the process of development; gender bias in preferences and outcomes and evidence on unequal treatment within households; migration.

15 lectures
25 marks

2. Land, Labor and Credit Markets

The distribution of land ownership; land reform and its effects on productivity; contractual relationships between tenants and landlords; land acquisition; nutrition and labor productivity; informational problems and credit contracts; microfinance; inter linkages between rural factor markets.

15 lectures
25 marks

3. Environment and Sustainable Development

Defining sustainability for renewable resources; a brief history of environmental change; common-pool resources; environmental externalities and state regulation of the environment; economic activity and climate change. United Nations Sustainable Development Goals(SDGs).

15 lectures
25 marks

4. Globalization

Globalization in historical perspective; the economics and politics of multilateral agreements; trade, production patterns and world inequality; financial instability in a globalized world.

15 lectures
25 marks

Readings

1. Debraj Ray, *Development Economics*, Oxford University Press, 2009.
2. Partha Dasgupta, *Economics, A Very Short Introduction*, Oxford University Press, 2007.
3. Abhijit Banerjee, Roland Benabou and Dilip Mookerjee, *Understanding Poverty*, Oxford University Press, 2006.
4. Thomas Schelling, *Micromotives and Macrobehavior*, W. W. Norton, 1978.
5. Albert O. Hirschman, *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States*, Harvard University Press, 1970.
6. Raghuram Rajan, *Fault Lines: How Hidden Fractures Still Threaten the World Economy*, 2010.
7. Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action*, Cambridge University Press, 1990.
8. Dani Rodrik, *The Globalization Paradox: Why Global Markets, States and Democracy Can't Coexist*, Oxford University Press, 2011.
9. Michael D. Bordo, Alan M. Taylor and Jeffrey G. Williamson (ed.), *Globalization in Historical Perspective*, University of Chicago Press, 2003.

ECO CORE COURSE-15
(ECO –HC-801)
INTERNATIONAL ECONOMICS

Course Objective

The purpose of this course is to understand the basics of international trade theory and to examine the effects of international economic policies on domestic and world welfare. This course develops a systematic exposition of models that try to explain the composition, direction, and consequences of international trade, and the determinants and effects of trade policy. Although the course is based on abstract theoretical models, students will also be exposed to real-world examples and case studies.

Course Learning Outcomes

The module aims to introduce students to the main theoretical and empirical concepts in international trade, equip students with a thorough analytical grasp of trade theory, ranging from Ricardian comparative advantage to modern theories of intra-industry trade, and familiarise students with the main issues in trade policy and with the basic features of the international trading regime. At the end of the course, the students should be able to demonstrate their understanding of the economic concepts of trade theory. In some models, the student will be required to deal with simple algebraic problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of free trade and protection, demonstrate their understanding of the usefulness and problems related to topics in international trade, and demonstrate their critical understanding of trade policies.

Course Outline

1. Nature and Significance of International Trade, Interregional trade & International Trade; An overview of World Trade.

Theories of International Trade: Adam Smith's Absolute Cost Advantage theory, Ricardian Comparative Advantage Theory, Heckscher-Ohlin Models; Rybezinski & Stopler – Samuelson Theorems; Factor Price Equalisation theorem.

15 lectures
25 marks

2. Balance of Payments: Balance of Payment equilibrium; balance of payment settlement and adjustment; Exchange Rate Determination; Fixed & Floating exchange Rate; Theories of exchange rate - Mint parity theory & purchasing power theory of exchange rate.

15 lectures
25 marks

3. Trade Policy: Free Trade vs Protection; Tariff & Quota, Export subsidy; Political economy of trade policy; controversy in trade policy.

15 lectures
25 marks

4. International Monetary System: Globalisation, financial globalisation & financial crisis; regional co-operation & World economic integration.

15 lectures
25 marks

Readings:

1. Paul Krugman, Maurice Obstfeld, and Marc Melitz, *International Economics: Theory and Policy*, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.
2. Dominick Salvatore, *International Economics: Trade and Finance*, John Wiley International Student Edition, 10th edition, 2011.

**ECONOMICS CORE COURSE 16
(ECO-HC-802)
PUBLIC FINANCE**

Course Objective

Public economics is the study of government policy from the points of view of economic efficiency and equity. The paper deals with the nature of government intervention and its implications for allocation, distribution and stabilization. Inherently, this study involves a formal analysis of government taxation and expenditures. The subject encompasses a host of topics including public goods, market failures and externalities. The paper is divided into two sections, one dealing with the theory of public economics and the other with the Indian public finances.

Course Learning Outcomes

The module aims to introduce students to the main theoretical and empirical concepts in public economics, equip students with a thorough analytical grasp of implications of government intervention for allocation, distribution and stabilization, and familiarise students with the main issues in government revenues and expenditure. At the end of the module the students should be able to demonstrate their understanding of the public economics. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate their understanding of the usefulness and problems related to taxation and government expenditure, and demonstrate their critical understanding of public policies

Course Outline

1. **Role of Government; Fiscal Functions**, Public goods - definition, characteristics- exclusion & non-rivalry, pure & impure public goods. Externalities; The problems & solutions- Taxes Vs regulations; property rights, Coase theorem.

**15 lectures
25 marks**
2. **Taxation:** principles of taxation – ability to pay, benefit approach; elasticity & buoyancy of Taxation; Tax shifting; Tax structure in India; Value added Tax, Goods & Service Tax.

**15 lectures
25 marks**
3. **Budgeting & Fiscal Policy:** Concepts, revenue account, capital account, budget deficit & public debt, fiscal policy in underdeveloped countries.

**15 lectures
25 marks**
4. **Federal Finance:** decentralisation; merits & demerits of decentralisation ; fiscal federalism in India.

15 lectures, 25 marks

Readings:

1. J. Hindriks, G. Myles: *Intermediate Public Economics*, MIT Press, 2006.
2. H. Rosen, T. Gayer: *Public Finance*, 9th ed., McGraw-Hill/Irwin, 2009.
3. Joseph E. Stiglitz, *Economics of the Public Sector*, W.W. Norton & Company, 3rd edition, 2000.
4. R.A. Musgrave and P.B. Musgrave, *Public Finance in Theory & Practice*, McGraw Hill Publications, 5th edition, 1989.
5. John Cullis and Philip Jones, *Public Finance and Public Choice*, Oxford University Press, 1st edition, 1998.
6. Harvey Rosen, *Public Finance*, McGraw Hill Publications, 7th edition, 2005.
7. 14. M. Govinda Rao, 2011, —Goods and Services Tax: A Gorilla, Chimpanzee or a
8. Genius like Primates?, *Economic and Political Weekly*, February 12-18.
9. 15. Report of the 13th Finance Commission, 2010-15.
10. 16. *Economic Survey*, Government of India (Latest).
11. 17. *State Finances: A Study of Budgets*, Reserve Bank of India (Latest).
12. 35

ECONOMICS CORE COURSE 17
(ECO-HC-803)Semester –VIII

Economy of Manipur

Course Objectives

The course makes an attempt to review different sectors of the economy of Manipur and highlight a comparison between the economic feature in the pre- Colonial period and thereafter particularly after 1950. It also analyses economic problems and measures undertaken in the state.

Course Learning Outcome

At the completion of the course, students will have the knowledge of the real economic issues of the state and consequently, they will have the capability of finding out appropriate steps for the development of the state.

Course Outline

1. Pre-colonial economy of Manipur:

Revenue -sources, types, method of collection. Land holdings, cropping pattern and method of cultivation, Indigenous products, management of production by the state. Trade and transportation.

12 lectures
15 marks

2. Natural Resources: Land, forest , fisheries , wild life mineral, Resource utilisation and Development. State Policy on Resource Utilisation.

11 lectures
15 marks

3. Population : Composition and Growth , density; Occupational Structure- Rural-Urban, Hill-Valley; Human Capital; Problems of unemployment; Prospects of employment:- Border Trade and Tourism.

15 lectures
20 marks

4. Income of the State& Poverty

Gross State Domestic Product (GSDP)& Gross State Domestic Product Per Capita: Trends & Sectoral Share. Problems of Poverty; Contribution of Women to the state's economy and family Income; Poverty Alleviation & Welfare Measures (State &National Schemes).

12 lectures

15 marks

5. Agriculture

Problem of Land holding and changes in the cultivable area; Jhoom Cultivation , Irrigation , Cropping pattern after 1950's; Modernisation of agriculture- productivity and food shortages.

10 lectures

15 marks

6. Industry:

Types of Industries- MSME- Handloom & Handicrafts, Food Processing Units, Sericulture and Fishery- Problem of market and Competition, Role of Government and Financial Institutions for the development of industries in the state.

12 lectures

20 marks

Readings

1. Dun E.W.Gazetteers of Manipur
2. Brown R.- Statistical account of Manipur
3. Hudson T.C.-The Meiteis
4. Directorate of Economics & Statistics, Government of Manipur : Various Related Publications from time to time.

*** Reading Materials will be supplied to supplement the requirement of the course.

ECONOMICS CORE COURSE-18 (ECO-HC-804)

Environmental Economics

Course Objective

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions viewed as externalities and their management through various economic institutions, economic incentives and other instruments and policies. Methods for analysing economic implications of environmental policy are also addressed as well as the valuation of environmental quality, assessment of environmental damages, and tools needed for the evaluation of projects such as cost-benefit analysis, and environmental impact assessments. Selected topics on international environmental issues are also discussed.

Course Learning Outcomes

The module aims to introduce students to the main theoretical and empirical concepts in environmental economics, equip students with a thorough analytical grasp of environmental policy theory, ranging from externalities to international environmental agreements, and familiarise students with the main issues in environmental valuation and with the basic features of the environmental policy tools. At the end of the module the students should be able to demonstrate their understanding of the economic concepts of environmental policy. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate their understanding of the usefulness and problems related to environmental valuation, and demonstrate their critical understanding of environmental policies.

Course Outline

1. Introduction

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

**15 lectures
25 marks**

2. The Design and Implementation of Environmental Policy

Overview, Pigouvian taxes and effluent fees, tradable permits, implementation of environmental policies in India and international experience; transboundary environmental problems; economics of climate change. Global warming & consequences.

**15 lectures
25 marks**

3. Environmental Valuation Methods and Applications

Valuation of non-market goods and services--theory and practice; measurement methods; cost-benefit analysis of environmental policies and regulations.

15 lectures
25 marks

4. Sustainable Development

Concepts; measurement; perspectives from Indian experience; weak& strong sustainability; Indicators of sustainable development; Environmental Kuznet Curve(EKC).

15 lectures
25 marks

Readings

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

DISCIPLINE SPECIFIC ELECTIVE COURSE

Semester	Course Code	
V	ECO-HE-701	1. Political Economy I Or 2. Topics in Microeconomics-I Money & Financial Market
VI	ECO-HE-702	1. Political Economy-II Or, 2. Topics in MicroeconomicsII Or, 3. Environmental Economics
VII	ECO-HE-801	1. Applied Econometrics Or, 2. Economics of Health & Education Or, 3. Economic History of India (1857-1947)
VIII	ECO-HE-802	1. International Economics Or, 2. Contemporary Economic Issues Or, 3. Dissertation

**ECO-HE-701
POLITICAL ECONOMY-I**

Course Objective

This course explores the systemic structures and institutions of capitalist economies and their evolution in a political economic framework. Students will be exposed to alternative schools of thought and are expected to read some classic texts and commentaries as well as more contemporary essays on the subject.

Course Learning Outcomes

This course prepares the students to develop critical thinking by exposing them to elements of economic thought, juxtaposing ideas and theoretical structures based largely on original texts and journal articles. Students learn to assimilate from a diverse range of opinions and crystallize their own thought processes and standpoints. This also helps them to develop advanced writing, presentation and research skills. It further enables them to comprehend a larger view of the world around us by analysing the existing social and political structures and their links with the economic processes. It is thus a crucial course, which exposes the social science dimension of economics to the students and also provides them skills to think and analyse in an interdisciplinary manner. The exposure to interdisciplinary thinking further enables the students for pursuing studies in diverse related areas such as development studies, economic sociology, critical geography, gender studies and social work as also for taking up employment in organisations ranging from international development agencies to development NGOs and corporate CSR. It also prepares the students to face the practical world of work, where economics, business, civil society organisations, social institutions and politics often cohabit in a complex interlinked structure.

Course Outline

1. Introduction

Subject matter and scope of political economy; methods of political economy; classical political economy—salient features and class conflicts.

12 lectures
20 marks

2. Analysing Social Change in Historical Perspective

Transition from one social formation to the other — pre communal, slavery, feudalism, primitive accumulation of capital; Industrial Revolution.

12 lectures
20 marks

3. Capitalism as an Evolving Economic System

Basic features of Capitalism; Capital accumulation and crisis; the Multinational Corporations.

12 lectures
20 marks

4. Monopoly Capitalism and Imperialism

The growth of monopoly capitalism— basic features, implications; Imperialism—economic features, the historical place of imperialism; the law of uneven Economic development.

12 lectures

20 marks

5. The State in Capitalism

The state and the economy— the role of the state, contestation and mutual interdependence; the state as an area of conflict.

12 lectures

20 marks

Readings:

O. Lange : Political Economy, Vol I

P. Sweezy : The Theory of Capitalist Development, Monthly Review Press 1942

B.N Ghosh : Political Economy: A Marxist Approach. Macmillan Indian Limited.

Vamsi Vakulabharanam (2009) : The Recent Crisis in Global Capitalism:
Towards a Marxian Understanding. Economic and Political Weekly March 28.

Or,

TOPICS IN MICROECONOMICS – I (ECO-HE-701)

Course Objective

Game theory introduces the students to optimal decision making in interactive settings. This course will deal with the solution concepts for normal form and extensive form games, along with a variety of applications. Ideas related to asymmetric information among the interacting agents will also be analysed in this course. The course ends with the application of game theory to analyse moral hazard, adverse selection and signalling problems.

Course Learning Outcomes

The students will learn how to model multi-person decision making in an interactive setting. They will understand how to formulate different real life situations as games and learn to predict the optimal strategies of players and how the players can exploit strategic situations for their own benefit. Game theory is an integral part of modern economic analysis. Topics in Microeconomic- I introduces the students to elementary game theory under complete information. This course introduces the basic concepts of game theory in a way that allows students to use them in solving simple problems. The course will deal with the solution concepts for normal form and extensive form games along with a variety of economic applications.

Course Outline

1. Normal form games

The normal form; dominant and dominated strategies; dominance solvability; mixed strategies; Nash equilibrium; symmetric single population games; applications.

12 lectures
20 marks

2. Extensive form games with perfect information

The game tree; strategies; subgame perfection; backward induction in finite games; commitment; bargaining; other applications.

12 lectures
20 marks

3. Repeated Games.

Finitely repeated games and backward induction; infinitely repeated games; history dependent strategies; one-step deviation property; the repeated prisoners' dilemma; idea of folk theorem.

12 lectures
20 marks

4. Simultaneous move games with incomplete information (Bayesian games).

Strategies; Bayesian Nash equilibrium; auctions; other applications.

12 lectures
20 marks

5. Extensive form games with imperfect information.

Strategies; beliefs and sequential equilibrium; applications

12 lectures

20 marks

Reading:

1. Martin J. Osborne, *An Introduction to Game Theory*, Oxford University Press, New Delhi, 2004.
2. Hugh Gravelle and Ray Rees, *Microeconomics*, Pearson Education, 2nd edition, 1992.

4

OR

MONEY AND FINANCIAL MARKETS (ECO-HE-701)

Course Objective

This course exposes students to the theory and functioning of the monetary and financial sectors of the economy. It highlights the organisation, structure, and role of financial markets and institutions. It also discusses interest rates, monetary management, and instruments of monetary control. Financial and banking sector reforms and monetary policy with special reference to India are also covered.

Course Learning Outcomes

This allows students to understand current monetary policies and financial market outcomes. It also enables them to critically evaluate policies.

Course Outline

1. Money

Concept, functions, measurement; theories of money supply determination.

**12 lectures
20 marks**

2. Financial Institutions, Markets, Instruments and Financial Innovations

a. Role of financial markets and institutions; problem of asymmetric information – adverse selection and moral hazard; financial crises.

b. Money and capital markets: organization, structure and reforms in India; role of financial derivatives and other innovations.

**12 lectures
20 marks**

3. Interest Rates

Determination; sources of interest rate differentials; theories of term structure of interest rates; interest rates in India.

**12 lectures
20 marks**

4. Banking System

a. Balance sheet and portfolio management.

b. Indian banking system: Changing role and structure; banking sector reforms.

**12 lectures
20 marks**

5. Central Banking and Monetary Policy

Functions, balance sheet; goals, targets, indicators and instruments of monetary control; monetary management in an open economy; current monetary policy of India.

**12 lectures
20 marks**

Readings

1. F. S. Mishkin and S. G. Eakins, *Financial Markets and Institutions*, Pearson Education, 6th edition, 2009.

2. F. J. Fabozzi, F. Modigliani, F. J. Jones, M. G. Ferri, *Foundations of Financial Markets and Institutions*, Pearson Education, 3rd edition, 2009.
3. M. R. Baye and D. W. Jansen, *Money, Banking and Financial Markets*, AITBS, 1996.
4. Rakesh Mohan, *Growth with Financial Stability- Central Banking in an Emerging Market*, Oxford University Press, 2011.
- 32
5. L. M. Bhole and J. Mahukud, *Financial Institutions and Markets*, Tata McGraw Hill, 5th edition, 2011.
6. M. Y. Khan, *Indian Financial System*, Tata McGraw Hill, 7th edition, 2011.
7. N. Jadhav, *Monetary Policy, Financial Stability and Central Banking in India*, Macmillan, 2006.
8. R.B.I. – *Report of the Working Group: Money Supply Analytics and Methodology of Compilation*, 1998.
9. R.B.I. Bulletin, Annual Report and Report on Currency and Finance (latest).

(ECO-HE-702)

Course Objective

This course explores some of the fundamental structural changes and dynamics of the advanced capitalist system since the development of Fordism to the contemporary period. Particularly, the course analyses the changes in the organization of production, labour market institutions as well as shifts in corporate, managerial, financial and inter-firm governance structures. It further analyses the role of the state in the era of globalization, by studying both its changed ideological foundation and varied practices. It goes on to examine the social and geopolitical consequences of such fundamental shifts. It also integrates contemporary issues of gender and environment in a political economy framework. Though grounded in political economic traditions, the course also exposes the students to interdisciplinary thought and content. It also offers a layered and contrasting perspective to some of the issues analysed in the core theoretical courses, such as microeconomics and macroeconomics. It also provides a more global and interdisciplinary context for analyzing the issues studied in the compulsory courses on the Indian Economy and Development Economics. Whereas the course is related to the fifth semester DSE course Political Economy I, it is largely a stand-alone independent course and can be pursued without any detailed knowledge of the fifth semester course.

Course Learning Outcomes

This course exposes the students to the realities of the contemporary world economy and teaches them to develop critical analysis in an integrated and broader political economy framework. It thus enables them to form a more informed view of the world we live by analyzing some of the most contemporary trends and developments from diverse perspectives. It also exposes the students to interdisciplinary skills and written argumentation, and prepares them for a more holistic research framework. The exposure to interdisciplinary thinking further enables the students for pursuing studies in diverse related areas such as development studies, economic sociology, critical geography, gender studies and social work as also for taking up employment in organisations ranging from international development agencies to development NGOs and corporate CSR. It also prepares the students to face the practical world of work, where economics, business, civil society organisations, social institutions and politics often cohabit in a complex interlinked structure, and employees are expected to comprehend and synthesize materials from diverse sources and perspectives.

Course Outline

1. Changing Dynamics of Capitalist Production

Organisational form and Labour Process; Fordist & post fordist production; Changing dynamics of organisation of production, market & labour process.

12 lectures

20 marks

2. State in the Era of Globalisation

Welfare, Development and Autonomy; Globalisation - - Case for and against; globalisation and uneven development – growth, inequality and exclusion; Globalisation and the limits of the welfare state .

12

lectures, 20 marks

3. Globalisation and Structural Adjustment Programmes:

Conditions and components of Structural Adjustment Programmes; various Structural Adjustment programmes introduced in India

12 lectures

20 marks

4. Changing Roles of Finance;

The changing Roles of Finance in capital accumulation and corporate structure; Financial liberalisation and financial crisis.

12 lectures

20 marks

5. New Perspectives:

Gender at work, accumulation & globalisation; Issues in environment and sustainability.

12 lectures

20 marks

Readings

1. Ash.Amin(Ed): Post Fordism:A Reader, Blackwell Publication
2. Fran Tonkiss: Contemporary Economic Sociology:Globalisation , Production, Inequality(Fordism and After), Routledge, India
3. Narasimha Reddy: Economic Globalisation, Past& Present.

4 J. Gurley, "The Materialist Conception of History", Ch.2.1 in R. Edwards, M. Reich and T. Weisskopf (ed.), *The Capitalist System*, 2nd edition, 1978.

5. O. Lange, *Political Economy*, vol. 1, 1963, Chapters 1 and 2.

6.E.K. Hunt, *History of Economic Thought*, M.E. Sharpe, Indian edn, Shilpi Publications, 2004.

7. Irfan Habib, 1995, "Capitalism in History", *Social Scientist*, Vol. 23: 15-31.

8. R.L. Heilbroner, "Capitalism", in The New Palgrave Dictionary of Modern Economics, Macmillan, 1987. Also reprinted as Chapter 2 in *Behind the Veil of Economics* by R.L. Heilbroner, W.W. Norton, 1988.

9. P. Sweezy, *The Theory of Capitalist Development*, Monthly Review Press, 1942,

chapters 2, 4, 5, 6, 8 and 10.

10. Anwar Shaikh, Entries on "Economic Crises" and "Falling Rate of Profit" in T. Bottomore et al (eds.), *The Dictionary of Marxist Thought*, OUP, Indian edition, Maya Blackwell, 2000.

11. Vamsi Vakulabharanam, 2009, —The Recent Crisis in Global Capitalism: Towards a Marxian Understanding, *Economic and Political Weekly*, March 28, Vol. 44: 144-150.

12. J. Schumpeter, *Capitalism, Socialism and Democracy*, George Allen and Unwin 1976, Chapters 6, 7 and 8.

13. P. Baran (1957), *The Political Economy of Growth*, Chapter 3, Pelican edition, 1973.

14. R. Heilbroner, —The Role of the State, Ch.4 in *The Nature and Logic of Capitalism*, 1985.

15. M. Kalecki, —Political Aspects of Full Employment, in E.K. Hunt and J.G. Schwarz (eds.), *A Critique of Economic Theory*, Penguin Books, 1972.

16. Amit Bhaduri, —Nationalism and Economic Policy in the Era of Globalization,

Ch. 2 in Deepak Nayyar (ed), *Governing Globalization: Issues and Institutions*, OUP, 2002 [also WIDER Working Paper no.188, WIDER website (2000)].

17. Prabhat Patnaik, —“Lenin’s Theory of Imperialism Today”, in K.S. Jomo (ed.) *The Long Twentieth Century: The Great Divergence: Hegemony, Uneven Development and Global Inequality*, OUP.

18. James O'Connor, "The Meaning of Economic Imperialism," in Robert Rhodes, ed., *Imperialism and Underdevelopment*, New York: Monthly Review Press, 1970, pages 101 to 111.

Or,

ENVIRONMENTAL ECONOMICS

(ECO-HE-702)

Course Objective

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions viewed as externalities and their management through various economic institutions, economic incentives and other instruments and policies. Methods for analysing economic implications of environmental policy are also addressed as well as the valuation of environmental quality, assessment of environmental damages, and tools needed for the evaluation of projects such as cost-benefit analysis, and environmental impact assessments. Selected topics on international environmental issues are also discussed.

Course Learning Outcomes

The module aims to introduce students to the main theoretical and empirical concepts in environmental economics, equip students with a thorough analytical grasp of environmental policy theory, ranging from externalities to international environmental agreements, and familiarise students with the main issues in environmental valuation and with the basic features of the environmental policy tools. At the end of the module the students should be able to demonstrate their understanding of the economic concepts of environmental policy. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate their understanding of the usefulness and problems related to environmental valuation, and demonstrate their critical understanding of environmental policies.

Course Outline

1. Introduction

What is environmental economics; review of microeconomics and welfare economics.

10 lectures

15 marks

2. The Theory of Externalities

Pareto optimality and market failure in the presence of externalities; property rights and the Coase theorem.

10 lectures

15 marks

3. The Design and Implementation of Environmental Policy

Overview; Pigouvian taxes and effluent fees; tradable permits; choice between taxes and quotas under uncertainty; implementation of environmental policy.

15 lectures

20 marks

4. International Environmental Problems

Trans-boundary environmental problems; economics of climate change; trade and environment.

15 lectures

20 marks

5. Measuring the Benefits of Environmental Improvements

Non-Market values and measurement methods; risk assessment and perception.

10 lectures

15 marks

6. Sustainable Development

Concepts; measurement. UN Sustainable Development Goals 2030

10 lectures

15 marks

Readings:

1. Charles Kolstad, *Intermediate Environmental Economics*, Oxford University Press, 2nd edition, 2010.
2. Robert N. Stavins (ed.), *Economics of the Environment: Selected Readings*, W.W. Norton, 5th edition, 2005.
3. Roger Perman, Yue Ma, James McGilvray and Michael Common, *Natural Resource and Environmental Economics*, Pearson Education/Addison Wesley, 3rd edition, 2003.
4. Maureen L. Cropper and Wallace E. Oates, 1992, —Environmental Economics: A Survey, *Journal of Economic Literature*, Volume 30:675-740.

Course Objective

The course assumes that students have a basic knowledge of statistics, mathematics as well as basic econometric theory. It builds on the compulsory Introductory Econometrics course and teaches students a broad set of commonly used econometric methods. These include estimating models with limited dependent variables and the use of instrumental variables to estimate models with endogenous regressors.

Course Learning Outcomes

Students will learn the theoretical basis for techniques widely used in empirical research and consider their application in a wide range of problems.

Course Outline

1. Stages in Empirical Econometric Research

12 lectures

20marks

2. Regression Diagnostics and Specification; Misspecification; functional forms; model selection.

12 lectures

20 marks

3. Advanced Topics in Regression Analysis

Dynamic Econometric Models: distributed lag models; autoregressive models; instrumental variable estimation; simultaneous equation models.

12 lectures

20 marks

4. Panel Data Models

Methods of estimation; fixed effects model; random effects model.

12 lectures

20 marks

5. Introduction to Econometric Software Package

GRET; E-VIEWS; STATA (any one).

12 lectures

20 marks

Readings:

1. Jeffrey M Wooldridge: Econometrics, CEGAGE learning, Indian Edition
2. Damodar Gujarati: Econometrics by Example, Palgrave Macmillan(2011)

3. DimiTrios Asterious& Stephen Hall: Applied Econometrics: A Modern Approach
Palgrave Macmillan (2007)

Or,

Economic History of India 1857-1947(ECO-HE-801)

Course Objective

This course analyses key aspects of Indian economic development during the second half of British colonial rule. In doing so, it investigates the mechanisms that linked economic development in India to the compulsions of colonial rule.

Course Learning Outcomes

The course develops critical analytical skills and exposes students to understanding the intricacies of India's economic, political and social developments both in the past and present times. It increases their employability by enhancing their ability to deal with a variety of textual and statistical sources, and to draw upon them to construct a coherent argument. These skills would be useful in a variety of careers in academics, research, journalism and the government.

Course Outline

1. Colonial India, Background and Introduction

Overview of colonial economy.

12 lectures
20 marks

2. Macro Trends

National Income; population; occupational structure.

12 lectures
20 marks

3. Agriculture

Agrarian structure and land relations; agricultural markets and institutions – credit, commerce and technology; trends in performance and productivity; famines.

12 lectures
20 marks

4. Railways and Industry

Railways; the de-industrialisation debate; evolution of entrepreneurial and industrial structure; nature of industrialisation in the interwar period; constraints to industrial breakthrough; labour relations.

12 lectures
20 marks

5. Economy and State in the Imperial Context

The imperial priorities and the Indian economy; drain of wealth; international trade, capital flows and the colonial economy – changes and continuities; government and fiscal policy.

12 lectures

Readings:

1. Lakshmi Subramanian, “*History of India 1707-1857*”, Orient Blackswan, 2010, Chapter 4.
2. Sumit Guha, 1991, ‘Mortality decline in early 20th century India’, *Indian Economic and Social History Review (IESHR)*, pp 371-74 and 385-87.
3. Tirthankar Roy, *The Economic History of India 1857-1947*, Oxford University Press, 3rd edition, 2011.
4. J. Krishnamurty, *Occupational Structure*, Dharma Kumar (editor), *The Cambridge Economic History of India*, Vol. II, (henceforth referred to as CEHI), 2005, Chapter
5. Irfan Habib, *Indian Economy 1858-1914*, A People’s History of India, Vol.28, Tulika, 2006.
6. Ira Klein, 1984, —When Rains Fail: Famine relief and mortality in British India, *IESHR* 21.
7. Jean Dreze, *Famine Prevention in India in Dreze and Sen (eds.) Political Economy of Hunger*, WIDER Studies in Development Economics, 1990, pp.13-35.
8. John Hurd, *Railways*, CEHI, Chapter 8, pp.737-761.
9. Rajat Ray (ed.), *Entrepreneurship and Industry in India*, 1994.
10. AK Bagchi, —Deindustrialization in India in the nineteenth century: Some theoretical implications, *Journal of Development Studies*, 1976.
11. MD Morris, *Emergence of an Industrial Labour Force in India*, OUP 1965, Chapter 11, Summary and Conclusions.
12. K.N. Chaudhuri, *Foreign Trade and Balance of Payments*, CEHI, Chapter 10.
13. B.R. Tomlison, 1975, *India and the British Empire 1880-1935*, IESHR, Vol.XII.
14. Dharma Kumar, *The Fiscal System*, CEHI, Chapter 12.
15. Basudev Chatterjee, *Trade, Tariffs and Empire*, OUP 1992, Epilogue. Background reading for students:
Irfan Habib, *Indian Economy 1858-1914* (A People’s History of India), Vol.28, Tulika 2006.
Daniel Thorner, *Agrarian Prospect in India*, 1977.

Or,

**ECONOMICS OF HEALTH AND EDUCATION
(ECO-HE-801)**

Course Objective

This is a course in applied economics, which will introduce the students to the study of health and education as components of human capital in the framework of economic theory.

Course Learning Outcomes

The students will learn the role of health and education in human development. They will be able to apply economic theory to understand the demand for health care, market failure in health insurance, economic evaluation of health care programmes and the role of public policy in the healthcare industry. They will also learn to analyse the returns to education, its role in labor market signalling, and the progress of schooling in India. They will also be exposed to the theories of discrimination.

Course Outline

1. Role of Health and Education in Human Development

Importance in poverty alleviation; health and education outcomes and their relationship with macroeconomic performance.

10 lectures
15 marks

2. Microeconomic Foundations of Health Economics

Demand for health; uncertainty and health insurance market; alternative insurance mechanisms; market failure and rationale for public intervention; equity and inequality.

15 lectures
20 marks

3. Evaluation of Health Programs

Costing, cost effectiveness and cost-benefit analysis; burden of disease.

10 lectures
15 marks

4. Health Sector in India: An Overview

Health outcomes; health systems; health financing.

10 lectures
15 marks

5. Education: Investment in Human Capital

Rate of return to education: private and social; quality of education; signaling or human capital; theories of discrimination; gender and caste discrimination in India.

15lectures
20 marks

6. Education Sector in India: An Overview

Literacy rates, school participation, school quality measures.

10 lectures
15 marks

Readings:

1. William, Jack, *Principles of Health Economics for Developing Countries*, World Bank Institute Development Studies, 1999.
2. World Development Report, *Investing in Health*, The World Bank, 1993.
3. Ronald G., Ehrenberg and Robert S., Smith, *Modern Labor Economics: Theory and Public Policy*, Addison Wesley, 2005.

Contemporary Economic Issues (ECO-HE-802)**Course Objective**

The course seeks to familiarize students with basic concepts related to the Economic Survey and Union Budget. It aims to equip students with sufficient knowledge and skills to analyse these documents.

Course Learning Outcomes

Students will have the capability to understand government policies and will in general be informed participants in economic decision making.

1. Concepts

Fiscal policy, areas of government spending in India; Capital and revenue expenditure, plan and non-plan expenditures Deficits (fiscal, primary, revenue), impact of fiscal deficits on the economy; Capital receipts, revenue receipts, tax and non-tax revenue, direct and indirect taxes, need for rationalisation of tax structure, Goods and Services Tax (GST);

15 lectures
25 marks

2. Budget

Need & objectives of Budget; Actual, revised and budget estimates; Zero-base budgeting; Gender budgeting; understanding the process of budget making in India.

15 lectures
25 marks

3. Fiscal devolution and centre-state financial relations

Constitutional provisions for resource transfer from centre to states, Finance Commission, functions & recommendations of latest Finance Commission.

15 lectures
25 marks

4. The Economic Survey & Union Budget

Analysis of current and past policy emphasis in various Economic Survey;

Analysis of fiscal and revenue deficits; Analysis of sources of revenue, expenditure pattern & expected growth in revenue & expenditure; tax simplification, improvement in administration, expansion of tax net and other measures to improve revenue receipts; steps proposed to ensure effective spending.

15 lectures
25 marks

Readings

Given the nature of the course, the readings will be updated every year.

1. Centre for Budget and Governance Accountability. Recent reports.
2. Chakraborty, P. (2015). Intergovernmental fiscal transfers in India: Emerging trends and realities. In P. Patnaik (ed.): *Macroeconomics*. Oxford University Press.
3. Dasgupta, D., De, S. (2012). Fiscal deficit. In *The new Oxford companion to economics in India*. Oxford University Press.
4. Kapila, U. (2016). *Fiscal and budgetary developments in Indian economy since independence*. Academic Foundation.
5. Ministry of Finance. Economic and social classification of the budget.

6. Ministry of Finance. Economic survey (latest).
7. Ministry of Finance. Finance Commission report (latest).
8. Ministry of Finance. Union Budget.
9. Mukherjee, P. (2012). Budget making. In K. Basu, A. Maertens (eds.): *The new Oxford companion to economics in India*. Oxford University Press.
10. Mukherjee, S. (2015). Present state of goods and services tax (GST) reform in India. Working Paper No. 154. *National Institute of Public Finance and Policy*.
11. Reddy, Y. (2015). Continuity, change and the way forward: The fourteenth finance commission. *Economic and Political Weekly*, 50(21), 27-36.
12. Spiegel, M. (2003). *Theory and problems of probability and statistics*. Chapter 19. McGraw-Hill.

Or,

(Dissertation)

Table:4

Skill Enhancement Course Economics (ECO-SE)

Semester	Course Code	Course Title
I	ECO-SE-501	Data Analysis
II	ECO-SE-502	Research Methodology

ECO-SE-501(Semester-1)
Data Analysis

Course Objective

This is a skill enhancement course for data analysis. This course will provide students with basic statistical tools to better visualize and understand data concepts. The course is designed to be delivered through classroom lectures.

Course Learning Outcomes

The course will help students to learn about data types, their organization and visual representation. They will learn how to compute summary statistics and do some basic statistical inference.

Course Outline

1. Univariate frequency distributions, Measures of Central tendency: mean, median and mode; Measures of dispersion: range, mean deviation, standard deviation.
8 lectures
25 marks
2. Bivariate frequency distribution correlation and regression.
7 lectures
25 marks
3. Estimation of population parameters from sample data. Unbiased estimator for population mean and variance.
8 lectures
25 marks
4. Basics of Index Numbers: price and quantity index number.
7 lectures
25 marks

Readings:

S.C. Gupta, Fundamentals of statistics Himalaya Publishing House, New Delhi

Course Objective

The course begins with the formulation of a research problem and covers the issues concerning the generation of primary sample data. In this regard the designing of a questionnaire, the methods of design of a sample and its size, the modes of data collection from direct interview to online surveys, the appreciation of possible sources of errors, and the cleaning of data forms the bulk of the classroom instruction.

Course Learning Outcome

The course imparts skills to undertake data based research. The student enrolling in this course would develop competency in executing sample surveys and would have reasonable exposure to a variety of secondary data sources.

Course Outline

- 1. Data types and Sources:** Qualitative and quantitative data; measurement and scales; secondary sources of data & institutions.
6 lectures
20 marks
- 2. Sample Type & Size:** Simple random sampling; cluster sampling, stratified sampling and its complications. Determining an appropriate sample size; framing of Questionnaires.
6 lectures
20 marks
- 3. Errors in Surveys;** Misunderstanding of questions & answers; problem of non-response.
6 lectures
20 marks
- 4. Processing of Survey data:** Cleaning of data & its coding.
6 lectures
20 marks
- 5. Ethics & Scientific integrity:** Standards of conduct, privacy in data.
6 lectures, 20 marks

Readings

- Bethlehem, J. (2009). *Applied survey methods: A statistical perspective*. Wiley.
- Cochran, W. (2008). *Sampling techniques, 3rd ed.* Wiley.
- Cooper, D., Schindler, P., Sharma, J. (2012). *Business research methods, 12th ed.* McGraw-Hill.
- Flick, U. (2012). *Introducing research methodology: A beginner's guide to doing a research project*. Sage Publications.
- Groves, R., Fowler, F., Couper, M., Lepkowski, J., Singer, E., Tourangeau, R. (2009). *Survey Methodology*. Wiley.
- Kumar, R. (2014). *Research methodology: A step by step guide for beginners, 4th ed.* Sage Publications.

Table:5

Economics Generic Elective Courses

Semester	Course code	Course title
III	ECO-HG-601	Introductory Microeconomics
IV	ECO-HG-602	Introductory Macroeconomics
V	ECO-HG-701	Indian Economy-1
VI	ECO_HG-702	Indian Economy -II
VII	ECO-HG-801	Environmental Economics
VIII	ECO-HG-802	Public Finance

ECONOMICS GENERIC ELECTIVE COURSES (GEC)

Introductory Microeconomics (ECO-HG-601)

(Semester-III)

Course Objective

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

Course Learning Outcomes

The course introduces the students to the first course in economics from the perspective of individual decision making as consumers and producers. The students learn some basic principles of microeconomics, interactions of supply and demand, and characteristics of perfect and imperfect markets.

Course Outline

1. Exploring the subject matter of Economics

Definition of economics. Why study economics? The scope of economic theory and basic economic problems; scarcity and choice; the question to what to produce, how to produce and how to distribute output. Methods of economics. Concept of equilibrium.

15 lectures
25 marks

2. Supply and Demand: How Markets Work, Markets and Welfare

Markets and competition; Behaviour of profit maximising firms; Production functions. how prices allocate resources? controls on prices; taxes and the costs of taxation; consumer surplus; producer surplus and the efficiency of the market. Equilibrium of competitive firm and industry.

15 lectures
25marks

3. Consumer Theory

Cardinal Utility Analysis: meaning of demand. The law of demand. consumer's equilibrium. Indifference Curve Theory; consumer equilibrium; income effect, substitution effect and price effects. Slutsky equation. revealed preference theory; preference hypothesis and strong ordering.

15lectures
25marks

4. The Households

The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; labour supply and savings decision - choice between leisure and consumption.

15 lectures
25 marks

Readings

1. Karl E. Case and Ray C. Fair, *Principles of Economics*, Pearson Education Inc., 8th Edition, 2007.
2. N. Gregory Mankiw, *Economics: Principles and Applications*, India edition by South Western, a part of Cengage Learning, Cengage Learning India Private Limited, 4th edition, 2007.
3. Joseph E. Stiglitz and Carl E. Walsh, *Economics*, W.W. Norton & Company, Inc., New York, International Student Edition, 4th Edition, 2007.

Introductory Macroeconomics (ECO-HG 602)
(Semester-IV)

Course Objective

This is the first module in a three-module sequence that introduces students to the basic concepts of Macroeconomics. Macroeconomics deals with the aggregate economy. This course discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like GDP, savings, investment, money, inflation, and the balance of payments. It also introduces students to simple analytical frameworks (e.g., the IS-LM model) for determination of equilibrium output.

Course Learning Outcomes

This course aims to develop the broad conceptual frameworks which will enable students to understand and comment upon real economic issues like inflation, money supply, GDP and their interlinkages. It will also allow them to critically evaluate various macroeconomic policies in terms of a coherent logical structure.

1. Introduction to Macro economics

Meaning and subject matter of Macroeconomics; Micro vs Macro economics; Basic issues studied in Macroeconomics; Importance and limitation of Macroeconomics.

12 lectures
20 marks

2. National Income Accounting

National Income Accounting; Concepts- GDP, GNP, NDP and NNP, Per Capita income; Measurement of GDP-income, expenditure and circular flow methods; Real versus Nominal GDP; National Income Accounting for an open economy; Balance of payments: Current and Capital account.

12 lectures
20 marks

3. Money

Meaning; Functions of money; Quantity theory of money; Determination of money supply and demand; credit creation, Tools of monetary policy.

12 lectures
20 marks

1. Inflation

Types of inflation; Causes and its effects on production & distribution ; Hyperinflation; Price Indices. Anti-Inflationary Measures; deflation.

12 lectures
20 marks

2. The closed Economy in the short run

Classical and Keynesian system; Simple Keynesian model of income determination; IS-LM model;

12 lectures

20 marks

Readings:

Dornbusch, Fischer and Startz : Macroeconomics, Mc Graw Hill

N. Gregory Mankiw : Macroeconomics, Worth Publishers

Errol D' Souza : Macroeconomics, Pearson Education.

Indian Economy-I (ECO-HG 701)
(Semester V)

Course Objective

Using appropriate analytical frameworks, this course reviews major trends in economic indicators and policy debates in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points. Further the course aims at exploring about the economy of North Eastern Region.

Course Learning Outcomes

At the end of the course, a student should be able to understand the development paradigm adopted in India since independence and evaluate its impact on economic as well as social indicators of progress and well-being. Besides, the students will gain preliminary idea on North Eastern Region's economy.

Course Outline

1. Economic Development since Independence

Major features of the economy at independence; growth and development under different policy regimes—goals, constraints, institutions and policy framework; an assessment of performance—sustainability and regional contrasts; structural change, savings and investment.

**15 lectures
25 marks**

2. Population and Human Development

Demographic trends and issues; education; health and malnutrition.

**15 lectures
25 marks**

3. Growth and Distribution

Trends and policies in poverty ; Inequality and Unemployment.

**15 lectures
25 marks**

4. Economy of North-Eastern Region:

Basic Features: Trends of GSDP and Sector-Wise contribution North-Eastern States.
Institutions for Development of North-Eastern States: North Eastern Council.

**15 lectures
25 marks**

Readings:

1. Jean Dreze and Amartya Sen, 2013. *An Uncertain Glory: India and its Contradictions*, Princeton University Press.
2. Pulapre Balakrishnan, 2007, The Recovery of India: Economic Growth in the Nehru Era, *Economic and Political Weekly*, November.
3. Rakesh Mohan, 2008, —Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, *Economic and Political Weekly*, May.
4. S.L. Shetty, 2007, —India's Savings Performance since the Advent of Planning, in K.L. Krishna and A. Vaidyanathan, editors, *Institutions and Markets in India's Development*.
5. Himanshu, 2010, —Towards New Poverty Lines for India, *Economic and Political Weekly*, January.

6. Jean Dreze and Angus Deaton, 2009, —Food and Nutrition in India: Facts and Interpretations, *Economic and Political Weekly*, February.
7. Himanshu. 2011, —Employment Trends in India: A Re-examination, *Economic and Political Weekly*, September.
8. Rama Baru et al, 2010, —Inequities in Access to Health Services in India: Caste, Class and Region, *Economic and Political Weekly*, September.
9. Geeta G. Kingdon, 2007, —The Progress of School Education in India, *Oxford Review of Economic Policy*.
10. J.B.G. Tilak, 2007, —Post Elementary Education, Poverty and Development in India, *International Journal of Educational Development*.
11. T. Dyson, 2008, —India's Demographic Transition and its Consequences for Development in Uma Kapila, editor, *Indian Economy Since Independence*, 19th edition, Academic Foundation.
12. Kaushik Basu, 2009, —China and India: Idiosyncratic Paths to High Growth, *Economic and Political Weekly*, September.
13. K. James, 2008, —Glorifying Malthus: Current Debate on Demographic Dividend in India, *Economic and Political Weekly*, June.
14. Reetika Khera, 2011, —India's Public Distribution System: Utilisation and Impact *Journal of Development Studies*.
15. Aniruddha Krishna and Devendra Bajpai, 2011, —Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1992-2005, *Economic and Political Weekly*, September.
16. Kaushik Basu and A. Maertens, eds, 2013, *Oxford Companion to Economics*, Oxford University Press.

Indian Economy-II (ECO-HG-702)
(Semester VI)

Course Objective

This course examines sector-specific policies and their impact in shaping trends in key economic indicators in India. It highlights major policy debates and evaluates the Indian empirical evidence.

Course Learning Outcomes

At the end of the course, a student should be able to understand the role of economic policies in shaping and improving economic performance in agriculture, manufacturing and services.

Course Outline

1. Macroeconomic Policies and Their Impact

Fiscal Policy; trade and investment policy; financial and monetary policies; labour regulation. **15 lectures, 25 marks**

2. Policies and Performance in Agriculture

Growth; productivity; agrarian structure and technology; capital formation; trade; pricing and procurement. **15 lectures, 25 marks**

3. Policies and Performance in Industry

Growth; productivity; diversification; small scale industries; public sector; competition policy; foreign investment. **15 lectures, 25 marks**

4. Trends and Performance in Services

Meaning & Types & importance of Service Sector in India's economic development. Trend of growth of service sector since independence; Economic Reforms & Service Sector.

**15 lectures
25 marks**

Readings:

1. Shankar Acharya, 2010, —Macroeconomic Performance and Policies 2000-8, in Shankar Acharya and Rakesh Mohan, editors, *India's Economy: Performances and Challenges: Development and Participation*, Oxford University Press.
2. Rakesh Mohan, 2010, —India's Financial Sector and Monetary Policy Reforms, in Shankar Acharya and Rakesh Mohan, editors, *India's Economy: Performances and Challenges: Development and Participation*, Oxford University Press.
3. Pulapre Balakrishnan, Ramesh Golait and Pankaj Kumar, 2008, —Agricultural Growth in India Since 1991, *RBI DEAP Study no. 27*.
6. Kunal Sen, 2010, —Trade, Foreign Direct Investment and Industrial Transformation in India, in Premachandra Athukorala, editor, *The Rise of Asia*, Routledge.
7. A. Ahsan, C. Pages and T. Roy, 2008, —Legislation, Enforcement and Adjudication in Indian Labour Markets: Origins, Consequences and the Way Forward, in D. Mazumdar and S. Sarkar, editors, *Globalization, Labour Markets and Inequality in India*, Routledge.
8. Dipak Mazumdar and Sandeep Sarkar, 2009, —The Employment Problem in India and the Phenomenon of the Missing Middle, *Indian Journal of Labour Economics*.

9. J. Dennis Rajakumar, 2011, —Size and Growth of Private Corporate Sector in Indian Manufacturing, *Economic and Political Weekly*, April.
10. Ramesh Chand, 2010, Understanding the Nature and Causes of Food Inflation, *Economic and Political Weekly*, February.
11. Bishwanath Goldar, 2011, Organised Manufacturing Employment: Continuing the Debate, *Economic and Political Weekly*, April.
12. Kaushik Basu and A. Maertens, eds, 2013. *The New Oxford Companion to Economics in India*, Oxford University Press.

Environmental Economics (ECO –HG-801) **(Semester-VII)**

Course Objective

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions viewed as externalities and their management through various economic institutions, economic incentives and other instruments and policies. Methods for analysing economic implications of environmental policy are also addressed as well as the valuation of environmental quality, assessment of environmental damages, and tools needed for the evaluation of projects such as cost-benefit analysis, and environmental impact assessments. Selected topics on international environmental issues are also discussed.

Course Learning Outcomes

The module aims to introduce students to the main theoretical and empirical concepts in environmental economics, equip students with a thorough analytical grasp of environmental policy theory, ranging from externalities to international environmental agreements, and familiarise students with the main issues in environmental valuation and with the basic features of the environmental policy tools. At the end of the module the students should be able to demonstrate their understanding of the economic concepts of environmental policy. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate their understanding of the usefulness and problems related to environmental valuation, and demonstrate their critical understanding of environmental policies.

Course Outline

1. Introduction

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

15 lectures
25 marks

2. The Design and Implementation of Environmental Policy

Overview, Pigouvian taxes and effluent fees, tradable permits, implementation of environmental policies in India and international experience; trans boundary environmental problems; economics of climate change. Global warming & its consequences

15 lectures
25 marks

3. Environmental Valuation Methods and Applications

Valuation of non-market goods and services--theory and practice; measurement methods; cost-benefit analysis of environmental policies and regulations.

15 lectures
25 marks

4. Sustainable Development

Concepts; measurement; perspectives from Indian experience, weak & strong sustainability. Indicators of sustainable development. Environmental Kuznet Curve(E.K.C).

15 lectures
25 marks

Readings

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

Public Finance (ECO-HG-802)
(Semester-VIII)

Course Objective

Public economics is the study of government policy from the points of view of economic efficiency and equity. The paper deals with the nature of government intervention and its implications for allocation, distribution and stabilization. Inherently, this study involves a formal analysis of government taxation and expenditures. The subject encompasses a host of topics including public goods, market failures and externalities. The paper is divided into two sections, one dealing with the theory of public economics and the other with the Indian public finances.

Course Learning Outcomes

The module aims to introduce students to the main theoretical and empirical concepts in public economics, equip students with a thorough analytical grasp of implications of government intervention for allocation, distribution and stabilization, and familiarise students with the main issues in government revenues and expenditure. At the end of the module the students should be able to demonstrate their understanding of the public economics. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate their understanding of the usefulness and problems related to taxation and government expenditure, and demonstrate their critical understanding of public policies

Course Outline

Part 1: Theory

1. Overview of Fiscal Functions; Tools of Normative Analysis, Pareto Efficiency, Equity and the Social Welfare; Market Failure, Public Good and Externalities.
15 lectures
25 marks
2. Elementary Theories of Product and Factor Taxation (Excess Burden and Incidence).
15 lectures
25 marks

Part 2: Issues from Indian Public Finance

3. Fiscal & Budgetary Policies
Issues in Indian tax system & Fiscal, Revenue & Budget deficits.
15 lectures
25 marks
4. Fiscal Federalism in India ; Constitutional provision of resource transfer from centre to states ; State and Local Finances.
15 lectures
25 marks

Readings

1. Musgrave, R.A. and P.B. Musgrave, *Public Finance in Theory and Practice*, Mc-GrawHill, 1989.

2. Mahesh Purohit , “*Value Added Tax: Experience of India and Other Countries*”, GayatriPublications, 2007.
3. Kaushik Basu, and A. Maertens (ed.), *The Oxford Companion to Economics in India*,Oxford University Press,2007.
4. M.M Sury, Government Budgeting in India, Commonwealth Publishers, 1990.
5. Shankar Acharya, “Thirty years of tax reform” in India, *Economic and Political Weekly*,May 2005.
6. Government of India, *Report of the 13th Finance Commission*.
7. *Economic Survey*, Government of India(latest).
8. State Finances: A Study of Budgets, *Reserve Bank of India* (latest).

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