



NETAJI SUBHAS OPEN UNIVERSITY

School of Professional Studies

BACHELOR OF ARTS IN ECONOMICS (NEC)

Four Year Undergraduate Degree Programme (NEP-NCrF)

SYLLABUS

Programme Objectives: The present NEP course in Economics aims to introduce the basic concepts of Microeconomics (covering general equilibrium and welfare along with markets), Macroeconomics (covering topics of long run dynamic issues like growth and technical progress) along with various statistical and mathematical tools of Economics. The objective of the course is also to know the current trends in Indian economy that traces major trends in economic indicators and policy debates in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points, along with examining sector specific policies and their impacts in shaping trends of key economic indicators in India.

Expected Learning Outcome: After successful completion of the course, it is expected that the learners will be fully equipped with the skill to analyse the theory and practice in a prudent way. The study will help a student to appear for competitive exams like IAS, IES, UPSC, WBCS and other misc. examinations or they may pursue MBA or MA courses if they wish to pursue higher studies in the field. They may join corporate-led institutions with empirical knowledge already gathered from the study, and finally will come out of flying colours be it in the field of self-employment or other forms.

Programme Structure (NEC)

| SEM | CODE | Course | Group | Theory/ Prac. | Credit | Study Hours | TE FM | TE Pass % | Assig. FM | TM |
|----------------------|----------|---|--|------------------|--------|----------------|-------|--------------|--------------|-----------|
| 1 st Year | I | 5CC-EC-01 | Microeconomics – I | DSC-01 | Theory | 4 | 120 | 70 | 30 | 100 |
| | | DSE-1: # Refer to page 3 | DSE-01 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | | MDC-1: # Refer to page 3 | MDC-01 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | | 5AE-BG-01 | Bengali | AEC-01 | Theory | 4 | 120 | 70 | 30 | 100 |
| | | 5VA-ES-01 | Environmental Sciences | VAC-01 | Theory | 4 | 120 | 70 | 30 | 100 |
| | | NSE-CO-01 | Business Communication | SEC-01 | Theory | 4 | 120 | 70 | 30 | 100 |
| | II | 5CC-EC-02 | Macroeconomics – I | DSC-02 | Theory | 4 | 120 | 70 | 30 | 100 |
| | | DSE-2: # Refer to page 3 | DSE-02 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | | MDC-2: # Refer to page 3 | MDC-02 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | | 5AE-EG-02 | English | AEC-02 | Theory | 4 | 120 | 70 | 30 | 100 |
| | | VAC-2: # Refer to page 4 | VAC-02 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | | NSE-CO-02 | E-Business and Computer Applications in Business | SEC-02 | Theory | 4 | 120 | 70 | 30 | 100 |
| Level 4.5 | NU-C5-EC | Exit 1: UG Certificate in Economics (on completion of 1 st Year Learners may exit from the programme with UG Certificate in Economics) | | | | | | | | 48 Credit |

| | | | | | | | | | | | | |
|----------------------|----------|---|--|--------|-----------|--------|-----|-----|----|------------|-----|-----|
| 2 nd Year | III | 6CC-EC-03 | Development Economics – I | DSC-03 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 6CC-EC-04 | Mathematical Methods for Economics – I | DSC-04 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | DSE-3: # Refer to page 3 | | | DSE-03 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | | MDC-3: # Refer to page3 | | | MDC-03 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | | 6AE-CF-03 | Computer Fundamentals | AEC-03 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | NSE-CO-03 | Food Processing and Packaging | SEC-03 | Practical | 4 | 120 | 70 | 30 | 30 | 100 | |
| | IV | 6CC-EC-05 | Microeconomics – II | DSC-05 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 6CC-EC-06 | Elementary Statistical Methods for Economics | DSC-06 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 6CC-EC-07 | Indian Economy – I | DSC-07 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | DSE-4: # Refer to page 3 | | | DSE-04 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | | 6AE-RT-04 | Reading & Reflecting on Texts | AEC-04 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| Level 5.0 | NU-D6-EC | Exit 2: UG Diploma in Economics (on completion of 2 nd Year Learners may exit from the programme with UG Diploma in Economics) | | | | | | | | 92 Credit | | |
| 3 rd Year | V | 7CC-EC-08 | Macroeconomics – II | DSC-08 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 7CC-EC-09 | Public Finance | DSC-09 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 7CC-EC-10 | International Economics | DSC-10 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 7CC-EC-11 | Mathematical Methods for Economics – II | DSC-11 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | DSE-5: # Refer to page 3 | | | DSE-05 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | VI | 7CC-EC-12 | Microeconomics – III | DSC-12 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 7CC-EC-13 | Macroeconomics – III | DSC-13 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 7CC-EC-14 | Indian Economy – II | DSC-14 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 7CC-EC-15 | Advanced Statistical Methods for Economics | DSC-15 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | DSE-6: # Refer to page 3 | | | DSE-06 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | | 7SI-EC-01 | Seminar/ Presentation/ Community Engagement | SI-01 | Practical | 4 | | 100 | | | 100 | |
| Level 5.5 | NU-P7-EC | Exit 3: UG Degree Programme in Economics (on completion of 3 rd Year Learners may exit from the programme with UG Degree in Economics) | | | | | | | | 136 Credit | | |
| 4 th Year | VII | 8CC-EC-16 | Economic History of India (1857 – 1947) | DSC-16 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 8CC-EC-17 | Money & Financial Market | DSC-17 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 8CC-EC-18 | Introductory Econometrics | DSC-18 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 8CC-EC-19 | International Trade & Payments Institutions | DSC-19 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | DSE-7: # Refer to page 3 | | | DSE-07 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | VIII | 8CC-EC-20 | Development Economics – II | DSC-20 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 8CC-EC-21 | Applied Economics | DSC-21 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 8CC-EC-22 | Environmental Economics | DSC-22 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | 8CC-EC-23 | India's Political Economy (1947 – 2018) | DSC-23 | Theory | 4 | 120 | 70 | 30 | 30 | 100 | |
| | | DSE-8: # Refer to page 3 | | | DSE-08 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| Level 6.0 | NU-H8-EC | Exit 4: UG Degree Hons in Economics (on completion of 4 th Year Learners may exit from the programme with UG Degree Hons in Economics) | | | | | | | | 176 Credit | | |

Discipline Specific Elective (DSE):

Learners have to study 8 courses for Discipline Specific Elective (DSE). 4 courses for Group A which will be treated as Minor. Group A (Minor): Learners have to choose four papers of Mathematics / Political Science. Group B: Learners have to choose four papers of History / Sociology / Education.

Subject wise list of Discipline Specific Elective (DSE) for Group A:

| Subject | CODE | Course | Group | Theory/ Prac. | Credit | Study Hours | TE FM | TE Pass % | Assig. FM | TM |
|-------------|-----------|------------------------------------|-------|------------------|--------|----------------|----------|--------------|--------------|-----|
| Mathematics | NEC-MT-01 | Basic Algebra | DSE-1 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-MT-02 | Fundamental of Analytical Geometry | DSE-2 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-MT-03 | Introduction to Calculus | DSE-3 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-MT-04 | Introduction to Linear Programming | DSE-4 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| Pol. Sc. | NEC-PS-01 | Introducing Political Theory | DSE-1 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-PS-02 | Comparative Politics | DSE-2 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-PS-03 | Constitution of India | DSE-3 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-PS-04 | United Nations and Global Politics | DSE-4 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |

Subject wise list of Discipline Specific Elective (DSE) for Group B:

| Subject | CODE | Course | Group | Theory/ Prac. | Credit | Study Hours | TE FM | TE Pass % | Assig. FM | TM |
|-----------|-----------|--|-------|------------------|--------|----------------|----------|--------------|--------------|-----|
| History | NEC-HI-01 | Bengal: Political History I (Earliest Times to 1203/1204) | DSE-1 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-HI-02 | Bengal: Political History II (1203/1204-1757) | DSE-2 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-HI-03 | Bengal: Political History III (1757-1947) | DSE-3 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-HI-04 | Contextualizing Bengal: Society, Economy and Culture (From Earliest times to 1947) | DSE-4 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| Sociology | NEC-SO-01 | Gendered Violence | DSE-1 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-SO-02 | Environmental Sociology | DSE-2 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-SO-03 | Rethinking Development | DSE-3 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-SO-04 | United nations and Global politics | DSE-4 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| Education | NEC-ED-01 | Introduction to Educational Studies | DSE-1 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-ED-02 | Psychology of Learners | DSE-2 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-ED-03 | Sociology of Education | DSE-3 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NEC-ED-04 | Child Development and Pedagogy | DSE-4 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |

List of Courses under Multi-Disciplinary Course:

Learners have to study any one course from each group (MDC 01, MDC 02 & MDC 03) as listed below:

| | | | | | | | | | | |
|--------|-----------|---|--------|--------|---|-----|--------|----|----|-----|
| MDC-01 | NMD-BG-01 | গণমাধ্যম ও গণজ্ঞাপন | MDC-01 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NMD-HI-01 | Some Aspects of Indian History (Earliest Times to Mid-20 th Century) | MDC-01 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NMD-LS-01 | Knowledge Resource Management (LIS) | MDC-01 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NMD-ZO-01 | Fundamentals of Zoology | MDC-01 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| MDC-02 | NMD-BG-02 | চলচ্চিত্র ও সাহিত্য | MDC-02 | Theory | 4 | 120 | SWAYAM | | | |
| | NMD-SO-01 | Population and Society | MDC-02 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NMD-PS-01 | Feminism: Theory and Practice | MDC-02 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NMD-EG-01 | Creative Writing and Literature | MDC-02 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NMD-CO-01 | Accounting for All | MDC-02 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NMD-CH-01 | Chemistry in Daily Life | MDC-02 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| MDC-03 | NMD-PA-01 | Human Resource Management | MDC-03 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NMD-ED-01 | Best Practices in Inclusive Education | MDC-03 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| | NMD-MT-01 | Statistical Techniques | MDC-03 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |

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|-----------|------------------------------------|--------|--------|---|-----|----|----|----|-----|
| NMD-GR-01 | Disaster Mitigation and Management | MDC-03 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| NMD-BT-01 | Plant Diversity and Human Welfare | MDC-03 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |

List of Courses under Value Added Course (VAC):

Learners have to choose one course from list provided below for VAC-02.

| | | | | | | | | | |
|-----------|--|--------|--------|---|-----|--------|----|----|-----|
| 5VA-CY-02 | Cyber Security (SWAYAM) | VAC-02 | Theory | 4 | 120 | SWAYAM | | | |
| 5VA-UI-02 | ভারত-সংস্কৃতি পটভূমি (Understanding India) | VAC-02 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |
| 5VA-EI-02 | Exploring the Indian Constitution | VAC-02 | Theory | 4 | 120 | 70 | 30 | 30 | 100 |

Note: Total Marks will be calculated based on 20% of the marks obtained in the assignment and 80% of the marks obtained in the term-end examination.

Course Content of Major Papers

Semester I

5CC-EC-01 (DSC-1): Microeconomics -I

Course objectives: After completion of the course the learners will be able to: Learn the basic idea of Microeconomics in particular and Economics in general.

Course outcome: This course is important as it will help learners to understand how to make decisions about using and distributing resources, which is a skill that can be applied to many areas of life.

Course Details

Unit 1: Exploring the Subject Matter of Economics

Definition, scope and methods of economics; The nature of economic problem: scarcity and choice; The question of what to produce, how to produce and how to distribute output Economic systems.

Unit 2: Some Basic Concepts in Economics

Goods and services-utility-wants-conjecture and consumer-production and factors of production-farm and industry-demand-supply-equilibrium-price system or market system-wealth-wealth and welfare microeconomics and macroeconomics-personal income and national income

Unit 3: Demand and Supply: How Markets Work

Demand: Determination of individual demand; Law of Demand; Demand schedule; Demand curves; Shifts in Demand curves; Derivation of market demand

Supply: Law of supply; Supply schedule; Supply curve; Shifts in Supply curve; Derivation of market supply curve;

Equilibrium price determination in competitive market; Effects of shifts in demand and supply

Unit 4: Elasticity of Demand

Definition and different types of elasticity of demand; Implications; Price elasticity of demand and its measurements; Arc elasticity of demand; Income elasticity of demand and its measurements – Cross price elasticity of demand; Factors affecting elasticity of demand; Importance of the concepts of elasticity of demand in Economics.

Unit 5: Elasticity of Supply

Definitions; Implications

Unit 6: Theory of Consumer Behaviour - I

Marshallian Utility approach (Cardinal Utility approach); Derivation of demand curve; Consumer surplus; Indifference curve approach (Ordinal Utility approach); Assumptions and properties; Exceptional Indifference Curves; The Budget Line and its properties; Changes in price and shifts in Budget Line; Consumer's optimal choice; Corner Solutions; ICC; PCC; Engel curve; Price Effect, Substitution effect and Income effect; Distinction between Hicks and Slutsky Compensation Methods; Choice between Income and Leisure; Classification of goods: normal, inferior and giffen goods;

Unit 7: Theory of Consumer Behaviour - II

Revealed preference approach; Strong and weak axioms of revealed preference; Properties of demand function; Slutsky equation; Comparison

Unit 8: The Theory of Production in the Short Run

Production; Factors of production; Short run and Long run Production function; Leontief Production function; General concepts of Homogenous production function and its properties; Cobb Douglas Production function; Law of variable proportions; Shape of product curves: total, average and marginal; Relationship among total product curve, average product curve and marginal product curve – Economic regions of production

Unit 9: The Theory of Production in the Long Run

Isoquants: Concept and properties; Returns to scale; Finding the optimal employment inputs by Isoquants and Iso-cost Lines; Ridge lines and Economic Regions of production; Output Expansion Path

Unit 10: Theories of Cost and Revenue

Relation between Short run and Long run cost curves; Derivation of LRAC curve from SRAC curve; Economies and diseconomies of scale; Revenue concepts under different market conditions – TR, AR, MR; Relationship among TR, AR, MR; Relationship of MR, Price and elasticity of demand; Revenue under different price situations (Fixed and variable)

Suggested 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.
4. Sebak K. Jana & Asim K. Karmakar Microeconomics, Dey Book Concern, Kolkata, 2018

Semester II

5CC-EC-02 (DSC-2): Macroeconomics – I

Course objectives: After the completion of the course the learner will be able to be equipped with the knowledge of basic functioning of a market economy at the macro level including understanding of national income accounting in both close and open economy.

Course outcome: this course will help learners understand how the economy works like changes in inflation, interest rates and economic output and how to improve it.

Course Details

Unit 1: Basic Issues in Macroeconomics

What is macroeconomics: Scope, subject matter, objectives and types: macro statics, macro dynamics; comparative statics; Closed and open economy macroeconomics; Major tools of macroeconomic policy; Stock and flow variables; equilibrium and disequilibrium; Partial and General equilibrium analysis; Usefulness of macroeconomics.

Unit 2: National Income Accounting

National income measuring economic performance; Concepts of GDP; Measuring GDP: Product method, Income Method and Expenditure method; Some important identities; GNP and NNP; National Income Personal Income Disposable Income; Circular Flow of Income; Real and nominal GDP; Implicit GDP Deflator; Measuring the Cost of Living: Consumer Price Index; Problems involved in National Income accounting; Importance of National Income accounting; GDP as an index of welfare or Nation's well being; National Income accounting for an open economy; BoP: Current account, Capital account, Official Reserve account (concepts only); Deficits in BoP

Unit 3: Theories of Consumption Function - I

Consumption Function with: Keynes Absolute Income Hypothesis; Duesenberry's Relative Income Hypothesis;

Unit 4: Theories of Consumption Function - II

Fisher's Theory of Optimal Intertemporal Choice; Friedman's Permanent Income Hypothesis; Ando-Modigliani's Life Cycle Hypothesis

Unit 5: Theories of Investment Demand

Concepts; Gross investment vs Net investment; Autonomous investment vs Induced investment; Three types of Investment Spending and their determinants: Business fixed investment' Inventory investment and Residential investment; Important theories: The Accelerator Theory of Investment; The Keynesian Theory of Investment

Unit 6: Supply of Money

Money: What is money; Functions of money; Money supply and its measures; High Powered money; Money Supply Multiplier; Credit Multiplier and Credit Creation; Money Demand function

Unit 7: The Closed Economy in the Short Run

Simple Keynesian Model (SKM): Consumption function, Saving function, Investment function; Income Determination (Equilibrium); Paradox of Thrift; Adjustment process/mechanism and stability (with economic interpretation of the stability condition); Income Determination with Govt sector; Expenditure multiplier, Tax multiplier and Balanced Budget Multiplier.

Unit 8: IS-LM Model

Commodity Market Equilibrium and the IS Curve; Money Market equilibrium and the LM Curve; Equilibrium in the IS-LM model;

Unit 9: Comparative Statics with IS-LM Model

Effectiveness of the monetary policy and the fiscal policy in increasing National income using IS-LM model; Should demand management (monetary and fiscal) policy be active or passive? Limitations of the IS-LM model

Unit 10: Inflation: Causes and Types

Demand Pull and Cost Push Inflation; Markup Inflation; Inflation and Unemployment: Short run and Long run Phillips curve and effectiveness of policies

Suggested Readings:

1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.
3. Olivier Blanchard, Macroeconomics, Pearson Education, Inc., 5th edition, 2009.
4. Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005.
5. Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011.
6. Errol D'Souza, Macroeconomics, Pearson Education, 2009.
7. Paul R. Krugman, Maurice Obstfeld and Marc Melitz, International Economics, Pearson Education Asia, 9th edition, 2012.

Semester III

6CC-EC-03 (DSC- 3): Development Economics – I

Course Objectives: After completion of the course the learner will be able to know the current theoretical and empirical issues and problems concerning economic development.

Course outcome: Through this course learners will get to understand the factors that help to improve the economic, social and fiscal conditions of developing countries.

Course Details

Unit 1 Basic Concepts of Development

Approaches to Development: Participatory Development; Inclusive Development; Sustainable Development; Human Development.

Unit 2: Growth and Economic Development

Broad Indicators of Economic Development: Per capita Income; Human Development Index; Inequality Adjusted HDI; Gender Development Index; Gender Empowerment Measure; Human Poverty Index

Unit 3: Theories of Development

Dependency school of development; Modernizations Theory; Theory of unequal exchange and development; Changing Approaches to Development: The Washington Consensus; Sustainable Development Goals

Unit 4: Persistence of Underdevelopment

Characteristics of underdevelopment; Obstacles to underdevelopment; Trap Models; The Idea of Vicious Circle of Poverty; Critical minimum effort thesis; Low level equilibrium trap; Process of Cumulative Causation

Unit 5: Strategies of Development

Big push argument; Balanced vs. unbalanced growth; Hirschman model; Choice of technique and investment criteria

Unit 6: Concept of Surplus Labour

Surplus labour as potential saving; Economic development with unlimited supplies of labour (Lewis Model); Harris-Todaro model

Unit 7: Stages of Economic Development

Collin-Clarke; Marx; Rostow

Unit 8: Inequality: Definitions, Measures and Mechanisms

Meaning of Inequality; Inequality measures; Lorenz Curve; Range; Coefficient of variation, Gini-coefficient; How Inequality Affects the Economy? An Illustrative Framework; Connections between inequality and development

Unit 9: Poverty

Relative Poverty; Absolute Poverty; Poverty line; The Mechanism that generates Poverty Trap

Unit 10: Poverty Measures:

Head count ratio; Poverty gap ratio, Income gap ratio, Human Poverty Index, Hunger Index, Tackling Poverty – The World Bank Approach

Suggested 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 (eds.), 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
8. A.P.Thirlwall (2005): Growth and Development. Palgrave Macmillan.

6CC-EC-04 (DSC- 4): Mathematical Methods for Economics – I

Course objective: After completion of the course the learner will be able to know the preliminary mathematical techniques required for economic analysis.

Course outcome: This course will help learners to understand and use mathematical tools to describe economic phenomena and make predictions.

Course Details

Unit 1: Preliminaries

Why Economists Use Mathematics? Variables, Constants and Parameters; Equation and Identities; Real number systems; Logic and mathematical proofs

Unit 2: Set Theory

Introduction; Sets and set operations; Geometric properties of functions: quasi-convex functions, quasi-concave functions, their characterizations, properties and applications.

Unit 3: Functions of One Real Variable

Graphs; Elementary types of functions: quadratic, polynomial, power, exponential, logarithmic; Sequences and series: convergence, algebraic properties and applications; Continuous functions: characterizations, properties with respect to various operations and applications

Unit 4: Single-Variable Differentiation - I

Slopes of curves; The slope of the tangent and the derivative; Rates of change and their economic significance; Simple Rules for Differentiation; Differentiation of sums, products, and quotients; Second-and –higher order derivatives and their applications

Unit 5: Single Variable Differentiation - II

Unit 6: Single-Variable Optimization

Some basic definitions; A First-derivative test for extreme points; Maxima and Minima; Local maxima and minima; Convex and Concave functions and inflection points

Unit 7: Functions of Several Real Variables

Functions of two or more variables; Partial derivatives and their uses in Economics; Quadratic forms in two variables

Unit 8: Multi-Variable Optimization - I

Convex functions: Characterizations of convex functions, Properties of convex functions, Applications of convex functions; Unconstrained optimization; Constrained optimization with equality and inequality Constraint: Linear Programming; Geometric characterizations; Lagrangean multiplier Method

Unit 9: Multi- Variable Optimization - II

Unit 10: Integration

Introduction; Integration of different types of functions with examples; Methods of Substitution and integration by parts with examples. Definite integral: Properties; Definite integral as an area under a curve; Indefinite integral

Suggested Reading:

1. K. Sydsaeter and P. Hammond, Mathematics for Economic Analysis, Pearson Educational Asia: Delhi, 2002.
2. Alpha C. Chiang and Kevin Wainwright, Fundamental Methods of Mathematical Economics, McGraw Hill Education, Fourth Edition, 2013.

Semester IV

6CC-EC-05 (DSC-5): Microeconomics – II

Course objectives: After completion of the course the learner will be able to understand typology of different market structures, and basics of game theory.

Course outcome: This course can help learners develop analytical tools and theoretical foundation to study economics at a higher level. It will also help to understand how markets work and how producers and consumers operate simultaneously.

Course Details

Unit 1: Production and Cost Behaviour of the Firm

Production and factors of production; Production Function; Total Average and Marginal Product; Law of Variable Proportion; Returns to Scale; Distinction; Cost of Production: Short Run and Long Run Costs

Unit 2: Goals of The Firm

Profit maximization and some predictions; Alternative Goals of the Firm

Unit 3: Theory of Perfect Competition

Perfect Competition: Assumptions; The perfectly competitive firm as a price taker; Short-run equilibrium under perfect competition; Break-even point and Shut down point; Supply curve of the firm under perfect competition; Long run Equilibrium under industry in perfect competition; Welfare (Concept only)

Unit 4: Monopoly - I

Sources of monopoly power; Lerner's Degree of monopoly power; Average Revenue and Marginal Revenue; Profit Maximization in the short- run; Social Cost of monopoly; Welfare and Dead - Weight Loss Under Monopoly;

Unit 5: Monopoly - II

Price Discrimination under Monopoly: different degrees; Equilibrium under Price Discrimination; Pricing under Monopoly; Price Policies under Imperfect Competition – Natural Monopoly; Pricing under Natural Monopoly; Two Part Tariff Policy

Unit 6: Monopolistic Competition

Elements of monopolistic competition; Short run and Long run equilibrium; Excess capacity under monopolistic competition

Unit 7: Oligopoly - I

Features; Various Models; Other Non-Collusive Models of Oligopoly: Cournot; Stackelberg; Bertrand; Kinked Demand Curve Model (Sweezy 1939); Monopsony, Bilateral monopoly.

Unit 8: Oligopoly - II

Collusive Oligopoly; Price Leadership by dominant firm; Barometric Price Leadership – Cartel and Market Sharing: Non-Price Competition – Quantity Agreement

Unit 9: Game Theory

Some Concepts: Two-person zero sum game, Maxi-min and Mini-max strategies, Properties of Saddle point; Dominance Property; Mixed Strategy; Non-zero sum game; Prisoner's Dilemma; Co-operative Game; Nash solution and Cournot equilibrium; Limitations of Game Theory

Unit 10: Government Policies under Different Types of Market Structures

Taxes and subsidies; Lumpsum; Unit; Ad valorem under Alternative market conditions; Price ceiling; Price Floor

Suggested 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.
3. W. Nicholson, Microeconomic Theory, The Dryden Press, Japan, 1985.
4. D. Fudenberg and J. Tirole. Game Theory, The MIT Press, 1991.
5. R. Gibbons. Game Theory for Applied Economists, Princeton University Press.
6. Martin J. Osborne. An Introduction to Game Theory, the MIT Press, 2003
7. Timothy Fisher and Robert Waschik: Managerial Economics. Routledge, London, 2002.

6CC-EC-06 (DSC- 6): Elementary Statistical methods for Economics

Course Objectives: After completion of the course the learner will be able to know the basic statistical applications necessary for economic data analysis.

Course outcome: This course will help learners understand various economic patterns, make informed decisions and predict future trends.

Course Details

Unit 1: Descriptive Statistics

Statistics and its meaning, Presentation of data, Frequency Distribution and its Graphical Presentation: Histogram, Frequency Polygon; Cumulative Frequency Polygon or Ogive; Univariate Frequency Distribution and their Graphical Representation

Unit 2: Measures of Central Tendency with Applications - I

Central Tendency: Arithmetic Mean, Geometric and Harmonic Mean; Composite Mean.

Unit 3: Measures of Central Tendency with Applications - II

Median and Mode (for both grouped and ungrouped data) –Comparison of Mean Median and Mode

Unit 4: Absolute Measures of Dispersion

Range; Mean Deviation; Standard Deviation; Quartile Deviation;

Unit 5: Relative Measures of Dispersion

The coefficient of variation; The coefficient of Mean Deviation; The coefficient of Quartile Deviation; Gini –coefficient; Lorenz curve

Unit 6: Moments, Skewness and Kurtosis

Moments: Definition; Moments for Grouped Data; Relation between Moments; Skewness: Definition; Different measures; Kurtosis: Definition; Different measures.

Unit 7: Analysis of Bivariate Data - I

Graphing Bivariate Data: The Scatter Diagram; Simple Correlation Analysis: Linear Correlation; Measures of Correlation; Rank Correlation

Unit 8: Analysis of Bivariate Data – II

Scatter Diagrams and Regression Lines; Bivariate Regression Analysis: The Simple Linear Regression Model; Standard Error of estimate; Explained and Unexplained variables

Unit 9: Time Series Analysis

Components; Measurements of Trends and Seasonal Variation; The variance of a time series

Unit 10: Index Numbers and their Applications

Price and Quantity Index Numbers; Various Formulae; Tests for an index number, Cost of Living Index Number; Uses of index number

Select Readings:

1. Richard J. Larsen and Morris L. Marx: An Introduction to Mathematical Statistics.
2. Goon, Gupta and Dasgupta: Basic Statistics- The World Press Pvt. Ltd. Calcutta
4. Goon, Gupta and Dasgupta: Fundamentals of Statistics, Vol I and Vol II, The World Press Pvt. Ltd. Calcutta
5. Das, N.G. Statistical Methods Part I Part II
- 6 .A.L. Nagar and R. K. Das, Basic Statistics, OUP, Second Edition

6CC-EC-07 (DSC- 7): Indian Economy – I

Course Objectives: After completion of the course the learner will be able to: Know the current issues and problems facing Indian economy with additional knowledge on paradigm shifts and turning points.

Course outcome: Through this course learners will get to know India's demographic advantage, how the country has seen steady growth due to development initiatives undertaken by the government. Learners will get to understand how our country has seen steady growth due to development initiatives undertaken by the government.

Course Details

Unit 1: Structural Changes in The Indian Economy

Growth in National Income over time; The Period 1951-1980; The Period of 1980s Onwards; Sectoral Growth and Changes: Trends in Savings; Trends in Investment Behaviour.

Unit 2: Occupational Changes and Employment Changes in the Indian Economy

Trends in Occupational Structure: Features of Occupational Structure; Changes in Occupational Structure; Measures for Improving Occupational Structure; Employment

Unit 3: Development and Planning

India's Transition to a Developing Country Model; Two Phases of Development: Mixed Economy; Public Sector at Commanding Height (Phase I); Increasing Role of Market (Phase II);

Unit 4: Planning in India

India's Move to Development Planning: Features; Objectives; Goals; Evolution of Indian Planning; Achievements of Economic Planning; Failures of Economic Planning; The Rise of Niti Aayog

Unit 5: Regional Disparities

Concept; Magnitude of Regional Disparities; Causes and Outcome

Unit 6: Population and Development

Demography: size and trends; Stages of Demographic Transition; Demographic Dividend in India

Unit 7: Human Development

Concept; Components of Human Development; India's Performance in Education; India's Health and Nutrition; India's progress in human development vis-à-vis peer countries

Unit 8: Poverty in India

Poverty Measures; Multidimensional Poverty Index; Poverty Line and its Concept; Causes of Persistence of Poverty; Poverty Estimation and Poverty Incidence; Poverty Incidence: since 1950s; Government Efforts to Combat Poverty; Impact of Economic reforms on Poverty Reduction

Unit 9: Inequalities in Income Distribution in India

Some Commonly Used Measures of Inequality: Gini coefficient of inequality; Theil Index; Decile Dispersion Ratio; Share of income/consumption of the poorest x%; Inequality in Indian Economy (HDI Measurement); Causes of Inequality; Effects of Economic Inequality; Policies regarding inequality Reduction; Impact of Reforms on Inequality Reduction

Unit 10: Employment and Unemployment in India

Employment Trends; Nature and Estimates of Unemployment; Causes of Unemployment; Employment Policies: since 1950s; Informal Economy

Suggested Readings:

1. Jean Dreze and Amartya Sen, 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.

Semester V

7CC-EC-08 (DSC – 8): Macroeconomics – II

Course Objective: After the completion of the course the learner will be able to understand theories of consumption function, theories of investment demand, the idea why do people demands money, government's major policies and the long run dynamic issues like growth and technological progress.

Course outcome: This course will help learners understand and evaluate the overall performance of the economy in terms of national income. Learners will get to have a clearer idea of the national level data that will help them in anticipating the level of fiscal activity and understand the distribution of income among different groups of people in the country.

Course Details

Unit 1: Theory of Aggregate Demand and Aggregate Supply Curves

Simple derivation of the Aggregate Demand Curve (ADC) using Quantity Theory of Money; IS-LM model and Theory of Aggregate Demand

Unit 2: Theory of Aggregate Supply

Derivation of the vertical Aggregate Supply Curve (ASC) in the Long Run; Derivation of the Short run Aggregate Supply Curve (SRASC); Economy's short-run equilibrium through the interaction of the ADC and SRASC; From the short run to the long run equilibrium;

Unit 3: Classical Theory of Output and Employment

Classical Macroeconomics: Say's Law and Quantity Theory; Freidman's Restatement; Classical Theory of Output and employment; Classical Dichotomy and Neutrality of money

Unit 4: Keynesian Theory of Output and Employment

Involuntary unemployment; Wage Rigidity and Effective Demand; Comparison between the Simple Classical System; Complete Keynesian System.

Unit 5: Demand for Money

Segmenting the Demand for Money: The Quantity Theory of Money: Fisher and Cambridge version; The Transaction Demand for Money with Baumol's Transaction Demand for Cash; The Precautionary Demand for Money; The Speculative Demand for Money – Portfolio Choice

Unit 6: Monetary Policy - I

Monetary Policy: Definition; Monetary policy objectives: Price stability; Output stabilization; Financial stability

Unit 7: Monetary Policy - II

Role & Effectiveness of Monetary Policy under different exchange rate regimes.

Unit 8: Fiscal Policy

Fiscal policy: Definition; What is a budget? Budget (or Fiscal) deficits; Deficit Financing; Public Debt or Govt Borrowing; Criteria for an Ideal Fiscal Rule; Fiscal Policy in an Open Economy

Unit 9: Theories of Economic Growth

Harrod model; Domar model; Solow one sector growth model; Phelp's Golden rule of Accumulation

Unit 10: Technological Progress in the Neoclassical One Sector Growth Model

Harrod Neutral; Hicks Neutral and Solow Neutral Technical Progress; Total Factor Productivity and Growth

Suggested Readings:

1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
2. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.
3. Olivier Blanchard, Macroeconomics, Pearson Education, Inc., 5th edition, 2009.
4. Charles I. Jones, Introduction to Economic Growth, W.W. Norton & Company, 2nd edition, 2002.
5. Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011.
6. Errol D'Souza, Macroeconomics, Pearson Education, 2009.
7. Robert J. Gordon, Macroeconomics, Prentice-Hall India Limited, 2011

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7CC-EC-09 (DSC – 9): Public Finance

Course Objectives: The course 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 learners will be able to know the theory of public economics and its application in the Indian economy.

Course outcome: Through this course learners will get to know how a country's economy influences other aspects of society including economic growth, social welfare and economic downturns.

Course Details

Unit 1: Nature and Scope of Public Economics

Definition and Scope of Public Economics; Externalities, Market Failure and Government Intervention; Coase Theorem

Unit 2: Theories of Public Good- I

Definition of Public Good; Characteristics of Pure Public Good; Distinction between Pure Public Good, Impure Public Good and Private Good; Free riding problem;

Unit 3: Theories of Public Good- II

Market Failure in case of Pure Public Good; Optimal provision of Public Good; Lindahl Equilibrium; Voting Equilibrium

Unit 4: Taxation - I

Classification of Taxes; Canons of Taxation; Benefit Principle; Equal Sacrifice Principle; Ability to Pay Principle;

Unit 5: Taxation - II

Incidence and Burden of Taxes; Effects of taxation; The Laffer curve; Income effect; Substitution Effect

Unit 6: Budget

Budget Deficits and Budget Surplus; Fiscal Deficit and Revenue Deficit; Fiscal Federalism in India

Unit 7: Public Expenditure

Meaning and Classification of Public Expenditure; Government budget and its types; Government expenditure multiplier; Tax multiplier; Balanced budget multiplier

Unit 8: Public Debt

Meaning of Public Debt; Sources of Public Borrowings: Internal and External borrowing; Why is Public Debt Incurred? Demerits of Public debt; Effects of Public Debt; Burden of Public Debt

Unit 9: Fiscal Policy and Macroeconomic environment in India

Fiscal Reforms in India; Fiscal Trends in India; Growth and Economic Stability

Unit 10: Indian Public Finance

Significance of taxation in Indian Context; Objectives of Taxation; Direct taxes; Indirect taxes; Goods and Services Tax (GST); Tax reforms in India;

Suggested 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. Mahesh Purohit, Value Added Tax: Experiences of India and Other Countries, 2007.
8. Kaushik Basu and A. Maertens (ed.), The New Oxford Companion to Economics in India, Oxford University Press, 2013.

7CC-EC-10 (DSC-10): International Economics

Course Objectives: After completion of the course the learner will be able to have a glimpse of the fundamentals of international economic theories and some relevant empirical facts. In addition, they will also be exposed to real-world examples and case studies.

Course outcome: Through this course learners will get an idea about how the world's economies are connected and how events in other countries can impact our lives.

Course Details

Unit 1: Classical Theories of International Trade

Notions of Absolute Advantage and Comparative Advantage; Ricardian Theory of Trade in a two-country two-commodity Framework; Limitation of Ricardian Trade Theorem; Gains from Trade in Ricardian Models of Trade

Unit 2: Factor Endowment and Trade

Hecksher-Ohlin Theorem of Trade using Price and Physical definition- Factor Price Equalization Theorem Stolpher –Samuelson Theorem; Rybczynsky theorem; Factor Intensity Reversal and H-O Theorem; Leontief Paradox

Unit 3: Neoclassical Theory of Trade

Trade Indifference curve; Offer curve; Elasticity of Offer curve; International Equilibrium; Stability of International Equilibrium; Marshall -Lerner Condition

Unit 4: Gains from Trade

Some Trade is better than no Trade; Restricted Trade: Tariffs vs. Quota

Unit 5: Trade Policy - I

Instruments of trade policy; Tariffs and National Welfare; Optimum tariff;

Unit 6: Trade Policy - II

Effects of Tariff on Domestic price; Effects of Tariff on Terms of Trade; Metzler's Paradox; Tariff and Income Distribution.

Unit 7: Balance of Payments (BoP)

BoP Accounting – Current account. Capital account, reserves and adjustments in BoP accounting;

Unit 8: Foreign Exchange Market

Concept of Foreign Exchange Market: Determination of the Exchange Rate; Spot and forward Exchange Rate; Speculation and arbitrage; Stability of equilibrium in foreign Exchange Market

Unit 9: Income and Price Adjustments in BoP

Foreign Trade Multiplier – without and with repercussions; Devaluation and Marshal – Lerner Condition

Unit 10: Macro Policies for Balance of Payments

Internal Balance vs External Balance: Expenditure Switching and Expenditure Reducing Policies

Suggested 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
3. Miltiades Chacholiades 1990): International Economics, McGraw-Hill Education.

7CC-EC-11 (DSC- 11): Mathematical Methods for Economics – II

Course objective: After completion of the course the learner will be able to make economic analysis using mathematics. This is a sequel to the course Mathematical Methods for Economics – I.

Course outcome: This course will help learners to understand how to use different mathematical tools to draw precise conclusions from different economic theories and assumptions.

Course Details

Unit 1: Linear Algebra - I

Systems of linear equations; Vector and its Operation; Determinants and their basic properties; Application of Cramer's Rule

Unit 2: Matrix

Matrix; Identity and Null Matrix; Transpose and Inverse Matrix; Conditions of Non-singularity of Matrix; The Rank of a matrix; Operations of Matrix;

Unit 3: Input-output analysis

Unit 4: Determinants

Introduction; Cofactor and minor, expansion of determinants, multiplication of determinants. Solution of system of linear equations: Cramer's rule. System of nonlinear equations: Jacobian determinant and existence of solution.

Unit 5: Differential Equation

First –order Linear Differential Equations with Constant; Coefficient and Constant term; Second-order Linear Differential Equations with Constant Coefficient and Constant term; Interaction of Inflation and Unemployment

Unit 6: Difference Equation - I

Introduction; The Cobweb Model; Market Model with Inventory

Unit 7: Difference Equation as used in Economics

Applications

Unit 8: Application of Integration in Economics

Finding out total function from marginal functions; Demand function from elasticity of demand; Indifference curve from MRS function; Iso-quant from MRTS function; Measurement of consumer's surplus and producers; surplus

Unit 9: Tools for Comparative Statics

The Chain Rules; Partial Elasticities; Homogeneous functions; Homothetic functions

Unit 10: Game Theory

Introduction; Zero-sum games - maximin and minimax solutions, Saddle point: Illustrative examples; Dominant Strategy Equilibrium, Illustrative examples;

Suggested Reading:

1. K. Sydsaeter and P. Hammond, Mathematics for Economic Analysis, Pearson Educational Asia: Delhi, 2002
2. A. Mukherji and S. Guha: Mathematical Methods and Economic Theory, Oxford University Press, 2011
3. Alpha C. Chiang and Kevin Wainwright, Fundamental Methods of Mathematical Economics, McGraw Hill Education, Fourth Edition, 2013.
4. Arup Mukherjee Linear Programming and Numerical Analysis, Shreetara Prakashani, Kolkata-6, 2004

Semester VI**7CC-EC-12 (DSC 12): Microeconomics – III**

Course objectives: After completion of the course the learner will be able to: Learn the fundamentals of general equilibrium and welfare economics along with different input markets.

Course outcome: This course will finally help learners to understand how to formulate economic policies, strategies and regulations. They will understand the standard of living and welfare of people and the factors that determine their welfare.

Course Details**Unit 1: General Equilibrium, Efficiency and Welfare**

Partial equilibrium vs. General Equilibrium techniques; Concept of General equilibrium; Definition of Efficient Allocation of Resources; Efficiency Concepts: Efficiency in Exchange: Edgeworth Box Diagram

Efficiency in Production: Optimal Choice of Inputs for a single firm & Efficient Allocation of Resources among firms Efficiency in production and exchange; The Positive Theory of General Equilibrium; Existence and Stability of Walrasian equilibrium

Unit 2: Welfare economics**Unit 3: Market Failure**

When the Competitive Price System Fails to Achieve Efficiency; Possible cases: (a) Imperfect Competition; (b) Externalities, (c) Public goods

Unit 4: Theory of Factor Pricing

What is Theory of Factor Pricing? Marginal Productivity Theory of Factor Pricing; Criticisms; Modern Theory of Factor Pricing

Unit 5: Theory of Rent

What is Rent? Ricardian Theory of Rent; Scarcity Rent and Differential Rent; Criticisms of Ricardian Theory of Rent; Modern Theory of Rent: Rent and Price-Quasi Rent

Unit 6: Theory of Wages

Money wage and Real wage; Marginal Productivity Theory of Wages; Demand and Supply curves of Labour; Wage determination in a perfectly competitive labour market and that in an imperfectly

competitive market; Power of Trade Union to raise wages; Difference in wages; Collective Bargaining and wage rate

Unit 7: Theory of Rate of Interest

Concept of Rate of Interest; Different Theories of determination of rate of interest: Classical Theory, Loanable Fund Theory, Liquidity Preference Theory; Can interest rate be zero or negative?

Unit 8: Theory of Profit

What is Profit? Gross Profit and Net Profit; Difference between profit and other factor incomes; Different theories of profit: Risk bearing theory; uncertainty bearing theory; Innovation theory; Dynamic theory of profit; Labour exploitation theory; Does profit exist in the long run?

Unit 9: Risk

Consumer behaviour under risk and uncertainty: Expected Utility Theorem; Concept of Risk and Lottery; Measurement of risk; Moral Hazard; Adverse Selection: concepts

Unit 10: Uncertainty

Expected Utility Theory; Risk -aversion and Risk- taking behaviour

Suggested 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.
4. Sebak K. Jana & Asim K. Karmakar Microeconomics, Dey Book Concern, Kolkata, 2018
5. Anindya Sen, Microeconomics: Theory and Applications, OUP

7CC-EC-13 (DSC-13): Macroeconomics – III

Course Objectives: This course is a sequel to Macroeconomics II. In this course, the students are introduced to inflation and unemployment, along with recent expectation theories and open-economy macro models.

Course outcome: Through this course learners will understand how to make decisions that will promote economic growth, stability and prosperity. They will have a better understanding of the functioning of banks, businesses and the economy as a whole.

Course Details

Unit 1: Inflation and Unemployment

Aggregate Supply and Phillips Curve; Short run trade-off between Inflation and Unemployment; Shift in Phillips Curve; Rational expectations and Inflation; Expectation-Augmented Phillips Curve; Long run Phillips Curve

Unit 2: Expectations Theories in Macroeconomics

Adaptive Expectations; Rational Expectations; Hall's Explanation for Rational Expectations; Policy Ineffectiveness Debate

Unit 3: Foreign exchange market

Demand and supply of foreign exchange; Connection between demand and supply of foreign exchange with export supply and import demand functions; Equilibrium in foreign exchange market and the stability condition; Spot and Forward Exchange Rate

Unit 4: Open Economy Macroeconomics—Concepts and Applications

Exchange Rate system: Fixed Exchange Rate system; Flexible Exchange Rate system; Fixed vs. flexible exchange rate; Clean Floating versus dirty Floating; Hybrid Exchange Systems; Nominal, Effective and Real Exchange Rates; Measures of Openness

Unit 5: Balance Of Payments (BoP)

The Elasticity Approach to BoP and the so-called Marshall- Lerner Condition; The Absorption Approach to BoP;

Unit 6: Theories of Balance of Payment

Monetary Approach and Portfolio Approach

Unit 7: Open Economy Macro Models

Internal and external Balance; IS-LM model; Dornbusch's overshooting model; Impossible Trinity

Unit 8: Monetary and Fiscal Policies under Fixed Exchange Rate Regime

Monetary Policy under Fixed Exchange Rate Regime; Fiscal Policy under Fixed Exchange Rate Regime

Unit 9: Monetary and Fiscal Policies under Flexible Exchange Rate Regime

Monetary Policy under Flexible exchange rate regime; Fiscal Policy under Flexible exchange rate regime

Unit 10: Growth Models: Solow and Kaldor

Solow and Kaldor

Suggested Readings:

1. Froyen, R.T.: Macroeconomics Theories and Policies, Pearson Education, 7 th edition.
2. Heijdra, Ben J and Frederik van der Ploeg (2002): The Foundations of Modern Macroeconomics, Oxford University Press, Great Clarendon Street, Oxford.
3. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.
4. Kling, Arnold. (2013). The 1970s: the decade the Phillips curve died. In Routledge Handbook of Major Events in Economic History (pp. 266-274). Routledge.
5. Levacic, R and A. Rebman (1986) Macroeconomics; (2 nd Ed, Macmillan).
6. Mankiw ,N.G. (2000), Macroeconomics, Fourth Edition, Harvard University Press.
7. Mankiw, N.G. and D. Romer (eds.) (1991). New Keynesian Economics; (MIT, Cambridge).

7CC-EC-14 (DSC – 14): Indian Economy – II

Course Objectives: Building on the more aggregative analysis of trends in the Indian Economy, this course examines sector-specific trends in key indicators and their implications in the post-Independence period

Course outcome: Learners will have a clear notion about India's global importance, demographic advantages, employment generation and investment opportunities.

Course Details

Unit 1: Monetary Policy

MONETARY POLICY; Objectives of Monetary Policy; Trends in India's Monetary Policy

Unit 2: Fiscal Policy - I

Fiscal Policy: Objectives of Fiscal Policy; The Fiscal Imbalance and Deficit Finance; Rationale for Deficit Financing; Consequences of Deficit Financing; The Fiscal Imbalance and the New Fiscal Approach; Fiscal imbalances Indicators and their Corrections;

Unit 3: Fiscal Policy – II

Fiscal Policy Reforms and New Fiscal Policy since 1991; Fiscal Responsibility in India: FRBM Act; Principles of Fiscal Federalism; The Finance Commission – Centre vs State Financial Relations

Unit 4: Indian Agriculture: Policies and Performance

Land Reforms; Objectives, Aspects and Performance; Green Revolution and its Impact; Policies on Agriculture; Agricultural Prices Policy; Policies on Food Security; Agricultural Trade Policy

Unit 5: WTO and Indian Agriculture

Issues, Concerns and Implications

Unit 6: Industrial Policy - I

Industrial Policies Before 1990s; Industrial Policy Resolution, 1948; Industrial Policy Resolution, 1956; Industrial Policy, 1977; Industrial Policy, 1980; Industrial Policy, 1985: A Move Towards Liberalization Measure;

Unit 7: Industrial Policy - II

New Industrial Policy 1991; Trends in Industrial Production; Phase I: 1951-65; Phase II: 1966-80; Phase III: 1981-991; Phase IV: Post-1991; New Challenges; Technology Intensity; Competition Commission of India; Medium, Small and Micro Enterprises (MSME); Importance, Role and Performance

Unit 8: India's Services Revolution

Increasing Importance of the Service (or Tertiary) Sector; Trend in Services Sector; Composition within the Services Sector; Performance in Services Sector

Unit 9: Open Economy Macroeconomic Policy - I

Trade Policy; Import Substitution Policy; Export-led Growth; Trade Policy prior to 1991; Trade Policy: Post 1991; Impact Assessment

Unit 10: Open Economy Macroeconomic Policy – II

FDI Policy: A. First Phase (1950-80); B. Second Phase (1980-91); C. Third Phase—Post 1991; FII Policy- Post 1991; Impact of FDI and FII; Bilateralism; Regionalism; 'Spaghetti bowl' problem; Multilateralism

Suggested 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, Paper 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.

7CC-EC-15 (DSC- 15): Advanced Statistical Methods for Economics

Course Objectives: After completion of the course the learner will be able to know the basic statistical applications necessary for economic data analysis.

Course outcome: Through this course learners will be able to generate models and establish economic theories. They will be able to understand various statistical tools that will help them identify patterns in data and predict future economic events.

Course Details

Unit 1: Theory of Probability

Various concepts and the Elementary ideas of Set Theory; The definition of probability; Probability Theorems, assuming two events only; Applications to the Theorems

Unit 2: Random Variables

Random Variables and related elementary concepts; Discrete and Continuous and Related concepts; Expectation and Variance of Random Variable;

Unit 3: Moments of Random Variable

Moment Generating Functions and Various Moments of a Random variable (both discrete and continuous)

Unit 4: Probability Distributions - I

Discrete: Binomial and Poisson;

Unit 5: Probability Distribution - II

Continuous: Uniform or Rectangular Distribution – normal distribution and its properties

Unit 6: Sampling

Principle steps in a sample survey (Sample, Population, Statistic); Methods of Sampling: SRSWR, SRSWOR (Use of Random Sampling numbers); Stratified sampling; Multistage Sampling: Basic concepts

Unit 7: Statistical Inference

The Concept of a Statistic; Statistic and Parameter; Sampling distribution of a statistic; Mean and proportion

Unit 8: Theory of Estimation

Point Estimation and interval Estimation: Concepts, Properties and Applications

Unit 9: Hypothesis Testing

The Concepts of Hypothesis Testing: Various Concepts; Type 1 error; Type II error; z test; t test; Chi- square test; F test; Test for goodness of fit and Tests for independence of attributes.

Unit 10: Analysis of Variance

Concepts; Explanation; Formulae

Suggested Readings:

1. V. K. Rohatgi and A. K. M. E. Saleh, An Introduction to Probability and Statistics, 2nd Edition, Wiley (2000).
2. Jay L. Devore, Probability and Statistics for Engineers, Cengage Learning, 2010.
3. Kenny and Keeping : Mathematical Statistics, Part 1 &Part II . Publisher, Van Nostrand, 1947.
4. Goon, Gupta and Dasgupta: Fundamentals of Statistics, Vol I, The World Press Pvt. Ltd. Calcutta
5. M.R. Spiegel (2003), Theory and Problems of Probability and Statistics (Schaum Series).

Semester VII

8CC-EC-16 (DSC-16): Economic History of India (1857-1947)

Course Objectives: This course analyses key aspects of Indian economic development during the second half of British colonial rule. In doing so, it investigates the place of the Indian economy in the wider colonial context, and the mechanisms that linked economic development in India to the compulsions of colonial rule. This course links directly to the course on India's economic development after independence in 1947.

Course outcome: Learners will understand the economic history of India and its place in the world. They will learn about the economy's development and contributions in different sectors.

Course Details

Unit 1: Introduction: Colonial India

Meaning of Colonialism; Three stages of British rule in India; Basic Features of Colonialism in India

Unit 2: Macro Trends

The British Rule and the Exploitation of India; National income estimates; Nature and extent of poverty;

Unit 3: Occupational Structure

Occupational Structure in British India (1881-1951); Occupational Distribution of population; Population history in British India

Unit 4: Agriculture

Agrarian structure immediately after 1858: Landlord and Peasants; Agricultural labourers; Agricultural trends (1890-1947): Trends in output, availability and productivity; Agricultural productivity in the 19th century; Agricultural production, 1890-1947.

Unit 5: Land Tenure System in British India

Permanent Settlement, Ryotwari Settlement and Mahalwari Settlement

Unit 6: Agricultural Growth – Market Failure and Famines

Commercialization of Agriculture Phases; Causes; Consequences; Famines in British India

Unit 7: Railway

Growth of Railways and its Impact; Consequences of the British Rule in India

Unit 8: Industry

De-industrialization; Decline of Handicrafts.

Unit 9: History Of India's Foreign Trade: 1857-1947

Foreign trade; Volume of Trade; Composition of Trade; Capital flows and the colonial economy; Economic Drain

Unit 10: Economy And State in The Imperial Context

The Imperial priorities and the Indian economy; Hostile State policy to Indian interests.

Suggested Readings:

1. The economic history of India (1857-1947) : Tirthankar Roy ; Oxford University Press, 3rd edition, 2011
2. A people's history of India 28-Indian Economy 1858-1914: Irfan Habib
3. The Cambridge economic history of India Vol.I c.1200-c.1750 edited by Tapan Raychaudhuri and Irfan Habib
4. A concise economic history of India Dhires Bhattacharya
5. The Cambridge Economic History of India, Vol.II c.1757- 1970 Dharma Kumar
6. Colonialism and Indian Economy, Amiya kumar Bagchi
7. Development Planning: The Indian Experience Sukhomay Chakraborty

8CC-EC-17 (DSC – 17): Money and Financial Market

Course Objectives: This course exposes students to the theory and functioning of the monetary and financial sectors of the economy. It highlights the organization, 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 outcome: Learners will get to know useful clues about how the financial system may change overtime and how these markets provide liquidity, capital and participation that are essential for economic growth and stability.

Course Details

Unit 1: Money

Concept – various kinds of money; Functions; Measurement; Theories of money supply determination

Unit 2: Financial System

Components of Financial System; Role of financial markets; Role of institutions; Problem of asymmetric information – Adverse selection and Moral hazard; Financial crises

Unit 3: Money Market

Concept of Money market; Structure of Money Market; Functions of Money Market; Instruments of Money market; Money market reforms in India; Recent trends and Developments in the Indian Money market

Unit 4: Capital Market

Concept and Structure of Capital Markets; Importance of Capital markets; Functions of Capital Market; Instruments of Capital market;

Unit 5: Capital Market in India

Capital Market Reforms in India; Recent trends and Developments in the Indian capital market; Role of financial derivatives and other innovations

Unit 6: Interest Rates

Interest Rate Determination; Sources of interest rate differentials; Theories of term structure of interest rates; Interest rates in India

Unit 7: Theory of Commercial Banking

Concept of a Bank; Distinction between Commercial Banks and Non-Banking Financial Intermediaries; Principles of Commercial Banking; Functions of Commercial Banks; Credit creation process of Commercial Banks; Limitations of credit creation process

Unit 8: Banking System

Balance sheet and portfolio management; Indian banking system; Changing role and structure; Banking sector reforms in India

Unit 9: Central Banking and Monetary Policy

Functions of Central Bank; Balance sheet; Goals; Targets; Instruments of monetary control;

Unit 10: Central Banking and Monetary Policy in India

Monetary management in an open economy; Recent monetary policy of India.

Suggested 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.
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.

8CC-EC-18 (DSC- 18): Introductory Econometrics

Course Objectives: After completion of the course the learner will be able to know the basics of econometrics

Course outcome: Through this course learners will get to understand the study of economic data using mathematical and statistical methods. This course is important because it provides tools to help guide decision making in economics and finance.

Course Details

Unit 1: Definition, Scope and Goals of Econometrics

What is Econometrics? Relationship between Econometrics and Economic Theory; Econometrics and statistics; Branches of econometrics; Goals of econometrics; Methodology of Econometrics Research

Unit 2: The Classical Linear Regression Model (CLRM)—I

Introduction to Regression: the CLRM; The OLS method of Estimation; The assumptions of the CLRM; Properties of the OLS estimators; The overall goodness of fit; Problems associated with R^2

Unit 3: The Classical Linear Regression Model (CLRM)—II

Multiple Regression; Qualitative (dummy) independent variables— intercept dummy and slope dummy (only interpretation of model);

Unit 4: Forecasting

Ex-post forecast and Ex-ante forecast, forecast; Error (only for two variable model)

Unit 5: Multicollinearity

Causes; Consequences; Types of multicollinearity; Tests and Remedies

Unit 6: Heteroscedasticity

Causes; Consequences; Tests and Remedies

Unit 7: Autocorrelation

Causes; Consequences; Tests and Remedies

Unit 8: Simultaneous Equations Model

Basic definition; Consequences of ignoring simultaneity; Identification Problem; Estimation of Simultaneous Equation Models; Examples

Unit 9: Dummy Variable

Dummy Variable and its uses.

Unit 10: A Linear Regression Model: Estimation of its Parameters; An Example Applications

References

1. Christopher Dougherty :Introduction to Econometrics, Oxford University Press, 3rd edition, Indian edition, 2007.
1. G.S. Maddala, Introduction to Econometrics, 3rd edition, John Wiley & Sons Ltd .2005.
3. Jan Kmenta, Elements of Econometrics, Macmillan Publishing Company (1991).
4. D. Gujarati, Basic Econometrics, McGrawhill Higher Education (2003).

5. W.H. Greene: Econometric Analysis, 4th edition, Pearson Education (2000).
- 6 D.N. Gujarati and D.C. Porter: Essentials for Econometrics, Mc GrawHill, 4th Edition, International Edition, 2009

8CC-EC-19 (DSC – 19): International Trade and Payments Institution

Course Objectives: This course focuses on development of Trade and Payments Institutions and advent of globalization since the World War II.

Course outcome: This course is important as learners will understand the factors that facilitate the global economy and promote economic growth thereby creating stability and providing financial assistance.

Course Details

Unit 1: Bretton Woods System - I

The rise of the Bretton Woods System; The high Bretton Woods System;

Unit 2: Bretton Woods System - II

The fall of the Bretton Woods System – Smithsonian Agreement and its Implications

Unit 3: The IMF

Structure of the IMF; The role and functions of the IMF; Open –economy macroeconomic Models under the IMF; Polak model of financial Programming; Alexander’s Absorption Model the Structural Adjustment Policies of the IMF; IMF and Bretton Woods: Appraisal

Unit 4: IMF and Problems of International Liquidity

SDR and its effectiveness

Unit 5: The World Bank and its Operation

Objectives, Role and Functions; Operations in Developing countries

Unit 6: GATT

What is GATT? Three characteristics of GATT negotiations; Role and Functions of GATT Prior to 1993

Unit 7: WTO and its Operations

Role and Functions of WTO; Trade Rounds and the WTO; Agriculture and the WTO; Dispute Settlement

Unit 8: WTO Agriculture and Disputes Settlements

WTO and Agriculture; WTO System for the settlement of disputes

Unit 9: World Trade Under WTO

World trade before WTO; World Trade after WTO

Unit 10: Multilateralism System under WTO

Preferential Trading agreements (PTAs); How do international trade and investment affect labour market?

Suggested Readings

1. Gramm, Teresa (2013). Development of Trade Institutions and Advent of Globalization since the World War II In Randall E. Parkar and Robert Whaples (eds.), Routledge Handbook of Major Events in Economic History (pp. 350-363). Routledge.
2. Joyce, Joseph(2013). The IMF and Global Financial Crises: Phoenix Rising? Ch.2 Cambridge University Press
3. Patrick Love and Ralph Lattimore(2010). International Trade: Free, Fair and Open? Academic Foundation, New Delhi.

8CC-EC-20 (DSC- 20): Development Economics – II

Course Objectives: This course 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 outcome: Learners will get to learn the factors that improve the standard of living of the society as a whole, create jobs, improve infrastructure, support the community and provide services.

Course Details

Unit 1: Demography and Development

Preliminary Concepts on Demography: Birth and Death rates; Age Structure; Fertility and Mortality; Demographic transitions during the process of development; Migration

Unit 2: Land Market

The distribution of land ownership; Land reform and its effects on productivity; Contractual relationships between tenants and landlords; Land acquisition

Unit 3: Labour and Credit Market

Nutrition and labor productivity; Credit Market; Informational problems and credit contracts; Micro-finance; Inter-linkages between rural factor markets.

Unit 4: Governance and Institutions

What is Good Governance? Nexus between Good Governance and Economic Development; State, market and Institution; Role of Governance; Need for Governance in organizations and in communities; Good Governances— Characteristics

Unit 5: Environment And Sustainable Development - I

What is sustainability for renewable resources? A Brief History of Environmental (Climate) Change: From 1972 First World Geneva Conference to 2015 Paris Convention; How does climate change affect the poor?

Unit 6: Environment And Sustainable Development - II

Commons or Pool Resources; Governing the Commons: Institutions for collective actions; Environmental externalities and state regulation of the environment

Unit 7: Globalization- I

Introduction: What is Globalization; Globalization in Historical Perspectives; Measurement of Globalization:

Unit 8: Globalization- II

Goods and Services Exports; FDI; Technology Diffusion; Intensity; Sensitivity; Globalization Paradox

Unit 9: Globalization and India

India in the Global Economy: Trade GDP Ratio; Mean Tariff Rate; Diversification of Exports; Product Composition of Exports; Direction of Exports; Financial Integration

Unit 10: Globalization and its Impact

Globalization and its Impacts; World Inequality; Economics and Politics of Multilateral Trade Agreements; Contagion: Financial Instability in a Globalized World

Suggested 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.

8CC-EC-21 (DSC- 21): Applied Economics

Course objective: After completion of the course the learner will be able to know how mathematical techniques are employed in different branches of economics.

Course outcome: Through this course learners will understand how to make informed decisions and improve outcomes in many areas of lives, including business, healthcare and public policies.

Course Details

Unit 1: Introduction

Subject Matter; The Approach; The Terminology

Unit 2: Demand Functions

Derivation of demand functions from utility function and budget constraint; Properties of these demand functions; Derivation of Compensated Demand Function

Unit 3: Elasticity of Demand

Price elasticity and Total expenditure; Relationships among different elasticities; Sum of income elasticities for all goods; Slutsky equation; Sum of all price and income elasticities for a single good (applying Euler's Theorem); Constant Elasticity Demand Curves

Unit 4: The Theory of Production

Production Function; Homogenous production function and its properties; Cobb Douglas Production function: Properties and applications; Derivation of different product curves from the production function

Unit 5: Optimising Behaviour of the Firm

Constrained Output maximization; Constrained cost minimization; Profit maximization; Derivation of cost functions; Euler's theorem and distribution of factor incomes

Unit 6: Market Equilibrium under Perfect Competition- I

Market Demand and Supply; Cost function and supply functions in the Short Run; Market equilibrium; Effect of Taxation; The stability of Equilibrium;

Unit 7: Market Equilibrium under Perfect Competition- II

Static approaches to stability (using first order differential equation); Dynamic equilibrium with lagged adjustment (using first order difference equation)

Unit 8: The Model of Income Determination with Multipliers - I

Equilibrium in National Income; The Model of Income determination; Cramer's Rule and its application to National Income models; Static investment multiplier; Dynamic multiplier with one period consumption lag;

Unit 9: The Model of Income Determination with Multipliers - II

Export multiplier; Government expenditure multiplier; Tax multiplier; Balanced Budget Multiplier; Money supply multiplier.

Unit 10: IS-LM Model

General equilibrium in commodity and money markets; Determination of equilibrium income and equilibrium rate of interest by Cramer's Rule; Comparative Statics; Effect of change in money supply and government expenditure in terms of generalized multipliers

Suggested Readings:

1. Peter Cassimatis Managerial Economics, Routledge, 1996.
2. Sadananda Prusty (2010) Managerial Economics, Chap 3. PHI Learning Private Limited
3. G.S Gupta(1990) Managerial Economics, Chapter 5 & 8, Tata McGraw Hil, New Delhi
4. I.M.D. Little & I.A. Mirrless(1974) Project appraisal and planning for developing countries, basic books, New York .
- 5 .Piyali Ghosh Geetika & Purba Roy Choudhury (2017) Managerial Economics , 3rd Edition, Tata McGraw Hill.

8CC-EC-22 (DSC – 22): Environmental Economics

Course Objectives: This course focuses on economic causes of environmental problems. Selected topics on international environmental problems are also discussed.

Course outcome: This course will help learners understand how to balance economic growth with environmental protection. Learners will learn about climate change, recycling and nuclear power.

Course Details

Unit 1: Introductory Discussion on Environment

Definition and elements of environment; Environment: A Social Good or a common wealth; Inter relationship between man and environment; Concept; Subject matter; Some basic features of environment

Unit 2: A Brief Discussion on Environmental Economics

History of development of environmental economics; Relation between economics and environmental economics; Different types of pollution and their control; Role of common people to maintain the standard of environment

Unit 3: The Theory of Externalities: Market Failure

Pareto Optimality in exchange of goods – Paretian distribution of factors of production; General Pareto Optimality; Externalities and its different types; Pareto Optimality and market failure in the presence of externalities; Property rights and Coase Theorem

Unit 4: Market Failure in the case of Common Property

Features of Common Property Resources (CPRs); The Tragedy of Commons – Remedies

Unit 5: The Design and Implementation of Environmental Policy - I

Overview; Pigouvian Taxes and Effluent Fees; Environmental Economics and Pollution Control Policies

Unit 6: The Design and Implementation of Environmental Policy - II

Environmental Economics; Pollution Control Policies: A. Command and Control instruments; B. Regulations or Incentive- based Instruments; Marketable Tradable (Pollution) Permits; C. Liabilities Laws in environmental cases; Why Incentive base approach is more efficient than command and control? Why Command and Control Strategy is popular? Choice between taxes and quotas

Unit 7: International Environmental Problems

Trans-boundary environmental problems; Trade and Environment

Unit 8: Economics of Climate Change - I

Climate change is a difficult area for policy-makers; A Brief History of Climate Change; The Potential Physical and Socio- Economical Consequences of Climate Change;

Unit 9: Economics of Climate Change - II

Managing “the Climate Change Problem through Emission Control, Sequestration, geo-Engineering, Mitigation and Adaptation; To what extent climate change will impact on Development?

Unit 10: Sustainable Development

Meaning; Rules; Measurement (Ref: Rabindranath Bhattacharya)

Suggested 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.
5. Molly Scott Cato, Environment and Economy, Routledge 2011

8CC-EC-23 (DSC – 23): India's Political Economy (since 1947)

Course Objectives: After completion of the course the learner will be able to know the continuity of political economy of India since Independence.

Course Outcome: Learners will have a complete idea of India's political scenario since Independence

Course Details:

Unit 1: Multiple Goals of Economic Planning

Ad hoc Economic Policies between 1947 and 1950; Social Justice under the Constitution; The Draft Outline of the Plan; Various Programmes under the First Five Year Plan

Unit 2: Dynamic Industrialization and Static Agriculture: A Contradiction - I

Economic Development Strategy under Nehru & Second Five Year Plan; Political Objectives of the Plan

Neglected Agricultural Sector;

Unit 3: Dynamic Industrialization and Static Agriculture: A Contradiction - II

Wage Goods model came as a rescue but failed; Outcome from the Second Five Year Plan

Unit 4: Attacks on Socialist Principles of Planning- I

Emergence of different political Parties; The rise of private enterprise; Third Five Year Plan and its Failure; Retreat from the Social Goals of Planning; Attempt to Restructure the Agricultural Policy during Plan holiday (1966-69);

Unit 5: Attacks on Socialist Principles of Planning- II

The Tussle between Industrial Objective and Agricultural Bourgeoisie; Emphasis on Equity, Social Justice and Self-reliance during 1969-74; Launching of Poverty Eradication programmes during Fifth Five Year Plan

Unit 6: Emergency

Emergency in 1975; Outcome from the emergencies; Indira Gandhi and her Congress Party's Electoral Defeats in 1977

Unit 7: Indira Gandhi's Bounce Back to Power

Indira Gandhi's Return to Power in 1980; Permit—license-quota Raj under her Government; A gradual move towards liberalization: Rajiv Gandhi's government (1984- 89)

Unit 8: Macroeconomic Reforms, Privatization and Liberalization

Economic Reforms after the 1991; The Political Rationale of Economic Reforms; A forward March by Private Enterprise

Unit 9: The Second Generation of Reforms and Beyond

Various Governments and their Political Role; The Breakdown of the Planning Era and the Rise of NITI Aayog; NDA government's Politico-Economic Policy; What has been achieved: Reform since 1991

Unit 10: Reflections of India's Political Economy

Collective Action Issue for Long Term Growth; Governance Ineffectiveness; Challenges before the Indian Democracy; Are Indian Democracy's weaknesses inherent?

Suggested Reading:

1. Gurucharan Das (2000). India Unbound, New York: Alfred A. Knopf.
2. Pranab Bardhan (2010). Awakening Giants, Feet of Clay: Assessing the Economic Rise of China and India, Princeton,NJ: Princeton University Press.
3. Francine R. Frankel (2005). India's Political Economy (1947-2004), Oxford University Press New Delhi.
4. Leo McCann (2014). International and Comparative Business: Foundation of Political Economies, Sage , London.
5. Rob Jenkins (1999). Democratic Politics and Economic Reforms in India. Cambridge University Press, Cambridge