# Ramakrishna Mission Residential College (Autonomous) <br> Vivekananda Centre for Research 

Ramakrishna Mission Ashrama
(A Branch Centre of Ramakrishna Mission, Belur Math, Howrah-711202) Narendrapur, Kolkata - 700 103, West Bengal, India A Scientific Industrial Research Organisation, Recognised by DST, Govt. of India College with Potential for Excellence (CPE), Re-accredited by NAAC - 'A' (CGPA 3.56 out of 4)

## Subject: Board of Studies Meeting

Date: 21.06.2018

Dear Madam/Sir,

We are pleased to inform you that you have been nominated a member of the Board of Studies of the Department of Economics of the college for the academic year 2018-19.

A meeting of the Board of Studies will be held on 06.07.2018 at 12 noon at the Department of Economics of the college.

You are hereby requested to attend the meeting. Travelling expenses will be borne by the college.

With warm regards.
Yours Sincerely,
Apurba Ghosh 21/6/2018
Apurba Ghosh
(HOD)
Head of the Department of Economics Ramakrishna Mission Residential College
(Autenomevs)
Narendrapur, Kolkata-700 103, W.B.

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# Ramakrishna Mission Residential College (Autonomous) 

## Vivekananda Centre for Research

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A Scientific Industrial Research Organisation, Recognised by DST, Govt. of India College with Potential for Excellence (CPE), Re-accredited by NAAC - 'A' (CGPA 3.56 out of 4)

## Subject: Board of Studies Meeting

Date: 28.05.2019

Dear Madam/Sir,

We are pleased to inform you that you have been nominated a member of the Board of Studies of the Department of Economics of the college for the academic year 2018-19.

A meeting of the Board of Studies will be held on 13.06.2019 at 12 noon at the Department of Economics of the college.

You are hereby requested to attend the meeting. Travelling expenses will be borne by the college.
With warm regards.
Yours Sincerely,

Apurba Ghrsk
Apurba Ghosh 28/512019
(HOD)
Head of the Department of Economics Ramakrishna Mission Residential College (Autenomous)
Narendrapur, Kolkata-700 103, W.R

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# Department of Economics 

## Syllabi Of

The courses offered by the
Department under CBCS 2018

Course Structure: Semester-wise distribution of Courses


## Programme Name : B.Sc. Economics (Hons.) <br> Programme Code : HBSECO

## Programme Specific Objective :

Upon successful completion of this specific programme offered by the Department of Economics students are expected to:

1. Have clear perspectives on emerging economic issues at the regional, national and international levels.
2. Master the theoretical and applied tools necessary to pursue higher education in Economic Sciences and be able to critique and create economic research.
3. Be adequately endowed with the ability of critical thinking, quantitative analysis and communication skill.
4. Have a distinct competitive edge in a variety of careers in the corporate world, the academia and government administrations.
5. Analyse current events and assess the likely impact of specific policies put forth by various government entities and evaluate the role played by assumptions in arguments made for and against economic and policy issues. Such competence might help them pursue higher education in related fields like business analytics and business administration, law and accountancy.

## Programme Name : Economics (Generic elective) <br> Programme Code :

## Programme Specific Objective:

Upon successful completion of this specific programme offered by the Department of Economics students are expected to:

1. Understand of the functioning of the economic system and the role of various institutions, the government and different interest groups.
2. Acquire the ability of critical thinking, quantitative reasoning and communication skill.
3. Have a basic understanding of the subject and some general awareness which might be helpful in preparing for some public examinations like UPSC and State Civil Service examinations.
4. Analyse current events and assess the likely impact of specific policies put forth by various government entities.
5. Get an opportunity to pursue higher education or research in economics sciences by switching from their own core subject after graduation.

| Marks and Paper Distribution with Credit |  |  |  |
| :--- | :---: | :---: | :---: |
| Course Type | Total <br> Papers | Credit | Marks |
| Core Courses (CC) | $\mathbf{1 4}$ | $\mathbf{1 4 * 6 = 8 4}$ | $\mathbf{1 4 * 1 0 0 = 1 4 0 0}$ |
| Discipline Specific Electives (DSE) | $\mathbf{4}$ | $\mathbf{4 * 6}=\mathbf{2 4}$ | $\mathbf{4 * 1 0 0 = 4 0 0}$ |
| Generic Electives (GE) <br> [Covering 2 Disciplines with 2 courses each. Any discipline in any <br> semester] | $\mathbf{4}$ | $\mathbf{4 * 6 = 2 4}$ | $\mathbf{4 * 1 0 0 = 4 0 0}$ |
| Ability Enhancement Compulsory Courses(AECC) | $\mathbf{2}$ | $\mathbf{2 * 2}=\mathbf{4}$ | $\mathbf{1 0 0 * 2 = 2 0 0}$ |
| Skill Enhancement Courses (SEC) | $\mathbf{2}$ | $\mathbf{2 * 2}=\mathbf{4}$ | $\mathbf{1 0 0 * 2 = 2 0 0}$ |
| Total | $\mathbf{2 6}$ | $\mathbf{1 4 0}$ | $\mathbf{2 6 0 0}$ |

Marks distribution of each Honours and Generic Elcetive paper with credit and number of lecture hours

Total Marks: Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) =100.
Total Credits: Theory (5) + Tutorial (1) = 6.
Number of Lecture Hours: Theory $=\mathbf{7 5}$ hrs.

* Number of Tutorial Contact Hours = 15 hrs

Ability Enhancement Compulsory Course (AECC)

1. Compulsory language to be taken in 1st Year.
a. Subject: English
i. Marks: 50
ii. Credit: 2
iii. Written Test at the Mid \& End Semester
b. Subject: Bengali
i. Marks: 50
ii. Credit: 2
iii. Written Test at the Mid \& End Semester
2. Environmental Studies
i. Marks in Theory : 75
ii. Credit: 3
iii. Written Test at the Mid \& End Semester
iv. Marks in Project : 25
v. Credit: 1
vi. Each Student will be required to submit a Project Report at the end of Second Semester of First Year. The Project will be an original work which may be related to the Honours Subject of the students but must be some aspect of the environmental studies. However, students may involve his own habitat while doing his Project. In the month of February students should talk to either their teacher of the Environmental Studies or the teachers of their own subject to choose the Project area. The length of the Project Report should be not less than 1500 words but not more then 3000. It may be hand written or typed. The Project must be submitted by $31^{\text {st }}$ May. Students should submit their Project Report Head of the Department and must obtain a Project Completion Certificate from the HoD.

| SEMESTER - I |  |  |
| :---: | :--- | :--- |
| CC 1 | Paper - HECO1CC01N | Credits : 5 <br> Full Marks : 65 |
|  | Paper - HECO1CC01N | Credits : 1 <br> Full Marks : 15 |
|  | Principles of Economics I |  |
| Number of classes required : 75 |  |  |
|  |  |  |
| 5 marks for Attendance |  |  |


| Evaluation | Mid-semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for | Theory: <br> Paper |
| Short questions: 25 - out of - 65. <br> Structure for <br> End <br> Lemester | Lutorial: 15 - out of - $\mathbf{- 8 0}$.. |

## Course Outcome

i. This course aims to develop an understanding of the framework that economists use to analyse choices made by individuals in response to incentives and consider how these choices can also serve the social interest. The course introduces students to models of how individuals and firms interact within markets.
ii. Students will be able to identify the determinants of various macroeconomic aggregates such as output, unemployment, inflation, productivity and the major challenges associated with the measurement of these aggregates.
iii. This course aims to develop students' abilities to construct and sustain an argument using the phrases and concepts that economists use in their deliberations. A theoretical framework is developed in which students acquire an understanding of how economic agents interact and by doing so develop the literacy and verbal communication skills necessary for presenting arguments of an economic nature.

## Group A: Theory

## GROUP A1: Microeconomic Principles I

## Module - I: Introduction to Price Theory

* Scarcity and choice; choice by command and choice by market; the role of prices in a market economy.
* Elementary concepts of demand, supply and price determination; stability of equilibrium (the Walrasian approach);
* Elasticities of demand and supply. Comparative statics.


## Module - II: Theory of Consumer Behaviour - Alternative Approaches

* Axioms of choice; indifference curves, budget constraint and consumer's equilibrium;
* Comparative statics: price - consumption, income-consumption and Engel's curves and demand elasticities; price-effect: substitution and income-effects; classification of commodities: normal, inferior and Giffen goods. Some applications: food stamp programme, inter temporal choice.
* Revealed Preference approach: weak and strong axioms of revealed preference - properties of demand function - Indexnumbers.


## Module - III: Introduction to the Theory of Firms - Production and Cost analysis

* General concept of Production function, Technology and technological efficiency Concepts of total product, average product and marginal product -Return to factor and returns to scale - Isoquants and diminishing rate of factor substitution - Elasticity of Substitution -Some examples of technology (fixed proportion, perfect substitute, Cobb Douglas Production Function, CES Production Function), general concept of homogenous production function and itsproperties.
* Optimizing behavior of firm: constrained output maximization, Expansion path in the short and the long run; Input demand and input demand function; Constrained Cost minimization.
* Costs - accounting cost, Economic / Opportunity Cost, Concept of sunk cost - Time dimension of cost - Long run cost function-Relation between expansion path and long run total cost curve - Functional coefficient and shape of long run average cost. Cost in the short run - total cost - Fixed and variable cost - Marginal cost - Average cost - Derivation of short run cost- Relation between short run and long run cost; Multi- product firm and economies of scope.


## Readings :

1) Hal R. Varian, Intermediate Microeconomics, a Modern Approach, W.W. Norton and Company/Affiliated East-West Press (India), 8 th edition, 2010.
2) C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010.
3) Hugh Gravelle and Ray Rees. Microeconomics, Prentice Hall (UK); 3rdEdition, 2004.
4) Samiran Banerjee, Intermediate Microeconomics: A Tool-Building Approach, Routledge; 1 edition (9 September 2014)
5) Pindyck, Rubinfeld \& Mehta, Microeconomics, Pearson.

## Group A2: Macroeconomic Principles I

## Module - I: Nature and Scope of Macroeconomics

* Distinction between Macroeconomics and Microeconomics- Aggregation and Macroeconomics
* Goals and Instruments of Macroeconomics
* Supply and Demand in Macroeconomics


## Module - II: Accounting Output and Income

* The Circular Flow Explication - Measuring Output - Gross National Product - Nominal GNP, Real GNP and GNP Deflator.
* The Two Approaches to measure GNP - The Final Goods Approach and Income Approach.
* Intermediate goods and value added approach
* Flow Statistics and Stock Statistics -Investment -Consumption -Capital stock
* GNP, Gross Domestic product, Net National product, National Income and Disposable Income.
* GNP and Economic Well Being


## Module - III: The Economy in the Short Run

* Simple Keynesian analysis of aggregate demand without and with the government sector, Different Multipliers
* IS-LM Model


## Readings:

1. G, Mankiw, Macroeconomics, Worth Publishers.
2. S, Sikdar. Principles of Macroeconomics. Oxford University Press
3. Dornbusch \& Fischer. Macroeconomics. McGraw Hill, Inc
4. R.E. Hall and D.H. Papell. Macroeconomics. WWW Norton. (6th edition or latest one).
5. J E Stiglitz and C E Walsh. Principles of Economics, W.W. Norton \& Company, New York (3rd or later Edition).
6. Lipsey and Chrystal. Economics. Oxford University Press. (eleventh edition or latest one).
7. P Samuelson and W Nordhaus. Economics, McGraw Hill International Editions. (14th edition or latest one)

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - I |  |  |
| :---: | :---: | :--- |
| CC 2 | Paper - HECO1CC02N | Credits : 5 <br> Full Marks : 65 |
|  | Paper - HECO1CC02N | Credits : 1 <br> Full Marks : 15 |
|  | Principles of Economics: Tools and Application I |  |
| Number of classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& |  |  |
| 5 marks for Attendance |  |  |


| Evaluation | Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) $=100$. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure for | Theory: <br> Snd <br> Semester |
| Short questions: 25 - out of -65. <br> Long questions: $40-$ out of -65. <br> Tutorial: 15 - out of -80. |  |

## Course Outcome

Upon successful completion of this course, students will be able to:
i. Organize, manage and present data.
ii. Analyze statistical data graphically using frequency distributions and cummulative frequency distributions.
iii. Analyze statistical data using measures of central tendency, dispersion and skewness.
iv. Students will understand the alternative concepts of development and their justification.
v. They would be able to identify the links between demographic growth and economic development and emergence of dual economies.

## Group A: Theory

## Group A1: Introductory Statistics I

## Module I: Data Presentation

* Classification and presentation, Population and Sample, Collection of Data - Variableand Attribute.
* Frequency distribution - Diagrammatic representation of frequencydistribution.


## Module II: Central Tendency

* Arithmetic Mean, Median and Mode (for both grouped and ungrouped data), Comparison of Mean, Median and Mode, Geometric and Harmonic Mean, Composite Mean.
* Application: Index Numbers: their concept as weighted averages, Problems in the Construction of Index Numbers, Chain Index, Cost of Living Index Number (different formulae)
* Wholesale Price Index and Cost of Living Index in India, Uses of IndexNumbers.


## Module III: Dispersion

* Range, Mean Deviation Quartile Deviation and Standard Deviation, Measures ofRelative Dispersion, Curve of Concentration.
* Measurement of Economic Inequality: Gini Coefficient and Lorenz Curve.


## Module IV: Skewness and Kurtosis

* Central and non central moments, different measures of skewness and kurtosis


## Readings:

Goon, Gupta, Dasgupta - Fundamentals of Statistics, Vol I

## Group A2: Introductory Issues in Economic Development I

## Module I: Introduction and Basic Concepts

* Nature of Development economics: economy, society and values;
* Macro-characteristics of underdeveloped economies; distinction between growth and development, Alternative measures of development -- entitlement approach and human developmentparadigm.


## Module II: Population Growth and Economic Development

* Concepts of Population: definitions of fertility, mortality, birth rates, death rates, fertility rate, life expectancy, infant mortality rate, youth dependency ratio.
* Demographic transition theories - the causes of high fertility in developing countries: the Malthusian population trap and the microeconomic household theory of fertility.


## Module III: Development, Inequality and Poverty

* Meaning of inequality; Inequality measures -- Lorenz Curve, Range, Coefficient of variation, Gini coefficient; Kuznets’ Inverted U hypothesis.
* Poverty, relative and absolute deprivation with respect to income, Poverty line; Poverty measures - Head count ratio, Poverty gap ratio, Income gap ratio, Human Poverty Index.


## Readings

1. Todaro and Smith: Economic Development, 8th Edition, Chapters 1,2 and 7.
2. Thirlwall A.P: Growth and Development, 5th Edition, Chapter 1 and 6
3. Debraj Ray: Development Economics, 2nd Edition, Chapters 2 and 9.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - II |  |  |
| :---: | :--- | :--- |
| CC 3 | Paper - HECO2CC03N | Credits : 5 <br> Two groups A and B <br> Full Marks : 65 |
|  | Paper - HECO2CC03N | Credits : 1 <br> Full Marks : 15 |
|  | Principles of Economics II |  |
| Number of classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& |  |  |
| 5 marks for Attendance |  |  |


| Evaluation | Theory: <br> Mid-semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for | Theory: |
| Paper | Short questions: 25 - out of - 65. |
| Structure for <br> End <br> Semester | Long questions: 40 - out of - 65. <br> Tutorial: 15 - out of -80. |

## Course description

i. This course aims to develop an understanding of the framework that economists use to analyse choices made by individuals in response to incentives and consider how these choices can also serve the social interest.
ii. The course introduces students to mathematical tools that are needed to build theoretical models in both Microeconomic and Macroeconomic theory.
iii. Students will be able to identify the determinants of various macroeconomic aggregates such as output, unemployment, inflation, productivity and the major challenges associated with the measurement of these aggregates.
iv. This course aims to develop students' abilities to construct and sustain an argument using the phrases and concepts that economists use in their deliberations. A theoretical framework is developed in which students acquire an understanding of how economic agents interact and by doing so develop the literacy and verbal communication skills necessary for presenting arguments of an economic nature.

## Group A: Theory

## Group A1: Microeconomic Principles II

## Module - I: Mathematical Preliminaries (Optimization Techniques)

* Unconstrained Optimization: General Structure, derivation of first order and second order conditions, envelope theorem. Applications: Profit maximization in different markets.
* Quadratic forms and definiteness; concavity, convexity, quasi-concavity.
* Constrained Optimization: General Structure with two independent variables, derivation of first order and second order conditions, envelope theorem. Second order conditions in relation to concavity and convexity.
* Applications: Utility maximization and derivation of demand function and some extensions of consumer behavior including consumption-labor choice and inter temporal choice; cost minimization and derivation of factor demand function; Slutsky equation.


## Module - II: Market Morphology

* Perfectly Competitive Market: Assumptions - Market Demand - Demand curve for an individual firm Supply function: Time dimension of supply function - very short Period, short period and long period - concept of external economies and diseconomies - Commodity Market Equilibrium - Short period (run) equilibrium of firm and industry.
* Long run supply curve - increasing, constant, and decreasing cost industry - consumer's and producer's surplus - Efficiency of Competitive market - Effects of tax - subsidy and price control.


## Readings

1. Chiang, A. C.\& Wainwright (2005) (Fourth Edition): Fundamental Methods of Mathematical Economics.
2. Hal R. Varian, Intermediate Microeconomics, a Modern Approach, W.W. Norton and Company/Affiliated East-West Press (India), 8 th edition, 2010.
3. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning, 2010.
4. Samiran Banerjee Intermediate Microeconomics: A Tool-Building Approach, Routledge; 1st edition (9 September 2014).
5. Pindyck, Rubinfeld \& Mehta, Microeconomics, Pearson.

## Group A2: Macroeconomic Principles II

## Module - I: Applying the IS-LM Model

* IS-LM and Aggregate Demand. Fiscal and Monetary Policy in terms of IS-LM Model.
* Keynesian Aggregate Supply and Classical Aggregate Supply. Short Run \& Long Run Effects of Demand Management Policies


## Module - II: ConsumptionFunction

* Consumption and Savings - Consumption, Income and Saving.
* Consumption Function, Marginal Propensity to Consume, Marginal Propensity to Save. Determinants of Consumption.
* Consumption Puzzle - LCH \& PIH


## Module - III: Unemployment

* Defining and Measuring the Unemployment Rate - Counting of Unemployed - Employed, Unemployed, Labour Force, Discouraged Workers. Okun's Law. Economic Costs of High Unemployment.
* Types of Unemployment - Frictional Unemployment and Job Search, Structural Unemployment and Cyclical Unemployment, Voluntary versus Involuntary Unemployment. Sources of Inflexibility in wages- minimum wages, unions and collective bargaining and efficiency wages.


## Module - IV: Inflation

* Definition and measurement of Inflation rate - CPI and GNP Deflator.
* Index-number problems in measuring the cost of living.
* Types of Inflation - Moderate inflation, Galloping Inflation and hyperinflation.


## Readings

1. G, Mankiw. Macroeconomics, Worth Publishers.
2. S, Sikdar. Principles of Macroeconomics. Oxford University Press
3. Dornbusch \& Fischer. Macroeconomics. McGraw Hill, Inc
4. R.E. Hall and D.H. Papell. Macroeconomics. WWW Norton. (6th edition or latest one).
5. J E Stiglitz and C E Walsh. Principles of Economics, W.W. Norton \& Company, New York (3rd or later Edition).
6. Lipsey and Chrystal. Economics. Oxford University Press. (eleventh edition or latest one).
7. P Samuelson and W Nordhaus, Economics, McGraw Hill International Editions. (14th edition or latest one)

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - II |  |  |
| :---: | :--- | :--- |
| CC 4 | Paper - HECO2CC04N | Credits : 4 <br> Full Marks : 65 |
|  | Paper - HECO2CC04N | Credits : 2 <br> Full Marks : 15 |
|  |  |  |
| Number of classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& |  |  |
| 5 marks for Attendance |  |  |


| Evaluation | Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper | Theory: <br> Short questions: 25 - out of - 65. <br> Structure <br> for End <br> Semester | | Long questions: 40 - out of - 65. |
| :--- |
| Tutorial: 15 - out of - 80. |

Upon successful completion of this course, students will be able to:
i. Develop the notion of probability followed by probability distributions of discrete and continuous random variables and of joint distributions.
ii. Understand 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.
iii. Understand the axiomatic basis for inequality measurement is used to develop measures of inequality and connections between growth and inequality.
iv. Analyse the role of the role of the state in economic development and the informational and incentive problems that affect state governance.

## Group A: Theory

## Group A1: Introductory Statistics II

Module I: Probability Theory

* Elements of Probability Theory - Sample Space, Events Meaning of Probability, Classical Definition of Probability
* The Addition Rule, The Multiplication Rule, Theorems of Total Probability, Conditional Probability and Statistical Independence
* Limitations of the Classical definition, Frequency definition, Axiomatic Approach, Bayes' Rule


## Module II: Random Variables and Probability Distributions

* Definition of random variable - discrete and continuous random variable, probability mass function and probability density functions, Expectation and Variance of random variables.
* Univariate Probability Distributions: Binomial, Poisson, Hypergeometric, Normal and Standard Normal Distribution -Mean, Variance, Skewness and Kurtosis.
* Moment Generating Functions, Limiting form of Binomial distribution (with proof), Limiting form of Poisson distribution (no proof), Importance of Normal Distribution in Statistics, Central Limit Theorem (statement only).


## Module III: Bivariate Analysis

* Definition of bivariate data, scatter diagram, covariance - measure of association - Coefficient of Simple Correlation - Properties and the method of calculation.
* Concept of rank correlation -Spearman's Rank Correlation
* Measure of influence - Simple Linear Regression - Least Squares and Normal Equations and determination of regression coefficient


## Module IV: Population Statistics

* Measurements of mortality: Crude Death Rate, Specific death Rate, Standardised deathrate, Mortality index, Infant mortality rate.
* Measurements of fertility: Crude birth rate, general fertility rate, age specific fertility rate, total fertility rate, Gross Reproduction Rate, Net Reproduction Rate.
* Life Table: its uses.


## Readings

1. Goon, Gupta, Dasgupta - Fundamentals of Statistics, Vol I, World Press Private limited
2. Mathai \& Rathie - Probability and Statistics, The Macmillan company of India Limited

## Group A2: Introductory Issues in Economic Development II

## Module I: Factors in economic development

* Land: Ownership and tenancy system - fixed rent contract and share cropping, role of agriculture in development, barriers to agricultural development and land reforms.
* Labor - Population and Labor force growth, casual and long term labor, permanent labor market.
* Capital: Role of capital accumulation in economic development; Significance ofcapital- output ratio, role of technology and technological progress, learning by doing, human capital.


## Module- II: Economic Development in a Dual Economy

* Concept of dualism; surplus labor and disguised unemployment.
* Economic development in an economy with unlimited supply of labor: Lewis model and the HarissTodaro model of rural-urban migration


## Module - III: Strategies of development

* Stages of economic growth-- Rostow's hypothesis; Vicious Circle of Poverty and the process of Cumulative Causation.
* Low level equilibrium trap, Critical Minimum Effort Thesis and the BigPush argument; Balanced and Unbalanced Growth strategies. (Arguments offered by Nurkse, Rosentein- Rodan.)


## Readings:

1. Ray Debraj: Development Economics, Chapters 6, 7,8,12 and13.
2. Thirlwall A.P: Growth and Development, 5th Edition, Chapter4.
3. Basu Kaushik: Analytical Development Economics, 2nd Edition, Chapter12.
4. Todaro and Smith: Economic Development, Chapter 6.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - III |  |  |
| :---: | :---: | :--- |
| CC 5 | Paper - HECO3CC05N | Credits : 5 <br> Full Marks : 65 |
|  | Paper - HECO3CC05N | Credits : <br> Full Marks : 15 |
|  | Microeconomics I |  |
| Number of classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& |  |  |
| 5 5 marks for Attendance |  |  |


|  | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper | Theory: <br> Short questions: 25 - out of - 65. <br> Structure <br> for End <br> Semester | | Long questions: 40 - out of - 65. |
| :--- |
| Tutorial: 15 - out of - 80. |.

## Course Outcome

On successful completion of this course, students will be able to:
i. Critically analyse and explain features and equilibrating mechanism in imperfectly competitive market and the input market using mathematical tools and diagrams.
ii. Select and apply an appropriate model to a given microeconomic problem in a logical, rigorous, and precise manner.
iii. Demonstrate a proficiency in utilising numerical and graphical techniques as well as verbal presentation of microeconomic concepts.
iv. Assess the microeconomic theories and models in terms of their policy implications, advantages and limitations.

## Group A: Theory

## Module - I: Duality in consumption and production

* Duality in the theory of consumer behavior: Indirect Utility Function, Expenditurefunction and its properties, derivation of Slutsky equation, Roy's identity.
* Properties of cost function and Shepard's lemma, duality between production and cost.
* Properties of profit function and Hotelling's Lemma, Properties of factor demand function under profit maximization, Slutsky equation for factor demands.


## Module - II: Choice under Uncertainty

* Expected utility theorem and attitude towards risk, Utility function andexpectedutility; Risk preference and risk aversion; Concept of risk premium and certainty equivalence.
* Applications: Demand for risky assets: tradeoff between risk and return; Reducing risk:Fair insurance; insurance with asymmetric information: moral hazard, adverse selection


## Module -III: Monopoly

* Sources of Monopoly power- Average Revenue and Marginal Revenue - Profit maximization - Multiple plant monopolist -Concept of monopoly power - Mark up pricing - Social Costs of monopoly power and dead-weight loss - Natural monopoly and its regulation-price regulation in monopoly
* Effects of Tax on monopoly
* Price discrimination: First, Second and Third Degree


## Module - IV: Market for Inputs

* Competitive Factor Markets - Demand for factor - One input case - Several Inputs - Market demand curve for factors -Derivation of labour supply curve - Equilibrium in a Competitive factor market - Adding-up problem.
* Factor demand in imperfect competition - Single input case - several inputs -exploitation and role of trade union.
* Rent and Quasi-rent.


## Readings

1. Hal R. Varian, Intermediate Microeconomics, A Modern Approach, W.W. Norton and Company/Affiliated East-West Press (India), 8 th edition, 2010.
2. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning(India), 2010.
3. Hugh Gravelle and Ray Rees, Microeconomics, Printice Hall (UK); 3rd Edition, 2004.
4. Samiran Banerjee, Intermediate Microeconomics: A Tool-Building Approach, Routledge; 1 edition (9 September 2014)
5. Pindyck, Rubinfeld \& Mehta, Microeconomics, Pearson.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - III |  |  |  |
| :---: | :---: | :---: | :---: |
| CC 6 | Paper - HECO3CC06N | Credits: 5 Full Marks : 65 |  |
|  | Paper - HECO3CC06N | $\begin{array}{\|l\|} \hline \text { Credits : } 1 \\ \text { Full Marks : } 15 \\ \hline \end{array}$ |  |
| Paper Title: | Macroeconomics I |  |  |
| Number of classes required : 75 |  |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \&marks for Attendance |  |  | 5 |


|  | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Evaluation <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. |
| Long questions: 40 - out of - 65. <br> Tutorial: 15 - out of -80. |  |

## Course Outcome

On successful completion of this course, students will be able to:
i. This course aims to bring you up to date with modern developments in macroeconomic theory and offer fresh perspectives on the macroeconomic challenges of the day.
ii. Have a rigorous understanding of the theories of aggregate production from the supply side.
iii. Explain the behaviour of economy in the long run along with the problems of inflation.
iv. Understand different theoretical aspects of the money market and then explain the economic foundation of the banking system and monetary policies.

## Group A: Theory

## Module - I: Theories of Aggregate supply

* Sticky Wage Model and Imperfect Information Model
* Aggregate Supply and Phillips curve, Inflation and Unemployment trade off without and with rational expectations. Mankiw Chapterl3


## Module - II: The Economy in the Long Run

* The classical analysis of the real sector-determination of employment, incomeand interest rate. Mankiw Chapter 3


## Module - III: Money and Inflation

* Quantity theory of money, seigniorage and inflation tax, Impact of Inflation - redistribution of Income and Wealth and distortions on output and prices. Correcting economic variables from inflationary effects.
* Inflation and interest rates. Mankiw, Chapter 4


## Module - IV: Demand for \& Supply of Money

* The Classical and Modern View Definition and functions of Money.
* Origins of Money including Gresham's Law
* Money and Relative Values - money as a veil, neutrality of money, money illusion, real and monetary effects and price level changes.
* Demand for money: Portfolio theory of money demand, Baumol-Tobin analysis of cash management.
* Money Creation, Models of Banking - fractional reserves, competitive banking system, money supply.
* Targets and instruments of monetary policy. G, Mankiw Chapter 18. Sikdar, Chapter 6 (79, 82-84),


## 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, PearsonEducation Asia, 9th edition, 2012

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - III |  |  |
| :---: | :---: | :---: |
| CC 7 | Paper - HECO3CCO7N | Credits: 5 <br> Full Marks : 50 |
|  | Paper - HECO3CCO7N | $\begin{array}{\|l\|} \hline \text { Credits : } 1 \\ \text { Full Marks : } 30 \end{array}$ |
| Paper Title: | Statistics |  |
| Number of classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& 5 marks for Attendance |  |  |


| Evaluation | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (50) + Practical (30) + Internal Assessment (15) + Attendance (5) = 100. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Shert questions: 12 - out of -50 and 8 - out of 50 <br> Long questions: 30 - out of -50. |

## Course Outcome

Upon successful completion of this course, students will be able to:
i. Organize, manage and present data.
ii. Analyze statistical data graphically using frequency distributions and cumulative frequency distributions.
iii. Analyze statistical data using measures of central tendency, dispersion and location.
iv. Use the basic probability rules, including additive and multiplicative laws, using the terms, independent and mutually exclusive events.
v. Translate real-world problems into probability models.
vi. Derive the probability density function of transformation of random variables.
vii. Calculate probabilities, and derive the marginal and conditional distributions of bivariate random variables.
viii. Analyze Statistical data using MS-Excel.

## Group A: Theory

## Module - I: Joint Probability Distribution

* Joint Probability Distribution - Idea of Independence, Marginal and Conditional Distribution.
* Expectation of the product of two variates.


## Module - II: Sampling Theory

* Population and Sample, Parameter and Statistic, Random Sampling - Methods of Drawing Random samples -with replacement and without replacement, Random sampling Numbers.
* Sampling Distribution, Standard Error.

Refrence: Mathai \& Rathie - Probability and Statistics Goon, Gupta, Dasgupta - Fundamentals of Statistics, Vol I

## Module - III: Sampling Distribution

* Sampling Distributions associated with Normal Population, Expectation andStandard Error of Sample Mean for with replacement and without replacement random samples,
* Chi-Square Distribution, Student t Distribution, F-Distribution (definition and important properties only-Idea of degrees of freedom.

Refrerence: Mathai \& Rathie - Probability and Statistics Goon, Gupta, Dasgupta - Fundamentals of Statistics, Volume I

## Module - IV: Classical Statistical Inference

* Estimators-Desirable properties of estimators -un-biasedness, Minimum Variance, Consistency and Sufficiency
* Point Estimation - Maximum Likelihood Estimators and their properties - Maximum Likelihood estimation of the parameters of Binomial, Poisson and Normal Distributions.
* Confidence Intervals -Testing of Hypothesis -p-Values -Type-I and Type -II Errors; Simple applications of tests for the Mean and Variance of a Univariate Normal Population.


## Refrence:

Mathai \& Rathie - Probability and Statistics Goon, Gupta, Dasgupta - Fundamentals of Statistics, Vol I

## Group B: Project work using EXCEL [Practical]

N.B.: the highlighted portion is newly added in the course vide the BoS meeting dated July 6, 2018

| SEMESTER - IV |  |  |  |
| :---: | :---: | :---: | :---: |
| CC 8 | Paper - HECO4CC08N | Credits: 5 <br> Full Marks: 65 |  |
|  | Paper - HECO4CC08N | $\begin{array}{\|l\|} \hline \text { Credits : } 1 \\ \text { Full Marks : } 15 \end{array}$ |  |
| Paper Title: Microeconomics-II |  |  |  |
| Number of classes required : 75 |  |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& marks for Attendance |  |  | 5 |


| Evaluation | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: 40 - out of - 65. <br> Tutorial: 15 - out of -80. |

## Course Outcome

On successful completion of this course, students will be able to:
i. Critically analyse and explain features market imperfections, particularly the theory of monopolistic competition and oligopoly, using mathematical tools and diagrams.
ii. Understand and explain strategic interdependence among economic actors presented through game theory.
iii. Select and apply an appropriate model to a given microeconomic problem in a logical, rigorous, and precise manner.
iv. Understand and explain the equilibrium and the equilibrating mechanism in an exchange economy and the efficiency and other desirable criteria of such equilibrium.
v. Assess the microeconomic theories and models in terms of their policy implications, advantages and limitations.


## Group A: Theory

## Module -I: Monopolistic Competition and Oligopoly

* Monopolistic Competition: Assumptions - Product differentiation and Demand curveConcept of Industry group - Equilibrium of the firm - Excess capacity and its interpretation
* Theory of Oligopoly; Simultaneous Quantity Setting: Cournot Equilibrium; Product differentiation in Bertrand model; Quantity Leadership: Stackelberg Equilibrium;Price Leadership; Collusion and Formation of Cartel; Cartel Instability, Punishment strategies and Cartel Stability.


## Module -II: Game Theory and its Applications

* General Introduction to Game Theory: its origins and classification; concept of pure strategy and mixed strategy.
* One shot game, concept of Nash equilibrium and method of dominance. Applications: Cournot model, problem of prisoner's dilemma. Repeated games and cartel instability.
* Games with sequential moves. Subgame perfect Nash equilibrium.


## Module - III: Welfare Economics and Market Failure

* Pareto optimality and welfare 2X2 Exchange: Pareto efficiency, Utility Possibility Frontier; 2X2 Production: Pareto efficiency, Production Possibility Frontier; Grand Utility Possibility Frontier; Competitive Equilibrium and Pareto efficiency.
* Market Failure under externality: Coase Theorem, scope for government. Intervention: taxes and subsidies as instruments; Pareto optimality with public goods and marketfailure.


## Readings

1. Hal R. Varian, Intermediate Microeconomics, a Modern Approach, W.W. Norton and Company/Affiliated East-West Press (India), 8 th edition, 2010.
2. C. Snyder and W. Nicholson, Fundamentals of Microeconomics, Cengage Learning (India), 2010.
3. Hugh Gravelle and Ray Rees. Microeconomics, Printice Hall(UK); 3rd Edition, 2004.
4. Samiran Banerjee Intermediate Microeconomics: A Tool-Building Approach, Routledge; 1 edition (9 September 2014)
5. Pindyck, Rubinfeld \& Mehta, Microeconomics, Pearson.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - IV |  |  |  |
| :--- | :--- | :--- | :---: |
| CC 9 | Paper - HECO4CC09N | Credits : 5 <br> Full Marks : 65 |  |
|  | Paper - HECO4CC09N | Credits : 1 <br> Full Marks : 15 |  |
|  |  |  |  |
| Macroeconomics II |  |  |  |
|  |  |  |  |
| marks for Attendance |  |  |  |


| Evaluation | Theory: <br> Mid-semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: $40-$ out of - 65. <br> Tutorial: 15 - out of - 80.. |

## Course Outcome

On successful completion of this course, students will be able to:
i. Understand different models of investment and mathematical formulations of them.
ii. Understand of modern models of economic growth, building off of the Solow Model.
iii. Learn the concepts of the steady state, convergence, and growth accounting.
iv. Follow the research on cross-country differentials in standards of living and policies aimed at improving growth and standards of living.

## Group A: Theory

## Module -I: Theories of Investment

* Business fixed investment, neo-classical approach, Tobin's q, Residential investment and accelerator model of inventories. G, Mankiw Chapter 17.


## Module -II: Economic Growth

* History of Economic Growth and Why Growth Matters.
* Importance of productivity in growth. Determinants of productivity - physicalcapital, human capital, natural resources and technological knowledge.
* Economic Growth and Public Policy - importance of saving and investment, diminishing returns and catch-up effect, foreign investment, education, property rights and political stability, free trade, population control and research and development (brief illustration in the context of Indian economic reform)
* Solow model, Golden Rule of capital, impact of changes in saving propensity, population growth and technological progress. Growth accounting and Solow residual.
* Endogenous Growth Theory (introduction). Mankiw, Chapters7,8


## Texts

1. N. Gregory Mankiw, (2000), Macro-Economics, 4th Edition or latest, Macmillan.
2. Soumen Sikdar. Principles of Macroeconomics. Oxford University Press.
3. Dornbusch \& Fischer. Macroeconomics. McGraw Hill,Inc
4. R.E. Hall and D.H. Papell. Macroeconomics. WWW Norton. (6th edition).
5. Richard Froyen. Macroeconomics. Pearson Education. (9th edition or the latest).

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - IV |  |  |
| :--- | :--- | :--- |
| CC 10 | Paper - HECO4CC10N | Credits : 5 <br> Full Marks : 65 |
|  | Paper - HECO4CC10N | Credits : 1 <br> Full Marks : 15 |
|  |  |  |
| Development Economics |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& |  |  |
| 5 |  |  |


| Evaluation | Theory: <br> Mid-semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: 40 - out of - 65. <br> Tutorial: 15 - out of - 80. |

## Course Outcome

On successful completion of this course, students will be able to:
i. Provide a critical reading of the current literature on the empirical microeconomics of development.
ii. Carry out the different measurements of poverty and inequality, and understand the pros and cons of the different measurements.
iii. Understand different characteristics of world demographics and explain how population growth affects other economic circumstances.
iv. Analyse how economic growth affects production, employment and environment and possible countervailing strategies.
v. Explain how trade plays an important role in economic development.

## Group A: Theory

## Module - I: Gender and Development

* Aspects of gender inequality, Concept of missing women and poverty of femaleheaded household.
* Women Agencies and Institutions of microcredit.
* Gender related development indices.


## Module - II: Growth and Development

* Endogenous growth models and evidence on the determinants of growth.
* Development as a coordination failure.
* Concept of multiple equilibria.


## Module -III: Market and the State

* Market failure and Justification for government policy.
* The nature of and rationale for development planning - the crisis in planning: the problems of implementation and plan failure - decentralization and role of the state.
* Government failure and the resurgent preference for market over planning- roleand limitations of the market inLDCs.

Module - IV: Environmental Economics

* Environmental accounting.
* Tragedy of commons and market interventions, Sustainable development, Environmental Kuznets' curve.


## Module - V: Trade and Development

* Trade as an Engine of growth; Gains from Trade - static, dynamic and vent for surplus
* Prebisch doctrine, Prebisch-Singer hypothesis and Terms of Trade.


## References:

1.Todaro and Smith: Economic Development, Chapter 6, 8 and10.
2. Meier and Rauch: Leading Issues in Economic Development, 7th Edition, Chapter VD.
3.Hayami Y.: Development Economics, 2nd Edition, Chapter7.4
4. Bhattacharya R.N.: Environmental Economics, 1st Edition, Chapter 1, 2 and5.
5. Thirlwall A.P: Growth and Development, 5th Edition, Chapter15.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - V |  |  |
| :--- | :--- | :--- |
| CC 11 | Paper - HECO5CC11N | Credits : 5 <br> Full Marks : 65 |
|  | Paper - HECO5CC11N | Credits : <br> Full Marks : 15 |
|  |  |  |
| International Economics |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& |  |  |
| 5 |  |  |


|  | Theory: <br> Mid-semester: 30 <br> Marks. End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = <br> 100. Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: 40 - out of - 65. <br> Tutorial: 15 - out of - 80. |
|  |  |
| Course outcome |  |

On successful completion of this course students will be able to:
i. Understand, at the level of formal analysis, the major models of international trade and be able to distinguish between them in terms of their assumptions and economic implications.
ii. Understand the principle of comparative advantage and its formal expression and interpretation within different theoretical models.
iii. Apply partial equilibrium and (where required) general equilibrium models in analysing the economic effects of trade policy instruments, retaliatory measures such as anti-dumping duties and countervailing duties and the creation of regional trading arrangements such as free trade areas, customs unions and common markets.
iv. Critically analyse the main arguments for protection and conversely be able to critically evaluate the relevance and realism of arguments for free trade, taking into account the costs and benefits of trade policy measures on different sections of the community and the implications for the formulation of trade policy.

## Group A: Theory

## Module -I: Basic Models of Trade

* Ricardian Model: Comparative advantage.
* One factor economy: production possibility frontier, relative demand and relative supply and autarkic terms of trade.
* Trade in Ricardian world: determination of international terms oftrade, complete specialiszation, gains from trade.

Texts: International Economics: Paul R. Krugman, Maurice Obstfeld, (8th Ed.) Chapter 2, Pearson Education

## References

1. World Trades and Payments: Caves, Frankel, Jones (9th Ed.)Chapter 3, Pearson Education
2. International Economics: Dominick Salvatore (8th Ed.) Chapter 2, WileyIndia.

## Module -II: Resources, Comparative Advantage, and Income Distribution

* Model of two factor economy: Assumptions, Factor prices and commodity prices (StolperSamuelson effect)-correspondence, Resources \& output, Rybzynski effect.
* Effects of International Trade between two factor economies, Relative prices and the pattern of Trade, Trade and distribution of Income, Factor Price Equalization.
* Empirical studies - Leontief Paradox.


## Texts:

International Economics: Paul R. Krugman, Maurice Obstfeld, Chapter 4(8th Ed.), Pearson Education

## References:

International Economics: Dominick Salvatore (8th Ed.) Chapter 5, Wiley India World Trades and
Payments: Caves, Frankel, Jones (9th Ed.) Chapter 6, Pearson Education

## Module -III: The Standard Trade Model

* Production Possibilities and relative supply, relative prices and demand, welfare effects of changes in terms of trade, determining relative prices.
* Economic growth: shift of RS curve, growth and production possibility frontier, RS and terms of trade, International effects of growth, International transfers of income: shifting RD curve, Transfer problem, effects of transfer on terms of trade, Tariffs and export subsidies.
* Offer curves: Derivation, International Equilibrium.


## Texts:

## References:

International Economics: Dominick Salvatore (8th Ed.) Chapter 3, Wiley India.

## Module -IV: Trade Policies

* Partial equilibrium analysis: Tariff- cost and benefit, effective rate of protectionand intermediate goods, quota, tariff- quota equivalence and nonequivalence, export subsidy, voluntary export restraint.
* General Equilibrium Analysis: Distinction between small and large open economy, welfare effects of tariff in a small country, optimum tariff for large open economy, Metzler's paradox.
* Tariff \& Import Quotas in presence of monopoly.


## Texts:

International Economics: Paul R. Krugman, Maurice Obstfeld, Chapter 8 (8th Ed.), Pearson Education

## References:

International Economics: Dominick Salvatore (8th Ed.) Chapter 8, Wiley India
World Trades and Payments: Caves, Frankel, Jones (9th Ed.)Chapter 10, Pearson Education.

## Module -V: Accounting, Income Determination and Exchange Rates

* Balance of payment accounts; national income accounting in an open economy; monetary account;
* Determination of national Income, multiplier analysis, the transfer problem, introduction of foreign country and repercussion effect.
* Exchange Rate Concepts, Determination of Exchange Rate - fixed and flexible, Importance of Foreign Currency Reserves with reference to India, Domestic Adjustment, BOP Crisis and Speculative Attack, Internal and External Balance under Fixed Rate, Advantages of Flexible exchange and Fixed Rates., Marshall-Lerner condition, J-curve effect.
* Foreign exchange market reform in India, relation of Devaluation with purchasing power parity and inflation, purchasing power parityprinciple.
* IS-LM model without capital flows, Open economy with capital flows - the MundellFleming Model. S, Sikdar Chapter7.


## Texts:

International Economics: Paul R. Krugman, Maurice Obstfeld, Chapter 12(8th Ed.), Pearson Education (for $5.1 \& 5.2$ )

International Economics: Dominick Salvatore (8th Ed.) Chapter 16, 17 Wiley India

## References:

Open Economy Macroeconomics: R Dornbusch, (International Students Edition), Basic Books, New York.

World Trades and Payments: Caves, Frankel, Jones (9th Ed.) Chapter16, Pearson Education.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - V |  |  |
| :--- | :--- | :--- |
| CC 12 | Paper - HECO5CC12N | Credits : 5 <br> Full Marks : 65 |
|  | Paper - HECO5CC12N | Credits : <br> Full Marks : 15 |
|  | Public Economics |  |
| Number of classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& |  |  |


| Evaluation | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) $=100$. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: 40 - out of - 65. <br> Tutorial: 15 - out of - 80. |
| Course Outcome |  |

On successful completion of this course students will be able to:
i. Understand government policies through the lens of economic efficiency and equity and how they are connected to the theory of welfare economics and are ultimately used as a tool to improve social welfare.
ii. Analyse in a proper framework whether or not the government should participate in markets and to what extent it should do so particularly in the contexts of market failures caused by the problems of externality and public goods.
iii. Understand the normative basis of taxation and government expenditures and their varying roles.
iv. Analyse policy challenges facing governments around the world and learn to find solutions to these challenges, taking into account obstacles to implementation;

## Group A: Theory

## Module--I: Introduction to Public Economics

* The nature, scope and significance of Public Economics
* Forms and Functions of Government; Different forms of government - unitary and federal. Tiers of government in the federal form- Central, State, Local (Introductory discussion with examples); Functions of Government - Economic functions -allocation, distribution and stabilization; Regulatory functions of the Government and its economicsignificance.
* Tools of Normative Analysis: First Fundamental Theorem of Welfare Economics, Second Fundamental Theorem of Welfare Economics, Market failure: market power, nonexistence of markets (asymmetric information, externality, public goods)
* Tools of Positive Analysis: Difficulty in determining the effects of economic policy; Attempts of empirical research to measure both the direction and size of the effect of government policy.


## Module--II: Economics of Market Failure

* Externalities: The nature of externalities; Correcting externalities; Bargaining and the Coase Theorem; Pigouvian Tax scheme and practical problems in estimating the marginal damage function, Pigouvian Subsidies and their impact; Creating a market: pollution permits; Regulation: - and their Implications for income distribution.
* Public Goods and Public Sector Concept of public goods-characteristics of public goods, national vs. local public goods, determination of provision of public good; Provision versus production of public goods; Market failure and public provision. Pricing of public goodsvertical summation


## Module--III: Political Economy

* Direct democracy: Unanimity rule and Lindahl pricing model for provision of efficient quantity of public goods, Problems of Lindahl Method.
* Public Choice: Majority voting rule, Condorcet Criterion, Borda Count, single-peaked preferences and multi-peaked preferences, The Median voter theorem; Logrolling systems allowing people to trade votes; Arrow's Impossibility Theorem.


## Module - IV: Tax Analysis

* Taxation: Concept of tax, types of tax - direct tax and indirect tax, canons of taxation, subsidy, transfer policy.
* Tax structure: Partial equilibrium models: unit and ad valorem taxes, taxes on factors, Taxation and efficiency: Excess burden of taxation,
* Personal taxation and behavior: Effects of income tax on work effort; saving and risk bearing (just brief ideas).

Text: Rosen and Gayer: Public Finance, 8th Edition.

## Reference:

1) Stiglitz: Economics of Public Sector
2) Hindriks and Myles: Intermediate Public Economics.
3) Musgrave and Musgrave: Public Finance in Theory and Practice
4) Gravelle and Rees: Microeconomics ((Pearson Education), 2nd Edition.
5) Ghosh and Ghosh : Public Finance

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - VI |  |  |  |
| :--- | :--- | :--- | :---: |
| CC 13 | Paper - HECO6CC13N | Credits : 5 <br> Full Marks : 65 |  |
|  | Paper - HECO6CC13N | Credits : 1 <br> Full Marks : 15 |  |
|  | Mathematical Economics |  |  |
| Number of classes required : 75 |  |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& |  |  |  |
| 5 |  |  |  |


| Evaluation | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: 40 - out of - 65. <br> Tutorial: 15 - out of -80. |

## Course outcome

Having successfully completed this module a student will be able to:
i. Solve static constrained optimization problems involving multi-variable functions.
ii. Solve problems involving variables that discretely and continuously grow over time, and compute present discounted values, future compounded values, and rates of growth.
iii. Solve problems of economic dynamics through difference and differential equations.
iv. Manipulate exponential and logarithmic functions and solve problems involving such functions.
v. Solve problems of convergence and the long run relation between inflation and unemployment in mathematical terms.

## Group A: Theory

## Module - I: Theory of static optimization

* Output maximization, Cost minimization, Homogeneous and homothetic production functions, Elasticity of substitution, CES production function, Relationship between average cost and marginal cost, Factor demand curves, output elasticity, Analysis of firms in competitive equilibrium and monopoly, imposition of taxes, Analysis of factor demands in the long run.
* Numerical problems from Utility maximization, Lagrangean multiplier, Indirect Utility function, Roy's Identity, Derivation of Slutsky's equation, Slutsky's Equation in elasticity form, Compensated demand curve, Different forms of Utility Function-Separable, quasilinear, homogeneous and Homothetic. Labour-leisure choice.
* Application of Cramer's rule; IS-LM Model, Stolper-Samuelson Theorem, Rybczynski Theorem.


## * Static Leontief system

## Module - II: Economic Dynamics

* Techniques of integration: Definite and indefinite integral. Applications: Consumer surplus, producer surplus, presents value, investment and capital stock, marginal cost and total cost.
* Difference equations and its applications: First order non-homogenous linear difference equation: Cobweb Model, market model with inventory, stability in S.K.M, partial adjustment model of energy demand.
Second Order non-homogenous linear difference Equation: Samuelson's model of Multiplier-Accelerator interaction. Differential Equations and its applications.
* First order non-homogenous linear differential equation: Excess demand functions and price adjustment, output adjustment and stability in S.K.M, Solow growth model.
Second order non-homogenous linear differential equation: Price adjustment and time path of price (basic demand-supply framework with (a) inventories and (b) entry and exit); Inflation unemployment trade off.


## Readings:

1. Alpha C. Chiang \& Kevin Wainwright: Fundamental Methods of Mathematical Economics
2. Henderson and Quandt.

## Reference:

1. Silberberg \& Suen.
2. Caves, Jones and Frankel.
3. Simon \& Blum, Chapter 22 Section 22.1
[^0]
## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - VI |  |  |
| :---: | :---: | :---: |
| CC | Paper - HECO6CC14N | Credits: 5 <br> Full Marks: 65 |
| 14 | Paper - HECO6CC14N | Credits: 1 <br> Full Marks: 15 |
| Paper Title: | Indian Eco | y II (1991 Onwards) |
| Number of classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& 5 marks for Attendance |  |  |


| Evaluation | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: $40-$ out of - 65. <br> Tutorial: 15 - out of - 80.. |

## Course outcome

On completion of the course students will be able to:
i. Develop ideas of the basic background of the economic reform in India since 1991 and its consequences.
ii. Understand post reform performance of Indian economy, with various compulsions and constraints working upon it.
iii. Analyse in detail the post- reform performance of agriculture, industry and the service sector, and their impact upon different social indicators like poverty and inequality.
iv. Analyse the different policy issues regarding some issues like land acquisition, migration, urbanization and demographic dividends.

## GROUP A: Theory

## Module - I: Economic Reform in India Since 1991

* Background of Indian Economic Reforms - New Economic Policy. Redefining India's development strategy. Changing Role of State and Market. Rangarajan in Uma Kapila, Chapter 5. Economic Survey 2009-10, Chapter 2 (21-24). Uma Kapila, Chapter20.
* Industrial Policy, Disinvestment policy and Privatization. Basu and Maertens (page 141146, 350-354, 366-371). Rangarajan in Uma Kapila, Chapter 21. Ahluwalia in Sachs, Varshney and Bajpai.
* Financial sector reforms including banking reform. Monetary Policy of RBI. Basu and Maertens (246-251, 219-225, 255-261). Joshi and Little, Chapter 4. Ahluwalia in Sachs, Varshney and Bajpai.
* Fiscal Policy Reform - tax reform, debt management, FRBM act and subsidies. Basu and Maertens (357-366, 141-146), Vijay Joshi in Ahluwalia and Little (ed). Ahluwalia in Sachs, Varshney and Bajpai.
* External sector reforms: Foreign Exchange market, balance of payments, reform, convertibility, Export-Import policy, foreign direct investment. Basu and Maertens (280299, 305-307). Uma Kapila Chapter 24. Ahluwalia in Sachs, Varshney and Bajpai.


## Module - II: Agriculture, Poverty and Social Security

* Post-reform Agricultural Performance and its Crisis. Basu and Maertens (59-65, 83-86). Mahendra Dev, Chapter 2. Rao and Jeromi in Uma Kapila, Chapter 13. Vaidyanathan in Uma Kapila, Chapter14.
* Poverty and exclusion, NREGA, social security for unorganized workers and forest policy. Basu and Maertens (543-555, 110-113, 428-431, 86-89). Mahendra Dev Chapters 4 and 8. Vaidyanathan in Uma Kapila, Chapter 33.


## Module - III: Post-reform performance of Indian Economy

* Appraisal of Indian Economic Reform. India's Growth Experience. Uma Kapila Chapter 29. Basu and Maertens (24-32). Ahluwalia 2002. Ahluwalia in Sachs, Varshney and Bajpai.


## Module - IV: Indian economy: Some Current and Future Issues

* Mahendra Dev, Introduction. Economic Survey 2009-10, Chapter 2(21-24).
* Growth of the Service Sector. Basu and Maertens (205-215). M Rakshit2007.
* Food security, Food Procurement and Public Distribution System. Basu and Maertens (484489, 561-565). Mahendra Dev Chapter 3 (43-46, 62-66), Chapter 5. Hanumantha Rao in Uma Kapila, Chapter 15. Economic Survey 2009-10, Chapter 8 (198-204) (or latest issues).
* Migration and Urbanization. Basu and Maertens (443-447). Agarwal, Chapter 7(86-101)
* Land acquisition, SEZ and Industrialisation. Basu and Maertens (103-109, 164-68), Aradhana Agarwal 2006, Swapna Banerjee-Guha2008.
* Demographic dividend. Basu and Maertens (415-421). Chandrasekhar, Ghosh and Roy Choudhury (2006). Uma Kapila, Chapter 9.


## Texts:

1. K. Basu and A. Maertens. The Concise Oxford Companion to Economics in India.
2. Uma Kapila (ed). India's Economic Development Since 1947 (3rd Ed. or latest version), Academic.
3. S. Mahendra Dev, 2007, Inclusive Growth in India. Oxford University Press.
4. Agarwal, A.N. 2003, Indian Economy: Problems of Development and Planning (29th Edition)

## References:

1. M.S. Ahluwalia. 2002. "Economic Reforms in India since 1991: Has Gradualism Worked?" The Journal of Economic Perspectives, Vol. 16, No.3.
2. I.J. Ahluwalia \& I.M.D. Little (ed.). 1999. India's Economic Reforms and Development, Essays in honour of Manmohan Singh, Oxford University Press, New Delhi.
3. V. Joshi and I.M.D. Little. India' Economic Reforms 1991-2001. Oxford University Press.
4. M Rakshit. 2007. "Services-led growth: The Indian Experience" in Money and Finance,February.
5. C.P. Chandrasekhar, J. Ghosh and A Roy Choudhury. 2006. "The Demographic Dividend and Young India's Economic Future," in Economic and Political Weekly,9 December.
6. G S Bhalla. 2004. Globalisation and Indian Agriculture: State of the Indian Farmer. Academic Publishers: New Delhi.
7. Government of India (annual) Economic Survey of India (Current years), alsosee Economic Survey 2009-10, Chapter 2.
8. Aradharna Agarwal. 2006. Special Economic Zones: Revisiting the PolicyDebates. Economic and Political Weekly. November4.
9. Swapna Banerjee-Guha. 2008. Space Relations of Capital and Significance of New Economic Enclaves: SEZs in India. Economic and Political Weekly. November 22.
10. J. Bhagwati. India in Transition. Clarendon Press.
11. J. Sachs, A Varshney and N Bajpai (ed). India in the Era of Economic Reform.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

## Discipline Specific Electives (DSE)

| SEMESTER - V |  |  |
| :--- | :--- | :--- |
| DSE 1 | Paper - HECO5DS11N | Credits : 5 <br> Full Marks : 65 |
|  | Paper - HECO5DS11N | Credits : 1 <br> Full Marks : 15 |
|  |  |  |
| Econometrics |  |  |
| Number of theory classes required : 75 |  |  |
|  <br> 5 marks for Attendance |  |  |


| Evaluation | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) $=100$. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. |
| Long questions: $40-$ out of - 65. <br> Tutorial: 15 - out of - 80. |  |

## Course outcome

On successful completion of the course, a student should be able to:
i. Explain core concepts and techniques in econometrics, with a special focus on the classical linear regression model.
ii. Students will learn the basics of ordinary least squares model estimation, with its advantages and disadvantages.
iii. Understand the assumptions upon which different econometric methods are based and their implications.
iv. Interpret and critically evaluate applied work and econometric findings.

## Group A: Theory

## Module - I: Econometrics

* Classical Linear Regression Model (CLRM): Specification of the Model-AssumptionsLinearity in variables and parameters, Estimation of the Error Variance
* Gauss Markov Theorem, Goodness of fit: R square -Coefficient of Determination
* Inference in the Linear Regression Model- Confidence interval for the parameters and the Testing of Hypotheses -Prediction with the Simple Regression model.
* Concepts of Heteroscadasticity and Autocorrelation problems.


## Module - II: Time Series Data

* Time Series: Introduction, Components.
* Measurements: Secular Trend (Free hand curve fitting, Moving averages, fitting mathematical curves), Seasonal fluctuation (monthly averages, ratio to moving averages, ratio to trend)


## Text:

1. Goon, Gupta, Dasgupta - Fundamentals of Statistics, Vol I \& II, World Press Private Limited
2. Mathai \& Rathie-Probability and Statistics, The Macmillan Company of India Limited
3. G.S. Maddala - Introduction to Econometrics. Wiley Publishers (Indian edition).
4. D. Gujarati - Basic Econometrics, Tata McGraw-Hill Publishing Company Limited

## References:

1. Earl K. Bowen \& Martin K. Starr, Basic Statistics for Business and Economics, McGraw Hill, International Student Edition.
2. G.S. Maddala - Introduction to Econometrics

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

## OR

| SEMESTER - V |  |  |
| :---: | :---: | :---: |
| DSE 1 | Paper - HECO5DS12N | Credits: 5 Full Marks: 65 |
|  | Paper - HECO5DS12N | $\begin{aligned} & \hline \text { Credits : } 1 \\ & \text { Full Marks : } 15 \end{aligned}$ |
| Paper Title: Money and Banking* |  |  |
| *This is a new course added vide the BoS meeting dated June 13, 2019. |  |  |
| Number of theory classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& 5 marks for Attendance |  |  |


| Evaluation | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) $=100$. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: 40 - out of - 65. <br> Tutorial: 15 - out of -80. |

## Course Outcome

Upon successful completion, students will have the knowledge and skills to:
i. Understand the theory and functioning of the monetary and financial sectors of the economy and several key models and concepts of monetary economics and banking theory.
ii. Understand simple articles concerned with monetary economics and banking theory.
iii. Apply to current events key models and concepts of monetary economics and banking theory.
iv. Appreciate the potential importance of monetary phenomenon in Indian economy

## Group A: Theory

## Module -I: Money Concept, functions, measurement

* Theories of money supply determination.


## Module -II: Financial Institutions, Markets, Instruments and Financial Innovations

* Role of financial markets and institutions; problem of asymmetric information - adverse selection and moral hazard; financial crises.
* Money and capital markets: organization, structure and reforms in India; role offinancial derivatives and other innovations'


## Module -III: Interest Rates Determination

* Sources of interest rate differentials; theories of term structure of interest rates; interest rates in India.


## Module -IV: Banking System

* Balance sheet and portfolio management.
* Indian banking system: Changing role and structure; banking sector reforms.


## Module -V: Central Banking and Monetary Policy

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


## 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, 5thedition, 2011.
6. M. Y. Khan, Indian Financial System, Tata McGraw Hill, 7th edition, 2011.
7. N. Jadhav, Monetary Policy, Financial Stability and Central Banking in India, Macmillan, 2006.
8. R.B.I. - Report of the Working Group: Money Supply Analytics and Methodology of Compilation, 1998.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - V |  |  |
| :---: | :---: | :---: |
| DSE 2 | Paper - HECO5DS21N | $\begin{array}{\|l\|} \hline \text { Credits : } 5 \\ \text { Full Marks : } 65 \\ \hline \end{array}$ |
|  | Paper - HECO5DS21N | Credits: 1 Full Marks : 15 |
| Paper Title: | Indian Economy I (1947-1991) |  |
| Number of theory classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& 5 marks for Attendance |  |  |


| Evaluation | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) $=100$. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: $40-$ out of - 65. <br> Tutorial: 15 - out of -80. |

## Course Outcome

On successful completion of this course, students will be able to:
i. Analyse major trends in economic indicators and policy debates in India in the postIndependence period.
ii. Understand and analyse the main objectives of and compulsions in Indian Planning exercise along with its paradigm shifts and turning points
iii. Analyse the pattern of sectoral economic growth and associated policies adopted for agricultural and industrial development

## Group A: Theory

## Module -I: Indian Economy at the time of Independence

* Features of Indian Economy around 1947-1950 and characteristics of economic underdevelopment of India (with reference to colonial rule of India) Bipan Chandra in Jalan (ed). Uma Kapila, Chapter1.


## Module -II: Planning: Evolution of India's Development Goal and Strategy

* The background and Structure of Indian Planning. Uma Kapila, Chapters 1 and 2. Chakravarty, Chapterl.
* Structural Constraints and India's development strategy - Choice of industrialization strategies - public vs. private sector, capital goods versus consumer goods -Mahalanobis Plan Model (basic argument), import substitution vs. export promotion strategy. Uma Kapila, Chapter 3. Chakravarty Chapters 2 and 5 (page69-75).
* Poverty Eradication, foreign aid and self-reliance - Fifth Five Year Plan Model(basic argument) Chakravarty, Chapter 3. Wadhwa Chapters 5 and7,
* Regional inequality in India - causes; policies for balanced regional development. Chakravarty Chapter 4 (45-52).
* Planning deficiencies and its abandonment-7th five year plan and Indian economic crisis. Chakravarty Chapter 4 (39-44). Bardhan in Jalan(ed).
* New Economic Policy - liberalisation, market and state (introduction) Rangarajan in Uma Kapila, Chapter 5. Uma Kapila, Chapter 20. Bardhan in Jalan(ed).


## Module -III: Land and Agriculture

* Land and tenancy system- sharecropping- Different dimensions of Land ReformProductivity Debate - Marketable Surplus. S.K. Ray in Uma Kapila, Chapter 12. Wadhwa Chapters 19, 20, 21, 22, 23 and31.
* Green Revolution - features of green revolution - positive and negative impacts of green revolution. Performance of Indian agriculture. Vaidyanathan. 1994. Chakravarty Chapter 3 (24-27). Wadhwa Chapters 29 and30.
* Agricultural Policies and Pricing - Agricultural Price commission - support price vs. procurement price - Public investment in agriculture - agricultural subsidies and tax. Hanumantha Rao in Jalan (ed). Uma Kapila Chapter 11. Wadhwa Chapters 24, 25,26 and27.


## Module -IV: Industrial Developments: Evolution, Trade and Policy

* Structure and composition of Industry - issues of concentration, large versus small industry -industrial location. Small scale reservation policy. Trends and patterns of industrial growth. Uma Kapila, Chapter 18. Rakesh Mohan in Jalan (ed).
* Foreign trade regime, protection and foreign competition, Productivity; import substitution versus export Competitiveness, effect on export competitiveness.

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UmaKapila, Chapter 18. T.N. Srinivasan in Uma Kapila, Chapter 25. Rangarajan in UmaKapila, Chapter 26. Industrial Policies - Industrial licensing system. Uma Kapila, Chapter 18. Rakesh Mohan in Jalan (ed). Wadhwa Chapter16.
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## Module -V: Employment, Wages and Inflation

* The trends and pattern of employment and wages in India - informalisation and tertiarisation of employment - problems of unemployment and underemployment
* Government policies on employment and wages and employment - employment guarantee scheme - minimum wage. Movement of prices in India - -trends and patterns - causes, consequences and policies adopted. Papola in Jalan (ed.), Visaria in Jalan (ed). Zagha in Sachs,Varshney and Bajpai (ed.).


## Texts:

1. Uma Kapila (ed). India's Economic Development Since 1947 (3rd Ed. or latest version).Academic.
2. S Chakraborty. 1987. Development Planning: The Indian Experience. Clarendon Press.
3. Vaidyanathan A.1994. Performance of Indian Agriculture since Independence in Kaushik Basu (ed.) Agrarian Question, Oxford University Press.
4. Bimal Jalan (ed.) The Indian Economy: Problems and Prospects Penguin.

## References:

1. C D. Wadhwa. Some problems of India's Economic Policy, Tata McGraw Hill.
2. J.Sachs, AVarshney and N Bajpai(ed). India in the Era of Economic Reforms. Oxford University Press.
3. I. Judge Ahluwalia. 1985. Industrial Growth in India since the Mid-sixties. Oxford University Press.
4. P.C. Joshi. 1975. Land Reforms in India: Trends and Perspectives. Allied Publishers: New Delhi.
5. Pramit Chaudhuri. 1979. Indian Economy: Poverty and Development. George Allen and Unwin, London.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

## OR

| SEMESTER - V |  |  |
| :--- | :--- | :--- |
| DSE 2 | Paper - HECO5DS22N | Credits : 5 <br> Full Marks : 65 |
|  | Paper - HECO5DS22N | Credits : 1 <br> Full Marks : 15 |
|  | Financial Economics |  |
| Number of theory classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& |  |  |
| 5 marks for Attendance |  |  |


|  | Theory: <br> Mid-semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of -65. <br> Long questions: $40-$ out of - 65. <br> Tutorial: 15 - out of - 80. |

## Course Outcome

On successful completion of this course, students will be able to:
i. Analyse how risk-averse investors can construct portfolios to maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward.
ii. Understand the functioning of banking and capital market of the economy.
iii. Describe, apply and criticize single and multiple factor models of risk and return.
iv. Identify and describe the risks of managing portfolios of fixed income securities.
v. Describe and explain the causes of financial instability and financial crises. understand how security prices are determined in the Capital Asset Pricing Model, and the role played by the assumptions in the model.

## Group: A

## Module -I: Investment Theory and Portfolio Analysis

Deterministic cash-flow streams Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed-income securities; bond prices and yields; interest rate sensitivity and duration; immunisation; the term structure of interest rates; yield curves; spot rates and forward rates.

* Single-period random cash flows Random asset returns; portfolios of assets; portfolio mean and variance; feasible combinations of mean and variance; mean-variance portfolio analysis: the Markowitz model and the two-fund theorem; risk-free assets and the one-fund theorem.
* CAPM The capital market line; the capital asset pricing model; the beta of an asset andofa portfolio; security market line; use of the CAPM model in investment analysis and as a pricing formula.


## Module -II: Options and Derivatives

Introduction to derivatives and options; forward and futures contracts; options; other derivatives; forward and future prices; stock index futures; interest rate futures; the use of futures for hedging; duration-based hedging strategies;

* Option markets; call and put options; factors affecting option prices; put-call parity; option trading strategies: spreads; straddles; strips and straps; strangles; the principle of arbitrage; discrete processes and the binomial tree model; risk-neutral valuation.


## Module -III: Corporate Finance

Patterns of corporate financing: common stock; debt; preferences; convertibles;

* Capital structure and the cost of capital; corporate debt and dividend policy; the Modigliani Miller theorem.


## N.B.: The highlighted portion of the syllabus is newly added vide the BoS meeting dated June 13, 2019.

## Readings:

2. David G. Luenberger, Investment Science, Oxford University Press, USA, 1997.
3. Hull, John C., Options, Futures and Other Derivatives, Pearson Education, 6th edition, 2005.
4. Thomas E. Copeland, J. Fred Weston and Kuldeep Shastri, Financial Theory and Corporate Policy, Prentice Hall, 4th edition, 2003.
5. Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance, McGraw-Hill, 7th edition, 2002.
6. Stephen A. Ross, Randolph W. Westerfield and Bradford D. Jordan, Fundamentals of Corporate Finance. McGraw-Hill, 7th edition, 2005.
7. Burton G. Malkiel, A Random Walk Down Wall Street, W.W. Norton \& Company, 2003.
8. William Sharpe, Gordon Alexander and Jeffery Bailey, Investments, Prentice Hall of India, 6th edition, 2003.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - V |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
| DSE 2 | Paper - HECO5DS23N | Credits : 5 <br> Full Marks : 65 |  |  |
|  | Paper - HECO5DS23N | Credits : 1 <br> Full Marks : 15 |  |  |
|  |  |  |  |  |
|  | $\mathbf{( 1 8 5 0 - 1 9 5 0 )}$ |  |  |  |

${ }^{*}$ This is a new course added vide the BoS meeting dated June 13, 2019.

Number of theory classes required : 75
N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& 5 marks for Attendance

|  | Theory: <br> Mid-semester: 30 Marks. <br> End-Semester: <br> Evaluation <br> Cheory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) $=100$. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: $40-$ out of - 65. <br> Tutorial: 15 - out of -80. |

## Course Outcome

On successful completion of this course, students will be able to:
i. Acquire a basic understanding of the issues and on-going debates on development economics.
ii. Discuss the important models and theories in economic development and their policy implications.
iii. Apply an analytical framework to understand the important structural characteristics of development.
iv. Understand and evaluate the unevenness in development.
v. Acquire skills in conducting research related to development issues.

## Group A: Theory

1. Introduction and Perspectives on Comparative Economic Development.
2. An Overview of Economic Development of the countries selected for case studies.
3. Agriculture: Agrarian surplus and the role of the peasantry in economic development.
4. Industry: The industrial revolution in Britain; Industrialisation in late industrialisers.
5. The Factory System and Making of the Industrial Working Class: Division of labour, structure of industrial authority, organisation of work and industrial production, relationship between workers and managers.
6. The Role of the State in Industrial and Developmental Transition

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

## Readings:

1. E.J. Hobsbawm, World of Labour: Further studies in the history of labour, London Weidenfeld \& Nicholson, 1984.
2. E.J. Hobsbawm, Industry and Empire: An Economic History of Britain since 1750, Weidenfeld \& Nicholson, 1968.
3. Peter Mathias, The First Industrial Nation, An Economic History of Britain, 1700-1914. 2nd edition Methuen, 1983.
4. T. Nakamura, Economic Growth in Pre-War Japan, Tr. by Robert A Feldman, Yale University Press, 1983.
5. Okochi, Karsh and Levine, Workers and Employees in Japan, The Japanese Employment Relations System, University of Tokyo, 1965.
6. Y. Hayami, A Century of Agricultural Growth in Pre-War Japan: Its Relevance to Asian Development, University of Minnesota Press, 1975.
7. Chalmers Johnson, MITI and the Japanese Miracle: The Growth of Industrial Policy 1925-1975, Stanford University Press, 1982.
8. W.W. Lockwood, Economic Development of Japan, Expanded edition, Princeton University Press, 1966.
9. Dobb M., Soviet Economic Development Since 1917, Universal Book Stall, New Delhi, 1995.
10. Paul R. Gregory and Robert C. Stuart, Soviet Economic Structure and Performance, Harper \& Row, 3rd edition, 1986.
11. Timothy W. Guinnane, 2002, ${ }^{-}$Delegated Monitors, Large and Small: Germany 's banking System, 1800-1914||, Journal of Economic Literature, Volume XL:73-124.
12. Richard A. Easterlin, Davis and Parker, American Economic Growth: An economist's History of the United States, Harper \& Row, 1972.
13. Hughes and Cain, American Economic History, HarperCollins College Publishers, $4^{\text {th }}$ edition, 1994.

| SEMESTER - VI |  |  |
| :---: | :---: | :---: |
| DSE 3 | Paper - HECO6DS31N | Credits: 5 <br> Full Marks : 65 |
|  | Paper - HECO6DS31N | $\begin{aligned} & \hline \text { Credits : } 1 \\ & \text { Full Marks : } 15 \\ & \hline \end{aligned}$ |
| Paper Title: | Indian Economic History |  |
| Number of theory classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& 5 marks for Attendance |  |  |


| Evaluation | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester: | Theory: <br> Short questions: 25 - out of - 65. |
| Long questions: 40 - out of -65. <br> Tutorial: 15 - out of -80. |  |

## Course Outcome

Upon successful completion, students will have the knowledge and skills to:
i. Understand various aspects of economic policies under the British rule and problems and challenges of the economy
ii. Analyse key aspects of Indian economic development during the second half of British colonial rule
iii. Analyse 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.

## Group A: Theory

Module - I: Economic condition in India on the eve of British rule
Module - II: Aspects of Economic Policies under the British India

* Land policy
* Policy of Discriminating Protection
* Early Industrial Development and Managing Agency System
* Currency and monetary policy
* Infrastructure and Transport


## Module - III: Impact of British rule on India

* De-industrialisation
* Commercialisation of agriculture
* Economic Drain


## Module - IV: Early Economic planning initiatives during British rule

## Readings:

1. Dharma Kumar (ed). Cambridge Economic History, Vol II.
2. V B Singh (ed.). Economic History of India (1857-1956).
3. Dhires Bhattacharyya. Concise Economic History of India.
4. D R Gadgil. Industrial Evolution of India in Recent Times.
5. A K Bagchi. Private Investment in India (1900-1939).
6. Bipan Chandra. Rise of Economic Nationalism.
7. Rothermund, Dietmar. 1988. An Economic History of India, From Pre-colonial times to 1986.
8. Tirthankar Roy. The Economic History of India 1857-1947. Oxford University Press. ( $2^{\text {nd }}$ edition).

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

## OR

| SEMESTER - VI |  |  |
| :--- | :--- | :--- |
| DSE 3 | Paper - HECO6DS32N | Credits : 5 <br> Full Marks : 65 |
|  | Paper - HECO6DS32N | Credits : 1 <br> Full Marks : 15 |
|  | Political Economy* |  |
| *This is a new course added vide the BoS meeting dated June 13, 2019. |  |  |
| Number of theory classes required : 75 |  |  |
|  |  |  |
| 5 marks for Attendance |  |  |


|  | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) $=100$. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester: | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: $40-$ out of - 65. <br> Tutorial: 15 - out of -80. |

## Course Outcome

Upon successful completion, students will have the knowledge and skills to:
i. Understand changes in the organisation of production, labour market institutions and corporate structure.
ii. Understand the evolution of Capitalism and emergence of monopoly capital
iii. Analyse the consequences of globalization, especially of financial flows, for the role of the state,
iv. Analyse gender issues, environment, human welfare and development.

## GROUP A: Theory

## Module - I: Analysing Social Change in Historical Perspective

* The method of historical materialism;
* The transition from feudalism to capitalism;
* Capitalism as a historical process - alternative perspectives.


## Module - II: Capitalism as an Evolving Economic System

* Basic features; accumulation and crisis;
* The modern corporation;
* Monopoly capitalism- alternative perspectives.


## Module III: The State in Capitalism

* The state and the economy - contestation and mutual interdependence;
* The state as an arena of conflict;
* Imperialism - the basic foundations.


## Readings:

1. J. Gurley, "The Materialist Conception of History", Ch.2.1 in R. Edwards, M.Reich and T. Weisskopf (ed.), The Capitalist System, 2nd edition, 1978.
2. O. Lange, Political Economy, vol. 1, 1963, Chapters 1 and2.
3. K. Hunt, History of Economic Thought, M.E. Sharpe, Indian edn, Shilpi Publications,2004.
4. Irfan Habib, 1995, "Capitalism in History", Social Scientist, Vol. 23:15-31.
5. R.L. Heilbroner, "Capitalism", in The New Palgrave Dictionary of ModernEconomics, Macmillan, 1987. Also reprinted as Chapter 2 in Behind the Veil of Economics byR.L. Heilbroner, W.W. Norton, 1988.
6. P. Sweezy, The Theory of Capitalist Development, Monthly Review Press, 1942,36 chapters 2, 4, 5, 6, 8 and 10.
7. Anwar Shaikh, Entries on "Economic Crises" and "Falling Rate of Profit" in T. Bottomore et al (eds.), The Dictionary of Marxist Thought, OUP, Indianedition, Maya Blackwell,2000.
8. Vamsi Vakulabharanam, 2009, —The Recent Crisis in Global Capitalism: Towards a Marxian Understanding, Economic and Political Weekly, March 28, Vol.44:144-150.
9. J.Schumpeter, Capitalism, Socialism and Democracy, George Allen and Unwin 1976, Chapters 6, 7 and 8.
10. P. Baran (1957), The Political Economy of Growth, Chapter 3, Pelican edition, 1973.
11. Heilbroner, The Role of the State, Ch. 4 in The Nature and Logic of Capitalism, 1985.
12. M. Kalecki, —Political Aspects of Full Employment, in E.K. Hunt and J.G.Schwarz (eds.), A Critique of Economic Theory, Penguin Books,1972.
13. Amit Bhaduri, -Nationalism and Economic Policy in the Era of Globalization, Ch. 2 in Deepak Nayyar (ed), Governing Globalization: Issues and Institutions, OUP, 2002 [also WIDER Working Paper no.188, WIDER website(2000)].
14. Prabhat Patnaik, -"Lenin's Theory of Imperialism Today", in K.S. Jomo (ed.) The Long Twentieth Century: The Great Divergence: Hegemony, Uneven Development and Global Inequality, OUP.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - VI |  |  |
| :--- | :--- | :--- |
| DSE 4 | Paper - HECO6DS41N | Credits : 6 <br> Full Marks : 100 |
| Paper Title: |  |  |
| Dissertation / Project* |  |  | | *This course is substantially enhanced from being only a minor part of a course to a full- |
| :--- |
| length one vide the BoS meeting dated June 13, 2019. |


| Evaluation | Content and Structure : 50 <br> Presentation : 25 <br> Viva: 25 |
| :--- | :--- |

## Course Outcome

The research experience in carrying out the academic project can benefit a student in
i. Exploring career directions
ii. Building transferable skills and enhancing resumes that might come handy when applying for jobs in business administration or policy research.
iii. Learning to publicly advocate for and defend one's own research work
iv. Getting a great preparation for higher studies or other professional courses
v. Contributing knowledge and impacting the world

## OR

| SEMESTER - VI |  |  |
| :--- | :--- | :--- |
| DSE 4 | Paper - HECO6DS42N | Credits : 5 <br> Full Marks : 65 |
|  | Paper - HECO6DS42N | Credits : 1 <br> Full Marks : 15 |
|  | Paper Title: |  | Environmental Economics* |

*This is a new course added vide the BoS meeting dated June 13, 2019.

Number of theory classes required : 75
N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& 5 marks for Attendance

| Evaluation | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. <br> Long questions: 40 - out of - 65. <br> Tutorial: 15 - out of - 80. |

## Course Outcome

Upon successful completion, students will have the knowledge and skills to:
i. Understand various concepts, methods and policy options in managing the environment using tools of economic analysis.
ii. Analyse different approaches to adjusting behaviour through economic institutions such as markets and incentives as well as through regulation, etc. for tackling several environmental problems.
iii. Understand the economic implications of environmental policies through practical applications of methods for valuation of environmental goods and services and quantification of environmental damages.
iv. Critically analyse the impact of economic growth on the environment and the deviations from sustainable development.

## Group A: Theory

## Module -I: Introduction

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


## Module -II: The Theory of Externalities

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


## Module -III: The Design and Implementation of Environmental Policy

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


## Module -IV: International Environmental Problems

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


## Module -V: Measuring the Benefits of Environmental Improvements

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


## Module -VI: Sustainable Development

* Concepts; measurement.


## 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, 5thedition, 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.

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| OR |  |  |
| :---: | :---: | :---: |
| SEMESTER - VI |  |  |
|  | Paper - HECO6DS43N | Credits: 5 <br> Full Marks: 65 |
| DSE 4 | Paper - HECO6DS43N | Credits: 1 Full Marks: 15 |
| Paper Title: ECONOMICS OF HEALTH AND EDUCATION* |  |  |
| *This is a new course added vide the BoS meeting dated June 13, 2019. |  |  |
| Number of theory classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the5 marks for Attendance |  |  |


| Evaluation | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) $=100$. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 25 - out of - 65. |
| Long questions: $40-$ out of - 65. <br> Tutorial: 15 - out of -80. |  |

## Course Outcome

Upon successful completion of this course, a student will be able to:
i. Interpret and appropriately apply the key concepts of economics within the context of the health system;
ii. Debate the relative merits of equity considerations in setting priorities for a health system;
iii. Understand approaches to identify and value costs and outcomes to include in economic evaluation;
iv. Describe major types of economic evaluation and to understand their use in the decisionmaking process;
v. Write concise reports on health economic issues demonstrating sound knowledge and skills to apply analytic thinking for a scientific debate and/or problem solving.

## Group A: Theory

## 1. Role of Health and Education in Human Development

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


## 2. Microeconomic Foundations of Health Economics

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


## 3. Evaluation of Health Programs

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


## 4. Health Sector in India: An Overview

* Health outcomes; health systems;
* Health financing.


## 5. Education: Investment in Human Capital

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


## 6. Education Sector in India: An Overview

* Literacy rates, school participation, school quality measures.


## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

## Readings:

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

The structure of CBCS syllabus
of

## Generic Elective (Economics)

To be effective from the session 2019-2020

## Choices for Generic Electives (GE)

[To be taken by the students of other discipline]

| Sem | Course Description | Course Detail | $\begin{gathered} \text { Full } \\ \text { Marks } \end{gathered}$ | Credit |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { I } \\ \text { and } \\ \text { II } \end{gathered}$ | GE 1 <br> Paper Title: <br> Economics I | Introductory Microeconomics I | 25 | $\begin{gathered} 5+1^{*} \\ =6 \end{gathered}$ |
|  |  | Introductory Macroeconomics I | 25 |  |
|  |  | Issues in Development Economics I | 15 |  |
|  |  | Tutorial | 15 |  |
|  | Course Code: | Total | 80 |  |
|  |  | Internal Assessment \& attendance $(15+5)$ | 20 |  |
|  | HECO1GE01N | Semester Grand Total | 100 |  |
|  | HECO1GE01N |  |  |  |
|  | And |  |  |  |
|  | HECO2GE01N |  |  |  |
|  | HECO2GE01N |  |  |  |
| $\begin{gathered} \text { III } \\ \text { and } \\ \text { IV } \end{gathered}$ | GE 2 | Introductory Microeconomics II | 25 | $\begin{gathered} 5+1^{*} \\ =6 \end{gathered}$ |
|  |  | Introductory Macroeconomics II | 25 |  |
|  | Paper Title: | Issues in Development Economics II | 15 |  |
|  |  | Tutorial | 15 |  |
|  | Economics II | Total | 80 |  |
|  | Course Code: | Internal Assessment\& Attendance $(15+5)$ | 20 |  |
|  | HECO3GE02N | Semester Grand Total | 100 |  |
|  | HECO3GE02N |  |  |  |
|  | And |  |  |  |
|  | HECO4GE02N |  |  |  |
|  | HECO4GE02N |  |  |  |


| SEMESTER - I |  |  |
| :---: | :---: | :---: |
| GE 1 | Paper - HECO1GE01N | Credits: 5 <br> Full Marks : 65 |
|  | Paper - HECO1GE01N | Credits: 1 <br> Full Marks: 15 |
| Paper Title: Economics I |  |  |
| Number of classes required : 100 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& 5 marks for Attendance |  |  |
| \& |  |  |
| SEMESTER - II |  |  |
| GE 1 | Paper - HECO2GE01N | Credits: 5 <br> Full Marks : 65 |
|  | Paper - HECO2GE01N | Credits: 1 <br> Full Marks : 15 |
| Paper Title: Economics I |  |  |
| Number of classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& 5 marks for Attendance |  |  |


| Evaluation: | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) + Tutorial (15) + Internal Assessment (15) + Attendance (5) = 100. <br> Continuous assessment: Tutorial Examination. |
| :--- | :--- |
| Norm for <br> Paper | Theory: <br> Short questions: 15 - out of - 65. <br> Structure <br> for End <br> Semester | | Long questions: 50 - out of - 65. |
| :--- |
| Tutorial: 15 - out of - 80. |

## Course Outcome

Upon successful completion of this course, a student will be able to:
i. Understand the basic features of economic activities and analyse a rational agent's consumption and production decisions.
ii. Understand the basic macroeconomic environment of the economy in both the short and the long run.
iii. Will be aware of the basic issues of a developing economy.

## Group A: Theory

## Group A1: Introductory Microeconomics

Module - I: Exploring the subject matter of Economics, Scope and method of economics; the economic problem: scarcity and choice; the question of what to produce, how to produce and how to distribute output.

Module - II: Price Mechanism: How Markets Work, Markets and competition; demand/supply schedule and demand/supply curve and their determinants; Market versus individual demand/supply; Shifts in the demand/supply curves, demand and supply together; Elasticity and its application; Controls on prices; taxes and the costs of taxation; Consumer surplus; producer surplus and the efficiency of the markets.

Module - III: The consumption decision, Description of preferences (representing preferences with indifference curves) properties of indifference curves; budget constraint, consumer's optimum choice; income and substitution effects; labour supply decision: choice between leisure and consumption.

Module - IV: Production Decision, Production function of a firm; total product, average product and marginal product; Isoquant map, law of variable proportion and returns to scale; Concepts of cost, The cost function, short run costs and output decisions; Costs and output in the long run.

## Group A2: Introductory Macroeconomics

Module - I: Basic issues studied in macroeconomics, Measurement of gross domestic product; income, expenditure and the circular flow; real versus nominal GDP; price indices; Brief outlines of the national income accounting for an open economy; Ideas of balance of payments: current and capital accounts.

Module - II: The Closed Economy in the Short Run and the Long Run, Simple Keynesian model of income determination; the effects of the fiscal and monetary policies in the short and long runs.

## Group A3: Issues in Development Economics

Module - VII: Concept of economic growth and economic development, Human development paradigm, concept of sustainable development
Module - VIII: India as a developing economy, basic features of Indian economy.
Module - IX: Structural change in Indian economy

## N.B.: The highlighted portions are newly added to the course vide the BoS meeting July 7, 2018

## Readings:

1. Intermediate Microeconomics - Hal Varian.
2. Principles of Macroeconomics -Soumyen Sikdar.
3. Leading issues in Economic Development - Meir and Rauch

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.

| SEMESTER - III |  |  |
| :---: | :---: | :---: |
| GE 2 | Paper - HECO1GE02N | Credits: 5 <br> Full Marks : 65 |
|  | Paper - HECO1GE02N | Credits: 1 <br> Full Marks : 15 |
| Paper Title: | Principles of Economics II |  |
| Number of classes required : 75 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& 5 marks for Attendance |  |  |
| \& |  |  |
| SEMESTER - IV |  |  |
|  | Paper - HECO2GE01N | Credits: 5 <br> Full Marks : 65 |
|  | Paper - HECO2GE01N | Credits: 1 <br> Full Marks : 15 |
| Paper Title: Principles of Economics II |  |  |
| Number of classes required : 100 |  |  |
| N.B.: 15 Marks are reserved for Internal Assessment (to be taken from the mid-semester exam) \& 5 marks for Attendance |  |  |
| Evaluation: | Theory: <br> Mid-Semester: 30 Marks. <br> End-Semester: <br> Theory (65) +Tutorial (15) <br> Continuous assessment: Tu | $\text { nal Assessment }(15)+\text { Attendance }(5)=100 .$ xamination. |
| Norm for <br> Paper <br> Structure <br> for End <br> Semester | Theory: <br> Short questions: 15 - out <br> Long questions: 50 - out <br> Tutorial: 15 - out of - 80 |  |

## Course Outcome

Upon successful completion of this course, a student will be able to:
i. Understand the basic features of economic activities and analyse a rational agent's consumption and production decisions.
ii. Understand the basic macroeconomic environment of the economy in both the short and the long run.
iii. Will be aware of the basic issues of a developing economy.

## Group A: Theory

## Group A1: Introductory Microeconomics

Module - I: Perfectly Competitive Market Structure: Features of a perfectly competitive market; short run equilibrium under perfect competition. Supply curve of a firm; long run equilibrium under perfect competition.

Module II: Imperfect Market Structure: Monopoly equilibrium- social cost of monopoly; Differences with perfect competition; Basic ideas of price- discriminating monopolist; oligopolistic market structure and introduction to strategic interdependence.

Module -III: Tools of Normative Analysis: Pareto Efficiency, Equity and the Social Welfare; Public Good and Externalities and other causes of market failure; Economic way of thinking about environmental problems; Designing Environmental Policies: Pigouvian taxes and effluent fees, tradable permits.

## Group A2: Introductory Macroeconomics

Module - IV: Money and Banking: Definitions and functions of money; quantity theory of money; determination of money supply and demand; credit creation by banks and money multiplier; tools of monetary policy. Indian banking system: Changing role and structure; banking sector reforms. Money market and capital market: organization, structure and reforms in India; role of financial derivatives and other innovations.

Module - V: Inflation: Inflation and its social costs; hyperinflation.

## Group A3: Issues in Development Economics/ Indian Economics

Module - VI: Basic issues of poverty and inequality: Absolute versus relative poverty, measurement of incidence and intensity of poverty, poverty line income, trends and policies in poverty; inequality and unemployment.

Module - VII: Introduction to the budget of the central government

## N.B.: The highlighted portions are newly added to the course vide the BoS meeting July 7, 2018

## Readings:

1. Intermediate Microeconomics - Hal Varian.
2. Principles of Macroeconomics -Soumyen Sikdar.
3. Leading issues in Economic Development - Meir and Rauch

## GROUP B: Tutorial

Tutorial classes will be conducted on the topics mentioned in Group A of the course.


[^0]:    N.B.: the highlighted portion is newly added in the course vide the BoS meeting dated July 6, 2018

