Semester: III
ECODSC 201
Development Economics
Total credit: 3
Teaching Hours: 45 hours

Course Description: This course is designed to make the students familiar with the fundamental theories of economic development of underdeveloped economies. After completing the course, the students are expected to develop their understanding levels on the factors responsible for economic growth and development. They are expected to relate the development theories in understanding recent developmental issues. The course also contains the methodologies of measuring economic development and policy related issues.

Course Outcome: After completion of the course the students are expected to learn the issues of economic development. They will understand the various alternative measures of economic development and further human development. From the various theories of economic development, the comprehension and analytical skill of the students are expected to develop and their thinking process will be stimulated in connection with policy prescription.

UNIT 1: Introduction to Development Economics:

Economic Growth, growth vs development, development gap, measurement of economic development, human development, Sen's approach: capability and entitlement, HDI.

UNIT 2: Theories of Development – I:

Marxian and Rostow's Stage theory, take off, low level equilibrium trap, critical minimum effort, Balanced vs unbalanced development, Big push, Gunner Myrdal's theory of cumulative causation, backwash and spread effect.

UNIT 3: Theories of Development – II:

Migration and economic development, surplus labour and disguised unemployment, Lewis theory of unlimited supply of labour, Ranis-Fei model and Harris Todaro's theory of rural-urban migration.

UNIT 4 :Poverty and Inequality

Poverty axioms, inequality axioms, measurement of poverty, poverty gap, Sen's measure of poverty, measures of inequality, axioms of inequality index, inequality and economic development, gender gap in poverty, Human Poverty Index.

UNIT 5: **Institutions and development issues:**

Role of institutions in economic development, role of state, good governance, government failure, corruption, democracy and development, globalisation and economic development, trade as an engine of growth, trade, economic growth and environmental pollution.

Readings:

1. Debraj Ray, Development Economics, Oxford University Press, 2009.
2. Michael P. Todaro and Stephen C. Smith, Economic Development, 12th edition, Pearson.

3. Gerald M. Meier and James E. Rauch, Leading issues in Economic Development, Seventh Edition, Oxford University Press, 2000.
4. Amartya Sen, Poverty and Femines, Oxford University Press
5. Amartya Sen, Development as Freedom, Oxford University Press.
6. Myrdal, G., An American Dilemma: The Negro Problem and Modern Democracy, New York: Harper, 1944.
7. Gunnar Myrdal, Economic Theory and Under-developed Regions, Duckwoth, 1963.
8. UNDP: Human Development Report

Semester- III
ECODSC – 202
Public Finance
Total Credits: 3
Teaching Hours: 45 hours

Course Description:

This course is designed to make the students familiar with the significance and scope of public finance. The course incorporates important fiscal instruments like taxation and public expenditure and also deals with the alternative theories and principles governing tax and expenditure policies of the government. In addition to these, the issues of public debt and the conceptual issues related to public budget has also been included. Further the course also highlights the important issues like centre state financial relation and policy formulation.

Course Outcome:

After completion of the course the students will understand the arts and science of public finance. They will understand the areas of market failure and the need of government intervention. The analytical skill of the students in relation to the various aspects like impact of tax and public expenditure on economic activities is expected to be enhanced. The students may enrich their knowledge base on aspects like fiscal policy regulation, budgetary mechanism, centre state financial relation etc.

UNIT 1: Introduction

Nature, Significance and Scope of public finance, Public vs Private Finance, Public Finance- Allocation, Distribution, Stabilization and Growth Functions of Government, Public Goods and Private Goods, Public Goods and Market Failure, Externalities

UNIT 2: Public revenue

Meaning and Sources of Public Revenue, Classification of Taxes - Direct and Indirect Taxes, Canon of Tax, impact, incidence and shifting of tax, impact of tax on production and distribution; Principles of taxation: Benefit Principle and Ability-to-pay principle; Tax systems- Progressive, regressive and proportional.

UNIT 3: Public Expenditure

Meaning, Canons of Public Expenditure, Classification of public expenditure, Significance of public expenditure, Reasons for the growth of Public Expenditure in Modern State, effects of public expenditure on production, distribution and employment, Public Expenditure as an instrument of Fiscal Policy.

UNIT 4: Public Debt

Meaning, Sources of public Debt – Internal and External Debt, Burden of public Debt, Methods of Redemption of public Debt, Role of public Debt with special reference to developing Countries.

UNIT 5: Govt. budget and Finance Commission

Meaning, Types of Public Budget, Component of Public Budget - Revenue account and Capital account, Role of Government Budget, Concept of Budget Deficit, Latest Union Budget of India, Finance Commission - Meaning, Functions of Finance Commission, Recent recommendation of latest Finance Commission.

Readings

1. Musgrave, R.A and P.B. Musgrave, Public Finance in Theory and practice MC- Graw Hill
2. Government of India, Report of the latest Finance Commission.
3. Public Finance – Dr. B. P. Tyagi
4. Harvey S. Rosen and Ted Gayer: Public Finance, Eight edition

Semester: III

ECOSEC 201

Data Analysis

Total Credits: 3

Teaching Hours: 45 hours

Theory: 70 Marks

Project: 30 Marks

Course Description: The principal objective of this course is to apprise the students regarding basic data analysing tools. The course begins with the concepts of data and data collection method. The graphical and diagrammatic analysis of economic data are also included in this course. Further central tendance, measures of dispersion, correlation and regression which are the important tools and techniques in empirical research, have been included in this course structure. Finally, the course ends with empirical estimation of parameters from sample and hypothesis testing.

Course Outcome: After completion of the course, the students will learn the method of data collection, sampling and organisation of data. The course enables the students to use graphs and diagrams in analysing data. The students would be able to compute descriptive statistics and interpret the descriptives. Further they would also learn the primary techniques of estimation of population parameter and testing of hypothesis.

Unit 1: Sources of Data:

Primary and Secondary data, methods of collecting primary data, questionnaire and question schedule, sample vs census, random and non-random sampling, methods of quota sampling, stratified and multistage sampling.

Unit 2: Graphical and Diagrammatic Presentation of Data:

Organisation and classification of data, Uses of graphs in analysing data, cumulative frequency distribution, histogram, frequency polygon, advantage of diagram in presenting data, bar diagram, joint bar diagram, pie diagram.

Unit 3: Central Tendency and Measures of Dispersion:

Statistical series, Mean, Median and Mode, range, standard deviation, variance, coefficient of variation, Lorenz curve.

Unit 4: Correlation and Regression Analysis:

Degree of Correlation, scatter diagram, correlation between two variables, Pearson's simple correlation, Spearman's rank correlation coefficient, two variable linear regression -- regression lines, regression coefficient, properties of correlation and regression co-efficient.

Unit 5: Statistical Estimation and Hypothesis Testing:

Sampling distribution of a statistic, statistic, parameter, estimator and estimate, concept of biased and standard error, Point and interval estimation, null and alternative hypothesis, concept of type I and type II error, concept of one tailed and two tailed hypothesis testing using Z and t test.

[Project: There will be a project of 30 marks which a student will prepare under the supervision of faculty of the concerned department. The supervisor will finalise the project topic and will guide the students in preparing project report.]

Readings:

1. John E. Freund, Mathematical Statistics, Prentice Hall, 1992
2. William G. Cochran, Sampling Techniques, John Wiley, 2007
3. Gun, Gupta and Dasgupta: Fundamental of Statistics
4. S.C. Gupta: Fundamentals of Statistics, Himalya Publishing House

Semester - III
Course Code: ECODSM201
Indian Economy
Total Credit: 4
Contact Hours: 45 Hours

Course Description: This course is designed to familiarise the students with the economic issues related to the Indian economy. The course covers the developmental journey of the Indian economy since independence. The general socio-economic problems of important sectors of the Indian economy have also been included in this course structure. Other than these, general economic issues like poverty and unemployment and policies related to economic problems remain as subject matters of this course.

Course Outcome: This course aims to acquaint the students with the contemporary issues of the Indian Economy. Once the students complete the course, they will be able to deal with various issues related to Indian Economy which may help them in further academic endeavours. The students are expected to learn the condition of the Indian economy on the eve of Independence and they can relate this to the present state. The students will be able to understand the need for policies to overcome different Indian economic issues. Further, their ability to evaluate development policies and overall thinking processesis likely to be developed.

Unit 1: Economic Development since Independence

Major features of the economy on the eve of independence; current economic state, features, Demographic trends and issues; comparative analysis of demographic indicators (fertility rate, literacy rate, sex ratio, dependency rate, rural urban break up, life expectancy etc.), Education, health and malnutrition.

Unit 2: Issues in Indian Agricultural Sector since Independence

Production, productivity and cropping patterns, Agricultural credit & marketing, Land reforms, New Agricultural Policy- Green Revolution.

Unit 3: Indian Industrial Development since Independence

Phases of industrial growth since independence, Public sector enterprises, Industrial reforms since independence, Small and Medium Scale industries in India: Problems and prospects.

Unit 4:Labour force, Occupational pattern and Unemployment

Labour force growth, Occupational structure and economic development, Occupational distribution of labour force; Nature and pattern of unemployment in India, Policies to tackle unemployment problem, Indian Trade Union movement- A Brief Overview.

Unit 5: Poverty and Inequality

Incidence of Poverty in India, estimates of Poverty and poverty line, Strategy of Poverty Alleviation; Inequality-Income inequality in India: Magnitude and Nature, Growth and Inequality, Causes of income inequality, Government policies and measures, Poverty and unemployment

Readings:

1. Jean Dreze and AmartyaSen, 2013. *An Uncertain Glory: India and itsContradictions*, 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 andPolitical Weekly*, January.

6. Arvind Subramanian, India's Turn, Understanding the Economic Transformation, Oxford University Press.

7. Kaushik Basu, (ed.), India's Emerging Economy, Performance and Prospects in the 1990's and Beyond, Oxford University Press.

8. Mishra S.K & V.K Puri (2001) "Indian Economy and –Its development experience", Himalaya Publishing House.

9.Gaurav Datt& Ashwani Mahajan, Indian Economy, S Chand (current edition)

Semester: III
Course Code: IDC201
Introduction to Indian Economy
Total Credit: 3
Contact Hours: 45 Hours

Course Description: The course is designed to introduce the students with the basic features of Indian Economy since independence. 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. The course also incorporates the position of India's foreign trade in global economy.

Course Outcome: On completion of the course, students will be able to develop an understanding of the basic structure of the Indian economy. They will understand the importance, causes and impact of population growth and relate them with economic development. The course also enables the students to understand the problem of poverty and unemployment and their measure to solve this problem. They will also be able to forecast the future course of development through their knowledge of policies and programmes set by the Government and other development agencies.

Unit -1: Structure of the Indian Economy

Major economic features of the Indian economy, Growth in GDP and per capita income and sectoral composition of GDP, Demographic trends in size, Demographic dividend, population growth rate, age, sex, rural-urban migration and occupational distribution in India

Unit-2: **Poverty, Income Distribution and Unemployment in India**

The concept of Poverty Line, causes of poverty; poverty alleviation programme in India. The pattern of Income Distribution, causes of Income inequality in India; Government Policy and measures. Unemployment-Nature and types of unemployment in India, Magnitude, Changing dimensions of unemployment, Causes of unemployment, rural employment schemes in India.

Unit-3: Agriculture and the rural sector

Role of agriculture in the Indian economy; Trend of share of Agriculture in GDP; Problems of Indian agriculture. Land reforms – Green Revolution – Agrarian crisis of 1990s – Agricultural Marketing– Agricultural Labour and Rural Unemployment. Role of PMGSYin rural transformation. Cottage and Small-Scale Industries: Meaning, features. Role of Cottage and small scale industry in rural development. Problem of cottage and small-scale industry and measures to promote small scale industries.

Unit-4: **Manufacturing and Service Sectors**

Role of industry in the Indian economy; Trend of share of industry in GDP. Large Scale Industries: Importance; Pattern of industrialization. MSME: Composition; Importance; Major Problems faced by MSME. New Industrial Policy 1991- Goals, Objectives, Main features. Role of the service sector in the Indian Economy, Growth and composition of the service sector.

Unit-5: India's Foreign Trade

Composition and direction of Foreign Trade, India's balance of payments situation since 1991, Foreign Trade Policy- Importance, Objectives, Features of latest foreign trade Policy of India. Liberalisation, Privatisation and Globalisation; Effect of Globalisation on the Indian economy. Regulatory bodies of Foreign Trade – Multinational Corporations, FERA, FEMA and WTO.

Readings:

1. Puri V.K and Mishra S.K, Indian Economy, (English) (January 2022), Himalaya Pub. House.
2. Dutt, Gaurav and Sundaram, Indian Economy, (English) (Latest edition), S Chand & Co Ltd.
3. Abhijit Banerjee, Rajan, Raghuram Rajan, Gita Gopinath, Mihir S. Sharma (2019) 'What the Economy Needs Now, Juggernaut Books, New Delhi.
4. Kaushik Basu, (ed.), India's Emerging Economy, Performance and Prospects in the 1990's and Beyond, Oxford University Press.
5. Verma Sanjeev, The Indian Economy (2020), Unique Publishers.
6. Bimal Jalan(ed), The Indian Economy, Problems and Prospects, Penguin Books Ltd.
7. Kaushik Basu, (ed.), India's Emerging Economy, Performance and Prospects in the 1990's and Beyond, Oxford University Press

Semester- IV
ECODSC – 251

Intermediate Microeconomics
Total Credits: 3
Teaching Hours: 45 hours

Course Description: Intermediate Microeconomics is designed to develop the analytical skills of the learners with the application of quantitative and graphical tools. The contents demand critical analysis of various concepts of microeconomics. The syllabus covers intermediate topics of microeconomics comprising consumer behaviour, producer behaviour, factor market and welfare economics. The course is an advancement of Introductory Microeconomics learnt in the first semester.

Course Outcome: After completion of the course, the students will learn various microeconomic analytical tools. Using these tools, they will be better able to understand microeconomic issues and can apply the knowledge in solving microeconomic problems. The learners will better understand trade-offs in decision-making and consumer and producer behaviour. They would be able to relate theoretical knowledge to the problems of the practical business world.

Unit 1: Consumer Behaviour

Ordinary vs compensated demand curve, derivation of ordinary and compensated demand function, indirect utility, income and substitution effect of normal and inferior goods, application of indifference curve: labour – leisure trade off, cash subsidy vs food transfer, Revealed preference theory.

Unit 2: Cost and Production Function

Homogenous and homothetic production function, Cobb-Douglas and C.E.S. production function, elasticity of factor substitution, expansion path, derivation of cost function from production function.

Unit 3: Supply decision in imperfect competition:

Price output determination under monopolistic market, collusive vs non-collusive oligopoly, Cournot, Bertrand and Stackelberg's model, Kinked demand curve, concept of collusive oligopoly, introduction to game theory in understanding duopoly market (two-person zero sum game).

Unit 4: Factor Market:

Marginal productivity of a factor: marginal physical product, marginal revenue product and value of the marginal product, marginal productivity theory of factor pricing, equilibrium of a firm in the factor market under perfect competition, factor market equilibrium under imperfect competition, exploitation of labour and minimum wage bill.

Unit 5: Welfare Economics

Nature of welfare economics, Pigouvian welfare criterion, Pareto optimality criterion, Kaldor-Hicks compensation criterion, Social welfare function.

Reference:

1. G.S. Maddala and Ellen Miller, Microeconomic – theory and applications, Tata Mcgraw Hill.
2. A. Koutsoyiannis, Modern Microeconomics, Second Edition, Macmillan publications.
3. James M. Henderson and Richard E. Quandt, Microeconomic Theory, A Mathematical Approach, Third Edition, McGraw Hill Education.
4. Hal R. Varian, Intermediate Microeconomics: A Modern Approach, eight edition, Affiliated West Press, WW Norton & Company.
5. Bernheim Douglas and Whinston Michael, Microeconomics, Second Edition, McGraw Hill Education.

Semester- IV
ECODSC 252
Intermediate Macroeconomics
Credit: 3
Teaching Hours: 45 Hours

Course Description:

This course is the sequel of the Introductory Macroeconomics introduced in the first semester. This includes relatively advanced topics of macroeconomics which deals with both theory and macroeconomic policies. The course is designed to familiarise students with macroeconomic tools in understanding important macroeconomic concepts like income determination, open economy model, business cycle etc.

Course Outcome:

After completion of the course, the knowledge base and understanding level of students regarding various macroeconomic aspects is expected to be developed. The student will able to learn the macroeconomic tools like IS-LM and they also develop analytical skill. Based on acquired knowledge from macroeconomic theories, the students can understand economic fluctuations and can evaluate the macroeconomic policies**.**

Unit 1: - Determination of National Income:

Aggregate demand schedule: IS-LM approache; Factors determining the slope and position of IS-LM curve; Derivation of aggregate demand curve at variable price, derivation of aggregate supply curve at variable price, National income determination through AD-AS model.

Unit 2: - Consumption function:

Keynesian consumption function, Absolute income hypothesis, Relative income hypothesis, Permanent income hypothesis, Modigliani's life-cycle hypothesis.

Unit 3: - Monetary and Fiscal Policies:

Objectives, Instruments and Targets of monetary policy; Objectives and Instruments of fiscal policy; Government budget multiplier, Effectiveness of monetary and fiscal policies, Crowding out effect.

Unit 4: - Business cycle:

Multiplier, Accelerator, Concept of business cycle, Hawtrey's monetary theory of business cycles, Hicks-Samuelson business cycle, Measures to prevent business cycle.

Unit 5: - Open economy models:

Open economy version of IS-LM, derivation of BOP schedule, Mundell- Fleming model, Monetary approach to BOP, International financial markets.

Readings:

1. N. Gregory Mankiw, Macroeconomics, Worth Publishers, 11th edition, 2022.
2. Olivier Blanchard, Macroeconomics, Pearson Education Asia, 8th edition, 2020.
3. Richard T. Froyen, Macroeconomics, Pearson Education Asia, 10th edition, 2013.
4. Errol D'Souza, Macroeconomics, Pearson Education Asia, 12th edition, 2018.

5. Paul. R. Krugman, Maurice Obstfeld and Marc Melitz, *International Economics*, Pearson Education Asia, 11th edition, 2018.

Semester – IV
Statistics for Economics
Course Code: ECODSC – 253
Total Credits: 3
Contact hours: 45 hours

Course Description

This is a course on statistical methods for economics. It begins with some basic concepts and terminology that are fundamental to statistical analysis and inference. It then develops the notion of probability, followed by probability distributions of discrete and continuous random variables and of joint distributions. This is followed by a discussion on sampling techniques used to collect survey data. The course introduces the notion of sampling distributions that act as a bridge between probability theory and statistical inference. Thesemester concludes with some topics in statistical inference that include point and intervalestimation and hypothesis testing.

Course Outcomes

At the end of the course, the students will be able to gain the essential knowledge of the theory and the key properties of probability and random variables. They will be able to understand the logic and framework of the inference of hypothesis testing. It sets a necessary foundation for the econometric courses. An important learning outcome of the course will be the capacity to analyse statistics in everyday life.

Unit 1: Measures of Central Tendency and Dispersion

Measures of Central Tendency - Mean, Median, Mode; Measures of Dispersion; Skewness and Kurtosis; the Use of Measures of Location and Variation

Unit 2: Elementary Probability Theory

Random Experiment; Sample Spaces and Events; Probability Axioms and Properties; Conditional Probability and Independence of events; Addition Theorem of Probability and Multiplication Theorem of Probability; Bayes' Theorem.

Unit 3: Random Variables and Probability Distributions

Defining Random Variables; Probability Mass Function, Probability Density Function, Cumulative Probability Function; Mathematical Expectation of Random Variables; Theorem on Expectation; Properties of commonly used Discrete and Continuous Distributions (Binomial, Normal and Poisson Random Variables).

Unit 4: Sampling Theory and Design of sample Surveys

Population and sample, census versus sampling, types of sampling, random and non-random sampling, random sampling with and without replacement, laws of sampling, principal steps in sample survey, sampling and non-sampling error, Parameter and Statistic; sampling distribution and Standard Error, Limitations of Sampling.

Unit 5: Theory of Estimation and Testing of Hypothesis

Point Estimation and Interval estimation, Characteristics of a good Estimator, Sampling

Distribution of a Statistic, Concepts of Test of Hypothesis and Significance, Large sample Tests, Z test, Chi-Square Test of Goodness of fit, Test of Significance based on t and F Distributions.

Readings:

1. Jay L. Devore, *Probability and Statistics for Engineers*, Cengage Learning, 2010.
2. John E. Freund, *Mathematical Statistics*, Prentice Hall, 1992.
3. Richard J. Larsen and Morris L. Marx, *An Introduction to Mathematical Statistics and its Applications*, Prentice Hall, 2011.
4. S. C. Gupta, *Fundamentals of Statistics*, Himalaya Publishing House, 2023.
5. William G. Cochran, *Sampling Techniques*, John Wiley, 2007.

Semester IV
ECODSM – 251/252
Principles of Microeconomics
Total Credits: 3
Teaching Hours: 45 Hours

Course Description: The course is the continuation of the basic concepts of Microeconomics that students learnt in Semester I and Semester II in DSM paper. As the students are familiar with concepts of demand, supply, equilibrium, production, cost and revenue, they can apply these concepts in understanding functioning of the market system, different market structures, issues related with factors markets, factor pricing and policy and welfare economics and policy evaluation. The course aims to make students familiar with market and market structure, input markets and input pricing, welfare economics and social choice.

Course Outcome: They students will be able to understand and analyze the economic problems in real world today. They will be able to understand how markets work (both product and factor market), why markets fail, why government intervention is necessary. They can evaluate the economic policy decision using concepts of welfare economics.

Unit 1: The Firm and Perfect Market Structure

Objectives of firms, behaviour of profit maximizing firms and the production process, market and classification of market structures, perfect competition: short run and long run equilibrium, economic efficiency and perfect competition.

Unit 2: Imperfect Market Structure

Monopoly, price discrimination, monopolistic competition: price and output determination, oligopoly, government intervention.

Unit 3: Theory of Factor Pricing (A)

Land and Labour markets: Basic concepts (derived demand, productivity of an input, marginal revenue product), marginal productivity theory of distribution (wage),concept of rent, Ricardian theory of rent, Modern theory of rent.

Unit 4: Theory of Factor Pricing (B)

Capital, investment and depreciation, Classical Theory of Interest, Keynes's Liquidity Preference Theory of Interest, Risk, Uncertainty and Profits.

Unit 5: Basics of Welfare Economics

Welfare Economics: concepts, individual welfare and social welfare, value judgements, Pigovian welfare economics, Pareto Optimality: concept and conditions, social welfare function, externalities, public goods.

Readings:

1. Case, Karl E. & Ray C, Fair, Principles of Economics, Person Education, Inc, 8th edition, 2007
2. Mankiw, N. Gregory, Principles of Microeconomics, CENGAGE Learning Custom Publishing; 8th edition, 2016
3. Dwivedi D. N., Microeconomics: Theory and Policy, Tata McGraw-Hill, 2005

4. Koutsoyiannis, A. Modern Microeconomics, ELBS with Macmillan, Hong Kong
5. Hall R. Varian, Intermediate Microeconomics: A Modern Approach, 8th edition, Springer (India) Pvt. Ltd.
6. Anindya Sen: Microeconomics, Oxford